

Air Emission Monthly Report

UPM-Kymmene (UK)

Permit Number EPR/BT4885IT
Installation Shotton Paper Mill

To
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Natural Resources Wales
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Please find enclosed graphs / reports for Continuously Monitored Emissions to Air A2 to A8 for the period ending 30th September 2018.

During the period there have not been any reportable exceedances or non conformances to report, you will note that on 26th September there are 2 invalid results and on 27th September no readings reported.

Explanation is as follows

- i) CEMs PC hard drive failed 23.00 26th September leaving 2* 30 minute invalid periods
- ii) CEMs PC hard drive replaced 05.30 27th September 11*30 minute invalid periods

Find attached invalid readings reports App # 1 and APP # 2

I have also attached APP # 3 showing Boiler load and Oxygen sensor reading to demonstrate Boiler load and therefore combustion was stable during this CEMs outage
A total of 6.5 hours will be added to the annual CEMs Invalidation log

If you require any further information or clarification please let me know

Best Regards



Kevin Smith
Utilities Manager
UPM (UK) Shotton

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Air Emission Monthly Report

App # 1 CEMS PC hard drive failed 23.00 26th September leaving 2* 30 minute invalid periods

Daily report for the period ending Thursday 27 September 2018 00:00:00

Date/Time	Corrected CO 30min averages, mg/Nm ³	Corrected SO ₂ 30min averages, mg/Nm ³	Corrected HCl 30min averages, mg/Nm ³	Corrected TOC 30min averages, mgC/Nm ³	Corrected NOx as NO ₂ 30min averages, mgNO ₂ /Nm ³	Corrected Dust 30min averages, mg/Nm ³	Corrected NH ₃ 30min averages, mg/Nm ³
26/09/2018 00:30:00	26.5 (30)	6.4 (30)	3.2 (30)	1.1 (30)	165.0 (30)	0.4 (30)	0.5 (30)
26/09/2018 01:00:00	8.0 (30)	6.2 (30)	3.2 (30)	0.9 (30)	176.8 (30)	0.4 (30)	0.5 (30)
26/09/2018 01:30:00	28.7 (30)	4.7 (30)	2.7 (30)	0.9 (30)	165.5 (30)	0.2 (30)	0.3 (30)
26/09/2018 02:00:00	35.0 (30)	4.6 (30)	2.6 (30)	0.8 (30)	170.8 (30)	0.3 (30)	0.3 (30)
26/09/2018 02:30:00	31.8 (30)	5.2 (30)	2.6 (30)	0.8 (30)	172.0 (30)	0.5 (30)	0.3 (30)
26/09/2018 03:00:00	24.7 (30)	4.6 (30)	2.6 (30)	0.8 (30)	177.9 (30)	0.5 (30)	0.3 (30)
26/09/2018 03:30:00	17.6 (30)	4.5 (30)	2.7 (30)	0.9 (30)	159.5 (30)	0.5 (30)	0.3 (30)
26/09/2018 04:00:00	19.7 (30)	4.7 (30)	2.8 (30)	0.9 (30)	164.5 (30)	0.2 (30)	0.3 (30)
26/09/2018 04:30:00	31.2 (30)	4.9 (30)	2.9 (30)	0.9 (30)	169.4 (30)	0.6 (30)	0.3 (30)
26/09/2018 05:00:00	25.1 (30)	4.7 (30)	2.6 (30)	0.9 (30)	171.4 (30)	0.6 (30)	0.3 (30)
26/09/2018 05:30:00	32.7 (30)	5.0 (30)	2.7 (30)	0.9 (30)	171.9 (30)	0.6 (30)	0.3 (30)
26/09/2018 06:00:00	23.3 (30)	5.2 (30)	2.7 (30)	1.1 (30)	174.6 (30)	0.6 (30)	0.3 (30)
26/09/2018 06:30:00	33.5 (30)	5.2 (30)	2.7 (30)	1.1 (30)	163.1 (30)	0.6 (30)	0.3 (30)
26/09/2018 07:00:00	28.0 (30)	5.7 (30)	2.9 (30)	1.0 (30)	165.5 (30)	0.6 (30)	0.4 (30)
26/09/2018 07:30:00	27.4 (30)	5.3 (30)	2.9 (30)	0.9 (30)	170.4 (30)	0.6 (30)	0.2 (30)
26/09/2018 08:00:00	13.6 (30)	4.6 (30)	2.7 (30)	0.7 (30)	170.1 (30)	0.6 (30)	0.2 (30)
26/09/2018 08:30:00	41.9 (30)	5.3 (30)	2.9 (30)	1.2 (30)	147.6 (30)	0.6 (30)	0.2 (30)
26/09/2018 09:00:00	13.9 (30)	5.1 (30)	3.1 (30)	0.9 (30)	166.2 (30)	0.6 (30)	0.3 (30)
26/09/2018 09:30:00	23.9 (30)	5.4 (30)	3.1 (30)	0.9 (30)	168.5 (30)	0.6 (30)	0.3 (30)
26/09/2018 10:00:00	26.2 (30)	5.6 (30)	3.1 (30)	0.9 (30)	165.7 (30)	0.6 (30)	0.4 (30)
26/09/2018 10:30:00	35.6 (30)	5.6 (30)	2.8 (30)	0.9 (30)	171.2 (30)	0.6 (30)	0.2 (30)
26/09/2018 11:00:00	25.8 (30)	6.5 (30)	2.9 (30)	1.2 (30)	171.5 (30)	0.6 (30)	0.2 (30)
26/09/2018 11:30:00	15.2 (30)	5.4 (30)	2.8 (30)	1.0 (30)	171.5 (30)	0.6 (30)	0.2 (30)
26/09/2018 12:00:00	16.5 (30)	5.4 (30)	2.8 (30)	1.0 (30)	173.5 (30)	0.6 (30)	0.2 (30)
26/09/2018 12:30:00	35.0 (30)	4.6 (30)	2.7 (30)	1.0 (30)	161.6 (30)	0.4 (30)	0.2 (30)
26/09/2018 13:00:00	21.9 (30)	4.9 (30)	2.6 (30)	0.8 (30)	159.5 (30)	0.5 (30)	0.2 (30)
26/09/2018 13:30:00	36.1 (30)	5.3 (30)	2.9 (30)	0.9 (30)	145.7 (30)	0.5 (30)	0.2 (30)
26/09/2018 14:00:00	27.5 (30)	4.9 (30)	3.0 (30)	0.9 (30)	170.9 (30)	0.5 (30)	0.3 (30)
26/09/2018 14:30:00	19.4 (30)	5.3 (30)	3.0 (30)	0.7 (30)	167.0 (30)	0.6 (30)	0.4 (30)
26/09/2018 15:00:00	23.2 (30)	5.6 (30)	3.1 (30)	0.9 (30)	169.1 (30)	0.6 (30)	0.4 (30)
26/09/2018 15:30:00	31.8 (30)	5.1 (30)	3.1 (30)	0.9 (30)	149.1 (30)	0.5 (30)	0.4 (30)
26/09/2018 16:00:00	31.5 (30)	5.4 (30)	3.1 (30)	1.1 (30)	170.7 (30)	0.5 (30)	0.4 (30)
26/09/2018 16:30:00	44.7 (30)	5.4 (30)	3.0 (30)	1.2 (30)	170.7 (30)	0.5 (30)	0.4 (30)
26/09/2018 17:00:00	15.7 (30)	5.4 (30)	3.0 (30)	1.2 (30)	167.7 (30)	0.5 (30)	0.4 (30)
26/09/2018 17:30:00	32.4 (30)	5.1 (30)	2.9 (30)	1.0 (30)	169.5 (30)	0.5 (30)	0.3 (30)
26/09/2018 18:00:00	29.2 (30)	6.3 (30)	3.0 (30)	1.0 (30)	161.6 (30)	0.5 (30)	0.3 (30)
26/09/2018 18:30:00	23.7 (30)	6.0 (30)	3.1 (30)	0.9 (30)	173.3 (30)	0.5 (30)	0.4 (30)
26/09/2018 19:00:00	15.5 (30)	4.9 (30)	3.1 (30)	0.7 (30)	164.5 (30)	0.5 (30)	0.5 (30)
26/09/2018 19:30:00	51.7 (30)	5.0 (30)	3.0 (30)	1.1 (30)	145.2 (30)	0.6 (30)	0.5 (30)
26/09/2018 20:00:00	18.1 (30)	5.0 (30)	2.8 (30)	0.9 (30)	174.5 (30)	0.6 (30)	0.4 (30)
26/09/2018 20:30:00	46.5 (30)	4.9 (30)	3.1 (30)	1.1 (30)	157.4 (30)	0.6 (30)	0.4 (30)
26/09/2018 21:00:00	16.7 (30)	5.1 (30)	3.4 (30)	1.0 (30)	151.5 (30)	0.5 (30)	0.5 (30)
26/09/2018 21:30:00	47.0 (30)	5.2 (30)	3.3 (30)	1.4 (30)	161.5 (30)	0.6 (30)	0.6 (30)
26/09/2018 22:00:00	9.5 (30)	4.7 (30)	3.2 (30)	1.5 (30)	163.3 (30)	0.6 (30)	0.5 (30)
26/09/2018 22:30:00	42.8 (30)	5.0 (30)	2.9 (30)	1.0 (30)	171.4 (30)	0.4 (30)	0.4 (30)
26/09/2018 23:00:00	21.3 (30)	4.8 (30)	2.9 (30)	0.9 (30)	177.1 (30)	0.4 (30)	0.5 (30)

No data from 23.00 until 00.00 2 * 30 minute periods

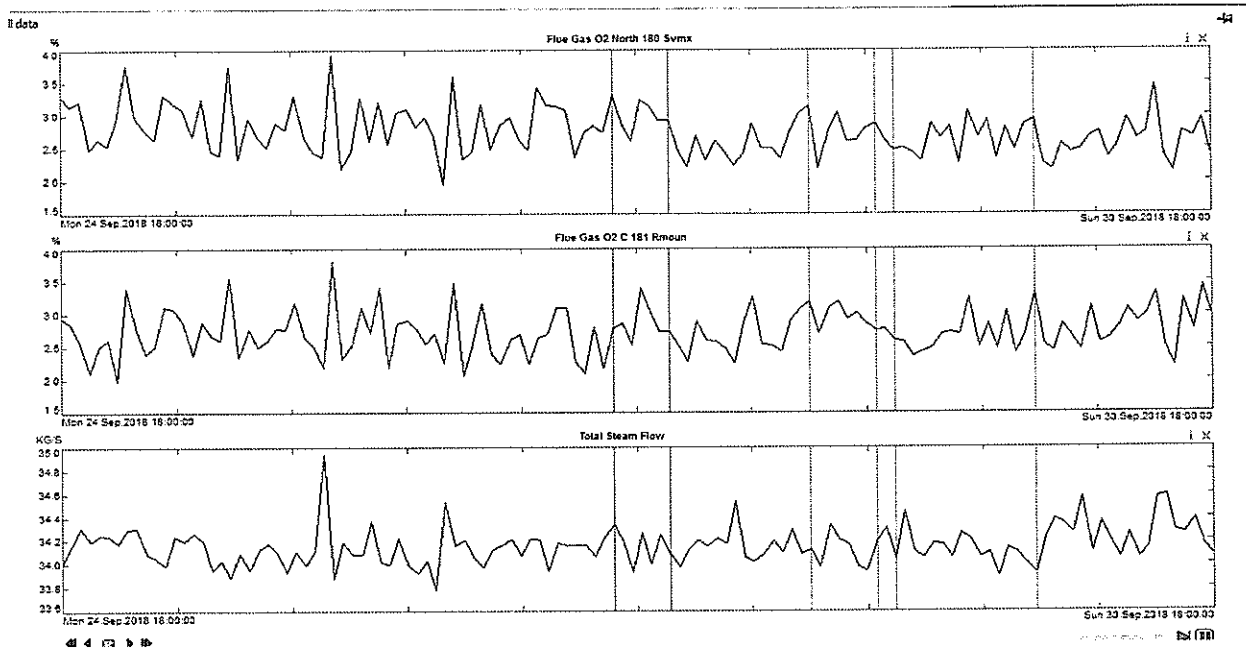
App # 2 CEMs PC hard drive replaced 05.30 27th September 11*30 minute invalid periods

Daily report for the period ending Friday 28 September 2018 00:00:00

Date/Time	Corrected CO 30min averages, mg/Nm ³	Corrected SO ₂ 30min averages, mg/Nm ³	Corrected HCl 30min averages, mg/Nm ³	Corrected TOC 30min averages, mgC/Nm ³	Corrected NOx as NO ₂ 30min averages, mgNO ₂ /Nm ³	Corrected Dust 30min averages, mg/Nm ³	Corrected NH ₃ 30min averages, mg/Nm ³
No data from 00.00 until 05.30 = 11 * 30 minute periods							
27/09/2018 05:30:00	37.2 (30)	14.1 (30)	3.0 (30)	1.0 (30)	169.3 (30)	0.1 (30)	0.0 (30)
27/09/2018 06:00:00	30.0 (30)	18.0 (30)	3.1 (30)	1.2 (30)	176.3 (30)	0.0 (30)	0.3 (30)
27/09/2018 06:30:00	41.7 (30)	22.6 (30)	3.1 (30)	1.4 (30)	195.1 (30)	0.0 (30)	0.5 (30)
27/09/2018 07:00:00	9.3 (30)	20.4 (30)	2.9 (30)	0.7 (30)	171.0 (30)	0.0 (30)	0.6 (30)
27/09/2018 07:30:00	36.3 (30)	10.4 (30)	2.6 (30)	1.1 (30)	169.2 (30)	0.0 (30)	0.6 (30)
27/09/2018 08:00:00	12.7 (30)	6.1 (30)	2.4 (30)	0.7 (30)	175.7 (30)	0.0 (30)	0.6 (30)
27/09/2018 08:30:00	27.5 (30)	19.0 (30)	2.9 (30)	0.7 (30)	180.5 (30)	0.0 (30)	0.6 (30)
27/09/2018 09:00:00	23.9 (30)	19.6 (30)	3.0 (30)	0.9 (30)	183.7 (30)	0.0 (30)	1.0 (30)
27/09/2018 09:30:00	47.9 (30)	12.7 (30)	2.9 (30)	0.9 (30)	182.4 (30)	0.0 (30)	0.6 (30)
27/09/2018 10:00:00	7.9 (30)	12.6 (30)	2.9 (30)	0.7 (30)	181.9 (30)	0.0 (30)	0.6 (30)
27/09/2018 10:30:00	33.6 (30)	12.5 (30)	2.6 (30)	0.7 (30)	140.0 (30)	0.0 (30)	0.7 (30)
27/09/2018 11:00:00	35.3 (30)	12.4 (30)	2.8 (30)	0.9 (30)	145.8 (30)	0.0 (30)	0.7 (30)
27/09/2018 11:30:00	28.3 (30)	10.0 (30)	2.9 (30)	0.9 (30)	166.0 (30)	0.0 (30)	0.7 (30)
27/09/2018 12:00:00	23.4 (30)	12.6 (30)	2.9 (30)	0.9 (30)	140.6 (30)	0.0 (30)	0.7 (30)
27/09/2018 12:30:00	30.0 (30)	12.1 (30)	2.9 (30)	0.9 (30)	158.2 (30)	0.0 (30)	0.6 (30)
27/09/2018 13:00:00	19.0 (30)	12.7 (30)	2.6 (30)	0.9 (30)	151.7 (30)	0.0 (30)	0.5 (30)
27/09/2018 13:30:00	38.9 (30)	12.7 (30)	2.6 (30)	1.5 (30)	174.2 (30)	0.0 (30)	0.5 (30)
27/09/2018 14:00:00	31.9 (30)	12.4 (30)	2.6 (30)	0.8 (30)	173.6 (30)	0.0 (30)	0.4 (30)
27/09/2018 14:30:00	35.9 (30)	11.6 (30)	2.6 (30)	1.1 (30)	159.6 (30)	0.0 (30)	0.4 (30)
27/09/2018 15:00:00	19.1 (30)	12.3 (30)	2.7 (30)	0.8 (30)	147.7 (30)	0.0 (30)	0.5 (30)
27/09/2018 15:30:00	18.9 (30)	12.2 (30)	2.7 (30)	0.8 (30)	140.7 (30)	0.0 (30)	0.5 (30)
27/09/2018 16:00:00	32.1 (30)	12.7 (30)	2.7 (30)	0.8 (30)	140.6 (30)	0.0 (30)	0.6 (30)
27/09/2018 16:30:00	32.7 (30)	18.2 (30)	2.8 (30)	1.3 (30)	157.6 (30)	0.0 (30)	0.6 (30)
27/09/2018 17:00:00	18.3 (30)	12.0 (30)	2.6 (30)	0.8 (30)	141.6 (30)	0.0 (30)	0.5 (30)
27/09/2018 17:30:00	56.6 (30)	12.8 (30)	2.8 (30)	1.5 (30)	140.8 (30)	0.0 (30)	0.5 (30)
27/09/2018 18:00:00	18.4 (30)	12.1 (30)	2.6 (30)	0.8 (30)	149.5 (30)	0.0 (30)	0.5 (30)
27/09/2018 18:30:00	37.8 (30)	11.9 (30)	2.5 (30)	0.9 (30)	154.3 (30)	0.0 (30)	0.4 (30)
27/09/2018 19:00:00	14.0 (30)	12.0 (30)	2.4 (30)	0.7 (30)	142.7 (30)	0.0 (30)	0.4 (30)
27/09/2018 19:30:00	25.2 (30)	11.9 (30)	2.8 (30)	0.8 (30)	139.3 (30)	0.0 (30)	0.5 (30)
27/09/2018 20:00:00	41.9 (30)	12.1 (30)	2.6 (30)	0.8 (30)	142.5 (30)	0.4 (30)	0.5 (30)
27/09/2018 20:30:00	30.4 (30)	11.9 (30)	2.5 (30)	0.8 (30)	156.2 (30)	0.0 (30)	0.5 (30)
27/09/2018 21:00:00	26.0 (30)	19.4 (30)	2.8 (30)	0.9 (30)	146.4 (30)	0.0 (30)	0.5 (30)
27/09/2018 21:30:00	35.1 (30)	19.4 (30)	2.9 (30)	0.9 (30)	141.7 (30)	0.0 (30)	0.4 (30)
27/09/2018 22:00:00	22.3 (30)	12.1 (30)	2.6 (30)	0.9 (30)	157.0 (30)	0.0 (30)	0.4 (30)
27/09/2018 22:30:00	33.2 (30)	12.1 (30)	2.6 (30)	1.1 (30)	146.4 (30)	0.0 (30)	0.4 (30)
27/09/2018 23:00:00	23.6 (30)	12.3 (30)	2.6 (30)	1.2 (30)	140.7 (30)	0.0 (30)	0.4 (30)
27/09/2018 23:30:00	35.8 (30)	11.7 (30)	2.6 (30)	1.1 (30)	150.3 (30)	0.0 (30)	0.4 (30)
28/09/2018 00:00:00	20.3 (30)	12.0 (30)	1.5 (30)	0.9 (30)	144.1 (30)	0.0 (30)	0.3 (30)

Air Emission Monthly Report

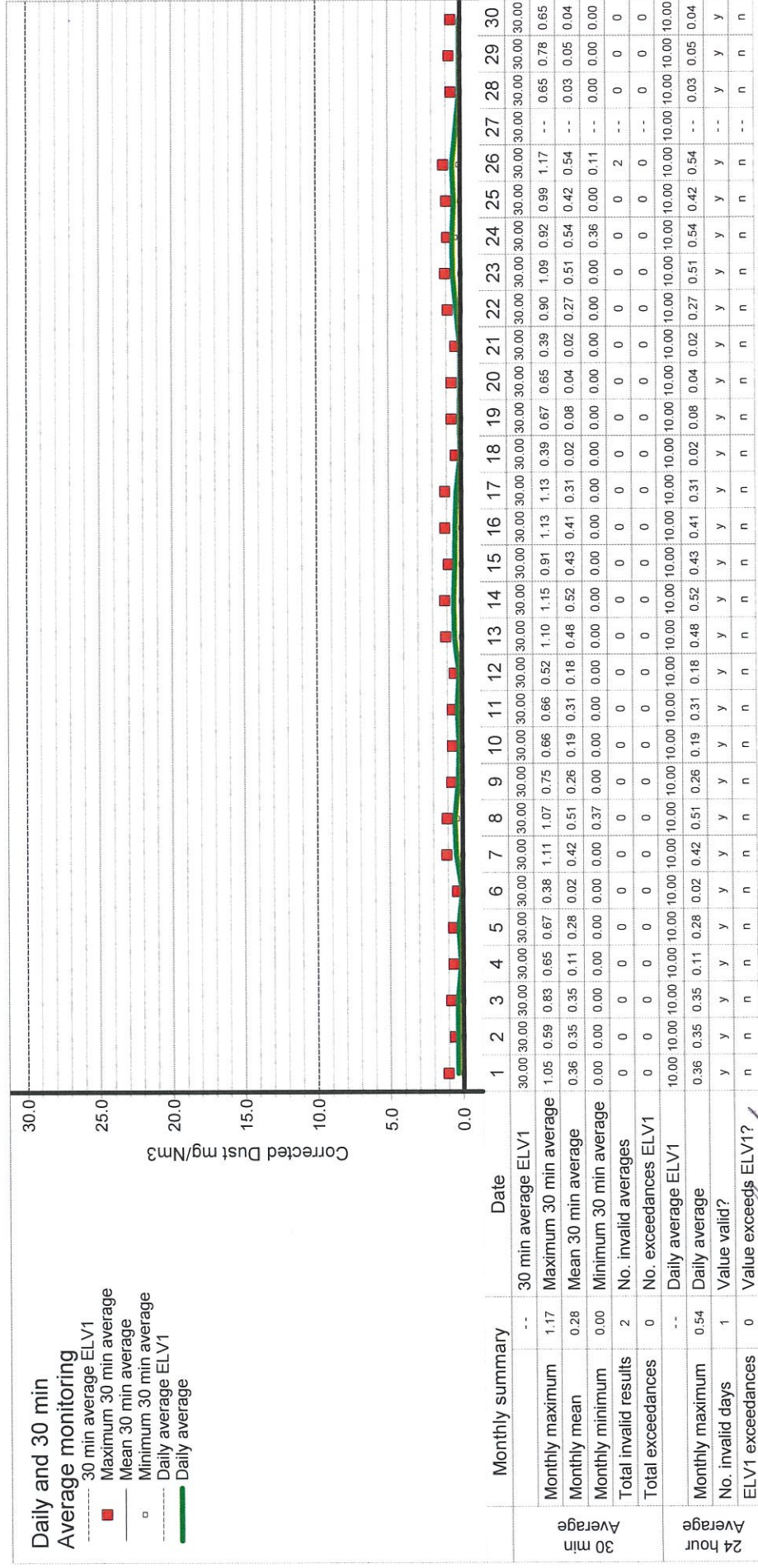
APP # 3 CEMs off line from 23.00 26th September until 05.30 27th September Boiler combustion stable as indicated from O2 probes and Boiler steam flow



Permit Reference Number: PP3936SQ
Installation: Shotton Paper Mill

Operator: UPM-Kymmene (UK) Ltd
Form Number: Agency Form / PP3936SQ /A2 /Form Dated May 06

Reporting of Continuously Monitored Emissions to Air for Particulates Emission Point A20 for the month of September 2018



Signed:  (Authorised to sign as representative of Operator)

Date: 25/10/18

Permit Reference Number: PP3936SQ
Installation: Shotton Paper Mill

Operator: UPM-Kymmene (UK) Ltd
Form Number: Agency Form / PP3936SQ /A3 /Form Dated May 06

Reporting of Continuously Monitored Emissions to Air for Hydrogen Chloride Emission Point A20 for the month of September 2018



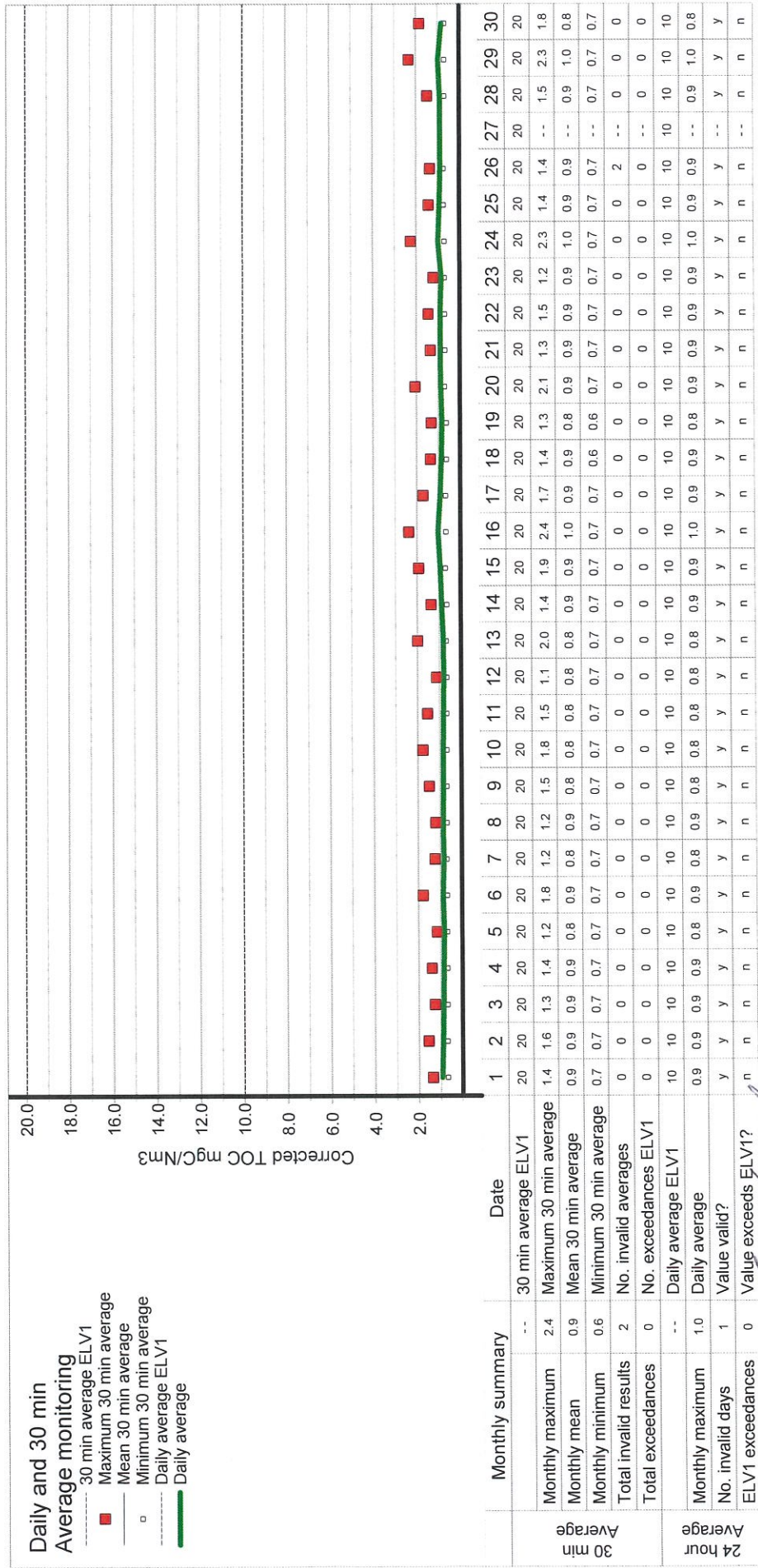
Signed
(Authorised to sign as representative of Operator)

Date: 25/10/18

Permit Reference Number: PP3936SQ
Installation: Shotton Paper Mill

Operator: UPM-Kymmene (UK) Ltd
Form Number: Agency Form / PP3936SQ /A4 /Form Dated May 06

Reporting of Continuously Monitored Emissions to Air for TOC Emission Point A20 for the month of September 2018

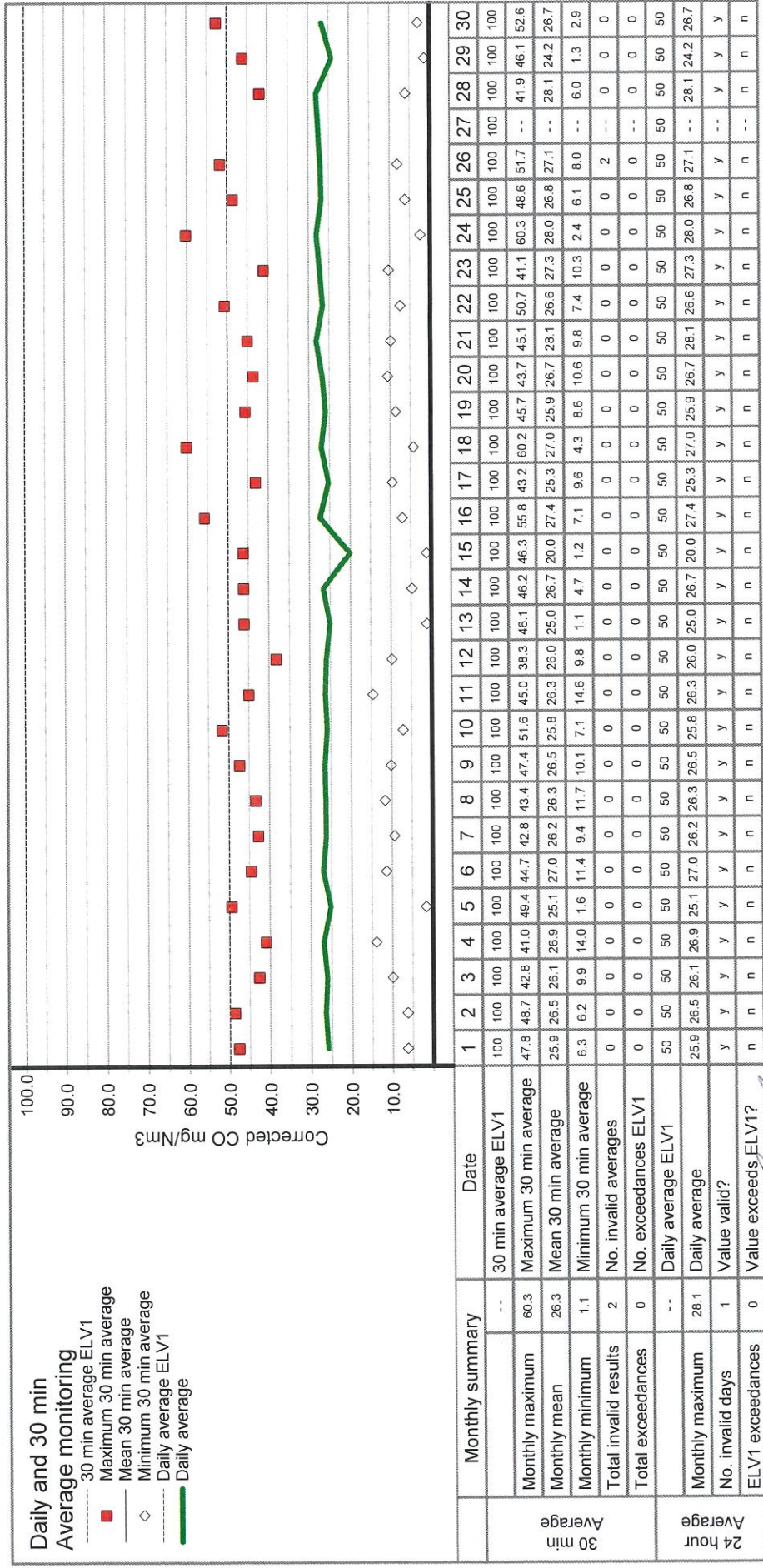


Signed  Date: 25/10/18
(Authorised to sign as representative of Operator)

Permit Reference Number: PP3936SQ
Installation: Shotton Paper Mill

Operator: UPM-Kymmene (UK) Ltd
Form Number: Agency Form / PP3936SQ /A5 /Form Dated May 06

Reporting of Continuously Monitored Emissions to Air for Carbon Monoxide Emission Point A20 for the month of September 2018

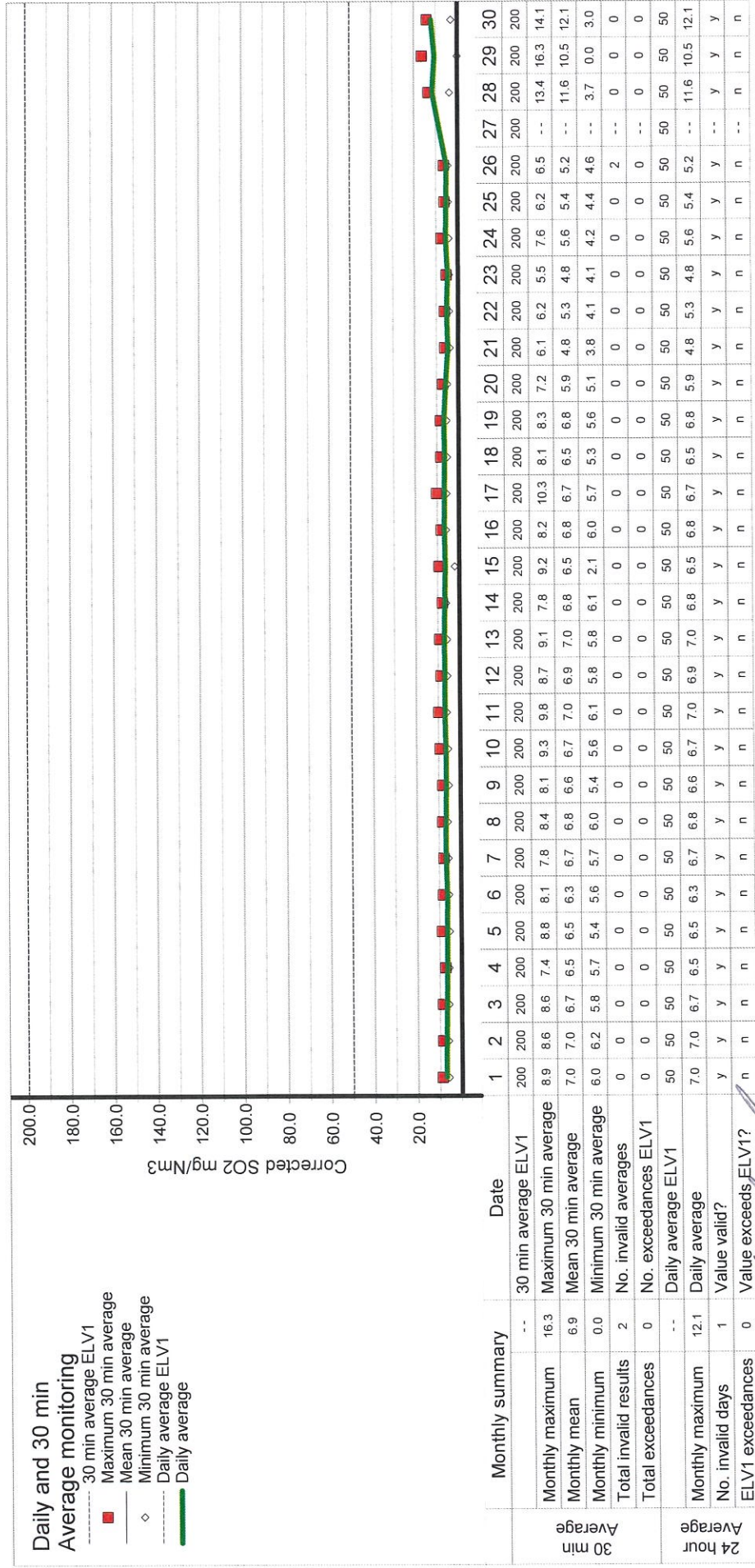


Signed:  Date: 25/10/18
(Authorised to sign as representative of Operator)

Permit Reference Number: PP3936SQ
Installation: Shotton Paper Mill

Operator: UPM-Kymmene (UK) Ltd
Form Number: Agency Form / PP3936SQ /A6 /Form Dated May 06

Reporting of Continuously Monitored Emissions to Air for Sulphur Dioxide Emission Point A20 for the month of September 2018



Date: 25/10/18

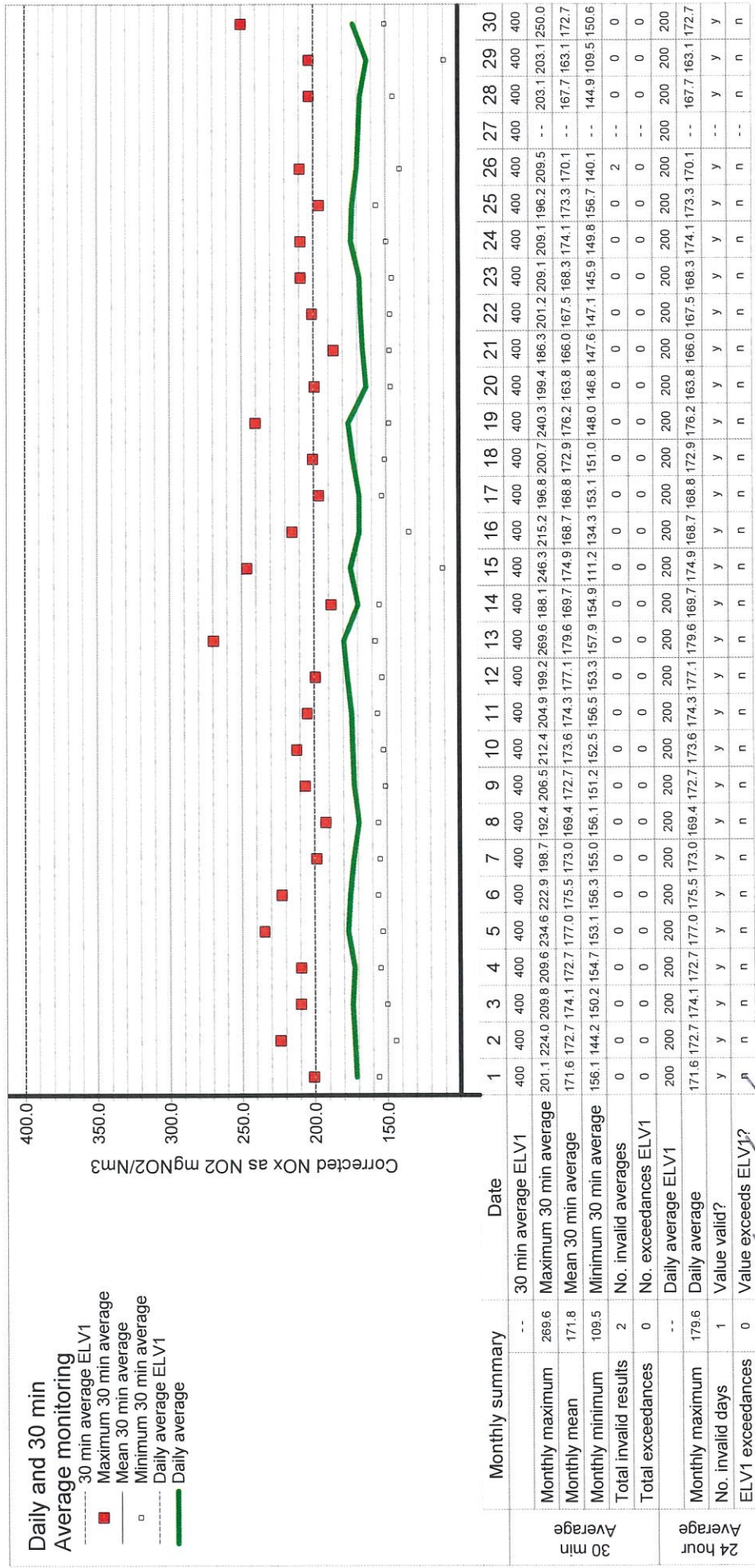
Signed: [Signature]

(Authorised to sign as representative of Operator)

Permit Reference Number: PP3936SQ
Installation: Shotton Paper Mill

Operator: UPM-Kymmene (UK) Ltd
Form Number: Agency Form / PP3936SQ /A7 /Form Dated May 06

Reporting of Continuously Monitored Emissions to Air for Oxides of Nitrogen Emission Point A20 for the month of September 2018



25/10/18

Date

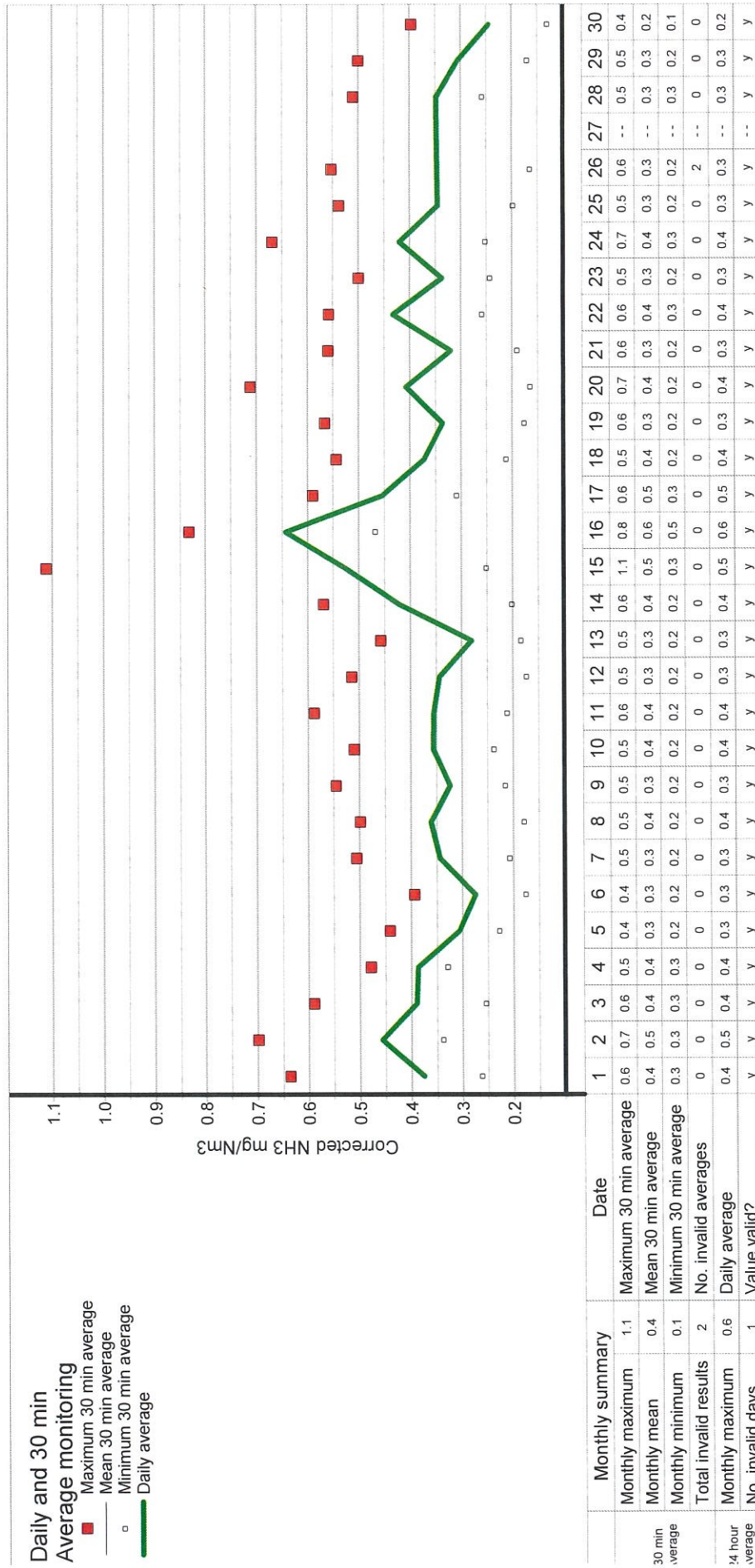
[Signature]

Signed (Authorised to sign as representative of Operator)

Permit Reference Number: PP3936SQ
Installation: Shotton Paper Mill

Operator: UPM-Kymmene (UK) Ltd
Form Number: Agency Form / PP3936SQ / A8 / Form Dated May 06

Reporting of Continuously Monitored Emissions to Air for Ammonia Emission Point A20 for the month of September 2018



Signed:  (Authorised to sign as representative of Operator)
Date: 25/10/18