



Customer:



Testing Facility:

SOCOTEC
Unit 12
Moorbrook
Southmead Industrial
Park
Didcot
Oxfordshire
OX11 7HP

Quotation
Number:

DIF-ANU-10952
(Period 10)

Samples
Received:

06 November 2023

Customer
Order Number:

Analysis
Completed:

08 November 2023

Customer
Reference:

Report Date:

09 November 2023

Nitrogen Dioxide Diffusion Tube Analysis Report

The samples have been analysed in accordance with SOCOTEC's standard operating procedure ANU/SOP/1015. This method meets the guidelines set out in DEFRA's 'Diffusion Tubes for Ambient NO₂ Monitoring: Practical Guidance.'

The tubes were prepared by spiking acetone:triethanolamine (50:50) onto the grids prior to the tubes being assembled. The tubes were desorbed with distilled water and the extract analysed using a segmented flow auto analyser with ultraviolet detection. All samples were received in good condition, unless otherwise stated in the comments field of results table. Please note:

- (i) As set out in the practical guidance, the results were initially calculated assuming an ambient temperature of 11°C, the reported values **have** been adjusted to 20°C to allow for direct comparison with EU limits.
- (ii) The reported results have not been bias adjusted.

This analysis of diffusion tube samples to determine the amount of nitrogen dioxide present on the tube is within the scope of our UKAS schedule. Any further calculations and assessments requiring exposure details and conditions fall outside the scope of our accreditation. In the AIR PT intercomparison scheme for comparing spiked Nitrogen Dioxide diffusion tubes, SOCOTEC currently holds the highest rank of a **Satisfactory** laboratory.

This report shall not be reproduced except in full without approval of the laboratory.

Approved By



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Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA10S1	1	04/10/2023 08:08	01/11/2023 08:35	672.45	0.99	21.1	11	
OCC/23A/NA10S2	2	04/10/2023 08:11	01/11/2023 08:38	672.45	0.78	16.6	8.6	
OCC/23A/NA10S3	3	04/10/2023 08:13	01/11/2023 08:40	672.45	1.29	27.6	14.3	
OCC/23A/NA10S4	4	04/10/2023 08:15	01/11/2023 08:42	672.45	1	21.3	11.1	
OCC/23A/NA10S5	5	04/10/2023 08:18	01/11/2023 08:44	672.43	1.09	23.3	12.1	
OCC/23A/NA10S6	6	04/10/2023 08:21	01/11/2023 08:45	672.40	1.2	25.6	13.3	
OCC/23A/NA10S7	7	04/10/2023 08:24	01/11/2023 08:47	672.38	0.85	18.1	9.4	
OCC/23A/NA10S8	8	04/10/2023 08:25	01/11/2023 08:50	672.42	1.17	25	13	
OCC/23A/NA10S9	9	04/10/2023 08:27	01/11/2023 08:52	672.42	1.48	31.5	16.4	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA10S10	10	04/10/2023 08:30	01/11/2023 08:55	672.42	1.79	38.2	19.9	
OCC/23A/NA10S11	11	04/10/2023 08:32	01/11/2023 08:57	672.42	0.94	20	10.4	
OCC/23A/NA10S12	12	04/10/2023 08:35	01/11/2023 09:00	672.42	1.44	30.8	16	
OCC/23A/NA10S13	13	04/10/2023 08:40	01/11/2023 09:10	672.50	0.59	12.5	6.5	
OCC/23A/NA10S14	14	04/10/2023 08:40	01/11/2023 09:10	672.50	0.62	13.2	6.8	
OCC/23A/NA10S15	15	04/10/2023 08:40	01/11/2023 09:10	672.50	0.65	13.9	7.2	
OCC/23A/NA10S16	16	04/10/2023 08:46	01/11/2023 09:30	672.73	1.25	26.6	13.8	
OCC/23A/NA10S17	17	04/10/2023 08:50	01/11/2023 09:35	672.75	1.62	34.6	18	
OCC/23A/NA10S18	18	04/10/2023 08:52	01/11/2023 09:40	672.80	1.27	27.1	14.1	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA10S19	19	04/10/2023 08:57	01/11/2023 09:43	672.77	1.38	29.4	15.3	
OCC/23A/NA10S20	20	04/10/2023 09:06	01/11/2023 09:50	672.73	0.49	10.3	5.4	
OCC/23A/NA10S21	21	04/10/2023 09:10	01/11/2023 09:54	672.73	1.2	25.6	13.3	
OCC/23A/NA10S22	22	04/10/2023 09:15	01/11/2023 10:00	672.75	1.58	33.7	17.5	
OCC/23A/NA10S23	23	04/10/2023 09:24	01/11/2023 10:04	672.67	0.98	21	10.9	
OCC/23A/NA10S24	24	04/10/2023 09:28	01/11/2023 10:06	672.63	0.98	20.9	10.9	
OCC/23A/NA10S25	25	04/10/2023 09:30	01/11/2023 10:09	672.65	1.59	33.9	17.6	
OCC/23A/NA10S26	26	04/10/2023 09:35	01/11/2023 10:13	672.63	1.74	37	19.2	
OCC/23A/NA10S27	27	04/10/2023 09:40	01/11/2023 10:20	672.67	1.87	39.9	20.8	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA10S28	28							Missing
OCC/23A/NA10S29	29	04/10/2023 09:52	01/11/2023 10:29	672.62	1.12	23.9	12.4	
OCC/23A/NA10S30	30	04/10/2023 09:55	01/11/2023 10:33	672.63	1.33	28.4	14.8	
OCC/23A/NA10S31	31	04/10/2023 10:00	01/11/2023 10:36	672.60	1	21.2	11	
OCC/23A/NA10S32	32	04/10/2023 10:03	01/11/2023 10:39	672.60	2.02	43.1	22.4	
OCC/23A/NA10S33	33	04/10/2023 10:04	01/11/2023 10:41	672.62	1.73	36.9	19.2	
OCC/23A/NA10S34	34	04/10/2023 10:06	01/11/2023 10:45	672.65	2.03	43.4	22.5	
OCC/23A/NA10S35	35	04/10/2023 12:34	01/11/2023 12:50	672.27	2.8	59.6	31	
OCC/23A/NA10S36	36	04/10/2023 12:37	01/11/2023 12:52	672.25	2.43	51.8	26.9	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA10S37	37	04/10/2023 12:40	01/11/2023 12:54	672.23	1.75	37.3	19.4	
OCC/23A/NA10S38	38	04/10/2023 12:58	01/11/2023 13:00	672.03	1.04	22.3	11.6	
OCC/23A/NA10S39	39	04/10/2023 13:00	01/11/2023 13:04	672.07	1.66	35.3	18.4	
OCC/23A/NA10S40	40	04/10/2023 13:05	01/11/2023 13:06	672.02	1.9	40.5	21	
OCC/23A/NA10S41	41	04/10/2023 13:07	01/11/2023 13:09	672.03	1.09	23.2	12.1	
OCC/23A/NA10S42	42	04/10/2023 13:10	01/11/2023 13:11	672.02	1.24	26.4	13.7	
OCC/23A/NA10S43	43	04/10/2023 13:12	01/11/2023 13:17	672.08	0.97	20.8	10.8	
OCC/23A/NA10S44	44	04/10/2023 13:28	01/11/2023 13:30	672.03	1.71	36.5	19	
OCC/23A/NA10S45	45	04/10/2023 13:30	01/11/2023 13:35	672.08	1.63	34.9	18.1	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA10S46	46	04/10/2023 13:33	01/11/2023 13:37	672.07	1.23	26.3	13.7	
OCC/23A/NA10S47	47	04/10/2023 13:35	01/11/2023 13:39	672.07	1.24	26.5	13.8	
OCC/23A/NA10S48	48	04/10/2023 13:37	01/11/2023 13:42	672.08	1.83	39	20.3	
OCC/23A/NA10S49	49	04/10/2023 13:40	01/11/2023 13:45	672.08	1.6	34.2	17.8	
OCC/23A/NA10S50	50	04/10/2023 13:42	01/11/2023 13:50	672.13	1.35	28.7	14.9	
OCC/23A/NA10S51	51	04/10/2023 13:48	01/11/2023 14:00	672.20	1.22	26	13.5	
OCC/23A/NA10S52	52	04/10/2023 13:55	01/11/2023 14:04	672.15	0.74	15.8	8.2	
OCC/23A/NA10S53	53	04/10/2023 10:27	01/11/2023 14:17	675.83	1.2	25.5	13.3	
OCC/23A/NA10S54	54	04/10/2023 10:29	01/11/2023 14:20	675.85	1.44	30.5	15.9	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA10S55	55	04/10/2023 10:33	01/11/2023 14:23	675.83	2.03	43	22.4	
OCC/23A/NA10S56	56	04/10/2023 10:35	01/11/2023 14:25	675.83	1.66	35.3	18.4	
OCC/23A/NA10S57	57	04/10/2023 10:38	01/11/2023 14:30	675.87	0.97	20.6	10.7	
OCC/23A/NA10S58	58	04/10/2023 10:40	01/11/2023 14:33	675.88	1.33	28.3	14.7	
OCC/23A/NA10S59	59							Missing
OCC/23A/NA10S60	60	04/10/2023 10:16	01/11/2023 14:45	676.48	0.95	20.2	10.5	
OCC/23A/NA10S61	61	04/10/2023 10:43	01/11/2023 14:40	675.95	2.16	45.9	23.9	
OCC/23A/NA10S62	62	04/10/2023 10:43	01/11/2023 14:40	675.95	2.19	46.4	24.1	
OCC/23A/NA10S63	63	04/10/2023 10:43	01/11/2023 14:40	675.95	2.19	46.5	24.2	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA10S64	64	04/10/2023 14:08	01/11/2023 14:51	672.72	1.23	26.3	13.7	
OCC/23A/NA10S65	65	04/10/2023 14:10	01/11/2023 14:53	672.72	1.32	28.1	14.6	
OCC/23A/NA10S66	66	04/10/2023 14:15	01/11/2023 14:55	672.67	0.95	20.2	10.5	
OCC/23A/NA10S67	67	04/10/2023 14:33	01/11/2023 14:56	672.38	1.5	32.1	16.7	
OCC/23A/NA10S68	68	04/10/2023 14:35	01/11/2023 14:58	672.38	1.21	25.7	13.4	
OCC/23A/NA10S69	69	04/10/2023 14:37	01/11/2023 14:59	672.37	1.06	22.5	11.7	
OCC/23A/NA10S70	70	04/10/2023 14:39	01/11/2023 15:01	672.37	1.21	25.9	13.5	
OCC/23A/NA10S71	71							Missing
OCC/23A/NA10S72	72	04/10/2023 14:44	01/11/2023 15:12	672.47	1.59	34	17.7	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m ⁻³	ppb	Comments
OCC/23A/NA10S73	73							Missing
OCC/23A/NA10S74	74	04/10/2023 14:50	01/11/2023 15:18	672.47	1.2	25.7	13.4	
OCC/23A/NA10S75	75	04/10/2023 14:55	01/11/2023 15:20	672.42	1.33	28.4	14.7	
OCC/23A/NA10S76	76	04/10/2023 10:24	01/11/2023 14:48	676.40	0.98	20.7	10.8	
OCC/23A/NA10S77	77	04/10/2023 10:20	01/11/2023 14:46	676.43	1.33	28.1	14.6	

