

TEST REPORT

REPORT NO:-QMTL/R-84478

CLIENT: CRYSTALLINE ENVIRONMENTAL SERVICES		
P.O.Box.131463, Abu Dhabi, U.A.E		
Ph:02-6508930/0557167017		
ATTN:MR. JASMAN PINTO		
Product: Water	Sampling Method: APHA 9060 A	Sample ID: QMTL/S-84478
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Ground Floor- Chiller Yard Sample Onsite Temp: 8.1°C Sample Receipt Temp: 4°C	Source: Valve	Date(s) Tested: 14-16.12.2019
	Sample Container: 1X 500 ml PB	Date Reported: 21.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 14.12.2019/11.05 AM
On-Site Treatment: NA	Tested by Emp#: 55 & 74	Location: AUH

TEST RESULTS

PARAMETERS	TEST METHODS (APHA 23 RD EDITION)	UNITS	SPECIFICATIONS	RESULTS
MICROBIOLOGICAL ANALYSIS				
Total Bacterial Count	APHA 9215 B	CFU/ml	10,000	2
Total Coliforms	APHA 9222 B	CFU/100ml	-	Zero
Faecal coliform	APHA 9222 D	CFU/100ml	-	Zero
Pseudomonas aeruginosa	APHA 9213 E	CFU/100ml	-	Zero
Escherichia coli	APHA 9222 H & I	CFU/100ml	-	Zero

REMARKS: The sample meets DM Water Systems quality 2010 specifications for Cooling Water System with respect to the above tests only.

Key Words:- CFU: Colony Forming Unit, APHA: American Public Health Association, DM: Dubai Municipality, NA: Not Applicable

Report prepared by Emp#: 75

Test Method deviation : None

The above test results are only applicable to the sample(s) referred above

Reported By

ANILA GEORGE
LABORATORY MANAGER

The test Report shall not be reproduced (except in full) without the written approval of QMTL. When analysis is witnessed by us or carried out by sub contract labs, our responsibility is only to ensure that the analysis is conducted to standard test methods in accordance with industry accepted practice.

END OF REPORT

TEST REPORT

REPORT NO:-QMTL/R-84479

CLIENT: CRYSTALLINE ENVIRONMENTAL SERVICES		
P.O.Box.131463, Abu Dhabi, U.A.E		
Ph:02-6508930/0557167017		
ATTN:MR. JASMAN PINTO		
Product: Water	Sampling Method: APHA 9060 A	Sample ID: QMTL/S-84479
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Ground Floor- Chilled Water Sample Onsite Temp: 10.5°C Sample Receipt Temp: 4°C	Source: Valve	Date(s) Tested: 14-16.12.2019
	Sample Container: 1X 500 ml PB	Date Reported: 21.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 14.12.2019/11.16 AM
On-Site Treatment: NA	Tested by Emp#: 55 & 74	Location: AUH

TEST RESULTS

PARAMETERS	TEST METHODS (APHA 23 RD EDITION)	UNITS	SPECIFICATIONS	RESULTS
MICROBIOLOGICAL ANALYSIS				
Total Bacterial Count	APHA 9215 B	CFU/ml	10,000	<1
Total Coliforms	APHA 9222 B	CFU/100ml	-	Zero
Faecal coliform	APHA 9222 D	CFU/100ml	-	Zero
Pseudomonas aeruginosa	APHA 9213 E	CFU/100ml	-	Zero
Escherichia coli	APHA 9222 H & I	CFU/100ml	-	Zero

REMARKS: The sample meets DM Water Systems quality 2010 specifications for Cooling Water System with respect to the above tests only.

Key Words:- CFU: Colony Forming Unit, APHA: American Public Health Association, DM: Dubai Municipality, NA: Not Applicable

Report prepared by Emp#: 75

Test Method deviation : None

The above test results are only applicable to the sample(s) referred above

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TEST REPORT

REPORT NO:-QMTL/R-84480

CLIENT: CRYSTALLINE ENVIRONMENTAL SERVICES		
P.O.Box.131463, Abu Dhabi, U.A.E		
Ph:02-6508930/0557167017		
ATTN:MR. JASMAN PINTO		
Product: Water	Sampling Method: APHA 9060 A	Sample ID: QMTL/S-84480
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Mezzanine Floor- Chilled Water Sample Onsite Temp: 11.6°C Sample Receipt Temp: 4°C	Source: Valve	Date(s) Tested: 14-16.12.2019
	Sample Container: 1X 500 ml PB	Date Reported: 21.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 14.12.2019/11.28 AM
On-Site Treatment: NA	Tested by Emp#: 55 & 74	Location: AUH

TEST RESULTS

PARAMETERS	TEST METHODS (APHA 23 RD EDITION)	UNITS	SPECIFICATIONS	RESULTS
MICROBIOLOGICAL ANALYSIS				
Total Bacterial Count	APHA 9215 B	CFU/ml	10,000	10
Total Coliforms	APHA 9222 B	CFU/100ml	-	Zero
Faecal coliform	APHA 9222 D	CFU/100ml	-	Zero
Pseudomonas aeruginosa	APHA 9213 E	CFU/100ml	-	Zero
Escherichia coli	APHA 9222 H & I	CFU/100ml	-	Zero

REMARKS: The sample meets DM Water Systems quality 2010 specifications for Cooling Water System with respect to the above tests only.

Key Words:- CFU: Colony Forming Unit, APHA: American Public Health Association, DM: Dubai Municipality, NA: Not Applicable

Report prepared by Emp#: 75

Test Method deviation : None

The above test results are only applicable to the sample(s) referred above

Reported By

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END OF REPORT

TEST REPORT

REPORT NO:-QMTL/R-84492

CLIENT: CRYSTALLINE ENVIRONMENTAL SERVICES P.O.Box.131463, Abu Dhabi, U.A.E Ph:02-6508930/0557167017		
ATTN:MR. JASMAN PINTO		
Product: Water	Sampling Method: BS 7592	Sample ID: QMTL/S-84492
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Ground Floor- Chiller Yard Sample Onsite Temp: 8.1°C Sample Receipt Temp: 16°C	Source: Valve	Date(s) Tested: 14-24.12.2019
	Sample Container: 1x1 L PB	Date Reported: 28.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 14.12.2019/11.05 AM
On-Site Treatment: NA	Tested by Emp#: 55 & 74	Location: AUH

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	LIMITS	RESULTS
LEGIONELLA ANALYSIS				
Legionella	CCFRA 3.9.1 (5 th Edition)	cfu/litre	1000	Not Detected
IDENTIFICATION				
Legionella Species	CCFRA 3.9.1 (5 th Edition)	-	-	Absent
Legionella pneumophila sero group 1	CCFRA 3.9.1 (5 th Edition)	-	-	Absent
Legionella pneumophila sero group 2-15	CCFRA 3.9.1 (5 th Edition)	-	-	Absent

REMARKS: The sample meets DM Water Systems quality (2010) specifications for Cooling Water System with respect to the above tests only.

Key Words: CFU: Colony Forming Unit, BS: British Standards, CCFRA: Campden & Chorleywood Food Research Association DM: Dubai Municipality, NA: Not Applicable.

Report prepared by Emp#: 61

Test Method deviation : None

The above test results are only applicable to the sample(s) referred above

Reported By

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TEST REPORT

REPORT NO:-QMTL/R-84493

CLIENT: CRYSTALLINE ENVIRONMENTAL SERVICES P.O.Box.131463, Abu Dhabi, U.A.E Ph:02-6508930/0557167017		
ATTN:MR. JASMAN PINTO		
Product: Water	Sampling Method: BS 7592	Sample ID: QMTL/S-84493
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Ground Floor- Chilled Water Sample Onsite Temp: 10.5°C Sample Receipt Temp: 16°C	Source: Valve	Date(s) Tested: 14-24.12.2019
	Sample Container: 1x1 L PB	Date Reported: 28.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 14.12.2019/11.16 AM
On-Site Treatment: NA	Tested by Emp#: 55 & 74	Location: AUH

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	LIMITS	RESULTS
LEGIONELLA ANALYSIS				
Legionella	CCFRA 3.9.1 (5 th Edition)	cfu/litre	1000	Not Detected
IDENTIFICATION				
Legionella Species	CCFRA 3.9.1 (5 th Edition)	-	-	Absent
Legionella pneumophila sero group 1	CCFRA 3.9.1 (5 th Edition)	-	-	Absent
Legionella pneumophila sero group 2-15	CCFRA 3.9.1 (5 th Edition)	-	-	Absent

REMARKS: The sample meets DM Water Systems quality (2010) specifications for Cooling Water System with respect to the above tests only.

Key Words: CFU: Colony Forming Unit, BS: British Standards, CCFRA: Campden & Chorleywood Food Research Association DM: Dubai Municipality, NA: Not Applicable.

Report prepared by Emp#: 61

Test Method deviation : None

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REPORT NO:-QMTL/R-84494

CLIENT: CRYSTALLINE ENVIRONMENTAL SERVICES P.O.Box.131463, Abu Dhabi, U.A.E Ph:02-6508930/0557167017		
ATTN:MR. JASMAN PINTO		
Product: Water	Sampling Method: BS 7592	Sample ID: QMTL/S-84494
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Mezzanine Floor- Chilled Water Sample Onsite Temp: 11.6°C Sample Receipt Temp: 16°C	Source: Valve	Date(s) Tested: 14-24.12.2019
	Sample Container: 1x1 L PB	Date Reported: 28.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 14.12.2019/11.28 AM
On-Site Treatment: NA	Tested by Emp#: 55 & 74	Location: AUH

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	LIMITS	RESULTS
LEGIONELLA ANALYSIS				
Legionella	CCFRA 3.9.1 (5 th Edition)	cfu/litre	1000	Not Detected
IDENTIFICATION				
Legionella Species	CCFRA 3.9.1 (5 th Edition)	-	-	Absent
Legionella pneumophila sero group 1	CCFRA 3.9.1 (5 th Edition)	-	-	Absent
Legionella pneumophila sero group 2-15	CCFRA 3.9.1 (5 th Edition)	-	-	Absent

REMARKS: The sample meets DM Water Systems quality (2010) specifications for Cooling Water System with respect to the above tests only.

Key Words: CFU: Colony Forming Unit, BS: British Standards, CCFRA: Campden & Chorleywood Food Research Association DM: Dubai Municipality, NA: Not Applicable.

Report prepared by Emp#: 61

Test Method deviation : None

The above test results are only applicable to the sample(s) referred above

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CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	14-12-2019
Sampled By	Crystalline Rep	Sample Location	ADIA -BRC
Sample Type	Chilled Water	Sample Point	G-Floor Chilled Water

TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.11
2	Conductivity at 25°C, µs/cm	Max 3500	3050
3	TDS, ppm	---	1982
4	Iron, ppm as Fe	0 - 2.0	0.24
5	Nitrite, ppm.	>800	1250
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 satisfactory - No action recommended.

Reported By,
Murugara
Service Engineer





CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	14-12-2019
Sampled By	Crystalline Rep	Sample Location	ADIA -BRC
Sample Type	Chilled Water	Sample Point	M-Floor Chilled Water

TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.23
2	Conductivity at 25°C, µs/cm	Max 3500	2980
3	TDS, ppm	---	1937
4	Iron, ppm as Fe	0 - 2.0	0.16
5	Nitrite, ppm.	>800	1180
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 satisfactory - No action recommended.

Reported By,
Murugara
Service Engineer



CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	14-12-2019
Sampled By	Crystalline Rep	Sample Location	ADIA -BRC
Sample Type	Chilled Water	Sample Point	G-Floor Chiller Yard

TEST RESULT			
No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	9.63
2	Conductivity at 25°C, µs/cm	Max 3500	3080
3	TDS, ppm	---	2012
4	Iron, ppm as Fe	0 - 2.0	0.31
5	Nitrite, ppm.	>800	1230
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 satisfactory – No action recommended.

Reported By,

 Murugara
 Service Engineer

