



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-2101-31759



Request No. : WA-Q-L-2101-04482

Sample No. : WA-S-L-2101-31195

Sampling Date	: 05/01/2021	Report Date.	: 09/01/2021
Analysis Start Date.	: 05/01/2021	Analysis End Date.	: 08/01/2021
Sample Location.	: Zayed University	Sampled By	: Amin ullah
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 3231	Sampling Method	: APHA 9060 A&B
Temperature °C	: 20.2	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Convention Center
Sampling Point	: Fountain 1	Intended Use	: Not Applicable
Preservation	: 4-8°C	Sample Description	: Water

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	500CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	-

Note : Not Detected=<1CFU

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
HS	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

Test results relate only to the samples tested.This report shall not be reproduced except in full, without the written approval of the Laboratory. This is a LIMS software generated document with E Signature.

Form No: WARF-MB-01 Issue No.:01 Rev No:00 Issued Date:22-01-2020

- End of Text -



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-2101-31755



Request No. : WA-Q-L-2101-04482

Sample No. : WA-S-L-2101-31191

Sampling Date	: 05/01/2021	Report Date.	: 09/01/2021
Analysis Start Date.	: 05/01/2021	Analysis End Date.	: 08/01/2021
Sample Location.	: Zayed University	Sampled By	: Amin ullah
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 3231	Sampling Method	: APHA 9060 A&B
Temperature °C	: 18	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Water Feature Courtyard
Sampling Point	: Fountain 2	Intended Use	: Not Applicable
Preservation	: 4-8°C	Sample Description	: Water

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	500CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	-

Note : Not Detected=<1CFU

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
HS	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

Test results relate only to the samples tested. This report shall not be reproduced except in full, without the written approval of the Laboratory. This is a LIMS software generated document with E Signature.

Form No: WARF-MB-01 Issue No.:01 Rev No:00 Issued Date:22-01-2020

- End of Text -



Microbiology Test Report

Customer Details

Report No. WA-R-L-2101-31756

Crystalline Cleaning & Environmental Services

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



Request No. : WA-Q-L-2101-04482

Sample No. : WA-S-L-2101-31192

Sampling Date	: 05/01/2021	Report Date.	: 09/01/2021
Analysis Start Date.	: 05/01/2021	Analysis End Date.	: 08/01/2021
Sample Location.	: Zayed University	Sampled By	: Amin ullah
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 3231	Sampling Method	: APHA 9060 A&B
Temperature °C	: 18.3	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Water Feature Courtyard
Sampling Point	: Fountain 3	Intended Use	: Not Applicable
Preservation	: 4-8°C	Sample Description	: Water

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	500CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	-

Note : Not Detected=<1CFU

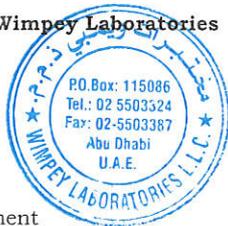
Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
HS	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

Test results relate only to the samples tested.This report shall not be reproduced except in full, without the written approval of the Laboratory. This is a LIMS software generated document with E Signature.

Form No: WARF-MB-01 Issue No.:01 Rev No:00 Issued Date:22-01-2020

- End of Text -



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-2101-31774



Request No. : WA-Q-L-2101-04482

Sample No. : WA-S-L-2101-31210

Sampling Date	: 05/01/2021	Report Date.	: 16/01/2021
Analysis Start Date.	: 05/01/2021	Analysis End Date.	: 15/01/2021
Sample Location.	: Zayed University	Sampled By	: Amin ullah
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 3231	Sampling Method	: BS7592
Temperature °C	: 20.2	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Convention Center
Sampling Point	: Fountain 1	Intended Use	: Not Applicable
Preservation	: 10°C	Sample Description	: Water

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	<1CFU/L

Note : Not Detected=<1CFU/L

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

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
HS	SM	None

Key Words :CFU-Colony Forming Unit; BS-British Standard; ISO-International Organization for Standardization.

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Head of Microbiology Department

Test results relate only to the samples tested. This report shall not be reproduced except in full, without the written approval of the Laboratory. This is a LIMS software generated document with E Signature.

Form No: WARF-MB-03 Issue No.:01 Rev No:00 Issued Date:22-01-2020

- End of Text -



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-2101-31770



Request No. : WA-Q-L-2101-04482

Sample No. : WA-S-L-2101-31206

Sampling Date	: 05/01/2021	Report Date.	: 16/01/2021
Analysis Start Date.	: 05/01/2021	Analysis End Date.	: 15/01/2021
Sample Location.	: Zayed University	Sampled By	: Amin ullah
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 3231	Sampling Method	: BS7592
Temperature °C	: 18	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Water Feature Courtyard
Sampling Point	: Fountain 2	Intended Use	: Not Applicable
Preservation	: 10°C	Sample Description	: Water

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	<1CFU/L

Note : Not Detected=<1CFU/L

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

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
HS	SM	None

Key Words :CFU-Colony Forming Unit; BS-British Standard; ISO-International Organization for Standardization.

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Head of Microbiology Department

Test results relate only to the samples tested. This report shall not be reproduced except in full, without the written approval of the Laboratory. This is a LIMS software generated document with E Signature.

Form No: WARF-MB-03 Issue No.:01 Rev No:00 Issued Date:22-01-2020

- End of Text -



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-2101-31771



Request No. : WA-Q-L-2101-04482

Sample No. : WA-S-L-2101-31207

Sampling Date	: 05/01/2021	Report Date.	: 16/01/2021
Analysis Start Date.	: 05/01/2021	Analysis End Date.	: 15/01/2021
Sample Location.	: Zayed University	Sampled By	: Amin ullah
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 3231	Sampling Method	: BS7592
Temperature °C	: 18.3	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Water Feature Courtyard
Sampling Point	: Fountain 3	Intended Use	: Not Applicable
Preservation	: 10°C	Sample Description	: Water

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	<1CFU/L

Note : Not Detected=<1CFU/L

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

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
HS	SM	None

Key Words :CFU-Colony Forming Unit; BS-British Standard; ISO-International Organization for Standardization.

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Head of Microbiology Department

Test results relate only to the samples tested. This report shall not be reproduced except in full, without the written approval of the Laboratory. This is a LIMS software generated document with E Signature.

Form No: WARF-MB-03 Issue No.:01 Rev No:00 Issued Date:22-01-2020

- End of Text -



CONSULTING SERVICE REPORT

CUSTOMER: SERCO FACILITY MANAGEMENT.	To: MR. MUHAMMED AFSHAR OPERATIONS ENGINEER	DATE: 05-01-2021
SITE: ZAYED UNIVERSITY	COPY: SERCO	LOCATION: CONVENTION CENTER, FOUNTAIN - 01

WATER FEATURE ANALYSIS

PARAMETER	CONTROL LIMITS	Water Feature -01			
pH	7.2 - 7.6	7.23			
Conductivity, $\mu\text{s}/\text{cm}$		1319			
TDS, ppm	Max 1500	857			
'P' Alkalinity, ppm as CaCO_3	80 - 120	96			
Total Hardness, ppm as CaCO_3					
Calcium Hardness, ppm as CaCO_3	100 - 500	238			
Chloride, ppm as Cl^-					
Iron, ppm as Fe					

Treatment Residuals

Silica, ppm					
CaH Balance					
Dipslide	<10 ³	ND			
Phosphate/Phosphonate					
Free Residual Chlorine as Cl	1.0 - 2.0	1.24			
Cyanuric Acid	20 - 60	25			

All test results expressed in parts per million (ppm) as CaCO_3 except pH and conductivity (μmhos).

COMMENTS:	ACTION:
The pH levels are satisfactory ⇒	No Action Recommended.
Chlorine levels & Cyanuric acid levels are satisfactory ⇒	No Action Recommended.
Calcium hardness satisfactory ⇒	No Action Recommended.

Kindly add chlorine and pool acid to maintain the desired control parameters in the water feature.

INVENTORY LEVELS

DOSAGE SCHEDULE

Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
Chlorine Tablets			--	
Pool Acid			--	
Crystal Care			--	

Service Engineer:	Murugaraaj	Client:	Mr. Muhammed Afshar
Signature:		Signature:	



CONSULTING SERVICE REPORT

CUSTOMER: SERCO FACILITY MANAGEMENT.	To: MR. MUHAMMED AFSHAR OPERATIONS ENGINEER	DATE: 05-01-2021
SITE: ZAYED UNIVERSITY	COPY: SERCO	LOCATION: WATER FEATURE COURTYARD , FOUNTAIN - 02

WATER FEATURE ANALYSIS

PARAMETER	CONTROL LIMITS	Water Fountain			
pH	7.2 - 7.6	7.34			
Conductivity, $\mu\text{s}/\text{cm}$		689			
TDS, ppm	Max 1500	447			
'P' Alkalinity, ppm as CaCO_3	80 - 120	93			
Total Hardness, ppm as CaCO_3					
Calcium Hardness, ppm as CaCO_3	100 - 500	138			
Chloride, ppm as Cl^-					
Iron, ppm as Fe					

Treatment Residuals

Silica, ppm					
CaH Balance					
Dipslide	<10 ³	ND			
Phosphate/Phosphonate					
Free Residual Chlorine as Cl	1.0 - 2.0	1.26			
Cyanuric Acid	20 - 60	29			

All test results expressed in parts per million (ppm) as CaCO_3 except pH and conductivity (μmhos).

COMMENTS:

ACTION:

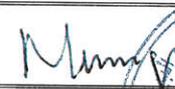
The pH levels are satisfactory	⇒	No Action Recommended.
Chlorine levels & Cyanuric acid levels are satisfactory	⇒	No Action Recommended.
Calcium hardness satisfactory	⇒	No Action Recommended.

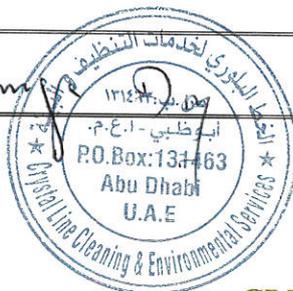
Kindly add chlorine and pool acid to maintain the desired control parameters in the water feature.

INVENTORY LEVELS

DOSAGE SCHEDULE

Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
Chlorine Tablets			--	
Pool Acid			--	
Crystal Care			--	

Service Engineer:	Murugaraaj	Client:	Mr. Muhammed Afshar
Signature:		Signature:	



CONSULTING SERVICE REPORT

CUSTOMER: SERCO FACILITY MANAGEMENT.	To: MR. MUHAMMED AFSHAR OPERATIONS ENGINEER	DATE: 05-01-2021
SITE: ZAYED UNIVERSITY	COPY: SERCO	LOCATION: WATER FEATURE COURTYARD, FOUNTAIN - 03

WATER FEATURE ANALYSIS

PARAMETER	CONTROL LIMITS	Water Fountain			
pH	7.2 - 7.6	7.27			
Conductivity, $\mu\text{s}/\text{cm}$		936			
TDS, ppm	Max 1500	608			
'P' Alkalinity, ppm as CaCO_3	80 - 120	87			
Total Hardness, ppm as CaCO_3					
Calcium Hardness, ppm as CaCO_3	100 - 500	137			
Chloride, ppm as Cl^-					
Iron, ppm as Fe					

Treatment Residuals

Silica, ppm					
CaH Balance					
Dipslide	<10 ³	ND			
Phosphate/Phosphonate					
Free Residual Chlorine as Cl	1.0 - 2.0	1.28			
Cyanuric Acid	20 - 60	27			

All test results expressed in parts per million (ppm) as CaCO_3 except pH and conductivity (μmhos).

COMMENTS:

ACTION:

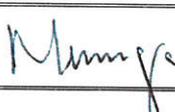
The pH levels are satisfactory	⇒	No Action Recommended.
Chlorine levels & Cyanuric acid levels are satisfactory	⇒	No Action Recommended.
Calcium hardness satisfactory	⇒	No Action Recommended.

Kindly add chlorine and pool acid to maintain the desired control parameters in the water feature.

INVENTORY LEVELS

DOSAGE SCHEDULE

Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
Chlorine Tablets			--	
Pool Acid			--	
Crystal Care			--	

Service Engineer:	Murugaraaj	Client:	Mr. Muhammed Afshar
Signature:		Signature:	

