Chain Valley Colliery Monthly Website Report

Site:	**Chain Valley Colliery**
Department:	**Technical Services**
Report Title:	**Monthly Environmental Website Report - April 2020**
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Report Date:	**05 May 2020**
Distribution:	**Delta Coal website**

Monthly Website Report

CVC Monthly Environmental Report

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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 Environmental 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 requirements 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 30 April 2020**.**

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 monthly 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 and averages.

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

g/m^2/month – grams per square metre per month;

kL – kilolitre;

ML – megalitre;

mg/L – milligrams per litre;

TSS – total suspended solids;

µg/L – micrograms per litre; and

µS/cm – microSiemens per centimetre.

References

ALS Group - Monthly Water Monitoring Results **April 2020**

ALS Water - Report of Analysis **April 2020**

Steel River Testing - Dust Deposition Report **April 2020**

Development Consent SSD-5465 (as modified)

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

Monitoring Results

Water – Quality

April 2020	
EPL	1770
Licensee	Great Southern Energy Pty Ltd
Premises	Chain Valley Colliery
Date Sampled	21-Apr-20
Date Obtained	27-Apr-20
Date Reported	April
Sampling Point	1

Parameter	Units	Limit	Result
Biochem. Oxygen Demand	mg/L	-	<2
Enterococci	col/100mL	-	~100
Faecal Coliforms	CFU/100m	200	~4
pH	pH	6.5-8.5	7.59
Total Sus. Solids	mg/L	50	10

Water quality results for April at Chain Valley Colliery at EPA Discharge Point 1 are presented below.

As detailed above, results for monthly sampling were below the relevant limits where applicable.

Water – Volume

Monthly water volumes are summarised below.

	April 2020
EPL	1770
Licensee	Great Southern Energy 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
01/04/2020	kL	5347
02/04/2020	kL	7317
03/04/2020	kL	7067
04/04/2020	kL	6256
05/04/2020	kL	5986
06/04/2020	kL	5392
07/04/2020	kL	5655
08/04/2020	kL	5015
09/04/2020	kL	5141
10/04/2020	kL	4904
11/04/2020	kL	4337
12/04/2020	kL	3909
13/04/2020	kL	4840
14/04/2020	kL	2256
15/04/2020	kL	6018
16/04/2020	kL	8574
17/04/2020	kL	7143
18/04/2020	kL	8271
19/04/2020	kL	7067
20/04/2020	kL	4766
21/04/2020	kL	5563
22/04/2020	kL	5533
23/04/2020	kL	5557
24/04/2020	kL	5510
25/04/2020	kL	5406
26/04/2020	kL	5398
27/04/2020	kL	5477
28/04/2020	kL	5311
29/04/2020	kL	5479
30/04/2020	kL	5653

Average	kL	5672
Minimim	kL	2256
Maximum	kL	8574

The daily water volumes at EPA Discharge Point 1 during April 2020 were below the relevant limit.

Air Quality - Depositional Dust

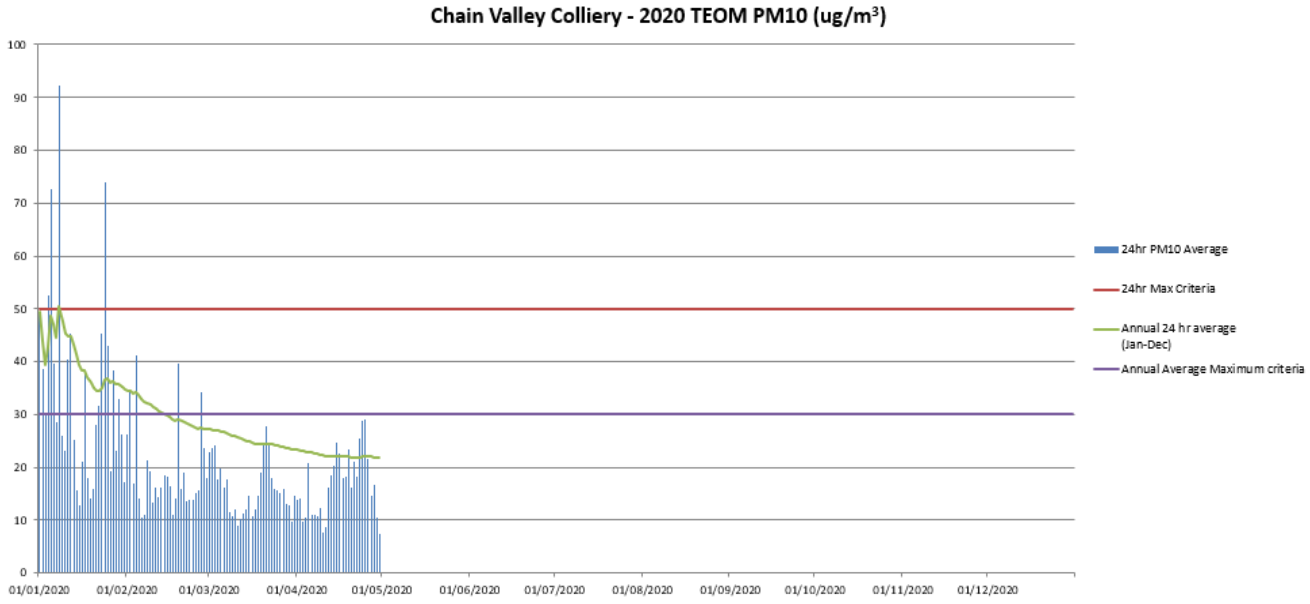
Monthly depositional dust results are shown below. Dust deposition gauges were sampled and analysed in accordance with the project approval, CVC Air Quality Management Plan and relevant Australian Standards.

April 2020			
EPL	1770		
Limit	4g/m² /month		
Sampling	09/03/2020	to	09/04/2020
Site	Insoluble Matter (g/m2/month)		
DDG001	1.1		
DDG002	1.0		
DDG003	1.7		
DDG004	1.3		
DDG005	7.7		
Notes:			

As detailed above, there was one exceedance of Insoluble Matter at EPL Sampling Site DDG005. A formal incident report was provided to DPIE. An investigation of the exceedance indicated that there was evidence of contamination in DDG005.

Air Quality – PM_{10}

The 24hr PM_{10} average from CVC's Tapered Element Osciliating Microbalance (TEOM) is presented below for the year to date.



Annual 24hr PM_{10} average maximum criteria for April 2020 is below the annual average maximum criteria limit.

A summary of valid data for CVC's TEOM is presented below for the year to date.

Variable	Jan	Total	Valid	Feb	Total	Valid	Mar	Total	Valid	Apr	Total	Valid
A/C Temp	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
A1	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
A1_Scaled	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Bypass Flow	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Cap Temp	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Case Temp	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Config	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Dew Point	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Dig-In	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Dig-Latch	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
ESN	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Filter Freq	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Filter Load	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Humidity	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
MC	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
MC 12Hr	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
MC 1Hr	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
MC 24Hr	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
MC 30min	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
MC 8Hr	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
MC Total	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Mobile Signal	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Noise	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
PM10 Flow	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Pressure	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Site	0.0%	8928	0	0.0%	8352	0	0.0%	8928	0	0.0%	8640	0
Temperature	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Tube Temp	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Vac Pressure	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630
Volts	100%	8928	8926	100%	8352	8351	99.9%	8928	8922	99.9%	8640	8630

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. (EPA ID no. 26)

Monthly Weather Data			
Licensee	Great Southern Energy Pty Ltd		
Location	Mannering Colliery Meteorological station		
Date published	Refer report date		
Date sampled	Daily		
Date obtained	05/04/2020		
Month	**Total Rainfall/Month mm**	**Min Temp**	**Max Temp**
Jan-20	28	18	44
Feb-20	350	16	37
Mar-20	159	12	38
Apr-20	46	9	28
May-20			
Jun-20			
Jul-20			
Aug-20			
Sep-20			
Oct-20			
Nov-20			
Dec-20			