



ATTACHMENT 8

CC02tele Water Quality Monitoring
Results

Bathurst Buller Operations -
 Canterbury Coal
 PO Box 34
 Darfield 7510
 Attention: Eden Sinclair

Analytical Report

Report Number: 19/63976

Issue: 1
 06 December 2019

Sample	Site	Map Ref.	Date Sampled	Date Received	Order No.
19/63976-01	CC02 tele		28/11/2019 11:30	30/11/2019 08:55	0
Notes:					
Test	Result	Units	Test Date	Signatory	
0001 pH	7.5		30/11/2019	Gordon McArthur KTP	
0002 Suspended Solids - Total	16	g/m ³	30/11/2019	Gordon McArthur KTP	
0055 Conductivity at 25°C	85.4	mS/m	30/11/2019	Gordon McArthur KTP	
0056 Dissolved Oxygen	9.2	g O ₂ /m ³	30/11/2019	Gordon McArthur KTP	
0081 Chemical Oxygen Demand	< 15	g/m ³	02/12/2019	Gordon McArthur KTP	
0084 Turbidity	10.3	NTU	03/12/2019	Marylou Cabral KTP	
0085 BOD5 - Total	< 6	g/m ³	30/11/2019	Gordon McArthur KTP	
0607 Sulphate	414	g/m ³	02/12/2019	Amit Kumar KTP	
6701 Aluminium - Dissolved	0.032	g/m ³	05/12/2019	Shanel Kumar KTP	
6707 Boron - Dissolved	0.97	g/m ³	05/12/2019	Shanel Kumar KTP	
6710 Calcium - Dissolved	98.1	g/m ³	05/12/2019	Shanel Kumar KTP	
6717 Iron - Dissolved	0.08	g/m ³	05/12/2019	Shanel Kumar KTP	
6720 Magnesium - Dissolved	32.6	g/m ³	05/12/2019	Shanel Kumar KTP	
6721 Manganese - Dissolved	0.577	g/m ³	05/12/2019	Shanel Kumar KTP	
6724 Nickel - Dissolved	0.0188	g/m ³	05/12/2019	Shanel Kumar KTP	
6738 Zinc - Dissolved	0.022	g/m ³	05/12/2019	Shanel Kumar KTP	
P1859 Sample Filtration	Completed		02/12/2019	Daniel Fitzpatrick	

Comments:

Sampled by customer using ELS approved containers.

Test Methodology:

Test	Methodology	Detection Limit
pH	Dedicated pH meter following APHA Online Edition Method 4500 H.	0.1
Suspended Solids - Total	APHA Online Edition Method 2540 D	3 g/m ³
Conductivity at 25°C	APHA Online Edition Method 2510 B.	0.1 mS/m
Dissolved Oxygen	APHA Online Edition Method 4500-O G	1 g O ₂ /m ³
Chemical Oxygen Demand	APHA Online Edition Method 5220 D.	15 g/m ³
Turbidity	Turbidity Meter following APHA Online Edition Method 2130 B.	0.01 NTU
BOD5 - Total	APHA Online Edition Method 5210 B.	1 g/m ³
Sulphate	Ion Chromatography following APHA 4110B.	0.02 g/m ³
Aluminium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m ³
Boron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.03 g/m ³
Calcium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.1 g/m ³
Iron - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.01 g/m ³
Magnesium - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified)	0.01 g/m ³
Manganese - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m ³
Nickel - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.0005 g/m ³
Zinc - Dissolved	ICP-MS following APHA Online Edition method 3125 (modified).	0.002 g/m ³
Sample Filtration	Sample filtered through 0.45 micron filter following APHA Online Edition Method 3030B.	n/a

Unless otherwise stated, all tests are performed in Wellington.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results.

"<" means that no analyte was found in the sample at the level of detection shown. Detection limits are based on a clean matrix and may vary according to individual sample.

g/m³ is the equivalent to mg/L and ppm.

Samples will be retained for a period of time, in suitable conditions appropriate to the analyses requested.



Report Released By
Rob Deacon

This laboratory is accredited by International Accreditation New Zealand and its reports are recognised in all countries affiliated to the International Laboratory Accreditation Co-operation Mutual Recognition Arrangement (ILAC-MRA). The tests reported have been performed in accordance with our terms of accreditation, with the exception of tests marked "not IANZ", which are outside the scope of this laboratory's accreditation.

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The detection limit for BOD is 1 and we do minimum of 2 dilution per sample for BOD, this will require a minimum of 500mL sample. If there was not enough sample received we would analyse the sample by using 100mL (detection limit of 6). As there was no detection limit requested on the submission form for this testing, and due to the limitation of the sample, we have analysed BOD with detection limit of 6.

Hope this explains.

Kind Regards

Chen Lin
Analytical Services Manager(ASM) – Microbiology

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