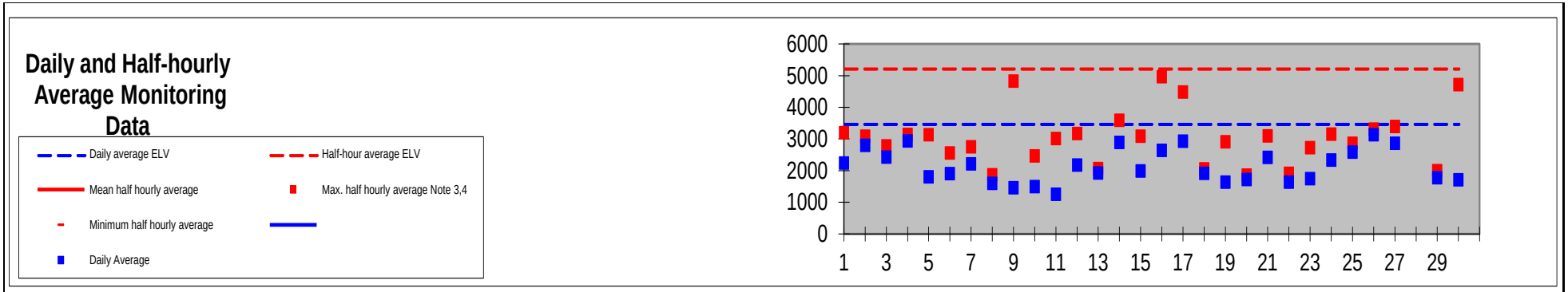
Reference Number: BU2110IS

Operator: Cabot Carbon Limited

Installation: Barry Silicon-Based Manufacturing Installation

Form Number: A1 / Form Dated 1st February 2006

Reporting of Continuously Monitored Emissions to Air for Carbon Monoxide Emission Point A1 for the month of April 2018



	Monthly summary		Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Half-hourly average			Half-hour average ELV	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	
	Monthly maximum		Max. half hourly average Note 3,4	3197	3085	2781	3145	3134	2555	2757	1871	4828	2465	3017	3173	2067	3589	3085	4965	4487	2054	2913	1857	3097	1916	2725	3155	2865	3314	3391		2001	4714	2526
	Monthly mean		Mean half hourly average																															
	Monthly minimum		Minimum half hourly average																															
	Total invalid results		No. of invalid results																															
	Sum of exceedances		No. of exceedances of ELV Note 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Daily average			Daily average ELV	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	
	Monthly maximum	3136																																
	Monthly average	2156	Daily average Note 4	2238	2801	2425	2940	1800	1908	2209	1597	1462	1496	1256	2178	1921	2897	1990	2641	2930	1915	1636	1716	2419	1637	1748	2333	2588	3136	2863		1772	1711	2526
	Sum of exceedances Note 1	0	Value exceeds ELV (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	

Note 1: Not more than one calendar monthly average during any rolling twelve month period shall exceed the limit value by more than 10%.
Note 2: Not more than one half hour period (commencing on the hour or half hour) during any 24 hour period shall exceed the daily average limit value of 3500mg/m^3 by more than 50%.
Note 3: Max. half hourly averages to be reported in the event of an exceedance of 3500mg/m^3.
Note 4: All results corrected to 273K, 101.3kPa.
Note 5: 10th-11th April SD; reformer repair, 28th MUF maint, (9th &16th calibration spike).

Signed ..... P S Lloyd .....

(authorised to sign as representative of Operator)

Date: 27th July 2018

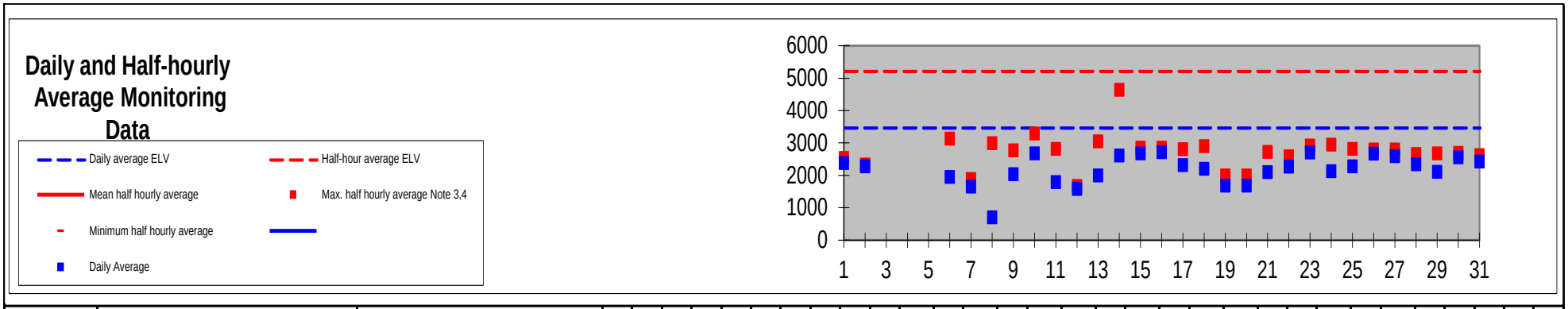
Reference Number: BU2110IS

Operator: Cabot Carbon Limited

Installation: Barry Silicon-Based Manufacturing Installation

Form Number: A1 / Form Dated 1st February 2006

Reporting of Continuously Monitored Emissions to Air for Carbon Monoxide Emission Point A1 for the month of May 2018



	Monthly summary		Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Half-hourly average			Half-hour average ELV	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250
	Monthly maximum		Max. half hourly average Note 3,4	2537	2331				3131	1884	2994	2768	3297	2817	1673	3054	4647	2858	2852	2804	2903	1995	1995	2727	2581	2921	2952	2816	2797	2795	2663	2675	2695	2623
	Monthly mean		Mean half hourly average																															
	Monthly minimum		Minimum half hourly average																															
	Total invalid results		No. of invalid results																															
	Sum of exceedances		No. of exceedances of ELV Note 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily average			Daily average ELV	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500
	Monthly maximum	2714																																
	Monthly average	2183	Daily average Note 4	2382	2277				1955	1655	706	2039	2676	1789	1583	1996	2613	2678	2714	2312	2204	1681	1683	2097	2265	2709	2126	2274	2667	2597	2347	2109	2557	2425
	Sum of exceedances Note 1	0	Value exceeds ELV (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Note 1: Not more than one calendar monthly average during any rolling twelve month period shall exceed the limit value by more than 10%.
Note 2: Not more than one half hour period (commencing on the hour or half hour) during any 24 hour period shall exceed the daily average limit value of 3500mg/m^3 by more than 50%.
Note 3: Max. half hourly averages to be reported in the event of an exceedance of 3500mg/m^3.
Note 4: All results corrected to 273K, 101.3kPa.
Note 5: 2-5th May SD acid line maint. (May 14th calibration spike)

Signed ..... P S Lloyd .....

(authorised to sign as representative of Operator)

Date: 27th July 2018

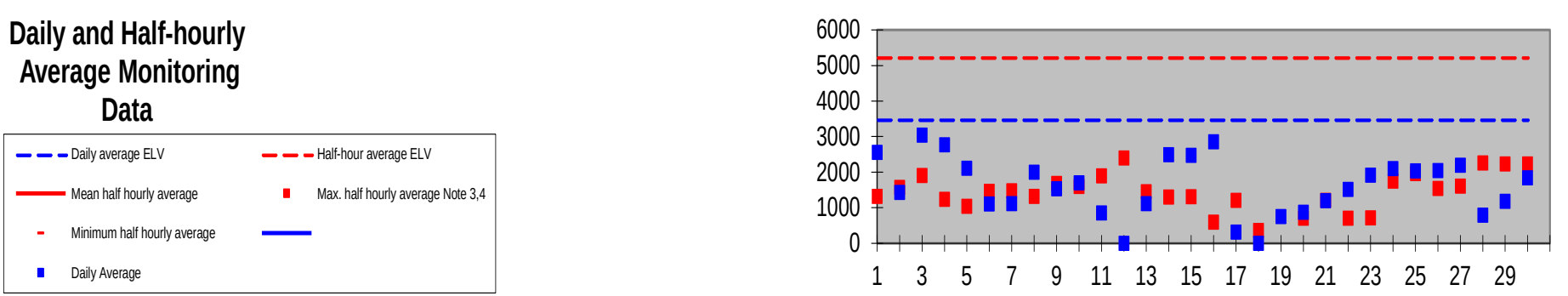
Reference Number: BU2110IS

Operator: Cabot Carbon Limited

Installation: Barry Silicon-Based Manufacturing Installation

Form Number: A1 / Form Dated 1st February 2006

Reporting of Continuously Monitored Emissions to Air for Carbon Monoxide Emission Point A1 for the month of June 2018



	Monthly summary		Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Half-hourly average			Half-hour average ELV	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250	5250
	Monthly maximum		Max. half hourly average Note 3,4	1322	1573	1902	1235	1044	1457	1482	1321	1680	1595	1894	2398	1446	1305	1312	594	1211	361		702	1208	706	712	1752	1964	1539	1608	2258	2235	2230
	Monthly mean		Mean half hourly average																														
	Monthly minimum		Minimum half hourly average																														
	Total invalid results		No. of invalid results																														
	Sum of exceedances		No. of exceedances of ELV Note 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily average			Daily average ELV	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500
	Monthly maximum	2702																															
	Monthly average	2029	Daily average Note 4	2554	1428	3039	2770	2107	1104	1112	2002	1529	1701	856	0	1119	2495	2470	2853	310	0	756	876	1198	1514	1919	2100	2040	2045	2196	785	1179	1844
	Sum of exceedances Note 1	0	Value exceeds ELV (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Note 1: Not more than one calendar monthly average during any rolling twelve month period shall exceed the limit value by more than 10%.
Note 2: Not more than one half hour period (commencing on the hour or half hour) during any 24 hour period shall exceed the daily average limit value of 3500mg/m^3 by more than 50%.
Note 3: Max. half hourly averages to be reported in the event of an exceedance of 3500mg/m^3.
Note 4: All results corrected to 273K, 101.3kPa.
Note 5: 12th & 13th SD: A&B MUF inspections.

Signed ..... P S Lloyd .....

(authorised to sign as representative of Operator)

Date: 27th July 2018

Reference Number: BU2110IS Operator: Cabot Carbon Limited

Installation: Barry Silicon-Based Manufacturing Installation Form Number: A3 / Form Dated 1st February 2006

Reporting of Emissions to Air for the period 1 April 2018 to 30 June 2018

Emission Point	Substance / Parameter	Emission Limit Value[6] [7]	Result [1] [Note A]	Test Method [2]	Sample Date and Times [3]	Accreditation /Certification [4]	Uncertainty +/- [5]
A1	Chlorine	10mg/m^3	4.3 mg/m^3	US EPA Method 26A	07.06.18 09:55-10:25, 10:44-11:14, 11:25-11:55, 12:10-12:40, 12:53-13:23hrs	MCERTS / UKAS	+/- 0.5 mg/m3
A1	Chloromethanes (as methyl chloride)	50mg/m^3	1.6 mg/m^3	BS EN 13649	07.06.18 09:55-10:55, 10:57-11:57, 12:00-13:00hrs	MCERTS / UKAS	+/- 0.3 mg/m3
A1	Hydrogen chloride	10mg/m^3	1.1 mg/m^3	TGN M22	07.06.18 09:55-10:55, 10:57-11:57, 12:00-13:00hrs	MCERTS / UKAS	+/- 0.9 mg/m3

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value.
[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given.
[3] For non-continuous measurements the date and time of the sample that produced the result is given.
[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.
[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The basis of any other uncertainty figure needs to be stated. Where no figure is available the Agency will need to agree an appropriate uncertainty value.
[6] Corrected to 273K, 101.3Kpa.
[7] Results calculated as the average of 5 consecutive, 30 minute samples taken every quarter.
[Note A]: Results are given as averages being more representative, as agreed with NRW.

P S Lloyd

Signed ……. Date: 27th July 2018

(authorised to sign as representative of the Operator)

Permit Reference Number: BU2110IS Operator: Cabot Carbon Limited

Installation: Barry Silicon-Based Manufacturing Installation Form Number: W1 / Form Dated 1st February 2006

Reporting of Emissions to Water (other than to Sewer) for the period from 1 April 2018 to 30 June 2018

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
W1	Oil and grease	5mg/l [6]		IR Spectrometry - EA Test 362 ISBN 0117517283	No sample	UKAS	
	BOD_5	20mg/l[6]		ISBN 011 7522120	No sample	UKAS	
	pH	>5, <9 [7]		BS 6068-2.50:1995	No sample	UKAS	
W2	Oil and grease	5mg/l [6]		IR Spectrometry - EA Test 362 ISBN 0117517283	No sample	UKAS	
	BOD_5	20mg/l[6]		ISBN 011 7522120	No sample	UKAS	
	pH	>5, <9 [7]		BS 6068-2.50:1995	No sample	UKAS	
W3	Oil and grease	5mg/l [6]		IR Spectrometry - EA Test 362 ISBN 0117517283	No sample	UKAS	
	BOD_5	20mg/l[6]		ISBN 011 7522120	No sample	UKAS	
	pH	>5, <9 [7]		BS 6068-2.50:1995	No sample	UKAS	

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given.
[3] No samples could be taken due to excessively dry weather in the quarter
[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.
[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The basis of any other uncertainty figure needs to be stated. Where no figure is available the Agency will need to agree an appropriate uncertainty value.
[6] The emission limit value for Oil and grease, and BOD_5, is expressed as a maximum individual value.
[7] The emission limit values for pH are expressed as minimum and maximum individual values.
[8] The Environment Agency National Testing Laboratory at Shawcross in Exeter has obtained UKAS accreditation for the oil and grease test method.

P S Lloyd

Signed ……. Date: 27th July 2018

(authorised to sign as representative of the Operator)