

LDO GROUP Report



SITE:	Mannering Colliery
Department:	HSEC
REPORT TITLE:	Monthly Environmental Report – July 2015
Prepared by:	Chris Ellis
Report Date:	10 / 8 / 2015
Distribution:	Mannering Colliery Website

TABLE OF CONTENTS

Summary	3
Introduction	3
Scope.....	4
Definitions	4
References	4
Monitoring Results	5
Water – Quality	5
Weekly Water Quality Results	5
Monthly Water Quality Results	6
Water – Volume	7
Air Quality	8
Monthly depositional dust results	8
Rolling annual average depositional dust results	8
Operational Noise	9
Weather	9

Summary

Monitoring was undertaken in July 2015 with all results in compliance with 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 July 2015 to 31 July 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=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.

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: 13 May 2015)

Steel River Testing - Dust Deposition Report – July 2015 (Report 9290-0)

ALS Environmental - Monthly Water Monitoring Results July 2015 (ES1526173)

Title: Monthly Environmental Report – July 2015

Monitoring Results

Water – Quality

Weekly Water Quality Results

Jul-15			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Period	01-Jul-15	to	31-Jul-15
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		
Weekly Water Quality Results			
Date	pH	TSS (mg/L)	Oil and grease (mg/L)
01/07/2015	7.9	9	<5
07/07/2015	7.9	<1	<5
15/07/2015	7.8	1	<5
21/07/2015	7.8	1	<5
29/07/2015	7.8	2	<5
Notes:			
Monitoring undertaken weekly in accordance with EPL 191 requirements			

Title: Monthly Environmental Report – July 2015

Monthly Water Quality Results

July 2015			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Date Sampled	15-Jul-15		
Date Obtained	23-Jul-15		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Aluminium (Dissolved)	µg/L		<10
Aluminium (Total)	µg/L		20
Antimony	µg/L		<1
Arsenic (Dissolved)	µg/L		2
Arsenic (Total)	µg/L		2
Barium	µg/L		252
Beryllium (Dissolved)	µg/L		<1
Beryllium (Total)	µg/L		<1
Boron	µg/L		340
Cadmium (Dissolved)	µg/L		<0.1
Cadmium (Total)	µg/L		<0.1
Calcium	mg/L		221
Chromium (Dissolved)	µg/L		<1
Chromium (Total)	µg/L		<1
Cobalt (Dissolved)	µg/L		<1
Cobalt (Total)	µg/L		<1
Conductivity	µs/cm		26900
Copper (Dissolved)	µg/L		<1
Copper (Total)	µg/L		<1
Iron	µg/L		120
Lead (Total)	µg/L		<1
Lead (dissolved)	µg/L		<1
Lithium	µg/L		726
Magnesium	mg/L		321
Manganese (dissolved)	µg/L		45
Mercury (Total)	µg/L		<0.1
Mercury (dissolved)	µg/L		<0.1
Molybdenum (Dissolved)	µg/L		11
Molybdenum (Total)	µg/L		13
Nickel (Dissolved)	µg/L		4
Nickel (Total)	µg/L		4
Nitrogen (Ammonia)	mg/L		1.17
Phosphorous (Total)	mg/L		0.03
Potassium	mg/L		38
Selenium (Dissolved)	µg/L		<10
Selenium (Total)	µg/L		<10
Silica	mg/L		14.8
Silver (Total)	µg/L		3
Silver (dissolved)	µg/L		2
Sulfur	mg/L		156
Tin (Total)	µg/L		<1
Titanium (Total)	µg/L		<10
Vanadium (Dissolved)	µg/L		<10
Vanadium (Total)	µg/L		<10
Zinc (Dissolved)	µg/L		6
Zinc (Total)	µg/L		6

Report



Title: Monthly Environmental Report – July 2015

Water – Volume

July 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	LDP001 (EPA ID # 1)	
Date (24 hour period)	Unit	Volume
01/07/2015	kL	0
02/07/2015	kL	0
03/07/2015	kL	0
04/07/2015	kL	0
05/07/2015	kL	0
06/07/2015	kL	865
07/07/2015	kL	2169
08/07/2015	kL	2163
09/07/2015	kL	2133
10/07/2015	kL	1262
11/07/2015	kL	0
12/07/2015	kL	0
13/07/2015	kL	1203
14/07/2015	kL	2572
15/07/2015	kL	2419
16/07/2015	kL	2003
17/07/2015	kL	855
18/07/2015	kL	0
19/07/2015	kL	0
20/07/2015	kL	919
21/07/2015	kL	2163
22/07/2015	kL	887
23/07/2015	kL	554
24/07/2015	kL	295
25/07/2015	kL	0
26/07/2015	kL	0
27/07/2015	kL	733
28/07/2015	kL	1712
29/07/2015	kL	1540
30/07/2015	kL	1433
31/07/2015	kL	669

Title: Monthly Environmental Report – July 2015

Air Quality

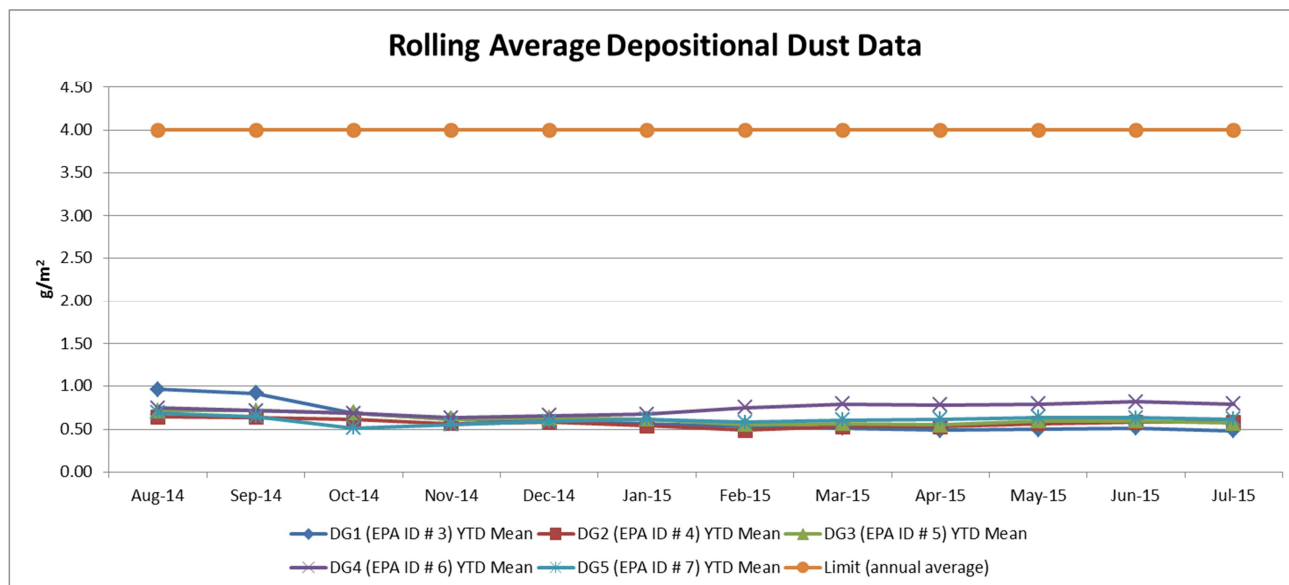
Monthly depositional dust results

Monthly Depositional Dust Data			
July 2015			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Date Sampled	17-Jun-15	to	17-Jul-15
Date Obtained	10-Aug-15		
Date Reported	Refer report date		
Sampling Point	As per site below		

Site	Insoluble Matter (g/m ² /month)
DG1 (EPA ID # 3)	0.2
DG2 (EPA ID # 4)	0.3
DG3 (EPA ID # 5)	0.2
DG4 (EPA ID # 6)	0.3
DG5 (EPA ID # 7)	0.4

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 been undertaken, with no exceedances of the relevant criteria. Results are presented below.

LA_{eq}^{15m} Attended Noise Monitoring Results – Quarter 2 2015			
Location	Date / Time	Criteria LA _{eq} dB	Criteria MC LA _{eq} dB (from Colliery)
Day			
RA1	22/06/2015 12:53	44	IA
RA2	22/06/2015 15:29	43	IA
RA3	22/06/2015 15:49	40	IA
Evening			
RA1	23/06/2015 19:13	44	IA
RA2	23/06/2015 19:36	43	IA
RA3	22/06/2015 19:45	40	IA
Night			
RA1	23/06/2015 22:00	35	IA
RA2	25/06/2015 1:00	43	IA
RA3	23/06/2015 22:21	40	IA
LA_{A1}^{1m} Attended Noise Monitoring Results – Quarter 2 2015			
Location	Date / Time	Criteria LA _{eq} dB	Criteria LA _{eq} dB (from Colliery)
Night			
RA1	23/06/2015 22:00	49	IA
RA2	25/06/2015 1:00	50	IA
RA3	23/06/2015 22:21	52	IA
Notes: - “Inaudible” (IA)			
- for monitoring locations refer to Mannering Colliery Noise Management Plan.			

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.

Report



Title: Monthly Environmental Report – July 2015

Monthly Weather Data			
Jul-15			
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:	10/08/2015		
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
May-15	138.4	8	26
Jun-15	90	6	23
Jul-15	20	3	20

