



Microbiology Test Report

Customer Details

Report No. WA-R-L-2103-39922

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.



Request No. : WA-Q-L-2103-05596 Received Date : 29/03/2021 Sample No. : WA-S-L-2103-39429

Sampling Date	: 27/03/2021	Report Date.	: 03/04/2021
Analysis Start Date.	: 29/03/2021	Analysis End Date.	: 01/04/2021
Sample Location.	: Etihad Airways	Sampled By	: Client rep
Sample Identification	: Not given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: APHA 9060 A&B
Temperature °C	: Not Given	Site Observation	: Clear
Sampling Container	: Sterile Plastic bottle	Source of Sample	: Etihad Airways
Sampling Point	: Utility	Preservation	: 4 - 8°C
Sample Description	: Water	Samplerrefno	: 2

Parameters	Test Methods	Units	Results	Specification
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	Zero
Escherichia Coli	APHA 9222 B,H&I 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml

Note : Not Detected= <1 CFU

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested results of the sample are found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
SM	SM	None

Key Words :CFU-Colony Forming Unit; APHA-American Public Health Association; CCFRA-Campden Chorleywood Food Research Association.

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D
Head of Microbiology Department

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Microbiology Test Report

Customer Details

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.

Report No. WA-R-L-2103-39921



Request No. : WA-Q-L-2103-05596 Received Date : 29/03/2021 Sample No. : WA-S-L-2103-39428

Sampling Date	: 27/03/2021	Report Date.	: 03/04/2021
Analysis Start Date.	: 29/03/2021	Analysis End Date.	: 01/04/2021
Sample Location.	: Etihad Airways	Sampled By	: Client rep
Sample Identification	: Not given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: APHA 9060 A&B
Temperature °C	: Not Given	Site Observation	: Clear
Sampling Container	: Sterile Plastic bottle	Source of Sample	: Etihad Airways
Sampling Point	: Aviation	Preservation	: 4 - 8°C
Sample Description	: Water	Samplerrefno	: 1

Parameters	Test Methods	Units	Results	Specification
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	Zero
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml

Note : Not Detected=<1CFU

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested results of the sample are found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
SM	SM	None

Key Words :CFU-Colony Forming Unit; APHA-American Public Health Association; CCFRA-Campden Chorleywood Food Research Association.

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Head of Microbiology Department

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Customer Details

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.

Report No. WA-R-L-2103-39923



Request No. : WA-Q-L-2103-05596 Received Date : 29/03/2021 Sample No. : WA-S-L-2103-39430

Sampling Date	: 27/03/2021	Report Date.	: 03/04/2021
Analysis Start Date.	: 29/03/2021	Analysis End Date.	: 01/04/2021
Sample Location.	: Etihad Airways	Sampled By	: Client rep
Sample Identification	: Not given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: APHA 9060 A&B
Temperature °C	: Not Given	Site Observation	: Clear
Sampling Container	: Sterile Plastic bottle	Source of Sample	: Etihad Airways
Sampling Point	: Hanger 04	Preservation	: 4 - 8°C
Sample Description	: Water	Samplerrefno	: 3

Parameters	Test Methods	Units	Results	Specification
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	Zero
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml

Note : Not Detected=<1CFU

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested results of the sample are found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
SM	SM	None

Key Words :CFU-Colony Forming Unit; APHA-American Public Health Association; CCFRA-Campden Chorleywood Food Research Association.

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Dr. Suresh Murugan Ph.D

Head of Microbiology Department

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Microbiology Test Report

Customer Details

Report No. WA-R-L-2103-39925

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.



Request No. : WA-Q-L-2103-05596 Received Date : 29/03/2021 Sample No. : WA-S-L-2103-39432

Sampling Date	: 27/03/2021	Report Date.	: 03/04/2021
Analysis Start Date.	: 29/03/2021	Analysis End Date.	: 01/04/2021
Sample Location.	: Etihad Airways	Sampled By	: Client rep
Sample Identification	: Not given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: APHA 9060 A&B
Temperature °C	: Not Given	Site Observation	: Clear
Sampling Container	: Sterile Plastic bottle	Source of Sample	: Etihad Airways
Sampling Point	: Hanger 6A	Preservation	: 4 - 8°C
Sample Description	: Water	Samplerrefno	: 5

Parameters	Test Methods	Units	Results	Specification
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	Zero
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml

Note : Not Detected= \leq 1CFU

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested results of the sample are found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
SM	SM	None

Key Words :CFU-Colony Forming Unit; APHA-American Public Health Association; CCFRA-Campden Chorleywood Food Research Association.

Signed for and on behalf of Wimpey Laboratories

Dr. Suresh Murugan Ph.D

Head of Microbiology Department



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Microbiology Test Report

Customer Details

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.

Report No. WA-R-L-2103-39924



Request No. : WA-Q-L-2103-05596 Received Date : 29/03/2021 Sample No. : WA-S-L-2103-39431

Sampling Date	: 27/03/2021	Report Date.	: 03/04/2021
Analysis Start Date.	: 29/03/2021	Analysis End Date.	: 01/04/2021
Sample Location.	: Etihad Airways	Sampled By	: Client rep
Sample Identification	: Not given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: APHA 9060 A&B
Temperature °C	: Not Given	Site Observation	: Clear
Sampling Container	: Sterile Plastic bottle	Source of Sample	: Etihad Airways
Sampling Point	: Bay 06	Preservation	: 4 - 8°C
Sample Description	: Water	Samplerrefno	: 4

Parameters	Test Methods	Units	Results	Specification
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	Zero
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml

Note : Not Detected=<1CFU

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested results of the sample are found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
SM	SM	None

Key Words :CFU-Colony Forming Unit; APHA-American Public Health Association; CCFRA-Campden Chorleywood Food Research Association.

Signed for and on behalf of Wimpey Laboratories



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Head of Microbiology Department

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Legionella Test Report

Customer Details

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.

Report No. WA-R-L-2103-39917



Request No. : WA-Q-L-2103-05596 Received Date : 27/03/2021 Sample No. : WA-S-L-2103-39424

Sampling Date	: 27/03/2021	Report Date.	: 06/04/2021
Analysis Start Date.	: 27/03/2021	Analysis End Date.	: 06/04/2021
Sample Location.	: Etihad Airways	Sampled By	: Client rep
Sample Identification	: Not given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: BS7593
Temperature °C	: Not Given	Site Observation	: Clear
Sampling Container	: Sterile Plastic bottle	Source of Sample	: Etihad Airways
Sampling Point	: Utility	Preservation	: 10°C
Sample Description	: Water	Samplerrefno	: 2

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	<1.0CFU/L

Note : Limit of Detection=<1CFU/L

Procedure: WSOP-MB-0051 Direct Placing of Membrane on BCYE+L-Cysteine/Membrane Filter Followed by Washing Procedure in Funnel.

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested result of the sample is found to be satisfactory within the specified limit.

Analyst	Reviewed By	Method Variation
SM	SM	None

Key Words :CFU-Colony Forming Units, ISO-International Organization for Standardization, BS-British Standards.

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Head of Microbiology Department

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Legionella Test Report

Customer Details

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.

Report No. WA-R-L-2103-39916



Request No. : WA-Q-L-2103-05596 Received Date : 27/03/2021 Sample No. : WA-S-L-2103-39423

Sampling Date	: 27/03/2021	Report Date.	: 06/04/2021
Analysis Start Date.	: 27/03/2021	Analysis End Date.	: 06/04/2021
Sample Location.	: Etihad Airways	Sampled By	: Client rep
Sample Identification	: Not given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: BS7592
Temperature °C	: Not Given	Site Observation	: Clear
Sampling Container	: Sterile Plastic bottle	Source of Sample	: Etihad Airways
Sampling Point	: Aviation	Preservation	: 10°C
Sample Description	: Water	Samplerrefno	: 1

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	<1.0CFU/L

Note : Limit of Detection=<1CFU/L

Procedure: WSOP-MB-0051 Direct Placing of Membrane on BCYE+L-Cysteine/Membrane Filter Followed by Washing Procedure in Funnel.

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested result of the sample is found to be satisfactory within the specified limit.

Analyst	Reviewed By	Method Variation
SM	SM	None

Key Words :CFU-Colony Forming Units, ISO-International Organization for Standardization, BS-British Standards.

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Legionella Test Report

Customer Details

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.

Report No. WA-R-L-2103-39918



Request No. : WA-Q-L-2103-05596 Received Date : 27/03/2021 Sample No. : WA-S-L-2103-39425

Sampling Date	: 27/03/2021	Report Date.	: 06/04/2021
Analysis Start Date.	: 27/03/2021	Analysis End Date.	: 06/04/2021
Sample Location.	: Etihad Airways	Sampled By	: Client rep
Sample Identification	: Not given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: BS7594
Temperature °C	: Not Given	Site Observation	: Clear
Sampling Container	: Sterile Plastic bottle	Source of Sample	: Etihad Airways
Sampling Point	: Hanger 04	Preservation	: 10°C
Sample Description	: Water	Samplerrefno	: 3

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	<1.0CFU/L

Note : Limit of Detection=<1CFU/L

Procedure: WSOP-MB-0051 Direct Placing of Membrane on BCYE+L-Cysteine/Membrane Filter Followed by Washing Procedure in Funnel.

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested result of the sample is found to be satisfactory within the specified limit.

Analyst	Reviewed By	Method Variation
SM	SM	None

Key Words :CFU-Colony Forming Units, ISO-International Organization for Standardization, BS-British Standards.

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Head of Microbiology Department

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Legionella Test Report

Customer Details

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.

Report No. WA-R-L-2103-39920



Request No. : WA-Q-L-2103-05596 Received Date : 27/03/2021 Sample No. : WA-S-L-2103-39427

Sampling Date	: 27/03/2021	Report Date.	: 06/04/2021
Analysis Start Date.	: 27/03/2021	Analysis End Date.	: 06/04/2021
Sample Location.	: Etihad Airways	Sampled By	: Client rep
Sample Identification	: Not given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: BS7596
Temperature °C	: Not Given	Site Observation	: Clear
Sampling Container	: Sterile Plastic bottle	Source of Sample	: Etihad Airways
Sampling Point	: Hanger 6A	Preservation	: 10°C
Sample Description	: Water	Samplerrefno	: 5

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	<1.0CFU/L

Note : Limit of Detection=<1CFU/L

Procedure: WSOP-MB-0051 Direct Placing of Membrane on BCYE+L-Cysteine/Membrane Filter Followed by Washing Procedure in Funnel.

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested result of the sample is found to be satisfactory within the specified limit.

Analyst	Reviewed By	Method Variation
SM	SM	None

Key Words :CFU-Colony Forming Units, ISO-International Organization for Standardization, BS-British Standards..

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Legionella Test Report

Customer Details

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.

Report No. WA-R-L-2103-39919



Request No. : WA-Q-L-2103-05596 Received Date : 27/03/2021 Sample No. : WA-S-L-2103-39426

Sampling Date	: 27/03/2021	Report Date.	: 06/04/2021
Analysis Start Date.	: 27/03/2021	Analysis End Date.	: 06/04/2021
Sample Location.	: Etihad Airways	Sampled By	: Client rep
Sample Identification	: Not given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: BS7595
Temperature °C	: Not Given	Site Observation	: Clear
Sampling Container	: Sterile Plastic bottle	Source of Sample	: Etihad Airways
Sampling Point	: Bay 06	Preservation	: 10°C
Sample Description	: Water	Samplerrefno	: 4

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	<1.0CFU/L

Note : Limit of Detection=<1CFU/L

Procedure: WSOP-MB-0051 Direct Placing of Membrane on BCYE+L-Cysteine/Membrane Filter Followed by Washing Procedure in Funnel.

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested result of the sample is found to be satisfactory within the specified limit.

Analyst	Reviewed By	Method Variation
SM	SM	None

Key Words :CFU-Colony Forming Units, ISO-International Organization for Standardization, BS-British Standards.

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