



Customer:



Testing Facility:

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

Quotation  
Number:

DIF-ANU-10952  
(Period 12)

Samples  
Received:

16 January 2024

Customer  
Order Number:

Analysis  
Completed:

23 January 2024

Customer  
Reference:

Report Date:

24 January 2024

## 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 NO<sub>2</sub> 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



1252



Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA12S1	1	06/12/2023 08:30	03/01/2024 08:30	672.00	0.86	18.3	9.5	
OCC/23A/NA12S2	2	06/12/2023 08:32	03/01/2024 08:33	672.02	0.62	13.2	6.9	
OCC/23A/NA12S3	3	06/12/2023 08:35	03/01/2024 08:35	672.00	0.95	20.2	10.5	
OCC/23A/NA12S4	4	06/12/2023 08:37	03/01/2024 08:39	672.03	0.69	14.8	7.7	
OCC/23A/NA12S5	5	06/12/2023 08:40	03/01/2024 08:40	672.00	0.71	15.1	7.9	
OCC/23A/NA12S6	6	06/12/2023 08:42	03/01/2024 08:43	672.02	0.69	14.6	7.6	
OCC/23A/NA12S7	7	06/12/2023 08:45	03/01/2024 08:46	672.02	0.51	10.9	5.7	
OCC/23A/NA12S8	8	06/12/2023 08:50	03/01/2024 08:50	672.00	0.88	18.7	9.7	
OCC/23A/NA12S9	9	06/12/2023 08:53	03/01/2024 08:52	671.98	0.88	18.7	9.7	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA12S10	10	06/12/2023 08:55	03/01/2024 08:53	671.97	1.38	29.5	15.3	
OCC/23A/NA12S11	11	06/12/2023 08:58	03/01/2024 08:55	671.95	0.71	15.1	7.8	
OCC/23A/NA12S12	12	06/12/2023 09:01	03/01/2024 08:57	671.93	1.16	24.8	12.9	
OCC/23A/NA12S13	13	06/12/2023 09:10	03/01/2024 09:05	671.92	0.45	9.5	5	
OCC/23A/NA12S14	14	06/12/2023 09:10	03/01/2024 09:05	671.92	0.4	8.6	4.5	
OCC/23A/NA12S15	15	06/12/2023 09:10	03/01/2024 09:05	671.92	0.31	6.6	3.4	
OCC/23A/NA12S16	16	06/12/2023 09:17	03/01/2024 09:12	671.92	0.98	20.9	10.9	
OCC/23A/NA12S17	17	06/12/2023 09:20	03/01/2024 09:15	671.92	1.21	25.8	13.4	
OCC/23A/NA12S18	18	06/12/2023 09:25	03/01/2024 09:18	671.88	0.93	19.8	10.3	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA12S19	19	06/12/2023 09:28	03/01/2024 09:22	671.90	1.34	28.5	14.8	
OCC/23A/NA12S20	20	06/12/2023 09:30	03/01/2024 09:27	671.95	0.48	10.3	5.3	
OCC/23A/NA12S21	21	06/12/2023 09:45	03/01/2024 09:33	671.80	0.66	14.2	7.4	
OCC/23A/NA12S22	22	06/12/2023 09:48	03/01/2024 09:42	671.90	1.02	21.7	11.3	
OCC/23A/NA12S23	23	06/12/2023 09:55	03/01/2024 09:44	671.82	0.84	18	9.3	
OCC/23A/NA12S24	24	06/12/2023 10:00	03/01/2024 09:48	671.80	0.82	17.6	9.1	
OCC/23A/NA12S25	25	06/12/2023 10:02	03/01/2024 09:51	671.82	1.6	34.2	17.8	
OCC/23A/NA12S26	26	06/12/2023 10:05	03/01/2024 10:04	671.98	1.61	34.3	17.8	
OCC/23A/NA12S27	27	06/12/2023 10:10	03/01/2024 10:10	672.00	1.8	38.4	19.9	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA12S28	28	06/12/2023 10:15	03/01/2024 10:15	672.00	1.49	31.8	16.5	
OCC/23A/NA12S29	29	06/12/2023 10:22	03/01/2024 10:29	672.12	0.9	19.3	10	
OCC/23A/NA12S30	30	06/12/2023 10:25	03/01/2024 10:31	672.10	1.23	26.2	13.6	
OCC/23A/NA12S31	31	06/12/2023 10:28	03/01/2024 10:34	672.10	0.72	15.4	8	
OCC/23A/NA12S32	32	06/12/2023 10:32	03/01/2024 10:39	672.12	1.67	35.6	18.5	
OCC/23A/NA12S33	33	06/12/2023 10:35	03/01/2024 10:42	672.12	1.09	23.3	12.1	
OCC/23A/NA12S34	34	06/12/2023 10:40	03/01/2024 10:45	672.08	1.88	40	20.8	
OCC/23A/NA12S35	35	06/12/2023 13:00	03/01/2024 13:00	672.00	2.25	48	25	
OCC/23A/NA12S36	36	06/12/2023 13:01	03/01/2024 13:03	672.03	1.93	41.3	21.5	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA12S37	37	06/12/2023 13:03	03/01/2024 13:04	672.02	1.39	29.7	15.5	
OCC/23A/NA12S38	38	06/12/2023 13:01	03/01/2024 13:07	672.10	0.79	16.9	8.8	
OCC/23A/NA12S39	39	06/12/2023 13:10	03/01/2024 13:10	672.00	1.05	22.5	11.7	
OCC/23A/NA12S40	40	06/12/2023 13:15	03/01/2024 13:13	671.97	1.77	37.8	19.6	
OCC/23A/NA12S41	41	06/12/2023 13:17	03/01/2024 13:15	671.97	0.76	16.2	8.4	
OCC/23A/NA12S42	42	06/12/2023 13:21	03/01/2024 13:26	672.08	0.94	20	10.4	
OCC/23A/NA12S43	43	06/12/2023 13:24	03/01/2024 13:28	672.07	0.84	18	9.4	
OCC/23A/NA12S44	44	06/12/2023 13:38	03/01/2024 13:44	672.10	1.19	25.3	13.2	
OCC/23A/NA12S45	45	06/12/2023 13:41	03/01/2024 13:46	672.08	1.49	31.8	16.5	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA12S46	46	06/12/2023 13:44	03/01/2024 13:48	672.07	1	21.3	11.1	
OCC/23A/NA12S47	47	06/12/2023 13:45	03/01/2024 13:50	672.08	1.07	22.8	11.8	
OCC/23A/NA12S48	48	06/12/2023 13:49	03/01/2024 13:52	672.05	1.75	37.3	19.4	
OCC/23A/NA12S49	49	06/12/2023 13:52	03/01/2024 13:54	672.03	1.28	27.3	14.2	
OCC/23A/NA12S50	50	06/12/2023 13:55	03/01/2024 13:57	672.03	1.4	29.9	15.6	
OCC/23A/NA12S51	51	06/12/2023 14:05	03/01/2024 14:08	672.05	1.06	22.5	11.7	
OCC/23A/NA12S52	52	06/12/2023 14:10	03/01/2024 14:11	672.02	0.61	12.9	6.7	
OCC/23A/NA12S53	53	06/12/2023 14:20	03/01/2024 14:15	671.92	0.77	16.4	8.6	
OCC/23A/NA12S54	54	06/12/2023 14:22	03/01/2024 14:25	672.05	1.06	22.7	11.8	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA12S55	55	06/12/2023 14:23	03/01/2024 14:27	672.07	1.7	36.2	18.8	
OCC/23A/NA12S56	56	06/12/2023 14:24	03/01/2024 14:29	672.08	1.67	35.7	18.5	
OCC/23A/NA12S57	57	06/12/2023 14:26	03/01/2024 14:32	672.10	0.74	15.8	8.2	
OCC/23A/NA12S58	58	06/12/2023 14:34	03/01/2024 14:35	672.02	0.79	16.8	8.7	
OCC/23A/NA12S59	59	06/12/2023 14:39	03/01/2024 14:41	672.03	1.05	22.5	11.7	
OCC/23A/NA12S60	60	06/12/2023 14:41	03/01/2024 14:42	672.02	0.85	18	9.4	
OCC/23A/NA12S61	61	06/12/2023 14:36	03/01/2024 14:38	672.03	1.45	31	16.1	
OCC/23A/NA12S62	62	06/12/2023 14:36	03/01/2024 14:38	672.03	1.35	28.8	15	Moisture
OCC/23A/NA12S63	63	06/12/2023 14:36	03/01/2024 14:38	672.03	1.45	31	16.1	







Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA12S64	64	06/12/2023 14:46	03/01/2024 14:44	671.97	1.19	25.3	13.1	
OCC/23A/NA12S65	65	06/12/2023 14:53	03/01/2024 14:47	671.90	0.98	20.8	10.8	
OCC/23A/NA12S66	66	06/12/2023 14:55	03/01/2024 14:50	671.92	0.55	11.6	6.1	Spider
OCC/23A/NA12S67	67	06/12/2023 14:59	03/01/2024 14:55	671.93	0.83	17.7	9.2	
OCC/23A/NA12S68	68	06/12/2023 15:01	03/01/2024 14:57	671.93	0.72	15.3	7.9	
OCC/23A/NA12S69	69							Missing
OCC/23A/NA12S70	70	06/12/2023 15:07	03/01/2024 15:02	671.92	0.73	15.6	8.1	
OCC/23A/NA12S71	71	06/12/2023 15:10	03/01/2024 15:04	671.90	1.09	23.3	12.1	
OCC/23A/NA12S72	72	06/12/2023 15:12	03/01/2024 15:08	671.93	1.17	25.1	13	





Sample Number	Site	Date and Time ON	Date and Time OFF	Exposure Time (Hours)	Total µg	µg m <sup>-3</sup>	ppb	Comments
OCC/23A/NA12S73	73	06/12/2023 15:15	03/01/2024 15:10	671.92	1.45	30.9	16.1	
OCC/23A/NA12S74	74	06/12/2023 15:17	03/01/2024 15:12	671.92	0.53	11.3	5.9	
OCC/23A/NA12S75	75	06/12/2023 15:20	03/01/2024 15:15	671.92	0.69	14.7	7.6	
OCC/23A/NA12S76	76	06/12/2023 14:45	03/01/2024 14:45	672.00	0.88	18.7	9.7	
OCC/23A/NA12S77	77	06/12/2023 14:43	03/01/2024 14:43	672.00	1.09	23.3	12.1	

