



Customer:



Testing Facility:

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

Quotation  
Number:

DIF-ANU-10952  
(Period 8)

Samples  
Received:

12 September 2023

Customer  
Order Number:

Analysis  
Completed:

18 September 2023

Customer  
Reference:

Report Date:

19 September 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 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/NA8S1	1	01/08/2023 08:48	06/09/2023 09:08	864.33	1.03	17.1	8.9	
OCC/23A/NA8S2	2	01/08/2023 08:50	06/09/2023 09:11	864.35	0.82	13.5	7	
OCC/23A/NA8S3	3	01/08/2023 08:52	06/09/2023 09:14	864.37	1.29	21.3	11.1	
OCC/23A/NA8S4	4	01/08/2023 08:54	06/09/2023 09:16	864.37	0.89	14.7	7.7	
OCC/23A/NA8S5	5	01/08/2023 08:56	06/09/2023 09:19	864.38	1.18	19.6	10.2	
OCC/23A/NA8S6	6	01/08/2023 08:58	06/09/2023 09:22	864.40	1.17	19.4	10.1	
OCC/23A/NA8S7	7	01/08/2023 09:00	06/09/2023 09:24	864.40	1.03	17.1	8.9	
OCC/23A/NA8S8	8	01/08/2023 09:02	06/09/2023 09:27	864.42	1.37	22.7	11.8	
OCC/23A/NA8S9	9	01/08/2023 09:05	06/09/2023 09:30	864.42	1.42	23.5	12.2	





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/NA8S10	10	01/08/2023 09:08	06/09/2023 09:32	864.40	2	33.1	17.2	
OCC/23A/NA8S11	11	01/08/2023 09:10	06/09/2023 09:35	864.42	1.14	18.9	9.8	
OCC/23A/NA8S12	12	01/08/2023 09:12	06/09/2023 09:38	864.43	1.61	26.7	13.9	
OCC/23A/NA8S13	13	01/08/2023 09:17	06/09/2023 09:43	864.43	0.59	9.7	5.1	
OCC/23A/NA8S14	14	01/08/2023 09:17	06/09/2023 09:43	864.43	0.55	9.1	4.7	
OCC/23A/NA8S15	15	01/08/2023 09:17	06/09/2023 09:43	864.43	0.58	9.7	5	
OCC/23A/NA8S16	16	01/08/2023 09:29	06/09/2023 09:48	864.32	1.22	20.3	10.5	
OCC/23A/NA8S17	17	01/08/2023 09:33	06/09/2023 09:51	864.30	1.6	26.6	13.8	
OCC/23A/NA8S18	18	01/08/2023 09:40	06/09/2023 09:54	864.23	1.21	20.1	10.5	





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/NA8S19	19	01/08/2023 09:43	06/09/2023 10:00	864.28	1.46	24.2	12.6	
OCC/23A/NA8S20	20	01/08/2023 09:45	06/09/2023 10:03	864.30	0.52	8.7	4.5	
OCC/23A/NA8S21	21	01/08/2023 09:56	06/09/2023 10:10	864.23	1.18	19.6	10.2	
OCC/23A/NA8S22	22	01/08/2023 10:00	06/09/2023 10:15	864.25	1.85	30.7	16	
OCC/23A/NA8S23	23	01/08/2023 10:05	06/09/2023 10:22	864.28	0.88	14.6	7.6	
OCC/23A/NA8S24	24	01/08/2023 10:09	06/09/2023 10:25	864.27	0.95	15.7	8.2	
OCC/23A/NA8S25	25	01/08/2023 10:12	06/09/2023 10:30	864.30	1.72	28.6	14.9	
OCC/23A/NA8S26	26	01/08/2023 10:15	06/09/2023 10:33	864.30	2.74	45.5	23.7	
OCC/23A/NA8S27	27	01/08/2023 10:17	06/09/2023 10:38	864.35	2	33.2	17.3	





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/NA8S28	28	01/08/2023 10:20	06/09/2023 10:44	864.40	1.87	31	16.1	
OCC/23A/NA8S29	29	01/08/2023 10:25	06/09/2023 10:48	864.38	1.05	17.4	9	
OCC/23A/NA8S30	30	01/08/2023 10:34	06/09/2023 10:50	864.27	1.6	26.5	13.8	
OCC/23A/NA8S31	31	01/08/2023 10:38	06/09/2023 10:55	864.28	1.13	18.8	9.8	
OCC/23A/NA8S32	32							MISSING
OCC/23A/NA8S33	33	01/08/2023 10:42	06/09/2023 10:39	863.95	1.51	25	13	
OCC/23A/NA8S34	34	01/08/2023 10:45	06/09/2023 11:05	864.33	2.51	41.7	21.7	
OCC/23A/NA8S35	35	01/08/2023 11:40	06/09/2023 12:06	864.43	2.85	47.2	24.5	
OCC/23A/NA8S36	36	01/08/2023 11:43	06/09/2023 12:08	864.42	2.62	43.4	22.6	





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/NA8S37	37	01/08/2023 11:55	06/09/2023 12:10	864.25	2.04	33.9	17.6	
OCC/23A/NA8S38	38	01/08/2023 11:54	06/09/2023 12:15	864.35	1.45	24	12.5	Spider
OCC/23A/NA8S39	39	01/08/2023 11:57	06/09/2023 12:19	864.37	1.66	27.5	14.3	
OCC/23A/NA8S40	40	01/08/2023 12:00	06/09/2023 12:23	864.38	1.93	32	16.7	
OCC/23A/NA8S41	41	01/08/2023 12:03	06/09/2023 12:28	864.42	1.19	19.7	10.3	
OCC/23A/NA8S42	42	01/08/2023 12:05	06/09/2023 12:30	864.42	1.4	23.2	12.1	
OCC/23A/NA8S43	43	01/08/2023 12:09	06/09/2023 12:32	864.38	1.28	21.2	11	
OCC/23A/NA8S44	44	01/08/2023 12:23	06/09/2023 12:45	864.37	2.11	34.9	18.2	
OCC/23A/NA8S45	45	01/08/2023 12:26	06/09/2023 12:50	864.40	1.64	27.3	14.2	





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/NA8S46	46	01/08/2023 12:35	06/09/2023 12:52	864.28	1.52	25.1	13.1	
OCC/23A/NA8S47	47	01/08/2023 12:38	06/09/2023 12:54	864.27	1.29	21.4	11.2	
OCC/23A/NA8S48	48	01/08/2023 12:41	06/09/2023 12:57	864.27	1.98	32.8	17.1	
OCC/23A/NA8S49	49	01/08/2023 12:43	06/09/2023 12:59	864.27	1.9	31.5	16.4	
OCC/23A/NA8S50	50	01/08/2023 12:45	06/09/2023 13:10	864.42	1.34	22.2	11.5	
OCC/23A/NA8S51	51	01/08/2023 12:51	06/09/2023 13:17	864.43	1.17	19.4	10.1	
OCC/23A/NA8S52	52	01/08/2023 12:55	06/09/2023 13:19	864.40	0.77	12.8	6.7	
OCC/23A/NA8S53	53	01/08/2023 13:06	06/09/2023 13:25	864.32	1.1	18.3	9.5	
OCC/23A/NA8S54	54							MISSING





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/NA8S55	55	01/08/2023 13:12	06/09/2023 13:33	864.35	1.84	30.5	15.9	
OCC/23A/NA8S56	56	01/08/2023 13:14	06/09/2023 13:37	864.38	2.15	35.7	18.6	
OCC/23A/NA8S57	57	01/08/2023 13:18	06/09/2023 13:40	864.37	0.83	13.7	7.1	
OCC/23A/NA8S58	58	01/08/2023 13:25	06/09/2023 13:41	864.27	1.1	18.2	9.5	
OCC/23A/NA8S59	59	01/08/2023 13:32	06/09/2023 13:45	864.22	1.52	25.2	13.1	
OCC/23A/NA8S60	60	01/08/2023 13:34	06/09/2023 13:46	864.20	0.8	13.3	6.9	
OCC/23A/NA8S61	61	01/08/2023 13:30	06/09/2023 13:42	864.20	2.4	39.8	20.7	
OCC/23A/NA8S62	62	01/08/2023 13:30	06/09/2023 13:42	864.20	2.35	38.9	20.2	
OCC/23A/NA8S63	63	01/08/2023 13:30	06/09/2023 13:42	864.20	2.47	40.9	21.3	







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/NA8S64	64	01/08/2023 13:44	06/09/2023 13:55	864.18	1.72	28.6	14.9	
OCC/23A/NA8S65	65	01/08/2023 13:46	06/09/2023 14:00	864.23	1.58	26.2	13.6	
OCC/23A/NA8S66	66	01/08/2023 13:48	06/09/2023 14:03	864.25	0.88	14.6	7.6	
OCC/23A/NA8S67	67	01/08/2023 13:50	06/09/2023 14:05	864.25	1.68	27.8	14.4	
OCC/23A/NA8S68	68	01/08/2023 13:52	06/09/2023 14:07	864.25	1.43	23.8	12.4	
OCC/23A/NA8S69	69	01/08/2023 13:53	06/09/2023 14:10	864.28	1.46	24.1	12.5	
OCC/23A/NA8S70	70	01/08/2023 13:54	06/09/2023 14:11	864.28	1.12	18.5	9.6	
OCC/23A/NA8S71	71	01/08/2023 13:55	06/09/2023 14:14	864.32	1.81	29.9	15.6	
OCC/23A/NA8S72	72	01/08/2023 13:57	06/09/2023 14:15	864.30	1.52	25.2	13.1	





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/NA8S73	73	01/08/2023 14:00	06/09/2023 14:17	864.28	1.99	33	17.2	
OCC/23A/NA8S74	74	01/08/2023 14:02	06/09/2023 14:19	864.28	1.36	22.5	11.7	
OCC/23A/NA8S75	75	01/08/2023 14:05	06/09/2023 14:20	864.25	1.52	25.2	13.1	
OCC/23A/NA8S76	76	01/08/2023 13:40	06/09/2023 13:50	864.17	1.02	17	8.8	
OCC/23A/NA8S77	77							MISSING

