



EPL Monitoring

Licence Holder:

Metal Manufactures Limited

Gloucester Boulevard, Port Kembla NSW 2505

EPL Number:

6158

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Stormwater Monitoring Results

Sample Date	Results Obtained	Published	pH					Total Suspended Solids (mg/L)					Oil and Grease (mg/L)				
			1A	1B	2	3	4	1A	1B	2	3	4	1A	1B	2	3	4
18/08/2020	27/08/2020	7/09/2020	7.0	7.8	8.0	7.7	8.0	<5	<5	<5	150.0	8.0	<5	<5	<5	<5	<5
28/08/2020	4/09/2020	7/09/2020	7.4	8.1	8.0	8.0	8.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
15/09/2020	24/09/2020	6/10/2020	7.3	8.0	7.8	8.2	8.2	<5	<5	<5	6.0	<5	<5	<5	<5	<5	<5
29/09/2020	8/10/2020	19/10/2020	7.6	8.2	8.1	8.3	8.4	5.0	<5	5.0	<5	18.0	<5	<5	<5	<5	<5
13/10/2020	22/10/2020	30/10/2020	7.7	8.3	8.3	8.4	8.5	<5	5.0	5.0	<5	<5	<5	<5	<5	<5	<5
28/10/2020	6/11/2020	6/11/2020	7.6	7.7	8.0	8.1	8.2	<5	<5	8.0	10.0	12.0	<5	<5	<5	<5	<5
12/11/2020	19/11/2020	20/11/2020	7.6	8.1	8.3	8.4	8.4	<5	<5	6.0	5.0	24.0	<5	<5	<5	<5	<5
25/11/2020	3/12/2020	3/12/2020	7.6	8.1	8.1	8.1	8.4	5.0	6.0	<5	<5	42.0	<5	<5	<5	<5	<5
10/12/2020	18/12/2020	18/12/2020	7.5	8.2	8.1	8.4	8.4	<5	<5	6.0	8.0	32.0	<5	<5	<5	<5	<5
22/12/2020	7/01/2021	18/01/2021	7.6	7.7	8.1	7.8	8.2	6.0	<5	<5	10.0	12.0	<5	<5	<5	<5	<5
19/01/2021	28/01/2021	29/01/2021	7.3	8.0	7.9	7.9	8.2	8.0	12.0	13.0	60.0	21.0	<5	5.0	<5	<5	<5
28/01/2021	5/02/2021	8/02/2021	7.4	7.8	8.0	7.7	8.3	<5	<5	<5	6.0	11.0	6.0	6.0	6.0	6.0	8.0
9/02/2021	18/02/2021	22/02/2021	7.5	8.1	8.2	8.1	8.4	6.0	<5	<5	<5	8.0	<5	<5	<5	<5	<5
25/02/2021	5/03/2021	8/03/2021	8.3	8.4	8.4	8.3	8.6	<5	<5	<5	10.0	10.0	<5	<5	<5	<5	<5
10/03/2021	18/03/2021	26/03/2021	7.5	8.1	8.3	8.3	8.4	<5	<5	10.0	10.0	6.0	<5	<5	<5	<5	<5
25/03/2021	1/04/2021	9/04/2021	7.8	7.7	8.2	8.0	8.2	<5	<5	48.0	<5	54.0	<5	<5	<5	<5	<5
14/04/2021	22/04/2021	10/04/2021	7.2	8.0	7.9	8.1	8.0	28.0	<5	<5	16.0	6.0	<5	<5	<5	<5	<5
27/04/2021	4/05/2021	6/05/2021	7.7	8.1	8.2	8.2	8.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
11/05/2021	20/05/2021	24/05/2021	7.5	8.0	8.3	8.3	8.3	<5	<5	<5	18.0	20.0	<5	<5	<5	<5	<5
26/05/2021	3/06/2021	7/06/2021	7.9	8.2	8.3	8.2	8.2	8.0	<5	<5	<5	8.0	<5	<5	<5	<5	<5
10/06/2021	21/06/2021	28/06/2021	7.6	8.1	8.0	8.4	8.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3/06/2021	7/07/2021	19/06/2021	7.5	8.0	8.0	7.8	8.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
15/07/2021	23/07/2021	5/08/2021	7.7	8.1	8.2	8.3	8.4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
28/07/2021	5/08/2021	5/08/2021	7.5	8.1	8.0	8.4	8.4	5.0	<5	<5	5.0	10.0	<5	<5	<5	<5	<5
16/08/2021	23/08/2021	7/09/2021	7.4	7.9	7.9	8.2	8.2	5.0	<5	<5	<5	<5	<5	<5	<5	<5	<5
30/08/2021	3/09/2021	17/09/2021	7.6	8.1	8.1	8.3	8.3	<5	<5	<5	6.0	<5	<5	<5	<5	<5	<5

Stormwater Monitoring Results - Continued

Sample Date	Results Obtained	Published	pH					Total Suspended Solids (mg/L)					Oil and Grease (mg/L)				
			1A	1B	2	3	4	1A	1B	2	3	4	1A	1B	2	3	4
22/09/2021	30/09/2021	30/09/2021	7.5	8.1	8.0	8.3	8.3	9.0	7.0	<5	<5	35.0	<5	<5	<5	<5	<5
30/09/2021	8/10/2021	20/10/2021	7.7	8.2	8.1	8.4	8.4	<5	8.0	<5	<5	6.0	<5	<5	<5	<5	<5
20/10/2021	28/10/2021	1/11/2021	7.8	8.4	8.2	8.1	8.5	6.0	<5	<5	<5	100.0	<5	<5	<5	<5	<5
28/10/2021	5/11/2021	19/11/2021	7.5	8.0	8.1	8.3	8.4	<5	<5	6.0	6.0	10.0	<5	<5	<5	<5	<5
16/11/2021	19/11/2021	19/11/2021	7.5	8.0	8.2	8.2	8.4	<5	<5	<5	87.0	9.0	<5	<5	<5	<5	<5
30/11/2021	7/12/2021	20/12/2021	7.3	7.7	7.9	8.1	8.1	18.0	<5	<5	16.0	18.0	<5	<5	<5	<5	<5
9/12/2021	17/12/2021	20/12/2021	7.0	7.7	7.6	7.4	7.9	<5	<5	<5	<5	7.0	<5	<5	<5	<5	<5
22/12/2021	10/01/2022	11/01/2022	7.3	7.9	8.1	8.1	8.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
25/01/2022	1/02/2022	1/02/2022	7.6	7.6	8.1	8.2	8.3	<5	<5	<5	10.0	6.0	<5	<5	<5	<5	<5
31/01/2022	7/02/2022	11/02/2022	7.3	7.9	8.1	8.2	8.3	<5	<5	<5	10.0	8.0	<5	<5	<5	<5	12.0
17/02/2022	25/02/2022	1/03/2022	7.8	7.5	8.2	8.2	8.3	<5	<5	<5	8.0	12.0	<5	<5	<5	<5	7.0
28/02/2022	8/03/2022	14/03/2022	7.5	7.5	7.8	7.9	8.0	<5	<5	8.0	7.0	96.0	<5	<5	<5	<5	<5
14/03/2022	24/03/2022	25/03/2022	7.2	7.8	8.1	8.0	8.2	<5	<5	14.0	12.0	<5	<5	6.0	<5	8.0	9.0
30/03/2022	7/04/2022	11/04/2022	7.4	7.6	8.0	7.9	8.0	<5	<5	<5	12.0	210.0	<5	<5	<5	<5	<5
29/04/2022	6/05/2022	10/05/2022	7.3	7.7	7.9	7.7	8.0	<5	<5	<5	<5	20.0	<5	<5	<5	<5	<5
12/05/2022	23/05/2022	26/05/2022	7.5	7.6	7.9	7.9	7.7	<5	<5	8.0	8.0	30.0	<5	<5	<5	<5	<5
24/05/2022	2/06/2022	10/06/2022	7.4	7.5	7.9	7.8	8.0	<5	<5	5.0	10.0	59.0	<5	<5	<5	<5	<5
31/05/2022	9/06/2022	10/06/2022	7.5	8.2	8.2	8.2	8.3	<5	<5	<5	5.0	19.0	<5	<5	<5	15.0	<5
9/06/2022	21/06/2022	30/06/2022	7.5	8.1	8.0	8.1	8.3	11.0	<5	24.0	20.0	29.0	<5	<5	<5	<5	<5
29/06/2022	7/07/2022	12/07/2022	7.7	8.1	8.1	8.0	8.2	16.0	<5	<5	18.0	<5	<5	<5	<5	<5	<5
12/07/2022	18/07/2022	13/07/2022	7.6	8.1	8.1	8.1	8.2	13.0	<5	<5	10.0	<5	<5	<5	<5	5.0	<5
27/07/2022	4/08/2022	16/08/2022	7.4	8.1	8.3	8.2	8.3	12.0	<5	<5	12.0	21.0	<5	<5	<5	<5	<5
16/08/2022	24/08/2022	7/09/2022	7.5	8.1	8.2	8.1	8.3	<5	<5	<5	<5	7.0	<5	<5	<5	<5	<5
30/08/2022	7/09/2022	7/09/2022	7.4	8.1	8.0	7.6	8.0	<5	<5	<5	<5	39.0	<5	<5	<5	<5	<5
7/09/2022	15/09/2022	15/09/2022	8.1	7.8	8.3	8.2	8.4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Only one sample taken during April 2022 due to training of new staff and overlapping annual leave around the plant shut. Additional samples taken during May 2022



Stormwater Monitoring Results - Continued

Sample Date	Results Obtained	Published	pH					Total Suspended Solids (mg/L)					Oil and Grease (mg/L)				
			1A	1B	2	3	4	1A	1B	2	3	4	1A	1B	2	3	4
21/09/2022	30/09/2022	4/10/2022	7.5	8.1	8.0	7.9	8.3	15.0	<5	6.0	8.0	<5	<5	<5	<5	<5	<5
13/10/2022	20/10/2022	24/10/2022	7.4	7.8	8.2	8.0	8.1	<5	<5	<5	12.0	12.0	<5	<5	<5	<5	<5
26/10/2022	3/11/2022	10/11/2022	7.5	7.7	8.1	8.1	8.2	<5	<5	<5	12.0	76.0	<5	<5	<5	<5	<5
9/11/2022	18/11/2022	2/12/2022	7.2	8.0	8.2	8.2	8.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
23/11/2022	2/12/2022	2/12/2022	7.3	8.0	8.1	8.2	8.3	<5	<5	<5	12.0	22.0	<5	<5	<5	<5	<5
7/12/2022	16/12/2022	16/12/2022	7.4	8.1	8.1	8.3	8.4	6.0	<5	<5	<5	6.0	<5	<5	<5	<5	<5
21/12/2022	10/01/2022	16/01/2023	7.4	8.1	8.1	8.3	8.4	6.0	<5	<5	<5	16.0	<5	<5	<5	<5	<5
3/01/2023	11/01/2023	20/01/2023	7.5	7.9	8.2	8.3	8.3	<5	<5	<5	5.0	75.0	<5	<5	<5	<5	9.0
19/01/2023	27/01/2023	31/01/2023	7.7	8.2	8.2	8.3	8.4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
8/02/2023	17/02/2023	24/02/2023	7.3	8.0	8.3	8.2	8.4	<5	<5	<5	<5	10.0	<5	<5	<5	<5	<5
28/02/2023	9/03/2022	9/03/2023	7.3	8.0	8.1	8.2	8.3	<5	<5	<5	<5	86.0	<5	<5	<5	<5	5.0
15/03/2023	24/03/2023	3/04/2023	7.7	7.8	8.1	8.1	8.2	6.0	<5	<5	19.0	12.0	<5	<5	6.0	<5	<5
29/03/2023	11/04/2023	12/04/2023	7.4	8.0	8.2	7.9	8.0	<5	<5	48.0	<5	12.0	<5	<5	<5	<5	<15
12/04/2023	21/04/2023	24/04/2023	7.4	8.1	8.2	8.2	8.3	<4	<5	<5	<5	14.0	<5	<5	5.0	<5	<5
26/04/2023	8/05/2023	12/05/2023	7.3	7.9	8.1	8.0	8.2	<5	8.0	<5	11.0	48.0	<5	<5	<5	13.0	<5
4/05/2023	12/05/2023	12/05/2023	7.2	7.8	7.9	7.9	8.1	<5	<5	<5	18.0	<5	<5	<5	<5	27.0	<5
31/05/2023	9/06/2023	19/06/2023	7.3	8.0	7.9	8.2	8.4	<5	<5	8.0	<5	12.0	<5	<5	<5	<5	<5
14/06/2023	23/06/2023	26/06/2023	7.3	8.0	8.1	8.2	8.3	8.0	<5	15.0	<5	<5	<5	<5	<5	<5	<5
27/06/2023	6/07/2023	20/07/2023	7.2	7.9	8.0	8.1	8.3	<5	<5	<5	8.0	14.0	<5	<5	<5	<5	<5
11/07/2023	20/07/2023	31/07/2023	7.2	8.0	8.0	8.2	8.4	<5	<5	8.0	6.0	15.0	<5	<5	<5	<5	<5
26/07/2023	17/08/2023	14/08/2023	7.2	7.9	7.6	7.9	8.2	<5	<5	38.0	<5	<5	<5	<5	<5	<5	<5
10/08/2023	17/08/2023	18/08/2023	7.9	8.3	8.3	8.3	8.6	<5	<5	<5	6.0	8.0	<5	<5	<5	<5	<5
23/08/2023	31/08/2023	14/09/2023	7.3	8.1	7.8	7.6	8.3	<5	<5	<5	16.0	82.0	<5	<5	<5	<5	<5
14/09/2023	22/09/2023	5/10/2023	7.6	8.2	8.1	7.9	8.5	5.0	<5	<5	72.0	11.0	<5	<5	<5	<5	<5
28/09/2023	6/10/2023	6/10/2023	7.4	8.2	7.9	7.8	8.4	5.0	<5	<5	8.0	22.0	<5	<5	<5	<5	<5
11/10/2023	19/10/2023	24/10/2023	7.4	8.2	8.2	8.2	8.4	<5	<5	<5	<5	46.0	<5	<5	<5	<5	<5



Stormwater Monitoring Results - Continued

Sample Date	Results Obtained	Published	pH					Total Suspended Solids (mg/L)					Oil and Grease (mg/L)				
			1A	1B	2	3	4	1A	1B	2	3	4	1A	1B	2	3	4
25/10/2023	2/11/2023	16/11/2023	7.1	8.1	8.0	8.2	8.3	<5	10.0	<5	<5	24.0	<5	<5	<5	<5	<5
9/11/2023	16/11/2023	16/11/2023	7.3	7.8	8.1	8.0	8.2	<5	<5	<5	9.0	98.0	<5	<5	<5	<5	<5
27/11/2023	6/12/2023	14/12/2023	7.4	8.0	8.2	8.3	8.4	<5	<5	<5	16.0	10.0	<5	<5	<5	<5	<5
7/12/2023	14/12/2023	22/12/2023	7.4	8.2	8.4	8.3	8.4	30.0	<5	<5	14.0	25.0	11.0	<5	<5	<5	7.0
27/12/2023	10/01/2024	23/12/2023	7.6	7.6	8.2	8.1	7.9	8.0	<5	<5	43.0	1300.0	<5	<5	<5	<5	9.0
17/01/2024	25/01/2024	7/02/2024	7.5	8.3	8.2	8.0	8.5	<5	<5	<5	<5	74.0	<5	<5	<5	<5	<5
31/01/2024	8/02/2024	22/02/2024	7.3	8.2	8.3	8.5	8.4	20.0	<5	<5	<5	6.0	<5	<5	<5	<5	<5
13/02/2024	21/02/2024	27/02/2024	7.1	8.0	8.3	8.4	8.5	47.0	<5	<5	<5	<5	6.0	<5	<5	<5	<5
29/05/2024	6/03/2024	19/03/2024	7.5	8.3	8.4	8.4	8.5	19.0	<5	<5	13.0	15.0	<10	<10	<10	<10	<10
12/03/2024	20/03/2024	26/03/2024	7.1	8.3	8.3	8.4	8.5	24.0	<5	<5	<5	10.0	<10	<10	<10	<10	<10
27/03/2024	8/04/2024	22/04/2024	7.1	8.2	8.3	8.4	8.4	31.0	<5	5.0	<5	8.0	<10	<10	<10	<10	<10
10/04/2024	19/04/2024	22/04/2024	7.5	8.2	8.4	8.2	8.4	10.0	<5	<5	6.0	48.0	<10	<10	<10	<10	<10
30/04/2024	9/05/2024	20/05/2024	7.5	8.3	8.2	7.9	8.4	6.0	<5	6.0	46.0	9.0	<10	<10	<10	<10	<10
7/05/2024	16/05/2024	20/05/2024	7.5	7.8	8.1	7.9	8.0	<5	<5	<5	12.0	20.0	<10	<10	<10	<10	<10
29/05/2024	6/06/2024	18/06/2024	7.4	8.1	8.1	7.9	8.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
13/06/2024	24/06/2024	27/06/2024	7.0	7.9	7.8	7.9	8.2	18.0	<5	<5	22.0	<5	<5	<5	<5	11.0	<5
26/06/2024	4/07/2024	12/07/2024	7.4	8.2	8.3	8.3	8.4	95.0	<5	<5	5.0	<5	8.0	<5	<5	<5	<5
11/07/2024	19/07/2024	2/08/2024	7.4	8.1	8.3	8.2	8.2	110.0	<5	10.0	5.0	6.0	12.0	<5	<5	<5	<5
30/07/2024	7/08/2024	14/08/2024	7.4	8.2	8.0	7.8	8.3	62.0	<5	<5	<5	<5	14.0	9.0	<5	<10	<10
13/08/2024	20/08/2024	5/09/2024	7.1	8.0	7.9	7.7	8.0	20.0	<5	<5	<5	12.0	<5	<5	<5	<5	<5
29/08/2024	6/09/2024	18/09/2024	7.2	8.1	7.5	8.2	8.3	54.0	<5	<5	<5	<5	<5	<5	<5	<5	<5
19/09/2024	27/09/2024	27/09/2024	6.9	8.1	7.7	8.1	8.3	77.0	<5	11.0	8.0	<5	6.0	<5	<5	<5	<5
30/09/2024	9/10/2024	14/10/2024	7.5	7.9	8.0	7.9	8.0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
17/10/2024	25/10/2024	28/10/2024	7.1	8.1	8.0	8.2	8.3	34.0	<5	<5	16.0	24.0	<5	<5	<5	<5	<5

High Suspended Solids result on 27/12/23 was attributed to heavy rainfall on the day of sampling that had stirred up residual sediment in the base of the sampling pit



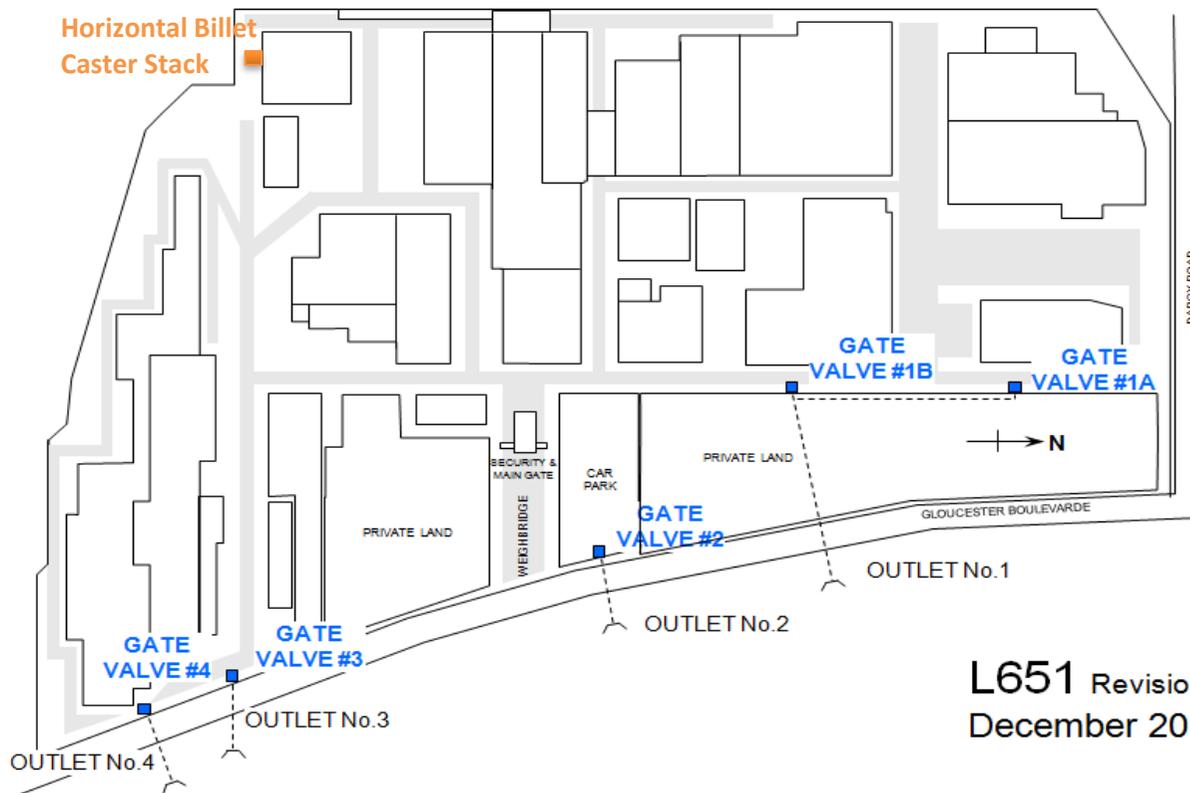
Stormwater Monitoring Results - Continued

Sample Date	Results Obtained	Published	pH					Total Suspended Solids (mg/L)					Oil and Grease (mg/L)				
			1A	1B	2	3	4	1A	1B	2	3	4	1A	1B	2	3	4
30/10/2024	6/11/2024	20/11/2024	7.4	8.2	8.1	8.4	8.4	43.0	6.0	<5	<5	5.0	<5	<5	<5	<5	<5
12/11/2024	18/11/2024	26/11/2024	7.8	8.2	8.0	8.3	8.4	<5	<5	<5	<5	<5	<5	<5	5.0	<5	<5
27/11/2024	6/12/2024	20/12/2024	8.0	8.3	8.3	8.4	8.4	8.0	<5	<5	<5	<5	<5	<5	<5	<5	<5
12/12/2024	13/01/2025	20/01/2025	7.5	8.1	7.9	8.1	8.4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
30/12/2024	13/01/2025	24/01/2025	7.4	8.1	8.0	7.8	8.3	7.0	<5	<5	<5	22.0	<5	<5	<5	<5	<5
21/01/2025	31/01/2025	10/02/2025	7.5	8.3	8.4	8.3	8.4	40.0	<5	<5	<5	5.0	<5	<5	<5	<5	<5
29/01/2025	6/07/2025	13/02/2025	7.4	8.0	8.2	8.3	8.4	<5	<5	12.0	<5	12.0	<5	<5	<5	<5	<5
12/02/2025	20/02/2024	28/02/2025	7.5	8.2	8.3	8.3	8.4	5.0	<5	<5	8.0	13.0	<5	<5	<5	<5	<5
27/02/2025	7/03/2025	7/03/2025	7.3	8.2	8.2	7.8	8.4	40.0	<5	<5	20.0	9.0	15.0	<5	<5	<5	<5
13/03/2025	21/03/2025	24/03/2025	7.4	8.1	8.3	8.1	8.4	35.0	<5	<5	10.0	<5	6.0	<5	<5	<5	<5
31/03/2025	8/04/2025	22/04/2025	7.4	7.8	8.0	7.9	8.0	8.0	<5	<5	<5	18.0	<5	<5	<5	<5	<5
15/04/2025	29/04/2025	29/04/2025	7.4	8.2	8.1	8.0	8.3	6.0	<5	<5	<5	16.0	<5	<5	<5	<5	<5
29/04/2025	7/05/2025	21/05/2025	7.4	8.0	8.1	8.2	8.3	42.0	<5	<5	<5	7.0	<5	<5	<5	<5	<5
13/05/2025	21/05/2025	28/05/2025	7.8	8.3	8.1	8.0	7.9	60.0	10.0	<5	12.0	<5	17.0	17.0	<5	8.0	5.0
29/05/2025	10/06/2025	11/06/2025	7.1	8.1	8.1	8.2	8.3	54.0	<5	<5	<5	<5	<5	<5	<5	<5	<5
17/06/2025	24/06/2025	4/07/2025	7.7	8.1	8.0	8.2	8.2	<5	<5	<5	<5	8.0	<5	<5	<5	<5	<5
30/06/2025	7/07/2025	18/07/2025	7.3	8.1	8.0	8.3	8.4	16.0	<5	<5	<5	<5	<5	<5	<5	<5	7.0
15/07/2025	21/07/2025	4/08/2025	7.6	8.2	8.0	8.2	8.3	47.0	<5	<5	<5	<5	<5	8.0	<5	7.0	7.0
30/07/2025	7/08/2025	14/08/2025	7.8	8.3	8.3	7.1	7.2	180.0	140.0	6.0	<5	12.0	<5	<5	<5	<5	<5
14/08/2025	21/08/2025	21/08/2025	7.0	7.7	7.7	7.6	8.0	56.0	26.0	<5	14.0	6.0	<5	<5	<5	<5	<5
28/08/2025	4/09/2025	11/09/2025	7.7	8.1	8.1	8.1	8.2	<5	<5	<5	<5	12.0	<5	<5	<5	<5	<5
16/09/2025	24/09/2025	26/09/2025	7.0	7.9	7.9	8.0	8.2	9.0	<5	<5	13.0	<5	<5	<5	<5	<5	<5
30/09/2025	9/10/2025	16/10/2025	7.3	8.0	8.0	7.4	8.1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
14/10/2025	22/10/2025	4/11/2025	7.3	0.0	7.9	7.9	8.0	11.0	<5	<5	<5	<5	<5	<5	<5	<5	<5
29/10/2025	5/11/2025	10/11/2025	7.1	8.1	8.0	7.5	8.2	6.0	<5	17.0	<5	<5	<5	<5	<5	7.0	<5
9/12/2025	8/01/2026	8/01/2026	7.8	8.1	8.1	8.0	8.2	12.0	<5	<5	7.0	<5	<5	<5	<5	5.0	<5

Locality map



Location of sampling points



L651 Revision 0
December 2010

Air Emission Monitoring: Horizontal Billet Caster Stack

Pollutant	100 percentile concentration limit	Units of Measure	Testing Frequency	Sample Date 13th August 2015	Sample Date 6th April 2016	Sample Date 29th March 2017	Sample Date 8th March 2018
Stack Temperature	-	°C	Yearly	40	63	54	59
Stack Velocity	-	m/s	-	10	11	11	11
Stack Volumetric Flow	-	m ³ /s	Yearly	3.4	3.6	3.8	3.7
Moisture	-	%	Yearly	0.8	1.2	0.89	0.63
Oxygen	-	%	Yearly	20.7	20.9	20.8	20.9
Dioxins & Furans (TEQ)	0.1	ng/m ³	Yearly	0.003	0.024	0.018	0.067
Cadmium	0.2	mg/m ³	Yearly	0.000017	<0.0001	<0.0001	<0.0002
Mercury	0.2	mg/m ³	Yearly	0.015	0.024	0.0014	0.004
Type 1 Substances	-	mg/m ³	-	0.015	≤ 0.027	≤0.0034	≤0.006
Total Type 1 + 2 Substances	1	mg/m ³	Yearly	0.015	≤ 0.031	≤0.0066	≤0.01
Nitrogen Oxides	350	mg/m ³	Yearly	8.2	8.2	27	3.9
Total Solid Particles	50	mg/m ³	Yearly	<0.25	2.3	1.1	1.2
VOCs as n-propane	40	mg/m ³	Yearly	0.28	0.37	0.12	0.06
Results Obtained (date)	-	-	-	4-Sep-15	29-Apr-16	8-May-17	11-Apr-18
Results Published (date)	-	-	-	14-Sep-15	2-May-16	8-May-17	11-Apr-18

Notes: Air Emission

Special Frequency 3 means "during each stack emission test"

Milligrams per cubic metre is abbreviated as mg/m³. Nanograms per cubic metre is abbreviated as ng/m³.

Metres per second is abbreviated as m/s. Cubic metres per second is abbreviated as m³/s.

Air Emission Monitoring: Horizontal Billet Caster Stack

Pollutant	100 percentile concentration limit	Units of Measure	Testing Frequency	Sample Date 20th March 2019	Sample Date 8th July 2020	Sample Date 23/06/2021	Sample Date 18/05/2022
Stack Temperature	-	°C	Yearly	52	49	49	41
Stack Velocity	-	m/s	-	11	9.6	11	11
Stack Volumetric Flow	-	m ³ /s	Yearly	3.6	3.2	3.7	3.8
Moisture	-	%	Yearly	1.2	<0.4	0.72	0.57
Oxygen	-	%	Yearly	20.7	20.9	20.9	20.9
Dioxins & Furans (TEQ)	0.1	ng/m ³	Yearly	0.035	0.045	0.019	0.007
Cadmium	0.2	mg/m ³	Yearly	<0.0004	<0.0005	<0.0005	<0.0006
Mercury	0.2	mg/m ³	Yearly	0.00049	0.0011	0.00081	<0.0004
Type 1 Substances	-	mg/m ³	-	≤0.0072	≤0.0097	≤0.01	≤0.017
Total Type 1 + 2 Substances	1	mg/m ³	Yearly	≤0.017	≤0.022	<0.023	≤0.03
Nitrogen Oxides	350	mg/m ³	Yearly	<3	4.4	5	5.5
Total Solid Particles	50	mg/m ³	Yearly	<1	2.2	<5	2
VOCs as n-propane	40	mg/m ³	Yearly	0.15	0.18	0.77	0.16
Results Obtained (date)	-	-	-	2-Jul-19	19-Aug-20	31-Aug-21	26-Aug-22
Results Published (date)	-	-	-	12-Jul-19	21-Aug-20	7-Sep-21	7-Sep-22

Notes: Air Emission

Special Frequency 3 means "during each stack emission test"

Milligrams per cubic metre is abbreviated as mg/m³. Nanograms per cubic metre is abbreviated as ng/m³.

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Air Emission Monitoring: Horizontal Billet Caster Stack

Pollutant	100 percentile concentration limit	Units of Measure	Testing Frequency	Sample Date 22nd March 2023	Sample Date 15 May 2024	Sample Date 7 May 2024
Stack Temperature	-	°C	Yearly	55	49	43
Stack Velocity	-	m/s	-	12	11	11
Stack Volumetric Flow	-	m ³ /s	Yearly	3.9	3.7	3.8
Moisture	-	%	Yearly	0.97	0.49	1.1
Oxygen	-	%	Yearly	20.9	20.6	16.6
Dioxins & Furans (TEQ)	0.1	ng/m ³	Yearly	0.05	0.013	0.024
Cadmium	0.2	mg/m ³	Yearly	< 0.0005	<0.0005	0.00012
Mercury	0.2	mg/m ³	Yearly	0.0018	0.00061	0.00093
Type 1 Substances	-	mg/m ³	-	≤ 0.011	≤0.0095	≤0.0029
Total Type 1 + 2 Substances	1	mg/m ³	Yearly	≤ 0.024	≤0.023	≤0.015
Nitrogen Oxides	350	mg/m ³	Yearly	5.6	<4	<4
Total Solid Particles	50	mg/m ³	Yearly	< 2	3.6	<3
VOCs as n-propane	40	mg/m ³	Yearly	0.057	<0.07	0.091
Results Obtained (date)	-	-	-	14-Jun-23	11-Jul-24	20-Jun-25
Results Published (date)	-	-	-	19-Jun-23	12-Jul-24	4-Jul-25

Notes: Air Emission

Special Frequency 3 means "during each stack emission test"

Milligrams per cubic metre is abbreviated as mg/m³. Nanograms per cubic metre is abbreviated as ng/m³.

Metres per second is abbreviated as m/s. Cubic metres per second is abbreviated as m³/s.