

SITE:	Mannering Colliery
Department:	Technical Services
REPORT TITLE:	Monthly Environmental Report – September 2017
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Distribution:	Mannering Colliery Website

Report

Title: **Mannering Colliery Monthly Environmental Report**

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Summary

Monitoring was undertaken in September 2017 with all results in compliance with the required limits.

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 September 2017 to 30 September 2017.

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=50781&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.

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Title:

Manning Colliery Monthly Environmental Report

Scope

This report presents the results from the various environmental monitoring undertaken for Manning 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: 13 May 2015)

Steel River Testing - Dust Deposition Report – September 2017

Steel River Testing – Water Analysis Report – September 2017

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Monitoring Results

Water – Quality

Water Quality Results (reverted to weekly as per EPL PRP requirements)

September 2017			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Period	01-Sep-17	to	31/09/2017
Location	LDP001 (EPA ID # 1)		
Date sampled	Weekly		
Date reported	Refer report date		
Monitoring requirement	Weekly		
pH limit	6.5 - 8.5		
TSS limit (mg/L)	50		
Oil and grease limit (mg/L)	10		
Exceedance (Yes/No)	No		
Water Quality Results			
Date	pH	TSS (mg/L)	Oil and grease (mg/L)
01/09/2017			
02/09/2017			
03/09/2017			
04/09/2017			
05/09/2017			
06/09/2017	7.4	4	<5
07/09/2017			
08/09/2017			
09/09/2017			
10/09/2017			
11/09/2017			
12/09/2017			
13/09/2017	7.9	2	<5
14/09/2017			
15/09/2017			
16/09/2017			
17/09/2017			
18/09/2017			
19/09/2017			
20/09/2017			
21/09/2017	7.8	2	<5
22/09/2017			
23/09/2017			
24/09/2017			
25/09/2017			
26/09/2017			
27/09/2017	7.9	3	<5
28/09/2017			
29/09/2017			
30/09/2017			

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September 2017			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Date Sampled	13-Sep-17		
Date Obtained	13-Sep-17		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Aluminium (Dissolved)	µg/L		<10
Aluminium (Total)	µg/L		<10
Antimony	µg/L		<1
Arsenic (Dissolved)	µg/L		<1
Arsenic (Total)	µg/L		<1
Barium	µg/L		222
Beryllium (Dissolved)	µg/L		<1
Beryllium (Total)	µg/L		<1
Boron	µg/L		380
Cadmium (Dissolved)	µg/L		<0.1
Cadmium (Total)	µg/L		<0.1
Calcium	mg/L		186
Chromium (Dissolved)	µg/L		<1
Chromium (Total)	µg/L		<1
Cobalt (Dissolved)	µg/L		<1
Cobalt (Total)	µg/L		<1
Conductivity	µs/cm		27200
Copper (Dissolved)	µg/L		<1
Copper (Total)	µg/L		4
Iron	µg/L		190
Lead (Total)	µg/L		<1
Lead (dissolved)	µg/L		<1
Lithium	µg/L		567
Magnesium	mg/L		305
Manganese (dissolved)	µg/L		22
Mercury (Total)	µg/L		<0.1
Mercury (dissolved)	µg/L		<0.1
Molybdenum (Dissolved)	µg/L		18
Molybdenum (Total)	µg/L		17
Nickel (Dissolved)	µg/L		6
Nickel (Total)	µg/L		4
Nitrogen (Ammonia)	mg/L		0.62
Phosphorous (Total)	mg/L		<0.05
Potassium	mg/L		36
Selenium (Dissolved)	µg/L		<10
Selenium (Total)	µg/L		<10
Silica	mg/L		12.6
Silver (Total)	µg/L		4
Silver (dissolved)	µg/L		<1
Sulfur	mg/L		133
Tin (Total)	µg/L		<1
Titanium (Total)	µg/L		<10
Vanadium (Dissolved)	µg/L		<10
Vanadium (Total)	µg/L		<10
Zinc (Dissolved)	µg/L		18
Zinc (Total)	µg/L		18

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Water – Volume

September 2017		
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	LDP001 (EPA ID # 1)	
Date (24 hour period)	Unit	Volume
01/09/2017	kL	994.5
02/09/2017	kL	0.0
03/09/2017	kL	632.6
04/09/2017	kL	1795.2
05/09/2017	kL	1339.7
06/09/2017	kL	1174.5
07/09/2017	kL	514.2
08/09/2017	kL	1499.5
09/09/2017	kL	523.7
10/09/2017	kL	1018.1
11/09/2017	kL	1101.0
12/09/2017	kL	1213.9
13/09/2017	kL	377.1
14/09/2017	kL	1343.0
15/09/2017	kL	252.3
16/09/2017	kL	1369.9
17/09/2017	kL	1154.0
18/09/2017	kL	575.2
19/09/2017	kL	0.0
20/09/2017	kL	0.0
21/09/2017	kL	0.0
22/09/2017	kL	0.0
23/09/2017	kL	0.0
24/09/2017	kL	0.0
25/09/2017	kL	0.0
26/09/2017	kL	0.0
27/09/2017	kL	8.8
28/09/2017	kL	1835.5
29/09/2017	kL	1967.5
30/09/2017	kL	1793.3

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Air Quality

Monthly depositional dust results

Monthly Depositional Dust Data	
September 2017	
EPL	191
Licensee	LakeCoal Pty Ltd
Premises	Mannering Colliery
Date Sampled	14-Aug-17 to 14-Sep-17
Date Obtained	26-Sep-17
Date Reported	Refer report date
Sampling Point	As per site below

Site	Insoluble Matter (g/m2/month)
DG1 (EPA ID # 3)	1.4
DG2 (EPA ID # 4)	0.5
DG3 (EPA ID # 5)	1.2
DG4 (EPA ID # 6)	1.3
DG5 (EPA ID # 7)	0.3

Notes: - For site locations refer to Air Quality Management Plan
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Rolling annual average depositional dust results

Operational Noise

There were no exceedances of noise levels for the month. Report results to be provided when reports are finalised.

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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			
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:	11/10/2017		
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	12.6	4.9	33.6
Oct-17			
Nov-17			
Dec-17			