

Monthly Data Summary

Environmental Protection Licence 2122

AGL Macquarie - Liddell Power Station



Monitoring Period

MARCH 2021

EPA Identification Number 3

Air emission monitoring - Combined air emissions from boiler 1 via Points 7 and 8 to Point 1

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample values	Highest sample value	100th percentile concentration limits
Nitrogen Oxides	mg/m ³	Continuous	100%	505.4	702.5	895.9	1500 mg/m ³
Sulfur Dioxide	mg/m ³	Continuous	100%	747.2	993.9	1343.5	1700 mg/m ³

In addition to the 100th percentile concentration limits, 99th percentile concentration limits of 1100 mg/m³ and 1400 mg/m³ apply to Nitrogen oxides and Sulfur dioxide, respectively.

Pollutant	Unit of measure	No. of samples required by licence	Date of sample	Most recent result	100th percentile concentration limits
Cadmium	mg/m ³	Six monthly	11/03/2021	0.00012	0.2 mg/m ³
Chlorine	mg/m ³	Six monthly	31/08/2020	0.13	20 mg/m ³
Fluorine	mg/m ³	Six monthly	31/08/2020	12	20 mg/m ³
Hydrogen chloride	mg/m ³	Six monthly	31/08/2020	19	50 mg/m ³
Mercury	mg/m ³	Six monthly	11/03/2021	0.0001	0.05 mg/m ³
Solid Particles	mg/m ³	Quarterly	11/03/2021	65.1	50 mg/m ³
Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	Six monthly	31/08/2020	1.2	100 mg/m ³
Type 1 and Type 2 substances in aggregate	mg/m ³	Six monthly	11/03/2021	0.009	0.75 mg/m ³
Volatile organic compounds as n-propane equivalent	mg/m ³	Six monthly	31/08/2020	0.16	10 mg/m ³

Measured concentrations from the boiler's A and B ducts are used to calculate the concentrations from the boiler. Some of the duct concentrations for some substances may be reported as less than the relevant Limit of Detection, in which case the calculation uses 50% of the Limit of Detection value, in accordance with LBL Protocol rules.

The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

EPA Identification Number 4

Air emission monitoring - Combined air emissions from boiler 2 via Points 9 and 10 to Point 1

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value	100th percentile concentration limits
Nitrogen Oxides	mg/m ³	Continuous	100%	273.2	437.0	568.6	1500 mg/m ³
Sulfur Dioxide	mg/m ³	Continuous	100%	609.0	833.0	1130.8	1700 mg/m ³

In addition to the 100th percentile concentration limits, 99th percentile concentration limits of 1100 mg/m³ and 1400 mg/m³ apply to Nitrogen oxides and Sulfur dioxide, respectively .

Pollutant	Unit of measure	No. of samples required by licence	Date of sample	Most recent result	100th percentile concentration limits
Cadmium	mg/m ³	Six monthly	10/03/2021	0.00010	0.2 mg/m ³
Chlorine	mg/m ³	Six monthly	10/03/2021	0.012	20 mg/m ³
Fluorine	mg/m ³	Six monthly	10/03/2021	9.3	20 mg/m ³
Hydrogen chloride	mg/m ³	Six monthly	10/03/2021	14	50 mg/m ³
Mercury	mg/m ³	Six monthly	10/03/2021	0.0009	0.05 mg/m ³
Solid Particles	mg/m ³	Quarterly	10/03/2021	85.9	50 mg/m ³
Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	Six monthly	10/03/2021	2.3	100 mg/m ³
Type 1 and Type 2 substances in aggregate	mg/m ³	Six monthly	10/03/2021	0.012	0.75 mg/m ³
Volatile organic compounds as n-propane equivalent	mg/m ³	Six monthly	10/03/2021	0.05	10 mg/m ³

Measured concentrations from the boiler's A and B ducts are used to calculate the concentrations from the boiler. Some of the duct concentrations for some substances may be reported as less than the relevant Limit of Detection, in which case the calculation uses 50% of the Limit of Detection value, in accordance with LBL Protocol rules.

The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

EPA Identification Number 5

Air emission monitoring - Combined air emissions from boiler 3 via Points 11 and 12 to Point 2

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value	100th percentile concentration limits
Nitrogen Oxides	mg/m ³	Continuous					1500 mg/m ³
Sulfur Dioxide	mg/m ³	Continuous					1700 mg/m ³

Out of Services

Pollutant	Unit of measure	No. of samples required by licence	Date of sample	Most recent result	100th percentile concentration limits
Cadmium	mg/m ³	Six monthly	15/09/2020	0.00012	0.2 mg/m ³
Chlorine	mg/m ³	Six monthly	3/06/2021	0.005	20 mg/m ³
Fluorine	mg/m ³	Six monthly	3/06/2021	11	20 mg/m ³
Hydrogen chloride	mg/m ³	Six monthly	3/06/2021	14	50 mg/m ³
Mercury	mg/m ³	Six monthly	15/09/2020	0.0002	0.05 mg/m ³
Solid Particles	mg/m ³	Quarterly	#N/A		50 mg/m ³
Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	Six monthly	3/06/2021	2.2	100 mg/m ³
Type 1 and Type 2 substances in aggregate	mg/m ³	Six monthly	15/09/2020	0.008	0.75 mg/m ³
Volatile organic compounds as n-propane equivalent	mg/m ³	Six monthly	3/06/2021	0.045	10 mg/m ³

Measured concentrations from the boiler's A and B ducts are used to calculate the concentrations from the boiler. Some of the duct concentrations for some substances may be reported as less than the relevant Limit of Detection, in which case the calculation uses 50% of the Limit of Detection value, in accordance with LBL Protocol rules.

The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

EPA Identification Number 6

Air emission monitoring - Combined air emissions from boiler 4 via Points 13 and 14 to Point 2

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value	100th percentile concentration limits
Nitrogen Oxides	mg/m ³	Continuous	100%	314.9	496.8	707.2	1500 mg/m ³
Sulfur Dioxide	mg/m ³	Continuous	100%	805.7	993.6	1205.9	1700 mg/m ³

In addition to the 100th percentile concentration limits, 99th percentile concentration limits of 1100 mg/m³ and 1400 mg/m³ apply to Nitrogen oxides and Sulfur dioxide, respectively .

Pollutant	Unit of measure	No. of samples required by licence	Date of sample	Most recent result	100th percentile concentration limits
Cadmium	mg/m ³	Six monthly	9/03/2021	0.00015	0.2 mg/m ³
Chlorine	mg/m ³	Six monthly	9/03/2021	0.08	20 mg/m ³
Fluorine	mg/m ³	Six monthly	9/03/2021	8.3	20 mg/m ³
Hydrogen chloride	mg/m ³	Six monthly	9/03/2021	12	50 mg/m ³
Mercury	mg/m ³	Six monthly	9/03/2021	0.0002	0.05 mg/m ³
Solid Particles	mg/m ³	Quarterly	9/03/2021	29.9	50 mg/m ³
Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	Six monthly	9/03/2021	3.2	100 mg/m ³
Type 1 and Type 2 substances in aggregate	mg/m ³	Six monthly	9/03/2021	0.015	0.75 mg/m ³
Volatile organic compounds as n-propane equivalent	mg/m ³	Six monthly	9/03/2021	0.2	10 mg/m ³

Measured concentrations from the boiler's A and B ducts are used to calculate the concentrations from the boiler. Some of the duct concentrations for some substances may be reported as less than the relevant Limit of Detection, in which case the calculation uses 50% of the Limit of Detection value, in accordance with LBL Protocol rules.

The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

EPA Identification Number 7

Air emission monitoring - Boiler number 1 exhaust - duct A

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Nitrogen Oxides	mg/m ³	Continuous	100%	505.4	702.5	895.9
Sulfur Dioxide	mg/m ³	Continuous	100%	747.2	993.9	1343.5
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	degrees Celsius				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m ³	Six monthly	2	11/03/2021	<0.0003
Chlorine	mg/m ³	Six monthly	1	17/11/2020	0.13000
Fluorine	mg/m ³	Six monthly	1	9/10/2018	12.00000
Hydrogen chloride	mg/m ³	Six monthly	1	17/11/2020	19.00000
Mercury	mg/m ³	Six monthly	2	11/03/2021	<0.0004
Solid Particles	mg/m ³	Quarterly	3	17/11/2020	86.0
Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	Six monthly	1	17/11/2020	1.20000
Type 1 and Type 2 substances in aggregate	mg/m ³	Six monthly	2	11/03/2021	<0.021
Volatile organic compounds as n-propane equivalent	mg/m ³	Six monthly	1	17/11/2020	0.16000
Carbon dioxide	percent	Six monthly	2	11/03/2021	7.7

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 8

Air emission monitoring - Boiler number 1 exhaust - duct B

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	2	22/10/2019	<0.0002
Mercury	mg/m3	Six monthly	2	11/03/2021	<0.0002
Solid Particles	mg/m3	Quarterly	3	17/11/2020	6.0
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	2	11/03/2021	<0.016

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 9

Air emission monitoring - Boiler number 2 exhaust - duct A

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	2	4/04/2019	<0.0002
Mercury	mg/m3	Six monthly	2	10/03/2021	0.00180
Solid Particles	mg/m3	Quarterly	3	10/03/2021	45.0
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	2	10/03/2021	<0.028

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 10

Air emission monitoring - Boiler number 2 exhaust - duct B

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Nitrogen Oxides	mg/m3	Continuous	100%	273.2	437.0	568.6
Sulfur Dioxide	mg/m3	Continuous	100%	609.0	833.0	1130.8
Flow	cubic metres per second	Continuous	-			
Moisture	percent	Continuous	-			
Oxygen	percent	Continuous	-			
Temperature	degrees Celsius	Continuous	-			

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	2	10/03/2020	<0.0002
Chlorine	mg/m3	Six monthly	1	2/06/2021	0.01200
Fluorine	mg/m3	Six monthly	1	2/06/2021	9.30000
Hydrogen chloride	mg/m3	Six monthly	1	2/06/2021	14.00000
Mercury	mg/m3	Six monthly	2	10/03/2020	<0.0002
Solid Particles	mg/m3	Quarterly	3	10/03/2021	120.0
Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Six monthly	1	2/06/2021	2.30000
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	2	10/03/2021	<0.021
Volatile organic compounds as n-propane equivalent	mg/m3	Six monthly	1	2/06/2021	<0.1
Carbon dioxide	percent	Six monthly	2	2/06/2021	9.5

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 11

Air emission monitoring - Boiler number 3 exhaust - duct A

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Nitrogen Oxides	mg/m3	Continuous				
Sulfur Dioxide	mg/m3	Continuous				
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	1	15/09/2020	<0.0003
Chlorine	mg/m3	Six monthly	1	3/06/2021	<0.01
Fluorine	mg/m3	Six monthly	1	3/06/2021	11.00000
Hydrogen chloride	mg/m3	Six monthly	1	3/06/2021	14.00000
Mercury	mg/m3	Six monthly	1	15/09/2020	<0.0003
Solid Particles	mg/m3	Quarterly	2	3/06/2021	28.0
Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Six monthly	1	3/06/2021	2.20000
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	1	15/09/2020	<0.02
Volatile organic compounds as n-propane equivalent	mg/m3	Six monthly	1	3/06/2021	<0.09
Carbon dioxide	percent	Six monthly	1	3/06/2021	10.4

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 12

Air emission monitoring - Boiler number 3 exhaust - duct B

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	1	26/03/2019	<0.0002
Mercury	mg/m3	Six monthly	1	15/09/2020	<0.0003
Solid Particles	mg/m3	Quarterly	2	3/06/2021	42.0
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	1	15/09/2020	<0.014

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 13

Air emission monitoring - Boiler number 4 exhaust - duct A

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	2	9/03/2021	<0.0003
Mercury	mg/m3	Six monthly	2	9/03/2021	<0.0003
Solid Particles	mg/m3	Quarterly	4	18/11/2020	15.0
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	2	9/03/2021	<0.023

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 14

Air emission monitoring - Boiler number 4 exhaust - duct B

Pollutant	Unit of measure	No. of samples required by licence	Data capture %	Lowest sample value	Mean of sample	Highest sample value
Nitrogen Oxides	mg/m3	Continuous	100%	314.9	496.8	707.2
Sulfur Dioxide	mg/m3	Continuous	100%	805.7	993.6	1205.9
Flow	cubic metres per second	Continuous				
Moisture	percent	Continuous				
Oxygen	percent	Continuous				
Temperature	degrees Celsius	Continuous				

Pollutant	Unit of measure	No. of samples required by licence	# No. of samples collected and analysed	Date of sample	Most recent result
Cadmium	mg/m3	Six monthly	2	9/03/2021	<0.0003
Chlorine	mg/m3	Six monthly	2	1/06/2021	0.03900
Fluorine	mg/m3	Six monthly	2	1/06/2021	8.30000
Hydrogen chloride	mg/m3	Six monthly	2	1/06/2021	12.00000
Mercury	mg/m3	Six monthly	2	9/03/2021	<0.0003
Solid Particles	mg/m3	Quarterly	4	18/11/2020	6.8
Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Six monthly	2	1/06/2021	3.20000
Type 1 and Type 2 substances in aggregate	mg/m3	Six monthly	2	9/03/2021	<0.037
Volatile organic compounds as n-propane equivalent	mg/m3	Six monthly	2	1/06/2021	0.20000
Carbon dioxide	percent	Six monthly	2	1/06/2021	108.0

A less than sign, "<", before a result in the table above indicates that the measured result was less than the relevant Limit of Detection for that test. The Station's Environment Protection Licence requires that Solid Particles are sampled from the A and B ducts 4 times per year each (once in each quarter). Other substances listed in the table are sampled twice per year. The table includes the most recent results available.

Number of samples from the duct in the year to date

EPA Identification Number 16

Discharge to waters - Discharge quality monitoring

Discharge of cooling water from the cooling water outlet canal to Lake Liddell

Pollutant	Unit of measure	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Ammonia	mg/L	Fortnightly	2	<0.01	0.01	0.02
Antimony	mg/L	Fortnightly	2	0.008	0.01	0.009
Arsenic	mg/L	Fortnightly	2	0.007	0.01	0.008
Barium	mg/L	Fortnightly	2	0.101	0.11	0.114
Beryllium	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Boron	mg/L	Fortnightly	2	1.32	1.42	1.52
Cadmium	mg/L	Fortnightly	2	<0.0001	0.00	<0.0001
Chlorine	mg/L	Fortnightly	2	0.05	0.05	0.05
Chromium (trivalent)	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Chromium (VI) compounds	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Cobalt	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Conductivity	µS/cm	Fortnightly	2	2680	2735	2790
Copper	mg/L	Fortnightly	2	0.002	0.00	0.004
Fluoride	mg/L	Fortnightly	2	1.39	1.59	1.79
Lead	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Manganese	mg/L	Fortnightly	2	0.013	0.01	0.013
Mercury	mg/L	Fortnightly	2	<0.0001	0.00	<0.0001
Methyl Blue Active Substances	mg/L	Fortnightly	2	<0.1	0.05	<0.1
Molybdenum	mg/L	Fortnightly	2	0.115	0.12	0.122
Nickel	mg/L	Fortnightly	2	0.005	0.01	0.006
Nitrogen	mg/L	Fortnightly	2	0.03	0.04	0.05
Oil and Grease	mg/L	Weekly during any discharge	5	<1	0.8	<2
pH	mg/L	Daily during any discharge	31	8.2	8.4	8.6
Phosphorus	mg/L	Fortnightly	2	0.02	0.03	0.03
Selenium	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Sulfur	mg/L	Fortnightly	2	640	710.00	780
Temperature	degrees Celsius	Fortnightly	2	25.9	29.05	32.2
Tin	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Total dissolved solids	mg/L	Fortnightly	2	1860	1865.00	1870
Total organic carbon	mg/L	Fortnightly	2	2	5.00	8
Total suspended solids	mg/L	Fortnightly	2	<5	4.75	7
Vanadium	mg/L	Fortnightly	2	0.01	0.02	0.02
Zinc	mg/L	Fortnightly	2	<0.005	0.00	<0.005

EPA Identification Number 17

Discharge to waters - Discharge quality monitoring

Discharge from oil and grit trap weir overflow to Lake Liddell

Pollutant	Unit of measure	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Ammonia	mg/L	Fortnightly	2	<0.01	0.03	0.06
Antimony	mg/L	Fortnightly	2	0.007	0.01	0.01
Arsenic	mg/L	Fortnightly	2	0.006	0.01	0.006
Barium	mg/L	Fortnightly	2	0.099	0.10	0.108
Beryllium	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Boron	mg/L	Fortnightly	2	1.25	1.35	1.44
Cadmium	mg/L	Fortnightly	2	<0.0001	0.00	<0.0001
Chlorine	mg/L	Fortnightly	2	0.06	0.07	0.07
Chromium (trivalent)	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Chromium (VI) compounds	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Cobalt	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Conductivity	µS/cm	Fortnightly	2	2460	2585	2710
Copper	mg/L	Fortnightly	2	0.003	0.00	0.006
Fluoride	mg/L	Fortnightly	2	1.3	1.48	1.66
Lead	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Manganese	mg/L	Fortnightly	2	0.014	0.02	0.018
Mercury	mg/L	Fortnightly	2	<0.0001	0.00	<0.0001
Methyl Blue Active Substances	mg/L	Fortnightly	2	<0.1	0.05	<0.1
Molybdenum	mg/L	Fortnightly	2	0.106	0.11	0.113
Nickel	mg/L	Fortnightly	2	0.005	0.01	0.005
Nitrogen	mg/L	Fortnightly	2	0.02	0.03	0.04
Oil and Grease	mg/L	Weekly during any discharge	5	<1	1.6	5
pH	mg/L	Daily during any discharge	31	8.3	8.4	8.6
Phosphorus	mg/L	Fortnightly	2	0.03	0.04	0.04
Selenium	mg/L	Fortnightly	2	<0.01	0.01	<0.01
Sulfur	mg/L	Fortnightly	2	580	680.00	780
Temperature	degrees Celsius	Fortnightly	2	24.4	25.15	25.9
Tin	mg/L	Fortnightly	2	<0.001	0.00	<0.001
Total dissolved solids	mg/L	Fortnightly	2	1750	1775.00	1800
Total organic carbon	mg/L	Fortnightly	2	5	7.00	9
Total suspended solids	mg/L	Fortnightly	2	7	7.00	7
Vanadium	mg/L	Fortnightly	2	0.01	0.01	0.01
Zinc	mg/L	Fortnightly	2	0.006	0.01	0.011

EPA Identification Number 18

Discharge to waters - Discharge quality monitoring and Volume monitoring

Discharge from skimmer dam overflow spillway to Lake Liddell

Pollutant	Unit of measure	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Arsenic	mg/L	Weekly during any discharge	5	0.013	0.032	0.059
Boron	mg/L	Weekly during any discharge	5	1.7	1.77	1.88
Cadmium	mg/L	Weekly during any discharge	5	<0.0001	0.00006	0.0001
Chromium (trivalent)	mg/L	Weekly during any discharge	5	<0.01	0.005	<0.01
Chromium (VI) compounds	mg/L	Weekly during any discharge	5	<0.01	0.005	<0.01
Copper	mg/L	Weekly during any discharge	5	<0.001	0.0007	0.001
Electrical conductivity	µS/cm	Weekly during any discharge	5	2590	2832	3070
Fluoride	mg/L	Weekly during any discharge	5	1.8	2.02	2.3
Lead	mg/L	Weekly during any discharge	5	<0.001	0.0005	<0.001
Mercury	mg/L	Weekly during any discharge	5	<0.0001	0.00005	<0.0001
Oil and Grease	mg/L	Weekly during any discharge	5	<1	0.8	<2
pH		Weekly during any discharge	5	8.1	8.2	8.3
Selenium	mg/L	Weekly during any discharge	5	<0.01	0.021	0.04
Total suspended solids	mg/L	Weekly during any discharge	5	<5	4.3	9
Zinc	mg/L	Weekly during any discharge	5	<0.005	0.003	0.005
Volume	kilolitres per day	Daily	31	88000	162290	303000

EPA Identification Number 19

Discharge utilisation area - Volume monitoring

Discharge of effluent from the final pond of the sewage treatment system adjacent to utilisation area.

Pollutant	Unit of measure	No. of samples required by licence	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Volume	kilolitres per day	Daily	31	0.40	51.38	183.55

Details of Non-Compliance with Licence Conditions
Licence condition number not complied with
L3.1
Summary of particulars of the non-compliance (NO MORE THAN 50 WORDS)
Quarterly stack testing recorded exceedance in Solid Particles concentration at Unit 1 and Unit 2 during March 2021.
If required, further details on particulars of non-compliance
Date(s) when the non-compliance occurred, if applicable
11 March 2021 at Unit 1 and 10 March 2021 at Unit 2
If relevant, precise location where the non-compliance occurred (attach a map or diagram)
If applicable, registration numbers of any vehicles or the chassis number of any mobile plant involved in the non-compliance
Cause of non-compliance
Investigation is underway to determine the cause
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
Action taken or that will be taken to prevent a recurrence of the non-compliance
Investigation is underway to determine the cause and preventive actions