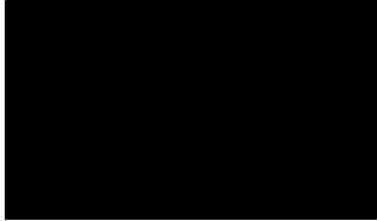




Customer:



Testing Facility:

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

Quotation  
Number:

DIF-ANU-10952  
(Period 9)

Samples  
Received:

09 October 2023

Customer  
Order Number:

Analysis  
Completed:

18 October 2023

Customer  
Reference:

Report Date:

19 October 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/NA9S1	1	06/09/2023 09:08	04/10/2023 08:08	671.00	1.05	22.3	11.6	
OCC/23A/NA9S2	2	06/09/2023 09:11	04/10/2023 08:11	671.00	0.91	19.4	10.1	
OCC/23A/NA9S3	3	06/09/2023 09:14	04/10/2023 08:13	670.98	1.4	29.9	15.5	
OCC/23A/NA9S4	4	06/09/2023 09:16	04/10/2023 08:15	670.98	1.04	22.3	11.6	
OCC/23A/NA9S5	5	06/09/2023 09:19	04/10/2023 08:18	670.98	1.07	22.8	11.9	
OCC/23A/NA9S6	6	06/09/2023 09:22	04/10/2023 08:21	670.98	1.18	25.3	13.1	
OCC/23A/NA9S7	7	06/09/2023 09:24	04/10/2023 08:24	671.00	0.88	18.9	9.8	
OCC/23A/NA9S8	8	06/09/2023 09:27	04/10/2023 08:25	670.97	1.3	27.8	14.5	
OCC/23A/NA9S9	9	06/09/2023 09:30	04/10/2023 08:27	670.95	1.32	28.2	14.6	





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/NA9S10	10	06/09/2023 09:32	04/10/2023 08:30	670.97	1.84	39.3	20.4	
OCC/23A/NA9S11	11	06/09/2023 09:35	04/10/2023 08:32	670.95	1.14	24.3	12.6	
OCC/23A/NA9S12	12	06/09/2023 09:38	04/10/2023 08:35	670.95	1.71	36.6	19	
OCC/23A/NA9S13	13	06/09/2023 09:43	04/10/2023 08:40	670.95	0.66	14.1	7.4	
OCC/23A/NA9S14	14	06/09/2023 09:43	04/10/2023 08:40	670.95	0.64	13.6	7.1	
OCC/23A/NA9S15	15	06/09/2023 09:43	04/10/2023 08:40	670.95	0.71	15.2	7.9	Spider
OCC/23A/NA9S16	16	06/09/2023 09:48	04/10/2023 08:46	670.97	1.26	26.8	14	
OCC/23A/NA9S17	17	06/09/2023 09:51	04/10/2023 08:50	670.98	1.92	41	21.3	
OCC/23A/NA9S18	18	06/09/2023 09:54	04/10/2023 08:52	670.97	1.29	27.5	14.3	





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/NA9S19	19	06/09/2023 10:00	04/10/2023 08:57	670.95	1.79	38.2	19.9	
OCC/23A/NA9S20	20	06/09/2023 10:03	04/10/2023 09:06	671.05	0.65	13.8	7.2	
OCC/23A/NA9S21	21	06/09/2023 10:10	04/10/2023 09:10	671.00	1.24	26.6	13.8	
OCC/23A/NA9S22	22	06/09/2023 10:15	04/10/2023 09:15	671.00	1.72	36.6	19.1	
OCC/23A/NA9S23	23	06/09/2023 10:22	04/10/2023 09:24	671.03	1.04	22.3	11.6	
OCC/23A/NA9S24	24	06/09/2023 10:25	04/10/2023 09:28	671.05	0.99	21.1	11	
OCC/23A/NA9S25	25	06/09/2023 10:30	04/10/2023 09:30	671.00	1.91	40.8	21.2	
OCC/23A/NA9S26	26	06/09/2023 10:33	04/10/2023 09:35	671.03	2.42	51.8	26.9	
OCC/23A/NA9S27	27							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/NA9S28	28	06/09/2023 10:44	04/10/2023 09:45	671.02	2.26	48.4	25.2	
OCC/23A/NA9S29	29	06/09/2023 10:48	04/10/2023 09:52	671.07	1.18	25.2	13.1	
OCC/23A/NA9S30	30	06/09/2023 10:50	04/10/2023 09:55	671.08	1.74	37.3	19.4	
OCC/23A/NA9S31	31	06/09/2023 10:55	04/10/2023 10:00	671.08	1.08	23.1	12	
OCC/23A/NA9S32	32	06/09/2023 10:57	04/10/2023 10:03	671.10	2.26	48.4	25.1	
OCC/23A/NA9S33	33	06/09/2023 10:39	04/10/2023 10:04	671.42	1.77	37.8	19.7	
OCC/23A/NA9S34	34	06/09/2023 11:05	04/10/2023 10:06	671.02	1.87	40	20.8	
OCC/23A/NA9S35	35	06/09/2023 12:06	04/10/2023 12:34	672.47	3.16	67.3	35	
OCC/23A/NA9S36	36	06/09/2023 12:08	04/10/2023 12:37	672.48	2.91	61.9	32.2	





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/NA9S37	37	06/09/2023 12:10	04/10/2023 12:40	672.50	2.09	44.5	23.1	
OCC/23A/NA9S38	38	06/09/2023 12:15	04/10/2023 12:58	672.72	1.27	27	14	
OCC/23A/NA9S39	39	06/09/2023 12:19	04/10/2023 13:00	672.68	1.77	37.8	19.7	
OCC/23A/NA9S40	40	06/09/2023 12:23	04/10/2023 13:05	672.70	2.06	43.9	22.9	
OCC/23A/NA9S41	41	06/09/2023 12:28	04/10/2023 13:07	672.65	1.08	23.1	12	
OCC/23A/NA9S42	42	06/09/2023 12:30	04/10/2023 13:10	672.67	1.46	31	16.1	
OCC/23A/NA9S43	43	06/09/2023 12:32	04/10/2023 13:12	672.67	1.08	22.9	11.9	
OCC/23A/NA9S44	44	06/09/2023 12:45	04/10/2023 13:28	672.72	1.99	42.5	22.1	
OCC/23A/NA9S45	45	06/09/2023 12:50	04/10/2023 13:30	672.67	1.68	35.8	18.6	





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/NA9S46	46	06/09/2023 12:52	04/10/2023 13:33	672.68	1.38	29.4	15.3	
OCC/23A/NA9S47	47	06/09/2023 12:54	04/10/2023 13:35	672.68	1.38	29.5	15.3	
OCC/23A/NA9S48	48	06/09/2023 12:57	04/10/2023 13:37	672.67	1.98	42.1	21.9	
OCC/23A/NA9S49	49	06/09/2023 12:59	04/10/2023 13:40	672.68	2.16	46	23.9	
OCC/23A/NA9S50	50	06/09/2023 13:10	04/10/2023 13:42	672.53	1.3	27.6	14.4	
OCC/23A/NA9S51	51	06/09/2023 13:17	04/10/2023 13:48	672.52	1.29	27.5	14.3	
OCC/23A/NA9S52	52	06/09/2023 13:19	04/10/2023 13:55	672.60	0.95	20.2	10.5	
OCC/23A/NA9S53	53	06/09/2023 13:25	04/10/2023 10:27	669.03	0.78	16.8	8.7	
OCC/23A/NA9S54	54	06/09/2023 13:30	04/10/2023 10:29	668.98	1.35	29	15.1	





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/NA9S55	55	06/09/2023 13:33	04/10/2023 10:33	669.00	1.75	37.4	19.5	
OCC/23A/NA9S56	56							Missing
OCC/23A/NA9S57	57	06/09/2023 13:40	04/10/2023 10:38	668.97	0.81	17.5	9.1	
OCC/23A/NA9S58	58	06/09/2023 13:41	04/10/2023 10:40	668.98	1.23	26.3	13.7	
OCC/23A/NA9S59	59	06/09/2023 13:45	04/10/2023 10:08	668.38	1.69	36.3	18.9	
OCC/23A/NA9S60	60							Missing
OCC/23A/NA9S61	61	06/09/2023 13:42	04/10/2023 10:43	669.02	2.28	48.8	25.4	
OCC/23A/NA9S62	62	06/09/2023 13:42	04/10/2023 10:43	669.02	2.33	50	26	
OCC/23A/NA9S63	63	06/09/2023 13:42	04/10/2023 10:43	669.02	2.66	56.9	29.6	







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/NA9S64	64	06/09/2023 13:55	04/10/2023 14:08	672.22	1.66	35.5	18.4	
OCC/23A/NA9S65	65							Missing
OCC/23A/NA9S66	66	06/09/2023 14:03	04/10/2023 14:15	672.20	0.86	18.4	9.6	
OCC/23A/NA9S67	67							Missing
OCC/23A/NA9S68	68	06/09/2023 14:07	04/10/2023 14:35	672.47	1.29	27.5	14.3	
OCC/23A/NA9S69	69	06/09/2023 14:10	04/10/2023 14:37	672.45	1.43	30.4	15.8	
OCC/23A/NA9S70	70	06/09/2023 14:11	04/10/2023 14:39	672.47	1.27	27.1	14.1	
OCC/23A/NA9S71	71	06/09/2023 14:14	04/10/2023 14:41	672.45	1.72	36.7	19.1	
OCC/23A/NA9S72	72							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/NA9S73	73	06/09/2023 14:17	04/10/2023 14:48	672.52	1.81	38.7	20.1	
OCC/23A/NA9S74	74	06/09/2023 14:19	04/10/2023 14:50	672.52	1.42	30.2	15.7	
OCC/23A/NA9S75	75	06/09/2023 14:20	04/10/2023 14:55	672.58	1.54	32.8	17	
OCC/23A/NA9S76	76	06/09/2023 13:50	04/10/2023 10:24	668.57	1.09	23.3	12.1	
OCC/23A/NA9S77	77	06/09/2023 13:47	04/10/2023 10:20	668.55	1.05	22.5	11.7	

