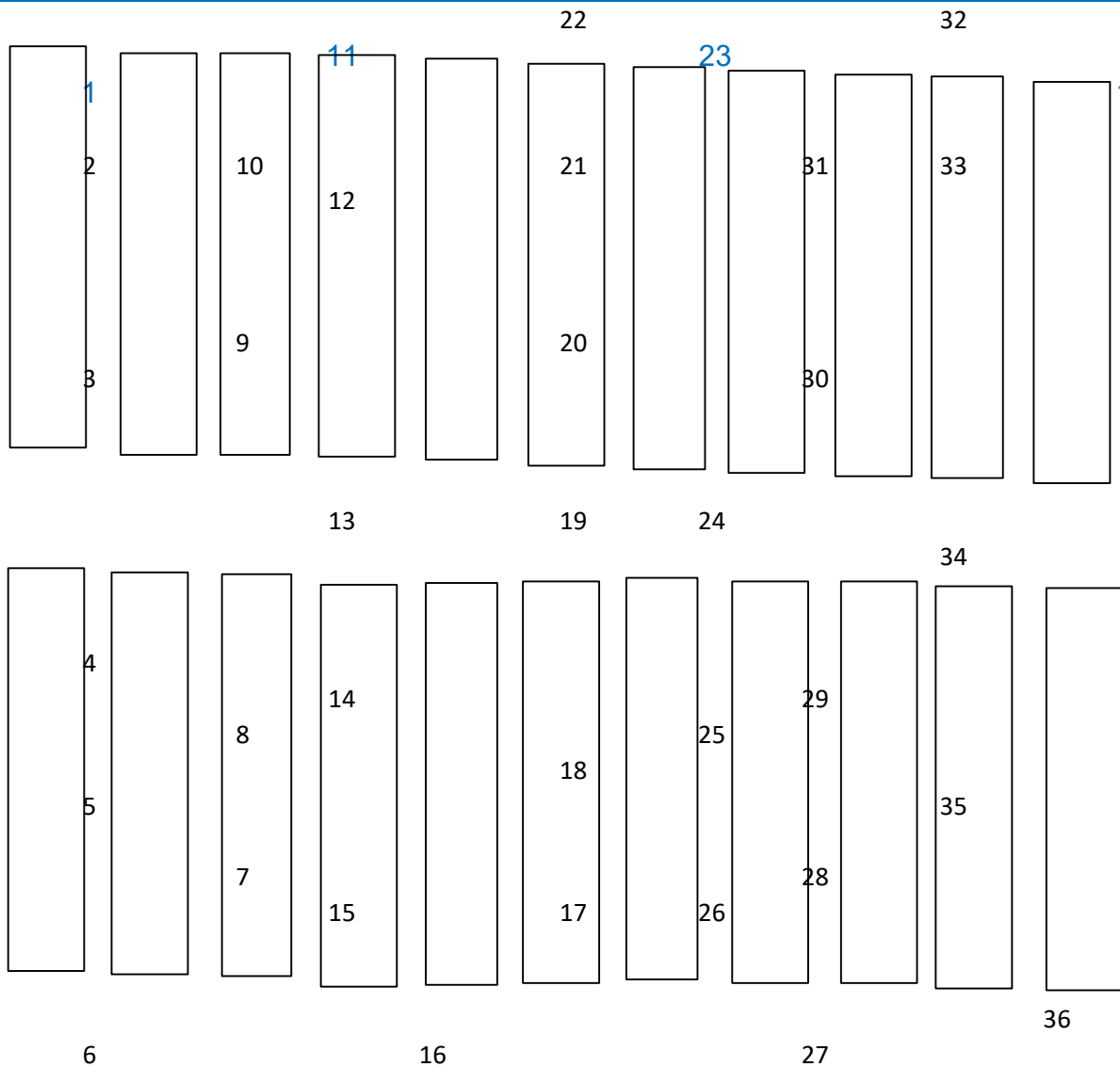




Data Centre Cleaning Report

CLIENT	0
ADDRESS	IT Cleaning Ltd
LOCATION	Data Hall 1
PREPARED BY	Steve Yates
DATE	29/10/2023

ROOM REPORT & LOCATIONS



On entering the POD you could taste plaster dust in the air. **Air Wall:** This was tack wiped, lots of plaster dust came off these walls.

High Level: Lights cable runs and tops of the cabinets were covered in white plaster dust, vacuumed and wiped all accessible surfaces. There were lots of cables on the cabinets.

Hot Ailes: The Perspex was covered in dust, this was tack wiped off. The cold side was very hard to access. Doors also covered in dust again tack wiped off.

Other Surfaces: Very dusty PDU's etc. All vacuumed and wiped.

Floor: Very dusty and marked badly. Some evidence of cleaning been done with wrong chemical surface dulled. The floor was vacuumed and wiped. I did remove all marks that could be removed, however, day two lots of new marks. None marking boots, wheels and ladder feet would stop this.

IS: The room pass ISO 14644-1 2015 class 7 which is better than the class 8 required.

COLLECTED DATA

TIMESTAMP	LOCATION (Name)	0.5 MICRON (particles/m ³)	1.0 MICRON (particles/m ³)	5.0 MICRON (particles/m ³)
29/07/2022 11:10:06	POD1_01	20000	42800	1485
29/07/2022 11:10:56	POD1_02	10000	6000	504
29/07/2022 11:13:58	POD1_03	30000	21800	2220
29/07/2022 11:14:48	POD1_04	30000	30100	1632
29/07/2022 11:15:30	POD1_05	50000	27600	1825
29/07/2022 11:16:49	POD1_06	30000	11200	807
29/07/2022 11:17:51	POD1_07	20000	12900	1917
29/07/2022 11:18:54	POD1_08	20000	10400	
29/07/2022 11:19:35	POD1_09	20000	9000	303
29/07/2022 11:20:13	POD1_10	10000	4200	
29/07/2022 11:21:07	POD1_11	20000	5200	807
29/07/2022 11:21:49	POD1_12	20000	13400	1513
29/07/2022 11:22:31	POD1_13	20000	6100	101
29/07/2022 11:23:14	POD1_14	20000	4000	
29/07/2022 11:23:56	POD1_15	20000	8700	2119
29/07/2022 11:24:41	POD1_16	20000	3600	101
29/07/2022 11:25:42	POD1_17	20000	6000	101
29/07/2022 11:26:29	POD1_18	20000	6500	706
29/07/2022 11:27:32	POD1_19	20000	10400	1009
29/07/2022 11:28:18	POD1_20	20000	4100	101
29/07/2022 11:29:15	POD1_21	20000	3100	
29/07/2022 11:29:55	POD1_22	20000	10200	1513
29/07/2022 11:30:36	POD1_23	20000	4500	1009
29/07/2022 11:31:15	POD1_24	30000	12700	
29/07/2022 11:32:00	POD1_25	40000	36500	
29/07/2022 11:32:48	POD1_26	30000	18100	
29/07/2022 11:33:31	POD1_27	30000	15200	
29/07/2022 11:34:14	POD1_28	30000	22600	1413
29/07/2022 11:35:06	POD1_29	30000	16600	
29/07/2022 11:35:48	POD1_30	30000	7100	
29/07/2022 11:36:30	POD1_31	20000	4400	504
29/07/2022 11:37:19	POD1_32	40000	11000	706
29/07/2022 11:38:04	POD1_33	40000	11600	
29/07/2022 11:38:52	POD1_34	40000	11800	
29/07/2022 11:39:46	POD1_35	30000	8300	303
29/07/2022 11:40:30	POD1_36	40000	11500	202
	MAX	50000	42800	2220

CLASS 8 LIMITS

3520000

832200

29300

PERCENTAGE OF LIMIT

Maximum

1%

5%

8%

CLASS 7 LIMITS

352000

83220

2930

PERCENTAGE OF LIMIT

Maximum

14%

51%

76%



I.T.CLEANING

CERTIFICATE OF CONFORMITY

0

IT Cleaning Ltd
Data Hall 1

Specification Achieved

ISO 14644 Class 7

Plus all accessible surfaces free from dust.

Specification Required: Class 8 or better

Date: 29/10/2023

This certificate is valid for 1 year

Time: 11:41

Tester: Steve Yates

Test Instrument: Light house Solair 5100+

Area tested: 1360 m²

Number of tests locations: 36

Sample protocol: Regular Spaces across the room

Sample volume: 0.01 m³

Sample time: 21s

Air flow: Non Directional

Occupancy state: Operational

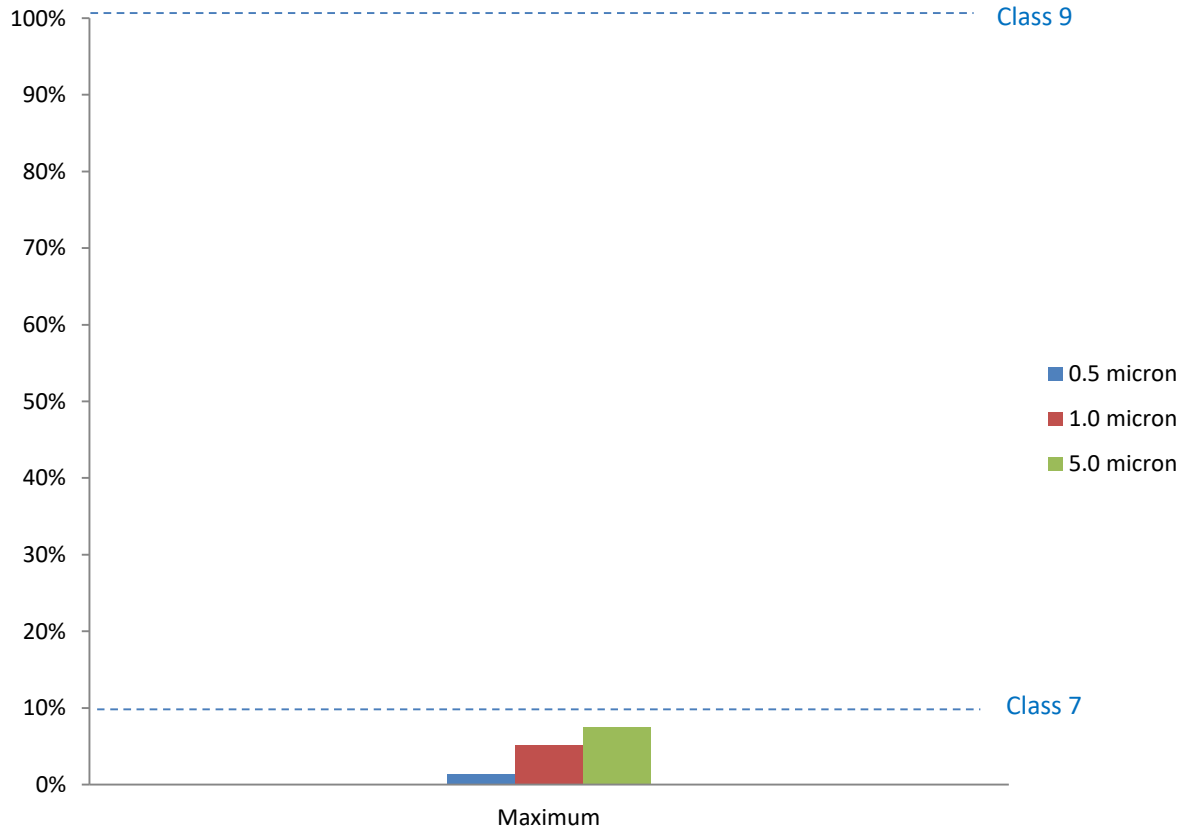
Particle sizes tested: 0.5µm, 1.0µm, 5.0µm

TEST RESULTS

<u>Particle Size</u>	<u>particles/m³</u>	<u>CLASS 7</u>	<u>CLASS 8</u>
0.5 micron	50,000	PASS 352,000	PASS 3,520,000
1.0 micron	42,800	PASS 83,220	PASS 832,200
5.0 micron	2,220	PASS 2,930	PASS 29,300

GRAPHICAL RESULTS

Percentage of ISO 14644 - Class 8



International Standards for Cleanrooms and Critical Environments

Airborne Particulate Cleanliness Classes ISO 14644

Class	Number of Particles per Cubic Meter by Micrometer Size					
	0.1 um	0.2 um	0.3 um	0.5 um	1 um	5 um
ISO 1	10	2				
ISO 2	100	24	10	4		
ISO 3	1,000	237	102	35	8	
ISO 4	10,000	2,370	1,020	352	83	
ISO 5	100,000	23,700	10,200	3,520	832	29
ISO 6	1,000,000	237,000	102,000	35,200	8,320	293
ISO 7				352,000	83,200	2,930
ISO 8				3,520,000	832,000	29,300
ISO 9				35,200,000	8,320,000	293,000

ISO-14644-1 Classification of Air Cleanliness

Cleanliness class designations and quantity have changed from FS209E (see Table 1). Along with the obvious change to metric measure of air volume, ISO 14644-1 adds three additional classes.

IT Cleaning Ltd Specification for Data Room class 8 clean; Air particulate levels to Class 8 or better plus all accessible surfaces free from dust.

Strategic Testing: (Table 1) Schedule of Tests to Demonstrate Continuing Compliance.

Test Parameter	Class	Maximum Time Interval	Test Procedure
Particle Count Test	≤ ISO 5	6 Months	ISO 14644-1 Annex A
	> ISO 5	12 Months	
Air Pressure Difference	All Classes	12 Months	ISO 14644-1 Annex B5
Airflow	All Classes	12 Months	ISO 14644-1 Annex B4

Definitions

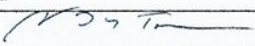
Operational	Populated room, equipment is live
Occupied	Populated room, equipment is not live
Unoccupied	Unpopulated room

CERTIFICATE OF CALIBRATION



CERTIFICATE NO. M13469/NT/01

CERTIFICATE OF CALIBRATION

CUSTOMER DETAILS								
CUSTOMER IT Cleaning Limited								
ADDRESS Mallards, 14 Canal Walk, Hungerford, RG17 0EQ								
PARTICLE COUNTER DETAILS								
MODEL Lighthouse Solair 5100+								
SERIAL NUMBER 080203003					REFERENCE ID 00165			
CALIBRATION TEST INSTRUMENTATION								
INSTRUMENT	SERIAL NUMBER	CERTIFICATE NUMBER	CALIBRATION EXPIRY					
PHA	uT-4003	M13402/NT/01	11 Oct 2023					
Digital Multimeter	53940955WS	1752819	02 Aug 2023					
Rotameter	F138007/2	C171418	14 Oct 2023					
PRE CALIBRATION CHANNEL SETTINGS								
Size (µm)	0.5	0.7	1.0	3.0	5.0	10.0	----	----
Threshold	238 mV	490 mV	589 mV	1625 mV	2871 mV	3839 mV	----	----
PERFORMANCE DETAILS								
Particle Size (µm)	Lot Number	Expiry Date	Output					
0.496	231219	Sep 2023	228 mV	Calibration Volt.	N/A			
0.702	253952	Jun 2025	485 mV	Flow Rate	1.0 CFM			
1.036	241634	Jun 2024	584 mV	Noise	32.0 mV			
2.920	251985	Mar 2023	1615 mV	Signal/Noise	7.3:1			
5.200	242044	Jun 2024	2963 mV	Extra Details:				
9.900	226659	May 2023	3934 mV					
COMMENTS Instrument within specification								
POST CALIBRATION CHANNEL SETTINGS								
Size (µm)	0.5	0.7	1.0	3.0	5.0	10.0	----	----
Threshold	234 mV	483 mV	582 mV	1673 mV	2873 mV	3943 mV	----	----
THE INSTRUMENT HAS BEEN CALIBRATED IN ACCORDANCE WITH ASTM F328-98 AND IS SUITABLE FOR USE								
NAME Nick Todd				CALIBRATION DATE 08 Feb 2023				
SIGNATURE 				NEXT CALIBRATION DUE 08 Feb 2024				