



Chain Valley Colliery Monthly Website Report

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Department:	Technical Services
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Introduction

Great Southern Energy Pty Ltd (trading as Delta Coal) 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:

-) Section 66(6) of the *Protection of the Environment Operations Act 1997*, to make monitoring data related to an Environment Protection Licence (EPL) publically available;
-) Conditions 8 & 11, Schedule 6, of Development Consent SSD-5465 (as modified), issued under the *Environmental Planning and Assessment Act 1979* to provide details of monitoring results and environmental performance;
-) An Environment Protection Licence (EPL 1770) issued under the *Protection of the Environment Operations Act 1997*; and
-) A Water Access Licence (WAL41508), Aquifer (Sydney Basin – North Coast Groundwater Source) for 4,443 unit shares (megalitres).

The above development consent and licences require various monitoring and reporting to be undertaken by Delta Coal for Chain Valley Colliery.

This report provides environmental monitoring data from Chain Valley Colliery for the period 1 to 31 October 2019.

Details of the Chain Valley Colliery EPL 1770 are provided below.

Chain Valley Colliery Information	
Premises name	Chain Valley Colliery
Address	Construction Road, Chain Valley Bay, NSW, 2259
Licensee	Great Southern Energy Pty Ltd
EPL #	1770
EPL location	http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=50980&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 programs undertaken for Chain Valley Colliery. Results are presented monthly with annual data, averages and trends in data also shown where relevant.

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 Delta Coal 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 Development Consent) to assess compliance. Monitoring results presented in this report include:

-) Water – quality;
-) Water – volume;
-) Depositional dust; and
-) Weather data.

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 – kilolitre;

L_{Aeq} – the average A-weighted noise energy (in dB) for a measurement period;

ML – megalitre;

mg/L – milligrams per litre;

TSS – total suspended solids;

µg/L – micrograms per litre; and

µS/cm – microSiemens per centimetre.

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References

ALS Group - Monthly Water Monitoring Results **October** 2019

ALS Water - Report of Analysis

Steel River Testing - Dust Deposition Report **October** 2019

Development Consent SSD-5465 (as modified)

Environment Protection Licence (EPL) 1770 (Licence version date: 2 April 2019)

Monitoring Results

Water – Quality

Water quality results for October at Chain Valley Colliery are presented below.

October 2019	
EPL	1770
Licensee	LakeCoal Pty Ltd
Premises	Chain Valley Colliery
Date Sampled	15-Oct-19
Date Obtained	22-Oct-19
Date Reported	October
Sampling Point	1

Parameter	Units	Limit	Result
Biochem. Oxygen Dem.	mg/L	-	4
Enterococci	col/100mL	-	440
Faecal Coliforms	CFU/100mL	200	~4
pH	pH	6.5-8.5	7.83
Total Sus. Solids	mg/L	50	<5

There was no exceedance of water quality criteria during the month.

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Water – Volume

Monthly water volumes are summarised below.

October 2019	
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
01/10/2019	kL	6269
02/10/2019	kL	6305
03/10/2019	kL	6285
04/10/2019	kL	6249
05/10/2019	kL	6561
06/10/2019	kL	6441
07/10/2019	kL	6282
08/10/2019	kL	6294
09/10/2019	kL	6392
10/10/2019	kL	6376
11/10/2019	kL	6404
12/10/2019	kL	7849
13/10/2019	kL	6508
14/10/2019	kL	4606
15/10/2019	kL	1934
16/10/2019	kL	4614
17/10/2019	kL	4994
18/10/2019	kL	6167
19/10/2019	kL	6098
20/10/2019	kL	4434
21/10/2019	kL	6076
22/10/2019	kL	6118
23/10/2019	kL	5455
24/10/2019	kL	6027
25/10/2019	kL	6020
26/10/2019	kL	5816
27/10/2019	kL	6018
28/10/2019	kL	6083
29/10/2019	kL	5923
30/10/2019	kL	5597
31/10/2019	kL	5278

Average	kL	5854
Minimum	kL	1934
Maximum	kL	7849

There were no exceedances of the volumetric limits at the Licenced Discharge Point during the month.

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Depositional Dust

Monthly depositional dust results are shown below.

October 2019	
EPL	1770
Limit	4g/m ³ /month
Samplin:	06/09/2019 to 04/10/2019
Site	Insoluble Matter (g/m²/month)
DDG001	0.7
DDG002	0.3
DDG003	3.5
DDG004	1.2
DDG005	0.6
Notes:	

There were no exceedances of the annual average air quality limits during the reporting period.

Weather Data

A summary of weather data recorded by a meteorological monitoring station at the adjacent Mannering Colliery is presented below for the year to date.

Monthly Weather Data			
2019			
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			
Month	Total Rainfall/Month mm	Min Temp	Max Temp
Jan-19	60.6	18.6	39.6
Feb-19	88.6	22.7	37.4
Mar-19	204	10.1	37.1
Apr-19	73.2	8.3	32.8
May-19	11.0	3.9	26.3
Jun-19	158.8	3.9	25.0
Jul-19	47.2	4.0	23.3
Aug-19	194.0	2.0	25.4
Sep-19	92	5.5	29.6
Oct-19	57	9.1	34.9
Nov-19			
Dec-19			