



# Environmental Monitoring Report

## Broadwater Power Plant 117 Pacific Highway Broadwater NSW

Licencee Cape Byron Management Pty Ltd  
Address 117 Pacific Highway Broadwater NSW  
EPL No 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>

This data is published as required under section 66(6) of the *Protection of the Environment Operations Act 1997*

Sampling Point:

Licencee

Location

EPL No

Parameters Monitored

Frequency & Method

Limits

**Monitoring Point 1 - No 12 Boiler Stack Emissions**

Cape Byron Management Pty Ltd

Broadwater Cogeneration Power Plant

20425

<http://www.epa.nsw.gov.au/prpoeoapp/>

see individual parameters in table

Annually in accordance with EPA protocols

see individual parameters in table



**RESULTS TABLE**

Report Number	AE12084		AE 13192	
	20-Aug-19		16-Jul-20	
	13-Sep-19		25-Aug-20	
	23-Sep-19		27-Aug-20	

Measured Parameters dry @ STP and corrected to 7% O <sub>2</sub>	Units	Concentration Limit		
Average stack gas temperature	°C	Not Applicable	92.3	108.0
Average velocity at sampling plane	m/s	Not Applicable	9.8	8.1
Gas Volumetric Flowrate	m <sup>3</sup> /sec	Not Applicable	28.1	20.9
Dry Gas Density	kg/m <sup>3</sup>	Not Applicable	1.3	1.3
Molecular Weight of Stack Gases	g/g mole	Not Applicable	29.9	30.1
Moisture content	%	Not Applicable	21.8	26.7
Concentration of carbon dioxide	%	Not Applicable	9.5	10.6
Total Solid Particles	mg/m <sup>3</sup>	<b>100</b>	17.1	70.7
Sulphuric Acid Mist & Sulphur Trioxide as SO <sub>3</sub>	mg/m <sup>3</sup>	<b>12</b>	4.7	5.6
Nitrogen Oxides (NO <sub>x</sub> )	mg/m <sup>3</sup>	<b>500</b>	480.0	368.0

**Sampling Point:**

Licencee  
 Location  
 EPL No  
 Parameter/s Monitored  
 Frequency & Method  
 Limits

**Monitoring Point 2 - No 1 Cogeneration Boiler Stack Emissions**

Cape Byron Management Pty Ltd  
 Broadwater Cogeneration Power Plant  
 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>  
 see individual parameters in table  
 Quarterly in accordance with EPA protocols  
 see individual parameters in table



			<b>RESULTS TABLE</b>			
Report Number			AE 12202	AE 12329	AE 13050	AE 13192
Sampling Date			31-Oct-19	21-Jan-20	21-Apr-20	16-Jul-20
Date Received			06-Nov-19	06-Feb-20	20-May-20	25-Aug-20
Date Published			28-Nov-19	06-Mar-20	29-May-20	27-Aug-20
<b>Measured Parameters dry @ STP and corrected to 7% O<sub>2</sub></b>	<b>Units</b>	<b>Concentration Limit</b>				
Average stack gas temperature	°C	Not Applicable	66.0	62.0	59.0	67.0
Average velocity at sampling plane	m/s	Not Applicable	14.9	13.7	11.1	14.8
Dry Gas Volumetric Flowrate	m <sup>3</sup> /sec	Not Applicable	58.8	64.6	50.1	58.1
Dry Gas Density	kg/m <sup>3</sup>	Not Applicable	1.3	1.3	1.3	1.3
Molecular Weight of Stack Gases	g/g mole	Not Applicable	30.1	30.0	30.0	30.1
Moisture content	%	Not Applicable	23.0	7.7	13.5	22.8
Concentration of carbon dioxide	%	Not Applicable	10.8	9.7	9.3	10.7
Total Solid Particles	mg/m <sup>3</sup>	100.0	20.7	50.2	11.9	15.6
Sulphuric Acid Mist & Sulphur Trioxide as SO <sub>3</sub>	mg/m <sup>3</sup>	12.0	9.3	0.8	2.4	7.0
Nitrogen Oxides (NO <sub>x</sub> )	mg/m <sup>3</sup>	500.0	303.0	170.0	159.0	325.0

**Sampling Point:** **Monitoring Point 3 - Ambient Air Monitoring**  
 Licencee Cape Byron Management Pty Ltd  
 Location Broadwater Cogeneration Power Plant  
 EPL No 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>  
 Parameters Monitored Particulates - Deposited Matter  
 Monitoring Frequency Continuous with sample results extrapolated from sample period of 30 ± 2 days  
 Limits Not Applicable  
 Comments Laboratory Analysis



Date Sample Collected	Date Received	Date Published	Results (g/m <sup>2</sup> /month)	Notes
3-Jan-20	16-Jan-20	23-Jan-20	1.62	Fine org.matter
4-Feb-20	10-Feb-20	6-Mar-20	2.85	Fine organic matter observed
3-Mar-20	16-Mar-20	1-Apr-20	0.24	Fine organic matter present
3-Apr-20	9-Apr-20	30-Apr-20	0.37	
5-May-20	18-May-20	29-May-20	0.46	
3-Jun-20	5-Jun-20	29-Jun-20	0.51	
2-Jul-20	10-Jul-20	20-Jul-20	0.74	
4-Aug-20	13-Aug-20	27-Aug-20	0.82	
2-Sep-20	14-Sep-20	25-Sep-20	1.50	
2-Oct-20	15-Oct-20	22-Oct-20	1.07	

**Sampling Point:** **Monitoring Point 3 - Ambient Air Monitoring**  
 Licencee Cape Byron Management Pty Ltd  
 Location Broadwater Cogeneration Power Plant  
 EPL No 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>  
 Parameters Monitored PM10  
 Monitoring Frequency Sampling for 24 hours every 6 Days when site is operating  
 Limits Not Applicable  
 Comments Laboratory Analysis



Date Sample Collected	Date Received	Date Published	Results (ug/m <sup>3</sup> )	Notes
3-Jan-20	22-Jan-20	23-Jan-20	30.4	
9-Jan-20	12-Feb-20	6-Mar-20		Clock technical issue due to 2020 date roll over
14-Jan-20	12-Feb-20	6-Mar-20	13.2	Date changed by one day due to technical issue
20-Jan-20	12-Feb-20	6-Mar-20	19.1	
26-Jan-20	12-Feb-20	6-Mar-20	12.5	
1-Feb-20	12-Feb-20	6-Mar-20	15.6	
7-Feb-20	12-Mar-20	1-Apr-20	15.8	
13-Feb-20	12-Mar-20	1-Apr-20	24.9	
19-Feb-20	12-Mar-20	1-Apr-20	26.2	
25-Feb-20	12-Mar-20	1-Apr-20	14.9	
2-Mar-20	12-Mar-20	1-Apr-20	22.0	
8-Mar-20	20-Apr-20	30-Apr-20	16.3	
14-Mar-20	20-Apr-20	30-Apr-20	11.0	
20-Mar-20	20-Apr-20	30-Apr-20	12.5	
26-Mar-20	20-Apr-20	30-Apr-20	10.7	
1-Apr-20	20-Apr-20	30-Apr-20	15.4	
7-Apr-20	20-May-20	29-May-20	15.0	
13-Apr-20	20-May-20	29-May-20	20.8	
19-Apr-20	20-May-20	29-May-20	168.0	
25-Apr-20	20-May-20	29-May-20	15.4	
1-May-20	20-May-20	29-May-20	7.7	
7-May-20	20-May-20	29-May-20	16.8	
13-May-20	26-Jun-20	29-Jun-20	12.1	
19-May-20	26-Jun-20	29-Jun-20	5.4	
25-May-20	26-Jun-20	29-Jun-20	16.6	
31-May-20	26-Jun-20	29-Jun-20	3.7	
6-Jun-20	26-Jun-20	29-Jun-20	11.6	
12-Jun-20	26-Jun-20	29-Jun-20	5.7	
18-Jun-20	20-Jul-20	20-Jul-20	10.0	
24-Jun-20	20-Jul-20	20-Jul-20	9.4	
30-Jun-20	20-Jul-20	20-Jul-20	6.9	
6-Jul-20	20-Jul-20	27-Aug-20	6.9	
12-Jul-20	18-Aug-20	27-Aug-20	12.6	
18-Jul-20	18-Aug-20	27-Aug-20	8.4	
24-Jul-20	18-Aug-20	27-Aug-20	5.0	
30-Jul-20	18-Aug-20	27-Aug-20	10.8	
5-Aug-20	11-Sep-20	9-Oct-20	21.5	
11-Aug-20	11-Sep-20	9-Oct-20	12.7	
17-Aug-20	11-Sep-20	9-Oct-20	20.0	
23-Aug-20	11-Sep-20	9-Oct-20	24.5	
29-Aug-20	11-Sep-20	9-Oct-20	19.3	
4-Sep-20	19-Oct-20	22-Oct-20	16.4	
10-Sep-20	19-Oct-20	22-Oct-20	10.8	
16-Sep-20	19-Oct-20	22-Oct-20	16.0	
22-Sep-20	19-Oct-20	22-Oct-20	32.6	
28-Sep-20	19-Oct-20	22-Oct-20	12.8	
4-Oct-20	19-Oct-20	22-Oct-20	14.6	

**Sampling Point: Monitoring Point 4 - Ambient Air Monitoring**

Licencee Cape Byron Management Pty Ltd  
Location Broadwater Cogeneration Power Plant  
EPL No 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>  
Parameter Particulates - Deposited Matter  
Frequency Continuous with sample results extrapolated  
from sample period of 30 ± 2 days  
Limits Not Applicable  
Comments Laboratory Analysis



Date Sample Collected	Date Received	Date Published	Results (g/m <sup>2</sup> /month)	Notes
3-Jan-20	16-Jan-20	23-Jan-20	1.59	Fine org.matter
4-Feb-20	10-Feb-20	6-Mar-20	2.90	Fine organic matter
3-Mar-20	16-Mar-20	1-Apr-20	0.24	Fine organic matter present
3-Apr-20	9-Apr-20	30-Apr-20	0.20	
5-May-20	18-May-20	29-May-20	0.65	
3-Jun-20	5-Jun-20	29-Jun-20	1.18	
2-Jul-20	10-Jul-20	20-Jul-20	1.00	
4-Aug-20	13-Aug-20	27-Aug-20	1.85	
2-Sep-20	14-Sep-20	25-Sep-20	2.90	
2-Oct-20	15-Oct-20	22-Oct-20	0.23	

**Sampling Point:** Monitoring Point 5 - Ambient Air Monitoring  
 Licence Cape Byron Management Pty Ltd  
 Location Broadwater Power Plant Fuel Stockpile  
 EPL No 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>  
 Parameters Monitored Particulates - Deposited Matter  
 Monitoring Frequency Continuous with sample results extrapolated from  
 sample period of 30 ± 2 days  
 Limits Not Applicable  
 Comments Laboratory Analysis



Date Sample Collected	Date Received	Date Published	Results (g/m <sup>2</sup> /month)	Notes
3-Jan-20	16-Jan-20	23-Jan-20	4.41	Fine org.matter
4-Feb-20	10-Feb-20	6-Mar-20	1.00	Fine organic matter
3-Mar-20	16-Mar-20	1-Apr-20	0.19	Fine organic matter present
3-Apr-20	9-Apr-20	30-Apr-20	1.06	
5-May-20	18-May-20	29-May-20	1.96	
3-Jun-20	5-Jun-20	29-Jun-20	1.55	
2-Jul-20	10-Jul-20	20-Jul-20	1.03	
4-Aug-20	13-Aug-20	27-Aug-20	1.79	
2-Sep-20	14-Sep-20	25-Sep-20	2.60	
2-Oct-20	15-Oct-20	22-Oct-20	0.76	

**Sampling Point: Monitoring Point 6 - O<sub>2</sub> Monitoring No 1 Cogeneration Boiler**

Licencee Cape Byron Management Pty Ltd  
 Location Broadwater Cogeneration Power Plant  
 EPL No 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>  
 Parameters Monitored Oxygen  
 Monitoring Frequency Continuous Online Sampling  
 Limit No Limits Prescribed



The results in the table provide a fortnightly summary of the minimum, maximum and mean daily values for the period indicated

Comments

MONITORING PERIOD			Oxygen (%)			Notes
Date Start	Date Finish	Date Published	Minimum Value	Mean Value	Maximum Value	
30-Dec-19	12-Jan-20	23-Jan-20	3.40	12.77	21.30	
13-Jan-20	26-Jan-20	6-Mar-20	0.00	11.11	21.20	
27-Jan-20	9-Feb-20	6-Mar-20	0.00	9.77	21.40	
10-Feb-20	23-Feb-20	1-Apr-20	3.20	6.71	20.00	
24-Feb-20	8-Mar-20	1-Apr-20	0.00	6.74	21.20	
9-Mar-20	22-Mar-20	30-Apr-20	1.50	8.47	21.30	
23-Mar-20	5-Apr-20	30-Apr-20	2.20	8.47	21.30	
6-Apr-20	19-Apr-20	29-May-20	0.00	15.27	21.60	Boiler offline 6/04/20 to 9/04/20
20-Apr-20	3-May-20	29-May-20	4.20	11.70	21.40	
4-May-20	17-May-20	29-Jun-20	3.90	10.92	21.40	
18-May-20	31-May-20	29-Jun-20	2.20	6.41	11.60	
1-Jun-20	14-Jun-20	29-Jun-20	0.00	10.30	21.30	
15-Jun-20	28-Jun-20	20-Jul-20	0.00	5.74	12.70	
29-Jun-20	12-Jul-20	24-Jul-20	0.10	4.71	21.00	
13-Jul-20	26-Jul-20	30-Jul-20	0.00	5.09	21.30	
27-Jul-20	9-Aug-20	13-Aug-20	0.00	7.77	21.30	
10-Aug-20	23-Aug-20	27-Aug-20	0.00	4.93	21.20	Boiler offline 18/08/20 to 22/08/20
24-Aug-20	6-Sep-20	10-Sep-20	1.20	3.73	11.90	
7-Sep-20	20-Sep-20	25-Sep-20	0.00	4.08	11.20	
21-Sep-20	4-Oct-20	9-Oct-20	0.00	4.10	21.10	
5-Oct-20	18-Oct-20	22-Oct-20	1.70	4.62	21.10	



**Sampling Point:** Monitoring Point 7 - O<sub>2</sub> Monitoring No 12 Boiler  
**Licencee:** Cape Byron Management Pty Ltd  
**Location:** Broadwater Cogeneration Power Plant  
**EPL No:** 20425 <http://www.environment.nsw.gov.au/>  
**Parameters Monitored:** Oxygen  
**Monitoring Frequency:** Continuous Online Sampling  
**Limit:** No Limits Prescribed



The results in the table provide a fortnightly summary of the minimum, maximum and mean daily values for the period indicated

Comments

MONITORING PERIOD			Oxygen (%)			Notes
Date Start	Date Finish	Date Published	Minimum Value	Maximum Value	Mean Value	
30-Dec-19	12-Jan-20	23-Jan-20	No Data	No Data	No Data	Boiler Not Operating
13-Jan-20	26-Jan-20	6-Mar-20	No Data	No Data	No Data	Boiler Not Operating
27-Jan-20	9-Feb-20	6-Mar-20	No Data	No Data	No Data	Boiler Not Operating
10-Feb-20	23-Feb-20	1-Apr-20	No Data	No Data	No Data	Boiler Not Operating
24-Feb-20	8-Mar-20	1-Apr-20	No Data	No Data	No Data	Boiler Not Operating
9-Mar-20	22-Mar-20	30-Apr-20	No Data	No Data	No Data	Boiler Not Operating
23-Mar-20	5-Apr-20	30-Apr-20	No Data	No Data	No Data	Boiler Not Operating
6-Apr-20	19-Apr-20	29-May-20	No Data	No Data	No Data	Boiler Not Operating
20-Apr-20	3-May-20	29-May-20	No Data	No Data	No Data	Boiler Not Operating
4-May-20	17-May-20	29-Jun-20	No Data	No Data	No Data	Boiler Not Operating
18-May-20	31-May-20	29-Jun-20	No Data	No Data	No Data	Boiler Not Operating
1-Jun-20	14-Jun-20	29-Jun-20	No Data	No Data	No Data	Boiler Not Operating
15-Jun-20	28-Jun-20	20-Jul-20	0.02	21.00	19.78	Boiler Operational 23/06/20 to 29/06/20 only
29-Jun-20	12-Jul-20	20-Jul-20	2.61	21.00	15.16	Boiler Operational 30/06/20 to 2/07/20 only
13-Jul-20	26-Jul-20	30-Jul-20	3.31	21.00	10.45	Boiler Operational 14/07/2020
27-Jul-20	9-Aug-20	13-Aug-20	0.00	21.00	10.39	Boiler Not Operational 28/07/20 to 30/07/20
10-Aug-20	23-Aug-20	27-Aug-20	0.00	21.00	11.40	Boiler Offline 18/08/20 to 22/08/20
24-Aug-20	6-Sep-20	10-Sep-20	1.45	21.00	10.21	
7-Sep-20	20-Sep-20	25-Sep-20	0.03	21.00	10.68	Boiler Offline on 12/09/20 to 14/09/20
21-Sep-20	4-Oct-20	9-Oct-20	0.02	21.00	9.05	
5-Oct-20	18-Oct-20	22-Oct-20	5.35	21.00	12.11	Boiler Offline 14/10/20

**Sampling Point:** Monitoring Point 8 - Cogeneration Cooling Water Discharge  
**Licencee:** Cape Byron Management Pty Ltd  
**Location:** Broadwater Cogeneration Power Plant  
**EPL No:** 20425 <http://www.epa.nsw.gov.au/prpocoeapp/>  
**Parameters Monitored:** Temperature & Volume  
**Monitoring Frequency:** Continous online  
**Limits:** Seet Table  
**Comments:** No result may exceed the maximum limit.



MONITORING PERIOD			Temperature (°C)			Volume (kL/day)			Notes
			Limit/s	Maximum	41	Limit/s	Maximum	155520	
Date Start	Date Finish	Date Published	Min Temp	Mean Temp	Max Temp	Minimum Daily Discharge	Mean Daily Discharge	Maximum Daily Discharge	
30-Dec-19	12-Jan-20	23-Jan-20	26	34	40	68592	115932	137184	
13-Jan-20	26-Jan-20	6-Mar-20	25	35	41	71164	127983	137184	
27-Jan-20	9-Feb-20	6-Mar-20	23	37	41	68640	128427	137184	41.1°C recorded 03/02/20 for 15 mnuties
10-Feb-20	23-Feb-20	1-Apr-20	23	36	40	131420	136517	137184	
24-Feb-20	8-Mar-20	1-Apr-20	23	37	39	125371	136200	137184	
9-Mar-20	22-Mar-20	30-Apr-20	23	33	37	136470	137124	137184	
23-Mar-20	5-Apr-20	30-Apr-20	17	34	38	137184	137184	137184	
6-Apr-20	19-Apr-20	29-May-20	16	26	35	40250	92893	137184	
20-Apr-20	3-May-20	29-May-20	17	34	38	137184	137184	137184	
4-May-20	17-May-20	29-Jun-20	18	26	32	56160	120937	137184	
18-May-20	31-May-20	29-Jun-20	23	29	36	132849	136799	137184	
1-Jun-20	14-Jun-20	29-Jun-20	9	24	30	68592	121691	137184	
15-Jun-20	28-Jun-20	20-Jul-20	17	24	32	133850	136847	137184	
29-Jun-20	12-Jul-20	24-Jul-20	15	21	30	131230	136287	137184	
13-Jul-20	26-Jul-20	30-Jul-20	15	24	31	134326	136894	137184	
27-Jul-20	9-Aug-20	13-Aug-20	14	23	38	68592	123660	137184	
10-Aug-20	23-Aug-20	27-Aug-20	15	25	36	36678	118889	137184	
24-Aug-20	6-Sep-20	10-Sep-20	21	25	31	135231	136835	137184	
7-Sep-20	20-Sep-20	25-Sep-20	22	29	35	132564	136743	137184	
21-Sep-20	4-Oct-20	9-Oct-20	21	31	38	133469	136874	137184	
5-Oct-20	18-Oct-20	22-Oct-20	24	33	38	133850	136906	137184	

**Sampling Point: Monitoring Point 9 - Cogeneration Cooling Water Inlet**

Licencee Cape Byron Management Pty Ltd  
 Location Broadwater Cogeneration Power Plant  
 EPL No 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>  
 Parameters Monitored Temperature  
 Monitoring Frequency Continuous online (by calculation)  
 Limits Not Applicable - background data only



MONITORING PERIOD			Temperature (°C)			Volume (kL/day)			Notes
Date Start	Date Finish	Date Published	Minimum Background Temperature	Mean Background Temperature	Maximum Background Temperature	Minimum Daily Intake	Mean Daily Intake	Maximum Daily Intake	
30-Dec-19	12-Jan-20	23-Jan-20	27.0	28.5	29.9	68592	115932	137184	
13-Jan-20	26-Jan-20	6-Mar-20	25.7	27.8	34.3	71164	127983	137184	
27-Jan-20	9-Feb-20	6-Mar-20	24.3	28.7	31.4	68640	128427	137184	
10-Feb-20	23-Feb-20	1-Apr-20	23.8	26.3	28.9	131420	136517	137184	
24-Feb-20	8-Mar-20	1-Apr-20	22.7	27.0	28.1	125371	136200	137184	
9-Mar-20	22-Mar-20	30-Apr-20	23.2	24.7	26.7	136470	137124	137184	
23-Mar-20	5-Apr-20	30-Apr-20	18.9	25.0	26.2	137184	137184	137184	
6-Apr-20	19-Apr-20	29-May-20	12.1	22.4	37.3	40250	92893	137184	
20-Apr-20	3-May-20	29-May-20	18.9	25.0	26.2	137184	137184	137184	
4-May-20	17-May-20	29-Jun-20	14.9	20.2	34.5	56160	120937	137184	
18-May-20	31-May-20	29-Jun-20	17.6	19.1	20.6	132849	136799	137184	
1-Jun-20	14-Jun-20	29-Jun-20	16.8	18.1	20.3	68592	121691	137184	
15-Jun-20	28-Jun-20	20-Jul-20	16.3	17.9	19.5	133850	136847	137184	
29-Jun-20	12-Jul-20	24-Jul-20	16.1	16.9	18.3	131230	136287	137184	
13-Jul-20	26-Jul-20	30-Jul-20	15.9	17.0	18.1	134326	136894	137184	
27-Jul-20	9-Aug-20	13-Aug-20	15.3	16.6	18.6	68592	123660	137184	
10-Aug-20	23-Aug-20	27-Aug-20	9.8	18.0	29.3	36678	118889	137184	
24-Aug-20	6-Sep-20	10-Sep-20	15.9	18.6	21.5	135231	136835	137184	
7-Sep-20	20-Sep-20	25-Sep-20	19.4	20.9	23.0	132564	136743	137184	
21-Sep-20	4-Oct-20	9-Oct-20	21.4	22.9	24.7	133469	136874	137184	
5-Oct-20	18-Oct-20	22-Oct-20	22.6	24.3	26.1	133850	136906	137184	

**Sampling Point:** Monitoring Point 12 - Reverse Osmosis Sidestream  
**Licencee:** Cape Byron Management Pty Ltd  
**Location:** Broadwater Cogeneration Power Plant  
**EPL No:** 20425 <http://www.epa.nsw.gov.au/bropoaoap/>  
**Parameters Measured:** See Table  
**Frequency & Method:** Biannual Grab Sample  
**Licence Limits:** Not Prescribed



Pollutants	Units	Date Sampled	Date Received	Date Published	Results	Notes
Aluminium	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	1.636	
		19-Jun-19	28-Jun-19	23-Jul-19	0.456	
		05-Dec-19	18-Dec-19	23-Jan-20	2.060	
		03-Apr-20	16-Apr-20	30-Apr-20	0.672	
Ammonia	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	0.055	
		19-Jun-19	28-Jun-19	23-Jul-19	1.487	
		05-Dec-19	18-Dec-19	23-Jan-20	0.058	
		03-Apr-20	16-Apr-20	30-Apr-20	0.791	
Arsenic	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	0.010	
		19-Jun-19	28-Jun-19	23-Jul-19	0.002	
		05-Dec-19	18-Dec-19	23-Jan-20	0.001	
		03-Apr-20	16-Apr-20	30-Apr-20	0.003	
Barium	mg/l	22-Mar-19	04-Apr-19	23-Jul-19	0.095	
		19-Jun-19	28-Jun-19	23-Jul-19	0.132	
		05-Dec-19	18-Dec-19	23-Jan-20	0.024	
		03-Apr-20	16-Apr-20	30-Apr-20	0.085	
Bicarbonate	CaCO <sub>3</sub> /kg	22-Mar-19	04-Apr-19	30-Apr-19	42.000	
		19-Jun-19	28-Jun-19	23-Jul-19	0.132	
		05-Dec-19	18-Dec-19	23-Jan-20	25.000	
		03-Apr-20	16-Apr-20	30-Apr-20	24.000	
Cadmium	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	<0.001	
		19-Jun-19	28-Jun-19	23-Jul-19	<0.001	
		05-Dec-19	18-Dec-19	23-Jan-20	<0.001	
		03-Apr-20	16-Apr-20	30-Apr-20	<0.001	
Calcium	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	4.970	
		19-Jun-19	28-Jun-19	23-Jul-19	23.212	
		05-Dec-19	18-Dec-19	23-Jan-20	5.400	
		03-Apr-20	16-Apr-20	30-Apr-20	20.000	
Chloride	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	13.800	
		19-Jun-19	28-Jun-19	23-Jul-19	168.578	
		05-Dec-19	18-Dec-19	23-Jan-20	2.600	
		03-Apr-20	16-Apr-20	30-Apr-20	190.000	
Chromium	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	0.002	
		19-Jun-19	28-Jun-19	23-Jul-19	0.001	
		05-Dec-19	18-Dec-19	23-Jan-20	0.001	
		03-Apr-20	16-Apr-20	30-Apr-20	0.001	
Conductivity	dS/m	22-Mar-19	04-Apr-19	30-Apr-19	0.142	
		19-Jun-19	28-Jun-19	23-Jul-19	0.963	
		05-Dec-19	18-Dec-19	23-Jan-20	0.259	
		03-Apr-20	16-Apr-20	30-Apr-20	0.876	
Copper	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	0.001	
		19-Jun-19	28-Jun-19	23-Jul-19	<0.001	
		05-Dec-19	18-Dec-19	23-Jan-20	<0.001	
		03-Apr-20	16-Apr-20	30-Apr-20	<0.001	
Hardness (as calcium)	CaCO <sub>3</sub> /kg	22-Mar-19	04-Apr-19	30-Apr-19	29.541	
		19-Jun-19	28-Jun-19	23-Jul-19	142.399	
		05-Dec-19	18-Dec-19	23-Jan-20	30.000	
		03-Apr-20	16-Apr-20	30-Apr-20	113.000	
Iron	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	39.674	
		19-Jun-19	28-Jun-19	23-Jul-19	9.331	
		05-Dec-19	18-Dec-19	23-Jan-20	3.160	
		03-Apr-20	16-Apr-20	30-Apr-20	7.530	
Lead	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	<0.001	
		19-Jun-19	28-Jun-19	23-Jul-19	<0.001	
		05-Dec-19	18-Dec-19	23-Jan-20	<0.001	
		03-Apr-20	16-Apr-20	30-Apr-20	<0.001	
Magnesium	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	4.160	
		19-Jun-19	28-Jun-19	23-Jul-19	20.505	
		05-Dec-19	18-Dec-19	23-Jan-20	4.100	
		03-Apr-20	16-Apr-20	30-Apr-20	15.000	
Manganese	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	0.085	
		19-Jun-19	28-Jun-19	23-Jul-19	0.106	
		05-Dec-19	18-Dec-19	23-Jan-20	0.032	
		03-Apr-20	16-Apr-20	30-Apr-20	0.118	

**Sampling Point:** Monitoring Point 12 - Reverse Osmosis Sidestream  
**Licencee:** Cape Byron Management Pty Ltd  
**Location:** Broadwater Cogeneration Power Plant  
**EPL No:** 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>  
**Parameters Measured:** See Table  
**Frequency & Method:** Biannual Grab Sample  
**Licence Limits:** Not Prescribed



Pollutants	Units	Date Sampled	Date Received	Date Published	Results	Notes
Mercury	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	<0.0005	
		19-Jun-19	28-Jun-19	23-Jul-19	<0.0005	
		05-Dec-19	18-Dec-19	23-Jan-20	<0.0005	
		03-Apr-20	16-Apr-20	30-Apr-20	<0.0005	
Nickel	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	<0.001	
		19-Jun-19	28-Jun-19	23-Jul-19	<0.001	
		05-Dec-19	18-Dec-19	23-Jan-20	<0.001	
		03-Apr-20	16-Apr-20	30-Apr-20	0.001	
Nitrate	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	0.479	
		19-Jun-19	28-Jun-19	23-Jul-19	0.033	
		05-Dec-19	18-Dec-19	23-Jan-20	<0.005	
		03-Apr-20	16-Apr-20	30-Apr-20	0.014	
Nitrite	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	0.009	
		19-Jun-19	28-Jun-19	23-Jul-19	0.048	
		05-Dec-19	18-Dec-19	23-Jan-20	0.313	
		03-Apr-20	16-Apr-20	30-Apr-20	0.016	
Orthophosphate	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	0.015	
		19-Jun-19	28-Jun-19	23-Jul-19	0.015	
		05-Dec-19	18-Dec-19	23-Jan-20	0.014	
		03-Apr-20	16-Apr-20	30-Apr-20	0.010	
Potassium	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	3.650	
		19-Jun-19	28-Jun-19	23-Jul-19	14.392	
		05-Dec-19	18-Dec-19	23-Jan-20	1.900	
		03-Apr-20	16-Apr-20	30-Apr-20	6.100	
Selenium	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	<0.002	
		19-Jun-19	28-Jun-19	23-Jul-19	<0.002	
		05-Dec-19	18-Dec-19	23-Jan-20	<0.002	
		03-Apr-20	16-Apr-20	30-Apr-20	<0.002	
Silica (total)	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	7.009	
		19-Jun-19	28-Jun-19	23-Jul-19	26.875	
		05-Dec-19	18-Dec-19	23-Jan-20	6.140	
		03-Apr-20	16-Apr-20	30-Apr-20	22.900	
Silver	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	<0.001	
		19-Jun-19	28-Jun-19	23-Jul-19	<0.001	
		05-Dec-19	18-Dec-19	23-Jan-20	<0.001	
		03-Apr-20	16-Apr-20	30-Apr-20	<0.001	
Sodium	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	17.900	
		19-Jun-19	28-Jun-19	23-Jul-19	122.132	
		05-Dec-19	18-Dec-19	23-Jan-20	21.000	
		03-Apr-20	16-Apr-20	30-Apr-20	128.000	
Sodium Adsorption Ratio	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	1.432	
		19-Jun-19	28-Jun-19	23-Jul-19	4.450	
		05-Dec-19	18-Dec-19	23-Jan-20	1.600	
		03-Apr-20	16-Apr-20	30-Apr-20	5.300	
Sulfate	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	6.870	
		19-Jun-19	28-Jun-19	23-Jul-19	57.568	
		05-Dec-19	18-Dec-19	23-Jan-20	11.600	
		03-Apr-20	16-Apr-20	30-Apr-20	102.000	
Total Dissolved Salts	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	96.560	
		19-Jun-19	28-Jun-19	23-Jul-19	655.000	
		05-Dec-19	18-Dec-19	23-Jan-20	176.000	
		03-Apr-20	16-Apr-20	30-Apr-20	596.000	
Total Organic Carbon	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	24.142	
		19-Jun-19	28-Jun-19	23-Jul-19	26.300	
		05-Dec-19	18-Dec-19	23-Jan-20	15.800	
		03-Apr-20	16-Apr-20	30-Apr-20	21.000	
Total Suspended Solids	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	<1	
		19-Jun-19	28-Jun-19	23-Jul-19	<1	
		05-Dec-19	18-Dec-19	23-Jan-20	2.000	
		03-Apr-20	16-Apr-20	30-Apr-20	5.000	
Zinc	mg/l	22-Mar-19	04-Apr-19	30-Apr-19	0.023	
		19-Jun-19	28-Jun-19	23-Jul-19	0.009	
		05-Dec-19	18-Dec-19	23-Jan-20	<0.001	
		03-Apr-20	16-Apr-20	30-Apr-20	0.012	
pH		22-Mar-19	04-Apr-19	30-Apr-19	7.250	
		19-Jun-19	28-Jun-19	23-Jul-19	7.570	
		05-Dec-19	18-Dec-19	23-Jan-20	7.350	
		03-Apr-20	16-Apr-20	30-Apr-20	6.840	

**Sampling Point:** Monitoring Point 10 - Stockpile Sediment Pond West  
 Licencee Cape Byron Management Pty Ltd  
 Location Broadwater Power Plant Fuel Stockpile  
 EPL No 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>  
 Parameter/s Monitored See Table  
 Frequency & Method Monthly Grab Sample  
 Limit/s None Prescribed



			PARAMETERS MEASURED					
Date Sampled	Date Received	Date Published	BOD <sub>5</sub> (mg/L)	TSS (mg/L)	pH	Nitrogen (mg/L)	Phosphorus (mg/L)	Notes
30-Jan-20	11-Feb-20	6-Mar-20	5.1	26.0	6.5	1.5	1.0	
18-Feb-20	25-Feb-20	6-Mar-20	41.0	73.0	5.5	1.4	2.2	
17-Mar-20	24-Mar-20	1-Apr-20	3.4	14.0	6.7	1.0	2.0	
3-Apr-20	9-Apr-20	30-Apr-20	5.4	29.0	6.3	1.3	1.8	
18-May-20	26-May-20	29-May-20	10.3	160.0	6.5	1.3	1.6	
17-Jun-20	26-Jun-20	29-Jun-20	6.4	65.0	6.3	1.1	1.0	
21-Jul-20	31-Jul-20	13-Aug-20	19.6	42.0	6.2	0.9	0.7	
11-Aug-20	17-Aug-20	27-Aug-20	15.9	70.0	6.3	1.6	1.0	
9-Sep-20	16-Sep-20	25-Sep-20	4.8	18.0	6.5	1.3	0.6	

**Sampling Point:** Monitoring Point 11 - Stockpile Sediment Pond East  
 Licencee Cape Byron Management Pty Ltd  
 Location Broadwater Power Plant Fuel Stockpile  
 EPL No 20425 <http://www.epa.nsw.gov.au/prpoeoapp/>  
 Parameter/s Monitored See Table  
 Frequency & Method Monthly Grab Sample  
 Limit/s None Prescribed



PARAMETERS MEASURED								
Date Sampled	Date Received	Date Published	BOD <sub>5</sub> (mg/L)	TSS (mg/L)	pH	Nitrogen (mg/L)	Phosphorus (mg/L)	Notes
30-Jan-20	11-Feb-20	6-Mar-20	15.3	35.0	7.0	3.3	1.1	
18-Feb-20	25-Feb-20	6-Mar-20	12.0	24.0	6.6	1.0	2.0	
17-Mar-20	24-Mar-20	1-Apr-20	3.5	6.0	7.4	2.9	1.2	
3-Apr-20	9-Apr-20	30-Apr-20	16.0	8.0	6.8	2.6	1.3	
18-May-20	26-May-20	29-May-20	4.4	21.0	7.2	1.6	0.9	
17-Jun-20	26-Jun-20	29-Jun-20	6.9	15.0	6.9	1.5	0.9	
21-Jul-20	31-Jul-20	13-Aug-20	6.4	3.0	7.0	1.4	0.8	
11-Aug-20	17-Aug-20	27-Aug-20	22.0	110.0	6.8	2.1	0.8	
9-Sep-20	16-Sep-20	25-Sep-20	11.2	17.0	8.1	2.1	0.2	

**Sampling Point:** Rain gauge  
 Licence Cape Byron Management Pty Ltd  
 Location Broadwater Cogeneration Power Plant  
 EPL No 20425  
 Parameter/s Monitored Rainfall  
 Frequency & Method Continuous Auto Sampler



TIPPING GUAGE CONTINUOUS RAINFALL MONITORING					
Period From		Period To		Daily Rain	
Date	Time	Date	Time	Total (mm)	Max Intensity (mm/min)
Monday, 30 December 2019	9:01am	Tuesday, 31 December 2019	9:00am	0	0
Tuesday, 31 December 2019	9:01am	Wednesday, 1 January 2020	9:00am	0	0
Wednesday, 1 January 2020	9:01am	Thursday, 2 January 2020	9:00am	0	0
Thursday, 2 January 2020	9:01am	Friday, 3 January 2020	9:00am	0	0
Friday, 3 January 2020	9:01am	Saturday, 4 January 2020	9:00am	0	0
Saturday, 4 January 2020	9:01am	Sunday, 5 January 2020	9:00am	0	0
Sunday, 5 January 2020	9:01am	Monday, 6 January 2020	9:00am	0	0
Monday, 6 January 2020	9:01am	Tuesday, 7 January 2020	9:00am	0	0
Tuesday, 7 January 2020	9:01am	Wednesday, 8 January 2020	9:00am	0	0
Wednesday, 8 January 2020	9:01am	Thursday, 9 January 2020	9:00am	0	0
Thursday, 9 January 2020	9:01am	Friday, 10 January 2020	9:00am	0.6	0.2
Friday, 10 January 2020	9:01am	Saturday, 11 January 2020	9:00am	0	0
Saturday, 11 January 2020	9:01am	Sunday, 12 January 2020	9:00am	12	0.6
Sunday, 12 January 2020	9:01am	Monday, 13 January 2020	9:00am	0	0
Monday, 13 January 2020	9:01am	Tuesday, 14 January 2020	9:00am	0.2	0.2
Tuesday, 14 January 2020	9:01am	Wednesday, 15 January 2020	9:00am	8.2	1.2
Wednesday, 15 January 2020	9:01am	Thursday, 16 January 2020	9:00am	0	0
Thursday, 16 January 2020	9:01am	Friday, 17 January 2020	9:00am	7.8	1
Friday, 17 January 2020	9:01am	Saturday, 18 January 2020	9:00am	62.8	2
Saturday, 18 January 2020	9:01am	Sunday, 19 January 2020	9:00am	40.2	0.8
Sunday, 19 January 2020	9:01am	Monday, 20 January 2020	9:00am	1.4	0.2
Monday, 20 January 2020	9:01am	Tuesday, 21 January 2020	9:00am	0.4	0.2
Tuesday, 21 January 2020	9:01am	Wednesday, 22 January 2020	9:00am	0.2	0.2
Wednesday, 22 January 2020	9:01am	Thursday, 23 January 2020	9:00am	0	0
Thursday, 23 January 2020	9:01am	Friday, 24 January 2020	9:00am	0	0
Friday, 24 January 2020	9:01am	Saturday, 25 January 2020	9:00am	0	0
Saturday, 25 January 2020	9:01am	Sunday, 26 January 2020	9:00am	9.8	0.8
Sunday, 26 January 2020	9:01am	Monday, 27 January 2020	9:00am	0.2	0.2
Monday, 27 January 2020	9:01am	Tuesday, 28 January 2020	9:00am	0	0
Tuesday, 28 January 2020	9:01am	Wednesday, 29 January 2020	9:00am	0	0
Wednesday, 29 January 2020	9:01am	Thursday, 30 January 2020	9:00am	0	0
Thursday, 30 January 2020	9:01am	Friday, 31 January 2020	9:00am	2.2	1.8
Friday, 31 January 2020	9:01am	Saturday, 1 February 2020	9:00am	0	0
Saturday, 1 February 2020	9:01am	Sunday, 2 February 2020	9:00am	0	0
Sunday, 2 February 2020	9:01am	Monday, 3 February 2020	9:00am	0	0
Monday, 3 February 2020	9:01am	Tuesday, 4 February 2020	9:00am	24.8	1.6
Tuesday, 4 February 2020	9:01am	Wednesday, 5 February 2020	9:00am	3.4	0.4
Wednesday, 5 February 2020	9:01am	Thursday, 6 February 2020	9:00am	8.6	0.4
Thursday, 6 February 2020	9:01am	Friday, 7 February 2020	9:00am	174.4	2.4
Friday, 7 February 2020	9:01am	Saturday, 8 February 2020	9:00am	4.2	0.2
Saturday, 8 February 2020	9:01am	Sunday, 9 February 2020	9:00am	85.4	1.6
Sunday, 9 February 2020	9:01am	Monday, 10 February 2020	9:00am	27.8	1.4
Monday, 10 February 2020	9:01am	Tuesday, 11 February 2020	9:00am	0.6	0.2
Tuesday, 11 February 2020	9:01am	Wednesday, 12 February 2020	9:00am	0.2	0.2
Wednesday, 12 February 2020	9:01am	Thursday, 13 February 2020	9:00am	7.4	1
Thursday, 13 February 2020	9:01am	Friday, 14 February 2020	9:00am	2	0.8
Friday, 14 February 2020	9:01am	Saturday, 15 February 2020	9:00am	1.4	0.4
Saturday, 15 February 2020	9:01am	Sunday, 16 February 2020	9:00am	0.2	0.2
Sunday, 16 February 2020	9:01am	Monday, 17 February 2020	9:00am	0	0
Monday, 17 February 2020	9:01am	Tuesday, 18 February 2020	9:00am	14	0.6
Tuesday, 18 February 2020	9:01am	Wednesday, 19 February 2020	9:00am	0	0
Wednesday, 19 February 2020	9:01am	Thursday, 20 February 2020	9:00am	0	0
Thursday, 20 February 2020	9:01am	Friday, 21 February 2020	9:00am	0	0
Friday, 21 February 2020	9:01am	Saturday, 22 February 2020	9:00am	3	0.4
Saturday, 22 February 2020	9:01am	Sunday, 23 February 2020	9:00am	0.6	0.2
Sunday, 23 February 2020	9:01am	Monday, 24 February 2020	9:00am	9.2	0.4
Monday, 24 February 2020	9:01am	Tuesday, 25 February 2020	9:00am	27.4	0.6
Tuesday, 25 February 2020	9:01am	Wednesday, 26 February 2020	9:00am	1	0.2
Wednesday, 26 February 2020	9:01am	Thursday, 27 February 2020	9:00am	14.6	0.8
Thursday, 27 February 2020	9:01am	Friday, 28 February 2020	9:00am	0.2	0.2
Friday, 28 February 2020	9:01am	Saturday, 29 February 2020	9:00am	4.4	0.6
Saturday, 29 February 2020	9:01am	Sunday, 1 March 2020	9:00am	0.2	0.2
Sunday, 1 March 2020	9:01am	Monday, 2 March 2020	9:00am	0	0
Monday, 2 March 2020	9:01am	Tuesday, 3 March 2020	9:00am	0	0
Tuesday, 3 March 2020	9:01am	Wednesday, 4 March 2020	9:00am	0.2	0.2
Wednesday, 4 March 2020	9:01am	Thursday, 5 March 2020	9:00am	0	0
Thursday, 5 March 2020	9:01am	Friday, 6 March 2020	9:00am	0	0
Friday, 6 March 2020	9:01am	Saturday, 7 March 2020	9:00am	16.4	1.4
Saturday, 7 March 2020	9:01am	Sunday, 8 March 2020	9:00am	10.8	0.4
Sunday, 8 March 2020	9:01am	Monday, 9 March 2020	9:00am	1.4	0.2
Monday, 9 March 2020	9:01am	Tuesday, 10 March 2020	9:00am	35.2	1.2
Tuesday, 10 March 2020	9:01am	Wednesday, 11 March 2020	9:00am	2	0.2
Wednesday, 11 March 2020	9:01am	Thursday, 12 March 2020	9:00am	3.4	1
Thursday, 12 March 2020	9:01am	Friday, 13 March 2020	9:00am	2.6	0.2
Friday, 13 March 2020	9:01am	Saturday, 14 March 2020	9:00am	0	0
Saturday, 14 March 2020	9:01am	Sunday, 15 March 2020	9:00am	3.6	0.2
Sunday, 15 March 2020	9:01am	Monday, 16 March 2020	9:00am	5	0.4
Monday, 16 March 2020	9:01am	Tuesday, 17 March 2020	9:00am	1.6	0.2
Tuesday, 17 March 2020	9:01am	Wednesday, 18 March 2020	9:00am	0	0
Wednesday, 18 March 2020	9:01am	Thursday, 19 March 2020	9:00am	0.2	0.2
Thursday, 19 March 2020	9:01am	Friday, 20 March 2020	9:00am	0	0
Friday, 20 March 2020	9:01am	Saturday, 21 March 2020	9:00am	0	0
Saturday, 21 March 2020	9:01am	Sunday, 22 March 2020	9:00am	0	0



**Sampling Point:** Rain gauge  
 Licence Cape Byron Management Pty Ltd  
 Location Broadwater Cogeneration Power Plant  
 EPL No 20425  
 Parameter/s Monitored Rainfall  
 Frequency & Method Continuous Auto Sampler



TIPPING GAUGE CONTINUOUS RAINFALL MONITORING					
Period From		Period To		Daily Rain	
Date	Time	Date	Time	Total (mm)	Max Intensity (mm/min)
Sunday, 22 March 2020	9:01am	Monday, 23 March 2020	9:00am	0.2	0.2
Monday, 23 March 2020	9:01am	Tuesday, 24 March 2020	9:00am	2.6	0.2
Tuesday, 24 March 2020	9:01am	Wednesday, 25 March 2020	9:00am	3.4	0.2
Wednesday, 25 March 2020	9:01am	Thursday, 26 March 2020	9:00am	0	0
Thursday, 26 March 2020	9:01am	Friday, 27 March 2020	9:00am	5.8	0.2
Friday, 27 March 2020	9:01am	Saturday, 28 March 2020	9:00am	5.8	0.4
Saturday, 28 March 2020	9:01am	Sunday, 29 March 2020	9:00am	1.4	0.2
Sunday, 29 March 2020	9:01am	Monday, 30 March 2020	9:00am	2.8	0.4
Monday, 30 March 2020	9:01am	Tuesday, 31 March 2020	9:00am	2.4	0.2
Tuesday, 31 March 2020	9:01am	Wednesday, 1 April 2020	9:00am	0	0
Wednesday, 1 April 2020	9:01am	Thursday, 2 April 2020	9:00am	0	0
Thursday, 2 April 2020	9:01am	Friday, 3 April 2020	9:00am	0.8	0.2
Friday, 3 April 2020	9:01am	Saturday, 4 April 2020	9:00am	0	0
Saturday, 4 April 2020	9:01am	Sunday, 5 April 2020	9:00am	1.6	0.2
Sunday, 5 April 2020	9:01am	Monday, 6 April 2020	9:00am	0.2	0.2
Monday, 6 April 2020	9:01am	Tuesday, 7 April 2020	9:00am	0	0
Tuesday, 7 April 2020	9:01am	Wednesday, 8 April 2020	9:00am	18	2
Wednesday, 8 April 2020	9:01am	Thursday, 9 April 2020	9:00am	0	0
Thursday, 9 April 2020	9:01am	Friday, 10 April 2020	9:00am	34	1.2
Friday, 10 April 2020	9:01am	Saturday, 11 April 2020	9:00am	2	0.2
Saturday, 11 April 2020	9:01am	Sunday, 12 April 2020	9:00am	0	0
Sunday, 12 April 2020	9:01am	Monday, 13 April 2020	9:00am	0	0
Monday, 13 April 2020	9:01am	Tuesday, 14 April 2020	9:00am	0	0
Tuesday, 14 April 2020	9:01am	Wednesday, 15 April 2020	9:00am	0	0
Wednesday, 15 April 2020	9:01am	Thursday, 16 April 2020	9:00am	0	0
Thursday, 16 April 2020	9:01am	Friday, 17 April 2020	9:00am	0	0
Friday, 17 April 2020	9:01am	Saturday, 18 April 2020	9:00am	0	0
Saturday, 18 April 2020	9:01am	Sunday, 19 April 2020	9:00am	0	0
Sunday, 19 April 2020	9:01am	Monday, 20 April 2020	9:00am	0	0
Monday, 20 April 2020	9:01am	Tuesday, 21 April 2020	9:00am	0	0
Tuesday, 21 April 2020	9:01am	Wednesday, 22 April 2020	9:00am	0	0
Wednesday, 22 April 2020	9:01am	Thursday, 23 April 2020	9:00am	0	0
Thursday, 23 April 2020	9:01am	Friday, 24 April 2020	9:00am	0	0
Friday, 24 April 2020	9:01am	Saturday, 25 April 2020	9:00am	0	0
Saturday, 25 April 2020	9:01am	Sunday, 26 April 2020	9:00am	0	0
Sunday, 26 April 2020	9:01am	Monday, 27 April 2020	9:00am	0	0
Monday, 27 April 2020	9:01am	Tuesday, 28 April 2020	9:00am	5.6	0.8
Tuesday, 28 April 2020	9:01am	Wednesday, 29 April 2020	9:00am	14.8	1.8
Wednesday, 29 April 2020	9:01am	Thursday, 30 April 2020	9:00am	0	0
Thursday, 30 April 2020	9:01am	Friday, 1 May 2020	9:00am	0	0
Friday, 1 May 2020	9:01am	Saturday, 2 May 2020	9:00am	0	0
Saturday, 2 May 2020	9:01am	Sunday, 3 May 2020	9:00am	0	0
Sunday, 3 May 2020	9:01am	Monday, 4 May 2020	9:00am	0	0
Monday, 4 May 2020	9:01am	Tuesday, 5 May 2020	9:00am	0	0
Tuesday, 5 May 2020	9:01am	Wednesday, 6 May 2020	9:00am	10.6	0.6
Wednesday, 6 May 2020	9:01am	Thursday, 7 May 2020	9:00am	0.4	0.2
Thursday, 7 May 2020	9:01am	Friday, 8 May 2020	9:00am	0	0
Friday, 8 May 2020	9:01am	Saturday, 9 May 2020	9:00am	0	0
Saturday, 9 May 2020	9:01am	Sunday, 10 May 2020	9:00am	5.6	0.4
Sunday, 10 May 2020	9:01am	Monday, 11 May 2020	9:00am	0	0
Monday, 11 May 2020	9:01am	Tuesday, 12 May 2020	9:00am	0	0
Tuesday, 12 May 2020	9:01am	Wednesday, 13 May 2020	9:00am	0	0
Wednesday, 13 May 2020	9:01am	Thursday, 14 May 2020	9:00am	0	0
Thursday, 14 May 2020	9:01am	Friday, 15 May 2020	9:00am	1.8	0.2
Friday, 15 May 2020	9:01am	Saturday, 16 May 2020	9:00am	10.4	0.6
Saturday, 16 May 2020	9:01am	Sunday, 17 May 2020	9:00am	14.6	1
Sunday, 17 May 2020	9:01am	Monday, 18 May 2020	9:00am	34	1.4
Monday, 18 May 2020	9:01am	Tuesday, 19 May 2020	9:00am	0.2	0.2
Tuesday, 19 May 2020	9:01am	Wednesday, 20 May 2020	9:00am	4.6	0.6
Wednesday, 20 May 2020	9:01am	Thursday, 21 May 2020	9:00am	0	0
Thursday, 21 May 2020	9:01am	Friday, 22 May 2020	9:00am	2.8	0.2
Friday, 22 May 2020	9:01am	Saturday, 23 May 2020	9:00am	0	0
Saturday, 23 May 2020	9:01am	Sunday, 24 May 2020	9:00am	0	0
Sunday, 24 May 2020	9:01am	Monday, 25 May 2020	9:00am	0	0
Monday, 25 May 2020	9:01am	Tuesday, 26 May 2020	9:00am	0	0
Tuesday, 26 May 2020	9:01am	Wednesday, 27 May 2020	9:00am	0	0
Wednesday, 27 May 2020	9:01am	Thursday, 28 May 2020	9:00am	0	0
Thursday, 28 May 2020	9:01am	Friday, 29 May 2020	9:00am	0	0
Friday, 29 May 2020	9:01am	Saturday, 30 May 2020	9:00am	10.8	0.8
Saturday, 30 May 2020	9:01am	Sunday, 31 May 2020	9:00am	4.8	0.8
Sunday, 31 May 2020	9:01am	Monday, 1 June 2020	9:00am	0.2	0.2
Monday, 1 June 2020	9:01am	Tuesday, 2 June 2020	9:00am	0.6	0.2
Tuesday, 2 June 2020	9:01am	Wednesday, 3 June 2020	9:00am	0	0
Wednesday, 3 June 2020	9:01am	Thursday, 4 June 2020	9:00am	0	0
Thursday, 4 June 2020	9:01am	Friday, 5 June 2020	9:00am	0	0
Friday, 5 June 2020	9:01am	Saturday, 6 June 2020	9:00am	0	0
Saturday, 6 June 2020	9:01am	Sunday, 7 June 2020	9:00am	0	0
Sunday, 7 June 2020	9:01am	Monday, 8 June 2020	9:00am	6.4	1.2
Monday, 8 June 2020	9:01am	Tuesday, 9 June 2020	9:00am	1.2	0.4
Tuesday, 9 June 2020	9:01am	Wednesday, 10 June 2020	9:00am	24.2	2.2
Wednesday, 10 June 2020	9:01am	Thursday, 11 June 2020	9:00am	31.4	1.4
Thursday, 11 June 2020	9:01am	Friday, 12 June 2020	9:00am	0.2	0.2
Friday, 12 June 2020	9:01am	Saturday, 13 June 2020	9:00am	0	0
Saturday, 13 June 2020	9:01am	Sunday, 14 June 2020	9:00am	0.2	0.2
Sunday, 14 June 2020	9:01am	Monday, 15 June 2020	9:00am	14	0.8
Monday, 15 June 2020	9:01am	Tuesday, 16 June 2020	9:00am	0.4	0.2
Tuesday, 16 June 2020	9:01am	Wednesday, 17 June 2020	9:00am	0.2	0.2
Wednesday, 17 June 2020	9:01am	Thursday, 18 June 2020	9:00am	3.6	0.6
Thursday, 18 June 2020	9:01am	Friday, 19 June 2020	9:00am	15.8	0.8
Friday, 19 June 2020	9:01am	Saturday, 20 June 2020	9:00am	2.8	0.4
Saturday, 20 June 2020	9:01am	Sunday, 21 June 2020	9:00am	0.2	0.2
Sunday, 21 June 2020	9:01am	Monday, 22 June 2020	9:00am	1.4	0.2
Monday, 22 June 2020	9:01am	Tuesday, 23 June 2020	9:00am	0	0
Tuesday, 23 June 2020	9:01am	Wednesday, 24 June 2020	9:00am	0	0
Wednesday, 24 June 2020	9:01am	Thursday, 25 June 2020	9:00am	0	0
Thursday, 25 June 2020	9:01am	Friday, 26 June 2020	9:00am	0	0
Friday, 26 June 2020	9:01am	Saturday, 27 June 2020	9:00am	0.2	0.2
Saturday, 27 June 2020	9:01am	Sunday, 28 June 2020	9:00am	21	1.6
Sunday, 28 June 2020	9:01am	Monday, 29 June 2020	9:00am	0.4	0.2
Monday, 29 June 2020	9:01am	Tuesday, 30 June 2020	9:00am	8.4	0.4
Tuesday, 30 June 2020	9:01am	Wednesday, 1 July 2020	9:00am	0.2	0.2

**Sampling Point:** Rain gauge  
 Licence Cape Byron Management Pty Ltd  
 Location Broadwater Cogeneration Power Plant  
 EPL No 20425  
 Parameter/s Monitored Rainfall  
 Frequency & Method Continuous Auto Sampler



TIPPING GAUGE CONTINUOUS RAINFALL MONITORING					
Period From		Period To		Daily Rain	
Date	Time	Date	Time	Total (mm)	Max Intensity (mm/min)
Wednesday, 1 July 2020	9:01am	Thursday, 2 July 2020	9:00am	0.2	0.2
Thursday, 2 July 2020	9:01am	Friday, 3 July 2020	9:00am	0	0
Friday, 3 July 2020	9:01am	Saturday, 4 July 2020	9:00am	0.2	0.2
Saturday, 4 July 2020	9:01am	Sunday, 5 July 2020	9:00am	0.2	0.2
Sunday, 5 July 2020	9:01am	Monday, 6 July 2020	9:00am	0	0
Monday, 6 July 2020	9:01am	Tuesday, 7 July 2020	9:00am	0	0
Tuesday, 7 July 2020	9:01am	Wednesday, 8 July 2020	9:00am	0	0
Wednesday, 8 July 2020	9:01am	Thursday, 9 July 2020	9:00am	14.6	0.2
Thursday, 9 July 2020	9:01am	Friday, 10 July 2020	9:00am	0.2	0.2
Friday, 10 July 2020	9:01am	Saturday, 11 July 2020	9:00am	0	0
Saturday, 11 July 2020	9:01am	Sunday, 12 July 2020	9:00am	0	0
Sunday, 12 July 2020	9:01am	Monday, 13 July 2020	9:00am	1.6	0.2
Monday, 13 July 2020	9:01am	Tuesday, 14 July 2020	9:00am	0	0
Tuesday, 14 July 2020	9:01am	Wednesday, 15 July 2020	9:00am	0.2	0.2
Wednesday, 15 July 2020	9:01am	Thursday, 16 July 2020	9:00am	0	0
Thursday, 16 July 2020	9:01am	Friday, 17 July 2020	9:00am	0	0
Friday, 17 July 2020	9:01am	Saturday, 18 July 2020	9:00am	0	0
Saturday, 18 July 2020	9:01am	Sunday, 19 July 2020	9:00am	0	0
Sunday, 19 July 2020	9:01am	Monday, 20 July 2020	9:00am	0.2	0.2
Monday, 20 July 2020	9:01am	Tuesday, 21 July 2020	9:00am	0	0
Tuesday, 21 July 2020	9:01am	Wednesday, 22 July 2020	9:00am	0	0
Wednesday, 22 July 2020	9:01am	Thursday, 23 July 2020	9:00am	0.2	0.2
Thursday, 23 July 2020	9:01am	Friday, 24 July 2020	9:00am	30	1
Friday, 24 July 2020	9:01am	Saturday, 25 July 2020	9:00am	47.2	1.2
Saturday, 25 July 2020	9:01am	Sunday, 26 July 2020	9:00am	41.8	0.8
Sunday, 26 July 2020	9:01am	Monday, 27 July 2020	9:00am	22.2	0.4
Monday, 27 July 2020	9:01am	Tuesday, 28 July 2020	9:00am	0	0
Tuesday, 28 July 2020	9:01am	Wednesday, 29 July 2020	9:00am	0	0
Wednesday, 29 July 2020	9:01am	Thursday, 30 July 2020	9:00am	0	0
Thursday, 30 July 2020	9:01am	Friday, 31 July 2020	9:00am	0	0
Friday, 31 July 2020	9:01am	Saturday, 1 August 2020	9:00am	3	0.2
Saturday, 1 August 2020	9:01am	Sunday, 2 August 2020	9:00am	0.4	0.2
Sunday, 2 August 2020	9:01am	Monday, 3 August 2020	9:00am	0.2	0.2
Monday, 3 August 2020	9:01am	Tuesday, 4 August 2020	9:00am	0	0
Tuesday, 4 August 2020	9:01am	Wednesday, 5 August 2020	9:00am	0	0
Wednesday, 5 August 2020	9:01am	Thursday, 6 August 2020	9:00am	0	0
Thursday, 6 August 2020	9:01am	Friday, 7 August 2020	9:00am	0	0
Friday, 7 August 2020	9:01am	Saturday, 8 August 2020	9:00am	17.4	0.4
Saturday, 8 August 2020	9:01am	Sunday, 9 August 2020	9:00am	0	0
Sunday, 9 August 2020	9:01am	Monday, 10 August 2020	9:00am	0	0
Monday, 10 August 2020	9:01am	Tuesday, 11 August 2020	9:00am	0	0
Tuesday, 11 August 2020	9:01am	Wednesday, 12 August 2020	9:00am	0	0
Wednesday, 12 August 2020	9:01am	Thursday, 13 August 2020	9:00am	0	0
Thursday, 13 August 2020	9:01am	Friday, 14 August 2020	9:00am	0	0
Friday, 14 August 2020	9:01am	Saturday, 15 August 2020	9:00am	14.4	1
Saturday, 15 August 2020	9:01am	Sunday, 16 August 2020	9:00am	0.4	0.2
Sunday, 16 August 2020	9:01am	Monday, 17 August 2020	9:00am	0	0
Monday, 17 August 2020	9:01am	Tuesday, 18 August 2020	9:00am	0	0
Tuesday, 18 August 2020	9:01am	Wednesday, 19 August 2020	9:00am	0	0
Wednesday, 19 August 2020	9:01am	Thursday, 20 August 2020	9:00am	0	0
Thursday, 20 August 2020	9:01am	Friday, 21 August 2020	9:00am	0	0
Friday, 21 August 2020	9:01am	Saturday, 22 August 2020	9:00am	0	0
Saturday, 22 August 2020	9:01am	Sunday, 23 August 2020	9:00am	0	0
Sunday, 23 August 2020	9:01am	Monday, 24 August 2020	9:00am	0	0
Monday, 24 August 2020	9:01am	Tuesday, 25 August 2020	9:00am	0	0
Tuesday, 25 August 2020	9:01am	Wednesday, 26 August 2020	9:00am	0.4	0.2
Wednesday, 26 August 2020	9:01am	Thursday, 27 August 2020	9:00am	0	0
Thursday, 27 August 2020	9:01am	Friday, 28 August 2020	9:00am	0	0
Friday, 28 August 2020	9:01am	Saturday, 29 August 2020	9:00am	0	0
Saturday, 29 August 2020	9:01am	Sunday, 30 August 2020	9:00am	0	0
Sunday, 30 August 2020	9:01am	Monday, 31 August 2020	9:00am	0	0
Monday, 31 August 2020	9:01am	Tuesday, 1 September 2020	9:00am	9.8	1.2
Tuesday, 1 September 2020	9:01am	Wednesday, 2 September 2020	9:00am	3.8	0.8
Wednesday, 2 September 2020	9:01am	Thursday, 3 September 2020	9:00am	0.2	0.2
Thursday, 3 September 2020	9:01am	Friday, 4 September 2020	9:00am	0	0
Friday, 4 September 2020	9:01am	Saturday, 5 September 2020	9:00am	0	0
Saturday, 5 September 2020	9:01am	Sunday, 6 September 2020	9:00am	0	0
Sunday, 6 September 2020	9:01am	Monday, 7 September 2020	9:00am	0.4	0.2
Monday, 7 September 2020	9:01am	Tuesday, 8 September 2020	9:00am	0	0
Tuesday, 8 September 2020	9:01am	Wednesday, 9 September 2020	9:00am	0	0
Wednesday, 9 September 2020	9:01am	Thursday, 10 September 2020	9:00am	17.2	0.4
Thursday, 10 September 2020	9:01am	Friday, 11 September 2020	9:00am	12.8	1
Friday, 11 September 2020	9:01am	Saturday, 12 September 2020	9:00am	0.4	0.2
Saturday, 12 September 2020	9:01am	Sunday, 13 September 2020	9:00am	0	0
Sunday, 13 September 2020	9:01am	Monday, 14 September 2020	9:00am	0.2	0.2
Monday, 14 September 2020	9:01am	Tuesday, 15 September 2020	9:00am	0	0
Tuesday, 15 September 2020	9:01am	Wednesday, 16 September 2020	9:00am	0	0
Wednesday, 16 September 2020	9:01am	Thursday, 17 September 2020	9:00am	0.2	0.2
Thursday, 17 September 2020	9:01am	Friday, 18 September 2020	9:00am	0.2	0.2
Friday, 18 September 2020	9:01am	Saturday, 19 September 2020	9:00am	0	0
Saturday, 19 September 2020	9:01am	Sunday, 20 September 2020	9:00am	3.8	1
Sunday, 20 September 2020	9:01am	Monday, 21 September 2020	9:00am	0	0
Monday, 21 September 2020	9:01am	Tuesday, 22 September 2020	9:00am	0.2	0.2
Tuesday, 22 September 2020	9:01am	Wednesday, 23 September 2020	9:00am	0	0
Wednesday, 23 September 2020	9:01am	Thursday, 24 September 2020	9:00am	0	0
Thursday, 24 September 2020	9:01am	Friday, 25 September 2020	9:00am	0	0
Friday, 25 September 2020	9:01am	Saturday, 26 September 2020	9:00am	0	0
Saturday, 26 September 2020	9:01am	Sunday, 27 September 2020	9:00am	0	0
Sunday, 27 September 2020	9:01am	Monday, 28 September 2020	9:00am	0	0
Monday, 28 September 2020	9:01am	Tuesday, 29 September 2020	9:00am	2.4	0.2
Tuesday, 29 September 2020	9:01am	Wednesday, 30 September 2020	9:00am	0	0
Wednesday, 30 September 2020	9:01am	Thursday, 1 October 2020	9:00am	0	0
Thursday, 1 October 2020	9:01am	Friday, 2 October 2020	9:00am	0	0
Friday, 2 October 2020	9:01am	Saturday, 3 October 2020	9:00am	0.2	0.2
Saturday, 3 October 2020	9:01am	Sunday, 4 October 2020	9:00am	0	0
Sunday, 4 October 2020	9:01am	Monday, 5 October 2020	9:00am	0	0
Monday, 5 October 2020	9:01am	Tuesday, 6 October 2020	9:00am	0	0
Tuesday, 6 October 2020	9:01am	Wednesday, 7 October 2020	9:00am	0	0
Wednesday, 7 October 2020	9:01am	Thursday, 8 October 2020	9:00am	0	0
Thursday, 8 October 2020	9:01am	Friday, 9 October 2020	9:00am	0	0
Friday, 9 October 2020	9:01am	Saturday, 10 October 2020	9:00am	0.4	0.2

**Sampling Point:** Rain gauge  
 Licence Cape Byron Management Pty Ltd  
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 EPL No 20425  
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 Frequency & Method Continuous Auto Sampler



TIPPING GAUGE CONTINUOUS RAINFALL MONITORING					
Period From		Period To		Daily Rain	
Date	Time	Date	Time	Total (mm)	Max Intensity (mm/min)
Saturday, 10 October 2020	9:01am	Sunday, 11 October 2020	9:00am	0	0
Sunday, 11 October 2020	9:01am	Monday, 12 October 2020	9:00am	0	0
Monday, 12 October 2020	9:01am	Tuesday, 13 October 2020	9:00am	0	0
Tuesday, 13 October 2020	9:01am	Wednesday, 14 October 2020	9:00am	0	0
Wednesday, 14 October 2020	9:01am	Thursday, 15 October 2020	9:00am	0	0
Thursday, 15 October 2020	9:01am	Friday, 16 October 2020	9:00am	0	0
Friday, 16 October 2020	9:01am	Saturday, 17 October 2020	9:00am	0	0
Saturday, 17 October 2020	9:01am	Sunday, 18 October 2020	9:00am	0	0
Sunday, 18 October 2020	9:01am	Monday, 19 October 2020	9:00am	13.4	0.6
Monday, 19 October 2020	9:01am	Tuesday, 20 October 2020	9:00am	0.2	0.2
Tuesday, 20 October 2020	9:01am	Wednesday, 21 October 2020	9:00am	0	0

