



FOR A BETTER WORLD

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Air Monitoring Data Report

14-Jul-22

The attached report contains the air monitoring data for all the licenced air monitoring points as required by the Environment Protection Licence 10232, for June 2022 as part of the reporting period July 2021 - June 2022.

Authorised by:

A handwritten signature in black ink, appearing to read "Uday Bhagwat".

Uday Bhagwat
Pulp Mill Manager

A handwritten signature in black ink, appearing to read "Johan Stoltz".

Johan Stoltz
General Manager



Latest Publication Date: 14-Jul-22

Monitoring Location No: 1

Environment Protection Licence: 10232

Description: Exit point from Stack 1 to atmosphere

Reporting Period: July 2021 to June 2022

Monitoring Type: Continuous

Sample Type: Air

Month	Date of publication	Pollutant	Unit of measure	Concentration Limit	Data collected (%)			Compliance (Yes/No)	Comment	
					Lowest value	Highest value	Mean			
July	14-Aug	Flow	Nm3/s	100	100.00	76.09	94.31	88.17	Y	
		Hydrogen chloride	mg/m3	50	100.00	0.00	22.15	0.51	Y	
		Moisture	%	N/A	100.00	0.00	27.35	23.56	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	17.78	438.60	199.37	N	Lime feed pump trip
		Opacity	%	20	99.62	1.19	90.10	6.52	N	Operational issues
		Oxygen (O2)	%	N/A	100.00	2.25	10.23	3.43	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.58	348.94	21.56	N	NCG diverted to PB
		Temperature	°C	N/A	100.00	119.85	250.54	195.89	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.66	1.26	0.90	Y	
August	14-Sep	Flow	Nm3/s	100	100.00	70.30	93.36	85.00	Y	
		Hydrogen chloride	mg/m3	50	100.00	0.00	10.52	0.50	Y	
		Moisture	%	N/A	100.00	0.00	27.25	23.57	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	102.89	268.15	218.85	Y	
		Opacity	%	20	99.69	2.81	44.00	6.87	N	ESP 1 field trip
		Oxygen (O2)	%	N/A	100.00	2.09	6.37	3.37	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.44	277.89	17.48	N	Operational issues
		Temperature	°C	N/A	100.00	103.26	250.54	194.10	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.80	2.55	0.98	Y	
September	14-Oct	Flow	Nm3/s	100	100.00	75.50	91.78	85.33	Y	
		Hydrogen chloride	mg/m3	50	100.00	0.00	9.30	0.83	Y	
		Moisture	%	N/A	100.00	0.00	27.68	23.55	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	88.83	336.28	221.91	Y	
		Opacity	%	20	99.61	1.75	35.44	7.14	N	Power Boiler EP issue
		Oxygen (O2)	%	N/A	100.00	2.08	6.44	3.37	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.95	44.46	13.83	Y	
		Temperature	°C	N/A	100.00	152.86	242.88	192.20	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.83	1.05	0.91	Y	
October	14-Nov	Flow	Nm3/s	100	100.00	0.32	89.95	58.60	Y	
		Hydrogen chloride	mg/m3	50	100.00	0.00	52.79	2.92	Y	Annual MSD
		Moisture	%	N/A	100.00	0.00	26.89	18.86	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	0.66	279.88	173.15	Y	
		Opacity	%	20	99.58	0.00	90.15	6.77	N	RB ESP issue
		Oxygen (O2)	%	N/A	100.00	2.40	19.93	6.50	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.58	293.09	27.02	Y	
		Temperature	°C	N/A	100.00	2.22	250.54	167.32	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.48	1.53	1.10	Y	
November	14-Dec	Flow	Nm3/s	100	100.00	68.63	91.25	82.43	Y	
		Hydrogen chloride	mg/m3	50	100.00	0.00	11.76	0.86	Y	
		Moisture	%	N/A	100.00	0.00	25.60	19.96	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	27.94	199.54	131.17	Y	
		Opacity	%	20	99.65	1.86	39.50	6.44	N	Lime Kiln B Startup issue
		Oxygen (O2)	%	N/A	100.00	2.38	5.96	3.57	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	14.96	61.96	39.42	Y	
		Temperature	°C	N/A	100.00	131.28	246.25	194.58	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	1.13	1.47	1.26	Y	
December	14-Jan	Flow	Nm3/s	100	100.00	67.41	90.93	80.85	Y	
		Hydrogen chloride	mg/m3	50	100.00	0.00	13.69	0.87	Y	
		Moisture	%	N/A	100.00	0.00	26.89	21.80	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	21.80	303.21	179.28	Y	
		Opacity	%	20	99.65	1.67	90.17	7.18	N	RBA Trip
		Oxygen (O2)	%	N/A	100.00	2.45	10.68	3.53	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.58	333.84	18.11	N	RBA Trip
		Temperature	°C	N/A	100.00	134.34	250.54	192.50	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	1.06	1.31	1.16	Y	
January	14-Feb	Flow	Nm3/s	100	100.00	71.45	91.50	80.86	Y	
		Hydrogen chloride	mg/m3	50	100.00	0.00	16.15	2.52	Y	
		Moisture	%	N/A	100.00	0.00	28.09	15.55	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	0.00	243.23	115.44	Y	
		Opacity	%	20	99.68	2.14	42.25	6.99	N	Lime Kiln A Startup issue
		Oxygen (O2)	%	N/A	100.00	2.46	8.42	3.83	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.44	350.88	15.11	Y	Planned Shutdown
		Temperature	°C	N/A	100.00	133.27	250.54	190.91	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.99	1.22	1.09	Y	
February	14-Mar	Flow	Nm3/s	100	100.00	64.62	86.30	79.19	Y	
		Hydrogen chloride	mg/m3	50	99.70	0.00	48.77	3.76	Y	
		Moisture	%	N/A	100.00	0.00	60.00	11.78	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	99.11	0.00	347.76	96.00	Y	
		Opacity	%	20	99.64	2.57	90.16	7.31	N	RBA Trip
		Oxygen (O2)	%	N/A	100.00	2.46	6.34	3.84	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	99.55	0.44	211.48	17.65	Y	
		Temperature	°C	N/A	100.00	135.95	240.89	190.98	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	1.00	1.43	1.11	Y	
March	14-Apr	Flow	Nm3/s	100	100.00	62.00	85.86	78.48	Y	
		Hydrogen chloride	mg/m3	50	100.00	0.00	17.73	2.66	Y	
		Moisture	%	N/A	100.00	0.00	26.97	22.74	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	109.08	225.25	187.59	Y	
		Opacity	%	20	99.64	1.10	52.52	7.11	N	Lime Kiln B cleaning
		Oxygen (O2)	%	N/A	100.00	2.44	9.03	3.65	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	13.66	271.78	40.12	Y	Planned Shutdown
		Temperature	°C	N/A	100.00	137.55	234.31	192.83	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	1.00	1.36	1.16	Y	



Latest Publication Date: 14-Jul-22

Monitoring Location No: 1

Environment Protection Licence: 10232

Description: Exit point from Stack 1 to atmosphere

Reporting Period: July 2021 to June 2022

Monitoring Type: Continuous

Sample Type: Air

Month	Date of publication	Pollutant	Unit of measure	Concentration Limit	Data collected (%)			Mean	Compliance (Yes/No)	Comment
					Lowest value	Highest value				
April	14-May	Flow	Nm3/s	100	100.00	58.74	88.02	80.44	Y	
		Hydrogen chloride	mg/m3	50	100.00	0.00	15.08	0.98	Y	
		Moisture	%	N/A	100.00	0.00	27.05	22.67	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	87.27	299.52	195.48	Y	
		Opacity	%	20	99.64	0.00	66.06	5.22	N	Lime Kiln B trip
		Oxygen (O2)	%	N/A	100.00	0.07	8.76	3.63	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.83	465.97	41.17	N	Gases diversion to PB
		Temperature	°C	N/A	100.00	125.69	249.39	191.12	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.96	1.59	1.06	Y	
		May	14-Jun	Flow	Nm3/s	100	99.60	64.89	93.78	84.44
Hydrogen chloride	mg/m3			50	100.00	0.00	19.97	0.75	Y	
Moisture	%			N/A	100.00	0.00	27.09	23.35	N/A	
Nitrogen Oxides (as NO2)	mg/m3			400	100.00	42.35	386.98	195.47	Y	
Opacity	%			20	99.70	0.68	37.18	4.59	N	RBA EP1 trip
Oxygen (O2)	%			N/A	100.00	0.01	5.90	1.68	N/A	
Sulphur dioxide (SO2)	mg/m3			250	100.00	10.55	270.58	41.76	Y	Planned Shutdown
Temperature	°C			N/A	100.00	136.18	246.94	192.21	N/A	
TRS (as H2S)	mg/m3			3.6	99.19	0.80	2.58	0.99	Y	
June	14-Jul			Flow	Nm3/s	100	100.00	0.65	94.10	85.28
		Hydrogen chloride	mg/m3	50	100.00	0.00	35.22	1.67	Y	
		Moisture	%	N/A	100.00	0.00	27.54	23.86	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	43.63	519.44	221.54	N	Lime Kiln "B" temp issue
		Opacity	%	20	99.65	0.01	23.65	4.48	Y	Planned Shutdown
		Oxygen (O2)	%	N/A	100.00	2.77	10.91	3.99	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	2.69	339.67	64.80	Y	Planned Shutdown
		Temperature	°C	N/A	100.00	142.45	243.11	193.91	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.81	1.72	1.01	Y	



Latest Publication Date: 14-Jul-22

Monitoring Location No: 1

Environment Protection Licence: 10232

Description: Exit point from Stack 1 to Atmosphere

Reporting Period: July 2021 to June 2022

Monitoring Type: Grab Sample

Sample Type: Air

Pollutant	Unit of measure	Concentration		Sampling Freq	Date of Sample	Date of Report	Report No.	Data	Compliance (Yes/No)	Comment
		Limit								
Chlorine	mg/m3	100		Annual	23-Nov-21	01-Feb-22	R011875a	0.088	Yes	
Sulfuric acid mist & sulfur trioxide (as SO3)	mg/m3	20		Annual	23-Nov-21	01-Feb-22	R011875a	1.3	Yes	
TCDD (equivalent)	ng/m3	0.1		Annual	23-Nov-21	01-Feb-22	R011875a	0.002	Yes	
Total Solid Particles	mg/m3	50		1st Qrt	31-Aug-21	29-Sep-21	R011400	64	No	
Total Solid Particles	mg/m3	50		2nd Qrt	23-Nov-21	01-Feb-22	R011875a	46	Yes	
Total Solid Particles	mg/m3	50		3rd Qrt	16-Feb-22	3-Mar-22	R012458	49	Yes	
Total Solid Particles	mg/m3	50		4th Qrt	19-May-22	07-Jun-22	R012913	72	No	
Type 1 and 2 substances	mg/m3	1		Annual	23-Nov-21	01-Feb-22	R011875a	≤0.019	Yes	

ND- No Data

N/A- Not Applicable



Latest Publication Date: 14-Jul-22

Monitoring Location No: 2

Environment Protection Licence:

10232

Description: Discharge duct downstream of Recovery Boiler A prior to junction with Stack 1

Reporting Period:

July 2021 to June 2022

Monitoring Type: Continuous

Sample Type: Air

Month	Date of publication	Pollutant	Unit of measure	Reporting	Level	Data collected (%)	Lowest value	Highest value	Mean	Compliance (Yes/No)	Comment
July	14-Aug	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	20.45	803.63	85.61	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	98.48	30.02	N/A	
		Moisture	%	N/A	N/A	100.00	3.18	28.98	26.69	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	100.00	114.12	235.76	174.32	Y	
		Opacity	%	N/A	N/A	100.00	0.36	69.76	4.10	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	1.62	18.02	3.25	N/A	
		Temperature	°C	N/A	N/A	100.00	160.83	194.56	175.13	N/A	
August	14-Sep	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	20.45	674.78	79.16	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	100.65	29.59	N/A	
		Moisture	%	N/A	N/A	100.00	19.44	28.75	26.72	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	100.00	131.26	212.72	171.19	Y	
		Opacity	%	N/A	N/A	100.00	1.26	50.82	5.00	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	1.96	6.99	3.23	N/A	
		Temperature	°C	N/A	N/A	100.00	165.57	180.09	175.12	N/A	
September	14-Oct	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	20.45	991.87	96.30	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	100.97	29.44	N/A	
		Moisture	%	N/A	N/A	100.00	21.49	29.38	26.86	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	100.00	144.07	229.44	178.43	Y	
		Opacity	%	N/A	N/A	100.00	1.74	44.65	5.37	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	1.58	5.23	3.07	N/A	
		Temperature	°C	N/A	N/A	100.00	170.99	180.15	175.25	N/A	
October	14-Nov	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	0.70	552.62	48.98	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.00	113.09	21.30	N/A	
		Moisture	%	N/A	N/A	100.00	0.57	30.79	20.56	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	100.00	45.74	259.82	167.72	N	TGA Tripping
		Opacity	%	N/A	N/A	100.00	0.00	74.29	3.82	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	1.37	18.95	6.79	N/A	
		Temperature	°C	N/A	N/A	100.00	9.03	178.23	145.07	N/A	
November	14-Dec	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	8.11	454.84	50.83	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	98.09	30.94	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	80.00	24.28	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	77.36	118.53	249.78	206.45	Y	
		Opacity	%	N/A	N/A	100.00	1.65	26.52	4.47	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.21	6.93	3.59	N/A	
		Temperature	°C	N/A	N/A	100.00	158.12	177.84	171.77	N/A	
December	14-Jan	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	0.35	899.62	68.70	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	99.20	30.15	N/A	
		Moisture	%	N/A	N/A	100.00	0.65	80.00	29.29	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	84.14	2.16	249.92	213.68	Y	
		Opacity	%	N/A	N/A	100.00	0.27	78.25	4.58	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	1.08	18.52	3.53	N/A	
		Temperature	°C	N/A	N/A	100.00	161.96	190.09	174.88	N/A	
January	14-Feb	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	18.89	610.42	87.31	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.00	141.89	30.15	N/A	
		Moisture	%	N/A	N/A	100.00	12.50	80.00	38.49	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	99.60	23.98	23.98	23.98	Y	
		Opacity	%	N/A	N/A	100.00	0.90	26.65	4.06	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	0.00	22.68	3.70	N/A	
		Temperature	°C	N/A	N/A	100.00	169.02	185.97	175.56	N/A	
February	14-Mar	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	20.81	837.29	99.93	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	97.70	29.49	N/A	
		Moisture	%	N/A	N/A	100.00	15.26	70.53	32.81	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	99.70	1.79	242.52	67.45	Y	
		Opacity	%	N/A	N/A	100.00	3.35	60.47	3.82	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.49	6.68	3.90	N/A	
		Temperature	°C	N/A	N/A	100.00	167.89	182.63	175.93	N/A	
March	14-Apr	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	55.11	801.27	170.11	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.01	131.38	28.21	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	37.14	21.71	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	100.00	0.18	178.25	83.59	Y	
		Opacity	%	N/A	N/A	100.00	0.89	26.18	3.33	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	0.01	21.25	4.05	N/A	
		Temperature	°C	N/A	N/A	100.00	165.85	189.58	175.44	N/A	
April	14-May	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	37.17	455.93	146.19	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	95.35	28.67	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	23.88	21.35	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	100.00	11.20	145.85	108.95	Y	
		Opacity	%	N/A	N/A	100.00	1.47	59.46	3.88	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.15	20.25	4.19	N/A	
		Temperature	°C	N/A	N/A	100.00	157.38	183.71	176.48	N/A	
May	14-Jun	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	108.23	806.17	148.07	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.02	95.10	34.15	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	23.65	21.51	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	100.00	5.00	170.31	121.01	Y	
		Opacity	%	N/A	N/A	100.00	1.03	35.89	3.81	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.87	10.56	4.20	N/A	
		Temperature	°C	N/A	N/A	100.00	138.58	185.63	175.15	N/A	
June	14-Jul	Carbon monoxide (CO)	mg/m3	N/A	N/A	100.00	33.62	679.83	147.09	N/A	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	94.80	28.11	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	23.87	21.32	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	250	N/A	100.00	0.81	190.94	144.48	Y	
		Opacity	%	N/A	N/A	100.00	0.65	24.42	3.64	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.05	15.86	4.30	N/A	
		Temperature	°C	N/A	N/A	100.00	158.91	190.37	175.82	N/A	



Latest Publication Date: 14-Jul-22

Monitoring Location No: 2

Environment Protection Licence:

10232

Description: Discharge duct downstream of Recovery Boiler A prior to junction with Stack 1

Reporting Period:

July 2021 to June 2022

Monitoring Type: Grab Sample

Sample Type:

Air

Pollutant	Unit of measure	Reporting Level	Sampling Frequency	Date of Sample	Date of Report	Report No.	Data	Compliance(Yes/No)	Comment
Methanol	mg/m3	N/A	Annual	16-Dec-21	1-Feb-22	R011875a	<0.2	Yes	
Total Solid Particles	mg/m3	34	Annual	16-Dec-21	1-Feb-22	R011875a	21	Yes	

ND - No Data
 N/A - Not applicable



Latest Publication Date: 14-Jul-22

Monitoring Location No: 3

Environment Protection Licence:

10232

Description: Discharge duct downstream of Power Boiler prior to junction with Stack 1

Reporting Period:

July 2021 to June 2022

Monitoring Type: Continuous

Sample Type: Air

Month	Date of publication	Pollutant	Unit of measure	Reporting	Level	Data collected (%)	Lowest value	Highest value	Mean	Compliance (Yes/No)	Comment
July	14-Aug	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	17.75	313.74	104.60	No	Operational Issues
		Flow	Nm3/s	N/A	N/A	100.00	0.02	75.65	40.78	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	31.70	21.46	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	1.83	275.39	213.85	Y	
		Opacity	%	N/A	N/A	100.00	0.09	39.32	5.74	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	0.56	13.52	4.96	N/A	
		Temperature	oC	N/A	N/A	100.00	195.54	235.09	218.66	N/A	
August	14-Sep	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	5.01	99.91	19.64	Y	
		Flow	Nm3/s	N/A	N/A	100.00	0.02	91.36	44.61	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	28.26	7.72	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	0.00	252.94	65.71	Y	
		Opacity	%	N/A	N/A	100.00	2.51	27.67	5.52	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	0.14	13.40	4.65	N/A	
		Temperature	oC	N/A	N/A	100.00	187.92	229.17	212.72	N/A	
September	14-Oct	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	4.73	43.83	10.35	Y	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	91.32	46.35	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	18.61	3.33	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	0.00	161.54	9.27	Y	
		Opacity	%	N/A	N/A	100.00	1.46	51.73	5.44	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	0.20	13.50	4.77	N/A	
		Temperature	oC	N/A	N/A	100.00	190.75	228.60	211.26	N/A	
October	14-Nov	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	0.09	313.27	41.22	Y	Annual MSD
		Flow	Nm3/s	N/A	N/A	100.00	0.00	88.85	40.16	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	23.39	4.40	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	0.00	211.82	29.25	Y	
		Opacity	%	N/A	N/A	100.00	2.06	52.78	4.62	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	0.11	21.70	7.39	N/A	
		Temperature	oC	N/A	N/A	100.00	8.98	228.89	189.85	N/A	
November	14-Dec	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	5.38	197.40	25.39	N	Operational Issues
		Flow	Nm3/s	N/A	N/A	100.00	0.03	88.57	41.74	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	20.06	9.21	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	22.58	162.04	63.12	Y	
		Opacity	%	N/A	N/A	100.00	2.38	26.05	4.77	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.12	9.69	4.45	N/A	
		Temperature	oC	N/A	N/A	100.00	183.23	219.50	204.45	N/A	
December	14-Jan	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	10.15	47.95	20.98	Y	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	84.97	37.61	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	18.15	10.19	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	11.64	115.00	70.38	Y	
		Opacity	%	N/A	N/A	100.00	2.27	27.45	4.31	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.28	7.54	4.51	N/A	
		Temperature	oC	N/A	N/A	100.00	182.57	214.80	199.37	N/A	
January	14-Feb	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	0.41	46.41	13.15	Y	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	88.80	39.06	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	16.98	6.37	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	0.00	91.42	25.86	Y	
		Opacity	%	N/A	N/A	100.00	2.28	26.31	4.52	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.43	10.11	4.72	N/A	
		Temperature	oC	N/A	N/A	100.00	180.14	219.50	198.45	N/A	
February	14-Mar	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	0.14	30.35	10.63	Y	
		Flow	Nm3/s	N/A	N/A	100.00	0.03	91.10	37.31	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	9.36	5.10	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	0.00	48.23	16.50	Y	
		Opacity	%	N/A	N/A	100.00	2.31	28.45	4.76	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.08	9.11	4.48	N/A	
		Temperature	oC	N/A	N/A	100.00	178.53	209.63	196.71	N/A	
March	14-Apr	Carbon monoxide (CO)	mg/m3	140	N/A	99.87	0.34	190.55	26.98	Y	Planned Shutdown
		Flow	Nm3/s	N/A	N/A	100.00	0.02	79.85	34.46	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	26.54	14.43	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	3.81	200.00	149.36	Y	
		Opacity	%	N/A	N/A	100.00	0.02	27.46	5.46	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	0.38	12.28	4.59	N/A	
		Temperature	oC	N/A	N/A	100.00	180.70	213.85	200.39	N/A	
April	14-May	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	12.75	313.51	43.11	Y	Planned Shutdown
		Flow	Nm3/s	N/A	N/A	100.00	0.00	80.19	35.07	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	23.35	15.67	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	1.32	200.00	152.39	Y	
		Opacity	%	N/A	N/A	100.00	0.00	52.78	5.34	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.30	21.71	5.53	N/A	
		Temperature	oC	N/A	N/A	100.00	16.97	221.47	188.53	N/A	
May	14-Jun	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	23.17	93.10	45.17	Y	
		Flow	Nm3/s	N/A	N/A	100.00	0.02	77.43	39.07	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	26.08	20.18	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	82.68	200.00	184.79	Y	
		Opacity	%	N/A	N/A	100.00	0.00	25.59	2.62	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.05	10.92	4.59	N/A	
		Temperature	oC	N/A	N/A	100.00	192.62	225.69	211.73	N/A	
June	14-Jul	Carbon monoxide (CO)	mg/m3	140	N/A	100.00	20.76	156.27	38.60	N	Operational Issues
		Flow	Nm3/s	N/A	N/A	100.00	0.02	75.33	41.33	N/A	
		Moisture	%	N/A	N/A	100.00	0.00	28.08	22.79	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	300	N/A	100.00	81.10	275.01	202.79	Y	
		Opacity	%	N/A	N/A	100.00	0.00	22.66	2.97	N/A	
		Oxygen (O2)	%	N/A	N/A	100.00	2.05	8.46	4.52	N/A	
		Temperature	oC	N/A	N/A	100.00	204.46	235.65	218.19	N/A	

Latest Publication Date: 14-Jul-22
Monitoring Location No: 3 **Environment Protection Licence:** 10232
Description: Discharge duct downstream of Power Boiler prior to junction with Stack 1 **Reporting Period:** July 2021 to June 2022
Monitoring Type: Grab Sample **Sample Type:** Air

Pollutant	Unit of measure	Concentration Limit	Sampling Freq	Date of Sample	Date of Report	Report No.	Data	Compliance (Yes/No)	Comment
Cadmium	mg/m3	0.06	1st Qrt					Yes	Note
Mercury	mg/m3	0.06	1st Qrt					Yes	Note
TCDD (equivalent)	ng/m3	0.1	1st Qrt					Yes	Note
Type 1 and 2 substances	mg/m3	0.6	1st Qrt					Yes	Note
Cadmium	mg/m3	0.06	2nd Qrt					Yes	Note
Mercury	mg/m3	0.06	2nd Qrt					Yes	Note
TCDD (equivalent)	ng/m3	0.1	2nd Qrt					Yes	Note
Total Solid Particles	mg/m3	30	Annual	16-Dec-21	1-Feb-22	R011875a	26	Yes	Note
Type 1 and 2 substances	mg/m3	0.6	2nd Qrt					Yes	Note
Cadmium	mg/m3	0.06	3rd Qrt					Yes	Note
Mercury	mg/m3	0.06	3rd Qrt					Yes	Note
TCDD (equivalent)	ng/m3	0.1	3rd Qrt					Yes	Note
Type 1 and 2 substances	mg/m3	0.6	3rd Qrt					Yes	Note
Cadmium	mg/m3	0.06	4th Qrt					Yes	Note
Mercury	mg/m3	0.1	4th Qrt					Yes	Note
TCDD (equivalent)	ng/m3	0.1	4th Qrt					Yes	Note
Type 1 and 2 substances	mg/m3	0.6	4th Qrt					Yes	Note

ND- No Data

N/A- Not Applicable

Note: Quarterly when non-standard fuels are being burnt in the Power Boiler, and not required at other times

Note 2: Concentration Limit only applicable when non-standard fuel is being burnt in the Power Boiler



Latest Publication Date: 14-Jul-22

Monitoring Location No: 4

Environment Protection Licence:

10232

Description: Discharge duct downstream of Lime Kiln A prior to junction with Stack 1

Reporting Period:

July 2021 to June 2022

Monitoring Type: Continuous

Sample Type: Air

Month	Date of publication	Pollutant	Unit of measure	Reporting Level	Data collected (%)	Lowest value	Highest value	Mean	Compliance (Yes/No)	Comment
July	14-Aug	Carbon monoxide (CO)	mg/m3	N/A	100.00	4.21	8046.63	143.33	N/A	
		Moisture	%	N/A	100.00	0.00	30.04	24.86	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	0.07	205.25	111.89	Y	
		Opacity	%	N/A	100.00	1.56	89.72	9.90	N/A	
		Oxygen (O2)	%	N/A	100.00	0.00	17.16	2.66	N/A	
		Temperature	°C	N/A	100.00	220.12	282.04	260.79	N/A	
August	14-Sep	Carbon monoxide (CO)	mg/m3	N/A	100.00	4.21	5107.58	112.91	N/A	
		Moisture	%	N/A	100.00	0.00	30.19	24.00	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	1.27	201.46	107.30	Y	
		Opacity	%	N/A	100.00	1.54	86.65	10.81	N/A	
		Oxygen (O2)	%	N/A	100.00	0.00	20.48	2.73	N/A	
		Temperature	°C	N/A	100.00	221.44	298.46	261.82	N/A	
September	14-Oct	Carbon monoxide (CO)	mg/m3	N/A	100.00	4.21	910.39	85.53	N/A	
		Moisture	%	N/A	100.00	0.00	30.68	25.65	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	10.64	238.47	135.25	Y	
		Opacity	%	N/A	100.00	2.22	46.14	9.41	N/A	
		Oxygen (O2)	%	N/A	100.00	0.03	15.42	2.76	N/A	
		Temperature	°C	N/A	100.00	220.12	285.81	260.33	N/A	
October	14-Nov	Carbon monoxide (CO)	mg/m3	N/A	100.00	0.84	8046.63	171.61	N/A	
		Moisture	%	N/A	100.00	0.00	30.73	22.94	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	6.55	258.93	120.71	Y	
		Opacity	%	N/A	100.00	0.19	77.79	11.15	N/A	
		Oxygen (O2)	%	N/A	100.00	0.00	22.39	4.53	N/A	
		Temperature	°C	N/A	100.00	2.19	566.20	244.97	N/A	
November	14-Dec	Carbon monoxide (CO)	mg/m3	N/A	100.00	10.11	8046.63	282.06	N/A	
		Moisture	%	N/A	100.00	0.00	31.03	25.72	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	46.91	210.96	141.14	Y	
		Opacity	%	N/A	100.00	2.45	69.07	10.62	N/A	
		Oxygen (O2)	%	N/A	100.00	0.01	19.16	2.28	N/A	
		Temperature	°C	N/A	100.00	225.21	301.09	275.52	N/A	
December	14-Jan	Carbon monoxide (CO)	mg/m3	N/A	100.00	4.21	8046.63	198.66	N/A	
		Moisture	%	N/A	100.00	0.00	32.30	26.19	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	35.68	263.70	169.75	Y	
		Opacity	%	N/A	100.00	2.07	69.03	10.98	N/A	
		Oxygen (O2)	%	N/A	100.00	0.00	20.80	2.39	N/A	
		Temperature	°C	N/A	100.00	207.48	297.31	264.00	N/A	
January	14-Feb	Carbon monoxide (CO)	mg/m3	N/A	100.00	4.21	1855.90	87.59	N/A	
		Moisture	%	N/A	100.00	0.00	31.99	26.14	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	14.29	285.93	193.97	Y	
		Opacity	%	N/A	100.00	1.83	89.75	10.40	N/A	
		Oxygen (O2)	%	N/A	100.00	0.00	21.10	3.11	N/A	
		Temperature	°C	N/A	100.00	209.94	288.45	253.79	N/A	
February	14-Mar	Carbon monoxide (CO)	mg/m3	N/A	100.00	4.21	8046.63	79.81	N/A	
		Moisture	%	N/A	100.00	0.00	30.13	25.32	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	30.97	337.06	225.27	Y	
		Opacity	%	N/A	100.00	2.65	87.02	10.00	N/A	
		Oxygen (O2)	%	N/A	100.00	0.00	21.29	2.94	N/A	
		Temperature	°C	N/A	100.00	120.49	283.36	250.78	N/A	
March	14-Apr	Carbon monoxide (CO)	mg/m3	N/A	100.00	4.21	8046.63	65.35	N/A	
		Moisture	%	N/A	100.00	0.00	30.24	26.59	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	99.73	2.63	399.41	161.28	Y	
		Opacity	%	N/A	100.00	2.53	88.45	11.25	N/A	
		Oxygen (O2)	%	N/A	100.00	0.00	20.72	2.33	N/A	
		Temperature	°C	N/A	100.00	228.99	290.91	265.95	N/A	
April	14-May	Carbon monoxide (CO)	mg/m3	N/A	100.00	4.21	8046.63	206.25	N/A	
		Moisture	%	N/A	100.00	0.00	34.16	26.14	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	1.58	220.29	136.45	Y	
		Opacity	%	N/A	100.00	0.01	88.60	10.64	N/A	
		Oxygen (O2)	%	N/A	100.00	0.00	21.08	2.55	N/A	
		Temperature	°C	N/A	100.00	240.31	299.77	271.54	N/A	
May	14-Jun	Carbon monoxide (CO)	mg/m3	N/A	100.00	4.21	8046.63	192.22	N/A	
		Moisture	%	N/A	100.00	0.00	31.77	26.44	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	0.00	321.84	174.59	Y	
		Opacity	%	N/A	100.00	0.30	53.25	10.30	N/A	
		Oxygen (O2)	%	N/A	100.00	0.00	21.08	2.49	N/A	
		Temperature	°C	N/A	100.00	211.25	301.09	267.68	N/A	
June	14-Jul	Carbon monoxide (CO)	mg/m3	N/A	100.00	4.21	7344.94	121.57	N/A	
		Moisture	%	N/A	100.00	0.00	31.51	26.40	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	0.01	214.82	122.88	Y	
		Opacity	%	N/A	100.00	0.42	51.26	9.68	N/A	
		Oxygen (O2)	%	N/A	100.00	0.00	20.93	2.62	N/A	
		Temperature	°C	N/A	100.00	226.35	290.91	264.48	N/A	



Latest Publication Date: 14-Jul-22

Monitoring Location No: 4

Environment Protection Licence:

10232

Description: Discharge duct downstream of Lime Kiln A prior to junction with Stack 1

Reporting Period:

July 2021 to June 2022

Monitoring Type: Grab Sample

Sample Type:

Air

Pollutant	Unit of measure	Reporting Level	Sampling Freq	Date of Sample	Date of Report	Report No.	Data	Compliance(Yes/No)	Comment
Total Solid Particles	mg/m3	23	Annual	25-Nov-21	2-Feb-22	R011875a	230	No	

ND - No Data

N/A - Not applicable



Latest Publication Date: 14-Jul-22

Monitoring Location No: 21

Environment Protection Licence:

10232

Description: Discharge duct downstream of Lime Kiln B prior to junction with Stack 1

Reporting Period:

July 2021 to June 2022

Monitoring Type: Continuous

Sample Type: Air

Month	Date of publication	Pollutant	Unit of measure	Reporting Level	Data collected (%)	Lowest value	Highest value	Mean	Compliance (Yes/No)	Comment
July	14-Aug	Carbon monoxide (CO)	mg/m3	100	0.49	6000.00	90.63	N/A		
		Moisture	%	100	0.00	38.24	27.19	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.00	1000.00	303.18	N/A		
		Opacity	%	100	0.01	90.57	6.65	N/A		
		Oxygen (O2)	%	100	0.05	21.00	2.37	N/A		
		Temperature	°C	100	80.58	463.06	274.82	N/A		
August	14-Sep	Carbon monoxide (CO)	mg/m3	100	0.52	2121.53	63.62	N/A		
		Moisture	%	100	0.00	34.12	21.64	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.00	479.64	139.01	N/A		
		Opacity	%	100	0.01	84.42	7.00	N/A		
		Oxygen (O2)	%	100	0.05	17.18	2.07	N/A		
		Temperature	°C	100	68.93	429.88	280.24	N/A		
September	14-Oct	Carbon monoxide (CO)	mg/m3	100	0.49	6000.00	74.51	N/A		
		Moisture	%	100	0.00	33.31	22.55	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.00	1000.00	189.50	N/A		
		Opacity	%	100	0.01	90.46	7.06	N/A		
		Oxygen (O2)	%	100	0.05	21.00	2.73	N/A		
		Temperature	°C	100	71.63	432.58	275.29	N/A		
October	14-Nov	Carbon monoxide (CO)	mg/m3	100	0.49	6000.00	63.35	N/A		
		Moisture	%	100	0.00	37.54	22.38	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.00	658.56	252.28	N/A		
		Opacity	%	100	0.01	90.53	6.43	N/A		
		Oxygen (O2)	%	100	0.03	21.00	6.77	N/A		
		Temperature	°C	100	0.21	500.00	255.30	N/A		
November	14-Dec	Carbon monoxide (CO)	mg/m3	100	0.49	3141.50	99.32	N/A		
		Moisture	%	100	0.00	57.50	24.09	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.01	1000.00	325.63	N/A		
		Opacity	%	100	0.01	90.28	7.02	N/A		
		Oxygen (O2)	%	100	0.04	20.49	2.79	N/A		
		Temperature	°C	100	64.11	472.01	257.10	N/A		
December	14-Jan	Carbon monoxide (CO)	mg/m3	100	0.49	6000.00	31.99	N/A		
		Moisture	%	100	0.00	41.37	21.10	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.02	881.92	347.19	N/A		
		Opacity	%	100	0.01	90.42	7.58	N/A		
		Oxygen (O2)	%	100	0.03	15.63	2.01	N/A		
		Temperature	°C	100	105.02	471.31	269.75	N/A		
January	14-Feb	Carbon monoxide (CO)	mg/m3	100	0.49	6000.00	54.71	N/A		
		Moisture	%	100	0.00	35.31	24.36	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.00	821.86	359.53	N/A		
		Opacity	%	100	0.01	90.39	7.81	N/A		
		Oxygen (O2)	%	100	0.02	21.00	2.44	N/A		
		Temperature	°C	100	69.80	452.70	287.37	N/A		
February	14-Mar	Carbon monoxide (CO)	mg/m3	100	0.49	1852.77	51.20	N/A		
		Moisture	%	100	0.00	28.83	18.56	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.00	537.84	179.17	N/A		
		Opacity	%	100	0.01	90.35	9.41	N/A		
		Oxygen (O2)	%	100	0.03	19.77	2.35	N/A		
		Temperature	°C	100	63.58	487.74	279.50	N/A		
March	14-Apr	Carbon monoxide (CO)	mg/m3	100	0.49	6000.00	217.02	N/A		
		Moisture	%	100	0.00	54.30	23.11	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.00	1000.00	357.17	N/A		
		Opacity	%	100	0.01	90.42	9.00	N/A		
		Oxygen (O2)	%	100	0.03	21.00	2.53	N/A		
		Temperature	°C	100	77.13	466.85	283.24	N/A		
April	14-May	Carbon monoxide (CO)	mg/m3	100	0.49	6000.00	231.46	N/A		
		Moisture	%	100	0.00	35.03	27.21	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.01	1000.00	452.48	N/A		
		Opacity	%	100	0.01	90.71	10.20	N/A		
		Oxygen (O2)	%	100	0.04	19.54	1.74	N/A		
		Temperature	°C	100	76.26	474.19	291.11	N/A		
May	14-Jun	Carbon monoxide (CO)	mg/m3	100	0.49	2715.04	71.02	N/A		
		Moisture	%	100	0.00	33.57	25.72	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.02	1000.00	520.35	N/A		
		Opacity	%	100	0.01	90.71	9.35	N/A		
		Oxygen (O2)	%	100	0.05	20.50	2.37	N/A		
		Temperature	°C	100	60.04	500.00	277.28	N/A		
June	14-Jul	Carbon monoxide (CO)	mg/m3	100	0.49	6000.00	141.77	N/A		
		Moisture	%	100	0.00	34.17	27.39	N/A		
		Nitrogen Oxides (as NO2)	mg/m3	100	0.00	1000.00	516.78	N/A		
		Opacity	%	100	0.01	88.24	8.54	N/A		
		Oxygen (O2)	%	100	0.05	21.00	2.64	N/A		
		Temperature	°C	100	74.65	470.57	277.04	N/A		



Latest Publication Date: 14-Jul-22
Monitoring Location No: 21 **Environment Protection Licence:** 10232
Description: Discharge duct downstream of Lime Kiln B prior to junction with Stack 1 **Reporting Period:** July 2021 to June 2022
Monitoring Type: Grab Sample **Sample Type:** Air

Pollutant	Unit of measure	Sampling Freq	Date of Sample	Date of Report	Report No.	Data	Comment
Total Solid Particles	mg/m3	Annual	25-Nov-21	1-Feb-22	R011875a	120	

General Note: Limits are not applicable to this monitoring point



Latest Publication Date: 14-Jul-22
Monitoring Location No: 22
Environment Protection Licence: 10232
Description: Exit point from Stack 2 to atmosphere
Reporting Period: July 2021 to June 2022
Monitoring Type: Continuous
Sample Type: Air

Month	Date of publication	Pollutant	Unit of measure	Concentration Limit	Data collected (%)			Compliance (Yes/No)	Comment	
					Lowest value	Highest value	Mean			
July	14-Aug	Flow	Nm3/s	N/A	100.00	0.02	36.04	27.69	N/A	ESP operational issues
		Hydrogen chloride	mg/m3	50	100.00	0.32	0.43	0.39	Y	
		Moisture	%	N/A	100.00	16.32	25.02	16.93	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	6.46	165.78	137.80	Y	
		Opacity	%	20	99.72	1.45	63.69	6.98	N	
		Oxygen (O2)	%	N/A	100.00	8.99	23.16	11.60	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.00	0.39	0.13	Y	
		Temperature	°C	N/A	100.00	86.27	173.91	162.79	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.00	0.44	0.31	Y	
August	14-Sep	Flow	Nm3/s	100	100.00	0.02	34.03	26.15	N/A	Operational issues
		Hydrogen chloride	mg/m3	50	100.00	0.10	0.24	0.17	Y	
		Moisture	%	N/A	100.00	16.19	17.72	16.78	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	13.34	179.06	136.06	Y	
		Opacity	%	20	99.76	3.23	90.17	15.03	N	
		Oxygen (O2)	%	N/A	100.00	9.21	22.37	11.90	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.00	0.31	0.09	Y	
		Temperature	°C	N/A	100.00	93.22	167.70	160.61	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.03	0.44	0.31	Y	
September	14-Oct	Flow	Nm3/s	N/A	100.00	0.02	33.72	25.37	N/A	Auto Calibration
		Hydrogen chloride	mg/m3	50	100.00	0.07	0.36	0.25	Y	
		Moisture	%	N/A	100.00	16.17	17.65	16.74	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	69.61	167.33	141.49	Y	
		Opacity	%	20	99.67	3.21	26.26	8.31	Y	
		Oxygen (O2)	%	N/A	100.00	9.62	22.39	12.20	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.00	1.60	0.10	Y	
		Temperature	°C	N/A	100.00	153.12	168.98	162.14	N/A	
		TRS (as H2S)	mg/m3	3.6	98.19	0.04	0.49	0.35	Y	
October	14-Nov	Flow	Nm3/s	N/A	100.00	0.00	35.33	20.80	N/A	Annual MSD
		Hydrogen chloride	mg/m3	50	100.00	0.01	1.16	0.48	Y	
		Moisture	%	N/A	100.00	14.13	23.53	16.83	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	1.35	363.20	107.83	Y	
		Opacity	%	20	99.83	1.00	87.24	7.60	Y	
		Oxygen (O2)	%	N/A	100.00	0.03	22.50	14.56	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.00	0.22	0.06	Y	
		Temperature	°C	N/A	100.00	5.69	171.13	125.49	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.00	0.58	0.33	Y	
November	14-Dec	Flow	Nm3/s	100	100.00	0.02	48.69	33.34	N/A	
		Hydrogen chloride	mg/m3	50	100.00	0.00	26.20	1.10	Y	
		Moisture	%	N/A	100.00	0.04	44.94	17.79	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	12.24	176.97	122.61	Y	
		Opacity	%	20	99.65	2.56	27.64	9.29	Y	
		Oxygen (O2)	%	N/A	100.00	5.31	22.75	9.68	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.08	32.97	0.96	Y	
		Temperature	°C	N/A	100.00	96.65	175.19	166.95	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.01	0.83	0.57	Y	
December	14-Jan	Flow	Nm3/s	N/A	100.00	0.02	39.39	32.08	N/A	Recovery Boiler "B" ESP issue
		Hydrogen chloride	mg/m3	50	100.00	0.24	0.24	0.24	Y	
		Moisture	%	N/A	100.00	17.31	18.66	17.75	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	23.51	155.45	117.35	Y	
		Opacity	%	20	99.70	1.76	32.87	7.84	N	
		Oxygen (O2)	%	N/A	100.00	7.91	21.96	10.34	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.05	1.40	0.78	Y	
		Temperature	°C	N/A	100.00	158.70	175.19	168.79	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.02	0.93	0.62	Y	
January	14-Feb	Flow	Nm3/s	100	100.00	0.02	39.36	29.41	N/A	Faulty Probe
		Hydrogen chloride	mg/m3	50	0.00	0.00	0.00	0.00	N	
		Moisture	%	N/A	100.00	17.20	25.60	17.78	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	9.01	175.68	113.53	Y	
		Opacity	%	20	99.69	0.85	53.44	6.13	N	
		Oxygen (O2)	%	N/A	100.00	8.58	21.53	11.33	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.03	1.62	0.75	Y	
		Temperature	°C	N/A	100.00	123.35	190.30	167.74	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.00	0.74	0.59	Y	
February	14-Mar	Flow	Nm3/s	100	100.00	0.02	62.51	29.86	N/A	Recovery Boiler "B" Trip
		Hydrogen chloride	mg/m3	50	99.55	0.00	37.89	0.75	Y	
		Moisture	%	N/A	100.00	16.00	21.63	17.77	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	0.31	341.15	117.81	Y	
		Opacity	%	20	99.73	3.24	26.79	7.86	N	
		Oxygen (O2)	%	N/A	100.00	0.84	25.00	11.20	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.08	84.71	1.23	Y	
		Temperature	°C	N/A	100.00	154.95	173.06	167.77	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.02	1.85	0.60	Y	
March	14-Apr	Flow	Nm3/s	100	100.00	0.05	77.77	39.02	N/A	Auto Calibration
		Hydrogen chloride	mg/m3	50	100.00	0.00	12.39	0.83	Y	
		Moisture	%	N/A	100.00	14.89	29.34	17.71	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	34.98	170.46	142.75	Y	
		Opacity	%	20	99.64	2.66	28.26	7.15	Y	
		Oxygen (O2)	%	N/A	100.00	0.01	24.46	7.94	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.40	1.47	0.92	Y	
		Temperature	°C	N/A	100.00	148.63	176.37	165.86	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.13	0.91	0.71	Y	



Latest Publication Date: 14-Jul-22

Monitoring Location No: 22

Environment Protection Licence: 10232

Description: Exit point from Stack 2 to atmosphere

Reporting Period: July 2021 to June 2022

Monitoring Type: Continuous

Sample Type: Air

Month	Date of publication	Pollutant	Unit of measure	Concentration Limit	Data collected (%)			Mean	Compliance (Yes/No)	Comment
					Lowest value	Highest value				
April	14-May	Flow	Nm3/s	100	100.00	5.54	46.59	39.95	N/A	Planned Shutdown
		Hydrogen chloride	mg/m3	50	100.00	0.52	0.58	0.55	Y	
		Moisture	%	N/A	100.00	15.52	27.71	17.66	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	87.91	169.13	148.40	Y	
		Opacity	%	20	99.68	0.74	30.61	6.59	Y	
		Oxygen (O2)	%	N/A	100.00	6.31	18.60	8.11	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.50	1.10	0.93	Y	
		Temperature	°C	N/A	100.00	148.31	173.59	167.40	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.24	0.96	0.80	Y	
May	14-Jun	Flow	Nm3/s	100	100.00	18.30	46.17	37.18	N/A	Recovery Boiler "B" ESP issue
		Hydrogen chloride	mg/m3	50	100.00	0.00	5.50	0.79	Y	
		Moisture	%	N/A	100.00	12.16	30.15	18.54	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	122.21	179.07	153.50	Y	
		Opacity	%	20	99.65	2.29	71.22	6.42	N	
		Oxygen (O2)	%	N/A	100.00	6.79	14.07	8.77	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.70	1.11	0.94	Y	
		Temperature	°C	N/A	100.00	148.94	173.17	166.29	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.62	1.01	0.89	Y	
June	14-Jul	Flow	Nm3/s	100	100.00	3.47	48.33	30.92	N/A	Recovery Boiler "B" ESP issue
		Hydrogen chloride	mg/m3	50	100.00	0.00	1.32	0.37	Y	
		Moisture	%	N/A	100.00	15.79	28.46	17.85	N/A	
		Nitrogen Oxides (as NO2)	mg/m3	400	100.00	0.00	183.05	153.03	Y	
		Opacity	%	20	99.72	2.22	27.99	8.48	N	
		Oxygen (O2)	%	N/A	100.00	5.49	19.88	10.82	N/A	
		Sulphur dioxide (SO2)	mg/m3	250	100.00	0.02	1.14	0.96	Y	
		Temperature	°C	N/A	100.00	85.07	173.80	164.18	N/A	
		TRS (as H2S)	mg/m3	3.6	100.00	0.13	1.15	0.92	Y	

Latest Publication Date: 14-Jul-22

Monitoring Location No: 22
 Description: Exit point from Stack 2 to atmosphere
 Monitoring Type: Grab Sample

Environment Protection Licence: 10232
 Reporting Period: July 2021 to June 2022
 Sample Type: Air

Pollutant	Unit of measure	Concentration		Sampling Freq	Date of Sample	Date of Report	Report No.	Data	Compliance (Yes/No)	Comments
		Limit								
Chlorine	mg/m3	100		Annual	24-Nov-21	1-Feb-22	R011875a	<0.02	Yes	
Sulfuric acid mist & sulfur trioxide (as SO3)	mg/m3	20		Annual	24-Nov-21	1-Feb-22	R011875a	0.11	Yes	
TCDD (equivalent)	ng/m3	0.1		Annual	24-Nov-21	1-Feb-22	R011875a	0.00081	Yes	
Total Solid Particles	mg/m3	50		1st Qrt	31-Aug-21	29-Sep-21	R011400	17	Yes	
Total Solid Particles	mg/m3	50		2nd Qrt	24-Nov-21	1-Feb-22	R011875a	17	Yes	
Total Solid Particles	mg/m3	50		3rd Qrt	16-Feb-22	3-Mar-22	R012458	26	Yes	
Total Solid Particles	mg/m3	50		4th Qrt	18-May-22	07-Jun-22	R012913	18	Yes	
Type 1 and 2 substances	mg/m3	1		Annual	24-Nov-21	1-Feb-22	R011875a	<0.02	Yes	

ND- No Data
 N/A- Not Applicable