

TEST REPORT

Report No: QMTL/R-93737/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates ATTN : MR. JASMAN PINTO	Sample ID	QMTL/S-93737	
	Date Received	17 Feb 2020	
	Date(s) Tested	17 Feb 2020 - 19 Feb 2020	
	Date Reported	22 Feb 2020	
Sample Description	Ground Floor Chiller Yard		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	AUH	Sampling Date/Time	17.02.2020/12:00 PM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	5°C	Sample Onsite Temp	11°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	ADIA - BRC		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	-	Zero
Fecal Coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	-	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	-	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	10,000	160
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	-	Zero
Remarks	The sample meets DM Water Systems quality (2010) specifications for Cooling Water Systems with respect to the above tests only.			

Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, DM: Dubai Municipality, NP: Not Provided, NA : Not Applicable
----------	---

Test method deviation	None
Test performed by Emp#	74 & 78
Report prepared by Emp#	22
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 solely 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-93735/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates ATTN : MR. JASMAN PINTO	Sample ID	QMTL/S-93735	
	Date Received	17 Feb 2020	
	Date(s) Tested	17 Feb 2020 - 19 Feb 2020	
	Date Reported	22 Feb 2020	
Sample Description	Ground Floor Chilled Water		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	AUH	Sampling Date/Time	17.02.2020/11:47 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	5°C	Sample Onsite Temp	10°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	ADIA - BRC		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	-	Zero
Fecal Coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	-	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	-	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	10,000	58
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	-	Zero
Remarks	The sample meets DM Water Systems quality (2010) specifications for Cooling Water Systems with respect to the above tests only.			

Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, DM: Dubai Municipality, NP: Not Provided, NA : Not Applicable
----------	---

Test method deviation	None
Test performed by Emp#	74 & 78
Report prepared by Emp#	22
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 solely 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-93736/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates ATTN : MR. JASMAN PINTO	Sample ID	QMTL/S-93736	
	Date Received	17 Feb 2020	
	Date(s) Tested	17 Feb 2020 - 19 Feb 2020	
	Date Reported	22 Feb 2020	
Sample Description	Mezzanine Floor Chilled Water		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	AUH	Sampling Date/Time	17.02.2020/11:56 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	5°C	Sample Onsite Temp	10°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	ADIA - BRC		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	-	Zero
Fecal Coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	-	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	-	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	10,000	110
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	-	Zero
Remarks	The sample meets DM Water Systems quality (2010) specifications for Cooling Water Systems with respect to the above tests only.			

Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, DM: Dubai Municipality, NP: Not Provided, NA : Not Applicable
----------	---

Test method deviation	None
Test performed by Emp#	74 & 78
Report prepared by Emp#	22

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 writing) without the written approval of QMTL. When analysis is witnessed by us or carried out by sub contract labs, our responsibility is solely to ensure that the analysis is conducted to standard test methods in accordance with Industry accepted practice.

END OF REPORT

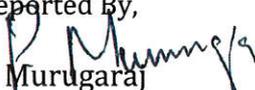
CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	17-02-2020
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	10.32
2	Conductivity at 25°C, µs/cm	Max 3500	2980
3	TDS, ppm	---	1937
4	Iron, ppm as Fe	0 - 2.0	0.05
5	Nitrite, ppm.	>800	1390
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:	17-02-2020
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	10.36
2	Conductivity at 25°C, $\mu\text{s/cm}$	Max 3500	3170
3	TDS, ppm	---	2060
4	Iron, ppm as Fe	0 - 2.0	0.09
5	Nitrite, ppm.	>800	1370
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
Murugara
Service Engineer



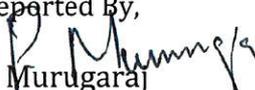
CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	17-02-2020
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	10.25
2	Conductivity at 25°C, $\mu\text{s}/\text{cm}$	Max 3500	3070
3	TDS, ppm	---	1995
4	Iron, ppm as Fe	0 - 2.0	0.24
5	Nitrite, ppm.	>800	1410
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

