



Microbiology Test Report

Customer Details

Report No. WA-R-L-2006-11006

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942



Request No. : WA-Q-L-2006-01737

Sample No. : WA-S-L-2006-10743

Sampling Date : 14/06/2020

Report Date. : 17/6/2020

Analysis Start Date. : 14/6/2020

Analysis End Date. : 17/6/2020

Sample Location. : ADIA HQ

Sampled By : Shoukth

Sample Identification : Not Applicable

Sample Submitted as : Water

Sample Certificate No : 0839

Sampling Method : APHA 9060 A&B

Temperature °C : 8.5°C

Site Observation : Clear

Sampling Container : Sterile Plastic Bottle

Source of Sample : Basement - Chilled Water

Sampling Point : Valve

Preservation : 4-8°C

Sample Description : Water

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100 ml	Not Detected	--
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100 ml	Not Detected	--
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100 ml	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.



مختبرات ويمبي ذم م
Wimpey Laboratories LLC

P.O. Box 115086, Musaffah M-34, Abu Dhabi, U.A.E.
Tel: +971 2 5503324, Fax: +971 2 5503387



Testing - NAL 034

Microbiology Test Report

Report No. : WA-R-L-2006-11006

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Senior Microbiologist

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. Tel: 971 265 08930; Fax: 971 265 8942

Report No. WA-R-L-2006-11034



Request No.	: WA-Q-L-2006-01737	Sample No.	: WA-S-L-2006-10773
Sampling Date	: 14/06/2020	Report Date.	: 25/6/2020
Analysis Start Date.	: 14/6/2020	Analysis End Date.	: 24/6/2020
Sample Location.	: ADIA HQ	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0839	Sampling Method	: BS 7592
Temperature °C	: 8.5°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Basement - Chilled Water
Sampling Point	: Valve	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on GVPC/BCYE Agar.

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

Remarks :The tested result of the sample is 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

Senior Microbiologist



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 -

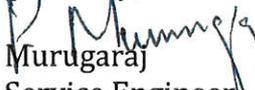
CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	14-06-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -HQ
Sample Type	Chilled Water	Sample Point	HQ-Basement Chilled Water

TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.37
2	Conductivity at 25°C, $\mu\text{s}/\text{cm}$	Max 3500	1408
3	TDS, ppm	---	915
4	Iron, ppm as Fe	0 - 2.0	0.21
5	Nitrite, ppm.	>800	610
6	Dip slide	<10 ³	ND

*** All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (μmhos).

COMMENTS AND RECOMMENDATIONS
<ul style="list-style-type: none"> pH Levels are satisfactory – No action recommended. Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

 Murugaraj
 Service Engineer





Microbiology Test Report

Customer Details

Report No. WA-R-L-2006-11015

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942



Request No. : WA-Q-L-2006-01737

Sample No. : WA-S-L-2006-10752

Sampling Date : 14/06/2020 ,

Report Date. : 17/6/2020

Analysis Start Date. : 14/6/2020

Analysis End Date. : 17/6/2020

Sample Location. : ADIA HQ

Sampled By : Shoukth

Sample Identification : Not Applicable

Sample Submitted as : Water

Sample Certificate No : 0840

Sampling Method : APHA 9060 A&B

Temperature °C : 8°C

Site Observation : Clear

Sampling Container : Sterile Plastic Bottle

Source of Sample : Tertiary Pump Room -
Chilled Water

Sampling Point : 16th Floor - Valve

Preservation : 4-8°C

Sample Description : Water

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100 ml	Not Detected	--
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100 ml	Not Detected	--
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100 ml	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.



مختبرات ويمبي ذم م
Wimpey Laboratories LLC

P.O. Box 115086, Musaffah M-34, Abu Dhabi, U.A.E.
Tel: +971 2 5503324, Fax: +971 2 5503387



Testing - NAL 034

Microbiology Test Report

Report No. : WA-R-L-2006-11015

Signed for and on behalf of Wimpey Laboratories

Dr. Suresh Murugan Ph.D
Senior Microbiologist



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

Report No. WA-R-L-2006-11043

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942



Request No.	: WA-Q-L-2006-01737	Sample No.	: WA-S-L-2006-10782
Sampling Date	: 14/06/2020	Report Date.	: 25/6/2020
Analysis Start Date.	: 14/6/2020	Analysis End Date.	: 24/6/2020
Sample Location.	: ADIA HQ	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0840	Sampling Method	: BS 7592
Temperature °C	: 8°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Tertiary Pump Room - Chilled Water
Sampling Point	: 16th Floor - Valve	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on GVPC/BCYE Agar.

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

Remarks :The tested result of the sample is 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

Senior Microbiologist

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 -

CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-06-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -HQ
Sample Type	Chilled Water	Sample Point	HQ-L-16 Chilled Water

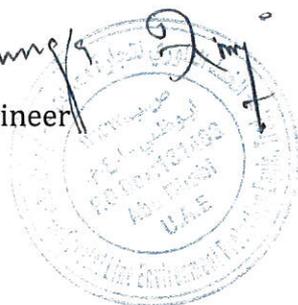
TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.09
2	Conductivity at 25°C, $\mu\text{s}/\text{cm}$	Max 3500	1541
3	TDS, ppm	---	1001
4	Iron, ppm as Fe	0 - 2.0	0.19
5	Nitrite, ppm.	>800	680
6	Dip slide	<10 ³	ND

*** All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (μmhos).

COMMENTS AND RECOMMENDATIONS
<ul style="list-style-type: none"> pH Levels are satisfactory - No action recommended.
<ul style="list-style-type: none"> Nitrite Levels are satisfactory - No action recommended.

Reported By,

Murugara
Murugara
Service Engineer





Microbiology Test Report

Customer Details

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942

Report No. WA-R-L-2006-11017



Request No. : WA-Q-L-2006-01737

Sample No. : WA-S-L-2006-10754

Sampling Date	: 14/06/2020	Report Date.	: 17/6/2020
Analysis Start Date.	: 14/6/2020	Analysis End Date.	: 17/6/2020
Sample Location.	: ADIA HQ	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0840	Sampling Method	: APHA 9060 A&B
Temperature °C	: 8.3°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Wing B Plant Room - Chilled Water
Sampling Point	: 32nd Floor - Valve	Preservation	: 4-8°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100 ml	Not Detected	--
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100 ml	Not Detected	--
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100 ml	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.



Microbiology Test Report

Report No. : WA-R-L-2006-11017

Signed for and on behalf of Wimpey Laboratories

Dr. Suresh Murugan Ph.D

Senior Microbiologist



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. Tel: 971 265 08930; Fax: 971 265 8942

Report No. WA-R-L-2006-11045



Request No.	: WA-Q-L-2006-01737	Sample No.	: WA-S-L-2006-10784
Sampling Date	: 14/06/2020	Report Date.	: 25/6/2020
Analysis Start Date.	: 14/6/2020	Analysis End Date.	: 24/6/2020
Sample Location.	: ADIA HQ	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0840	Sampling Method	: BS 7592
Temperature °C	: 8.3°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Wing B Plant Room - Chilled Water
Sampling Point	: 32nd Floor - Valve	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on GVPC/BCYE Agar.

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

Remarks :The tested result of the sample is 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

Senior Microbiologist



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 -

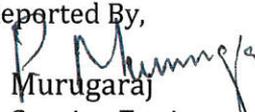
CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	14-06-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -HQ
Sample Type	Chilled Water	Sample Point	HQ-L-32 Chilled Water

TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	9.97
2	Conductivity at 25°C, $\mu\text{s}/\text{cm}$	Max 3500	2346
3	TDS, ppm	---	1524
4	Iron, ppm as Fe	0 - 2.0	0.27
5	Nitrite, ppm.	>800	960
6	Dip slide	<10 ³	ND

*** All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (μmhos).

COMMENTS AND RECOMMENDATIONS
<ul style="list-style-type: none"> pH Levels are satisfactory - No action recommended.
<ul style="list-style-type: none"> Nitrite Levels are satisfactory - No action recommended.

Reported By,

 Murugara
 Service Engineer





Microbiology Test Report

Customer Details

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971
265 08930; Fax: 971 265 8942

Report No. WA-R-L-2006-11026



Request No. : WA-Q-L-2006-01737

Sample No. : WA-S-L-2006-10763

Sampling Date : 14/06/2020 ,

Report Date. : 17/6/2020

Analysis Start Date. : 14/6/2020

Analysis End Date. : 17/6/2020

Sample Location. : ADIA HQ

Sampled By : Shoukth

Sample Identification : Not Applicable

Sample Submitted as : Water

Sample Certificate No : 0840

Sampling Method : APHA 9060 A&B

Temperature °C : 8.9°C

Site Observation : Clear

Sampling Container : Sterile Plastic Bottle

Source of Sample : Plant Room - Chilled

Sampling Point : 37th Floor - Valve

Water

Sample Description : Water

Preservation : 4-8°C

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100 ml	Not Detected	--
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100 ml	Not Detected	--
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100 ml	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.



Microbiology Test Report

Report No. : WA-R-L-2006-11026

Signed for and on behalf of Wimpey Laboratories

Dr. Suresh Murugan Ph.D

Senior Microbiologist



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

Report No. WA-R-L-2006-11054

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942



Request No.	: WA-Q-L-2006-01737	Sample No.	: WA-S-L-2006-10793
Sampling Date	: 14/06/2020	Report Date.	: 25/6/2020
Analysis Start Date.	: 14/6/2020	Analysis End Date.	: 24/6/2020
Sample Location.	: ADIA HQ	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0840	Sampling Method	: BS 7592
Temperature °C	: 8.9°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Plant Room - Chilled Water
Sampling Point	: 37th Floor - Valve	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on GVPC/BCYE Agar.

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

Remarks :The tested result of the sample is 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

Senior Microbiologist

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 -

CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	14-06-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -HQ
Sample Type	Chilled Water	Sample Point	HQ-L-37 Chilled Water

TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.04
2	Conductivity at 25°C, µs/cm	Max 3500	493
3	TDS, ppm	---	320
4	Iron, ppm as Fe	0 - 2.0	0.13
5	Nitrite, ppm.	>800	<100
6	Dip slide	<10 ³	ND

*** All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (µmhos).

COMMENTS AND RECOMMENDATIONS
<ul style="list-style-type: none"> pH Levels are satisfactory – No action recommended. Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

 Murugaraj
 Service Engineer





Microbiology Test Report

Customer Details

Report No. WA-R-L-2006-11171

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463
Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax:
971 265 8942



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10906
Sampling Date/time	: 16/6/2020 , 19:10	Report Date.	: 20/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 19/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0843	Sampling Method	: APHA 9060 A&B
Temperature °C	: 9.1°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Basement 02, Chilled Water
Sampling Point	: Valve	Preservation	: 4-8°C
Sample Description	: Chilled 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	10000CFU/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= \leq 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
SM	SM	None

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



مختبرات ويمبي ذم م
Wimpey Laboratories LLC

P.O. Box 115086, Musaffah M-34, Abu Dhabi, U.A.E.
Tel: +971 2 5503324, Fax: +971 2 5503387



Testing - NAL 034

Microbiology Test Report

Report No. : WA-R-L-2006-11171

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Senior Microbiologist

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

Report No. WA-R-L-2006-11190

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463
Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax:
971 265 8942



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10926
Sampling Date	: 16/06/2020 ,	Report Date.	: 27/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 26/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0843	Sampling Method	: BS 7592
Temperature °C	: 9.1°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Basement 02, Chilled Water
Sampling Point	: Valve	Preservation	: 10°C
Sample Description	: Chilled Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on
GVPC/BCYE Agar.

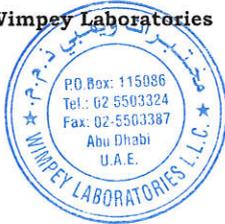
Limit based on DM. Rev2.Datcd 6/2010 for guidelines for control of legionella in water system. Public Safety
Department.

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

Senior Microbiologist

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 -



Microbiology Test Report

Customer Details

Report No. WA-R-L-2006-11172

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463
Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax:
971 265 8942



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10907
Sampling Date/time	: 16/6/2020 , 19:10	Report Date.	: 20/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 19/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0843	Sampling Method	: APHA 9060 A&B
Temperature °C	: 8.2°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: GF Secondary Pump Room Chilled Water
Sampling Point	: Valve	Preservation	: 4-8°C
Sample Description	: Chilled 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	10000CFU/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
SM	SM	None

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



مختبرات ويمبي ذ.م.م
Wimpey Laboratories LLC

P.O. Box 115086, Musaffah M-34, Abu Dhabi, U.A.E.
Tel: +971 2 5503324, Fax: +971 2 5503387



Testing - NAL 034

Microbiology Test Report

Report No. : WA-R-L-2006-11172

Signed for and on behalf of Wimpey Laboratories

Dr. Suresh Murugan Ph.D
Senior Microbiologist



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

Report No. WA-R-L-2006-11191

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463

Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10927
Sampling Date	: 16/06/2020	Report Date.	: 27/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 26/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0843	Sampling Method	: BS 7592
Temperature °C	: 8.2°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: GF Secondary Pump Room Chilled Water
Sampling Point	: Valve	Preservation	: 10°C
Sample Description	: Chilled Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on GVPC/BCYE Agar.

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

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

Senior Microbiologist

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 -



Microbiology Test Report

Customer Details

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463

Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942

Report No. WA-R-L-2006-11173



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10908
Sampling Date/time	: 16/6/2020 , 19:10	Report Date.	: 20/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 19/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0843	Sampling Method	: APHA 9060 A&B
Temperature °C	: 8.1°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: LG Chiller Pump Room Chilled Water
Sampling Point	: Valve	Preservation	: 4-8°C
Sample Description	: Chilled 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	10000CFU/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
SM	SM	None

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



مختبرات ويمبي ذم م
Wimpey Laboratories LLC

P.O. Box 115086, Musaffah M-34, Abu Dhabi, U.A.E.
Tel: +971 2 5503324, Fax: +971 2 5503387



Testing - NAL 034

Microbiology Test Report

Report No. : WA-R-L-2006-11173

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D
Senior Microbiologist

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

Report No. WA-R-L-2006-11192

Customer Details

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463

Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10928
Sampling Date	: 16/06/2020 ,	Report Date.	: 27/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 26/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0843	Sampling Method	: BS 7592
Temperature °C	: 8.1°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: LG Chiller Pump Room Chilled Water
Sampling Point	: Valve	Preservation	: 10°C
Sample Description	: Chilled Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on GVPC/BCYE Agar.

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

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

Senior Microbiologist

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 -



Microbiology Test Report

Customer Details

Report No. WA-R-L-2006-11174

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463

Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10909
Sampling Date/time	: 16/6/2020 , 19:10	Report Date.	: 20/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 19/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0843	Sampling Method	: APHA 9060 A&B
Temperature °C	: 8.1°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: LG Chiller Plant Room - Chilled Yard (Water Cooled)
Sampling Point	: Valve	Preservation	: 4-8°C
Sample Description	: Chilled 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	10000CFU/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
SM	SM	None

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



مختبرات ويمبي ذ.م.م
Wimpey Laboratories LLC

P.O. Box 115086, Musaffah M-34, Abu Dhabi, U.A.E.
Tel: +971 2 5503324, Fax: +971 2 5503387



Testing - NAL 034

Microbiology Test Report

Report No. : WA-R-L-2006-11174

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Senior Microbiologist

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

Report No. WA-R-L-2006-11193

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463
Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax:
971 265 8942



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10929
Sampling Date	: 16/06/2020 ,	Report Date.	: 27/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 26/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0843	Sampling Method	: BS 7592
Temperature °C	: 8.1°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: LG Chiller Plant Room - Chilled Yard (Water Cooled)
Sampling Point	: Valve	Preservation	: 10°C
Sample Description	: Chilled Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on
GVPC/BCYE Agar.

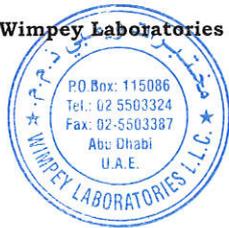
Limit based on DM. Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety
Department.

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
Senior Microbiologist

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 -



Microbiology Test Report

Customer Details

Report No. WA-R-L-2006-11178

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463

Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10913
Sampling Date/time	: 16/6/2020 , 19:10	Report Date.	: 20/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 19/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0844	Sampling Method	: APHA 9060 A&B
Temperature °C	: 9.4°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: 6th Floor Chiller Water
Sampling Point	: Valve	Preservation	: 4-8°C
Sample Description	: Chilled 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	10000CFU/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
SM	SM	None

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



مختبرات ويمبي ذ م م
Wimpey Laboratories LLC

P.O. Box 115086, Musaffah M-34, Abu Dhabi, U.A.E.
Tel: +971 2 5503324, Fax: +971 2 5503387



Testing - NAL 034

Microbiology Test Report

Report No. : WA-R-L-2006-11178

Signed for and on behalf of Wimpey Laboratories

Dr. Suresh Murugan Ph.D

Senior Microbiologist



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

Report No. WA-R-L-2006-11197

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463
Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax:
971 265 8942



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10933
Sampling Date	: 16/06/2020 ,	Report Date.	: 27/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 26/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0844	Sampling Method	: BS 7592
Temperature °C	: 9.4°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: 6th Floor Chiller Water
Sampling Point	: Valve	Preservation	: 10°C
Sample Description	: Chilled Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-005 i. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on
GVPC/BCYE Agar.

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

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

Senior Microbiologist

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 -



Microbiology Test Report

Customer Details

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463

Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax:

971 265 8942

Request No. : WA-Q-L-2006-01765

Sample No. : WA-S-L-2006-10918

Sampling Date/time : 16/6/2020 , 19:10

Report Date. : 20/6/2020

Analysis Start Date. : 16/6/2020

Analysis End Date. : 19/6/2020

Sample Location. : ADIA, Car Parking, Abu Dhabi

Sampled By : Shoukth

Sample Identification : Not Applicable

Sample Submitted as : Water

Sample Certificate No : 0844

Sampling Method : APHA 9060 A&B

Temperature °C : 9.8°C

Site Observation : Clear

Sampling Container : Sterile Plastic Bottle

Source of Sample : Roof Chiller Plant Room

Chilled Water (Air

Cooled)

Sampling Point : Valve

Preservation : 4-8°C

Sample Description : Chilled 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	10000CFU/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= \leq 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
SM	SM	None

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



مختبرات ويمبي ذ م م
Wimpey Laboratories LLC

P.O. Box 115086, Musaffah M-34, Abu Dhabi, U.A.E.
Tel: +971 2 5503324, Fax: +971 2 5503387



Microbiology Test Report

Report No. : WA-R-L-2006-11183

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Senior Microbiologist

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

Report No. WA-R-L-2006-11202

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES

CRYSTALLINE CLEANING & ENVIRONMENTAL SERVICES P.O.Box: 131463

Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE. Tel: 971 265 08930; Fax: 971 265 8942



Request No.	: WA-Q-L-2006-01765	Sample No.	: WA-S-L-2006-10938
Sampling Date	: 16/06/2020	Report Date.	: 27/6/2020
Analysis Start Date.	: 16/6/2020	Analysis End Date.	: 26/6/2020
Sample Location.	: ADIA, Car Parking, Abu Dhabi	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0844	Sampling Method	: BS 7592
Temperature °C	: 9.8°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Roof Chiller Plant Room Chilled Water (Air Cooled)
Sampling Point	: Valve	Preservation	: 10°C
Sample Description	: Chilled Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on GVPC/BCYE Agar.

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

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

Senior Microbiologist

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 -

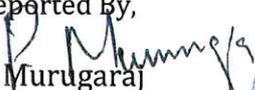
CHILLED WATER ANALYSIS REPORT

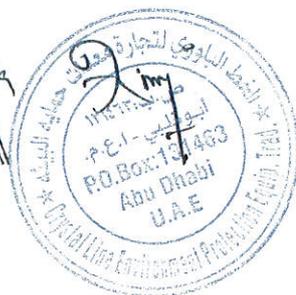
Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-06-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -Car Parking
Sample Type	Chilled Water	Sample Point	GF-Secondary Pump Room

TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.36
2	Conductivity at 25°C, µs/cm	Max 3500	1584
3	TDS, ppm	---	1029
4	Iron, ppm as Fe	0 - 2.0	0.19
5	Nitrite, ppm.	>800	640
6	Dip slide	<10 ³	ND

*** All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (µmhos).

COMMENTS AND RECOMMENDATIONS
<ul style="list-style-type: none"> pH Levels are satisfactory – No action recommended. Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

 Murugara
 Service Engineer



CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-06-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -Car Parking
Sample Type	Chilled Water	Sample Point	B2-Chilled Water

TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.42
2	Conductivity at 25°C, µs/cm	Max 3500	1431
3	TDS, ppm	---	930
4	Iron, ppm as Fe	0 - 2.0	0.24
5	Nitrite, ppm.	>800	590
6	Dip slide	<10 ³	ND

*** All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (µmhos).

COMMENTS AND RECOMMENDATIONS
<ul style="list-style-type: none"> pH Levels are satisfactory – No action recommended. Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

Murugara
Murugara
Service Engineer



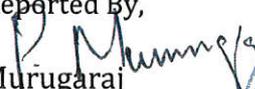
CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-06-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -Car Parking
Sample Type	Chilled Water	Sample Point	Roof Top Chiller Yard - Air Cooled

TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.27
2	Conductivity at 25°C, µs/cm	Max 3500	1514
3	TDS, ppm	---	984
4	Iron, ppm as Fe	0 - 2.0	0.13
5	Nitrite, ppm.	>800	610
6	Dip slide	<10 ³	ND

*** All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (µmhos).

COMMENTS AND RECOMMENDATIONS
<ul style="list-style-type: none"> pH Levels are satisfactory – No action recommended. Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

 Murugaraj
 Service Engineer



CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-06-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -Car Parking
Sample Type	Chilled Water	Sample Point	GF-Chiller Yard – Water Cooled

TEST RESULT

No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	8.95
2	Conductivity at 25°C, $\mu\text{s}/\text{cm}$	Max 3500	441
3	TDS, ppm	---	286
4	Iron, ppm as Fe	0 – 2.0	0.16
5	Nitrite, ppm.	>800	<20
6	Dip slide	<10 ³	ND

*** All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (μmhos).

COMMENTS AND RECOMMENDATIONS

- pH Levels are satisfactory – No action recommended.
- Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

Murugaraaj
Murugaraaj
Service Engineer



CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-06-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -Car Parking
Sample Type	Chilled Water	Sample Point	L-06, Chilled Water

TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.37
2	Conductivity at 25°C, µs/cm	Max 3500	1528
3	TDS, ppm	---	993
4	Iron, ppm as Fe	0 - 2.0	0.17
5	Nitrite, ppm.	>800	670
6	Dip slide	<10 ³	ND

*** All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (µmhos).

COMMENTS AND RECOMMENDATIONS
<ul style="list-style-type: none"> pH Levels are satisfactory – No action recommended. Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

Murugara
Murugara
Service Engineer

