

TEST REPORT

Report No: QMTL/R-127498/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-127498
ATTN : MR. JASMAN PINTO		Date Received	08 Oct 2020
		Date(s) Tested	08 Oct 2020 - 10 Oct 2020
		Date Reported	14 Oct 2020
Sample Description	C11 Sigma -1		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	City Of Light, Al Reem Island	Sampling Date/Time	08.10.2020 / 10:25 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	13.6°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	Zero	Zero
Fecal coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	Zero	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	Zero	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	10@37°C	5
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	Zero	Zero

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
---------	--

Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, NP: Not Provided, NA: Not Applicable, WI: Work Instruction
----------	--

Test method deviation	None
-----------------------	------

Test performed by Emp#	14 & 74
------------------------	---------

Report prepared by Emp#	72
-------------------------	----

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-127499/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-127499
ATTN : MR. JASMAN PINTO		Date Received	08 Oct 2020
		Date(s) Tested	08 Oct 2020 - 10 Oct 2020
		Date Reported	14 Oct 2020
Sample Description	C10 SSigma -2		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	City Of Light, Al Reem Island	Sampling Date/Time	08.10.2020 / 10:40 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	16.3°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	Zero	Zero
Fecal coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	Zero	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	Zero	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	10@37°C	<1
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	Zero	Zero

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
---------	--

Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, NP: Not Provided, NA: Not Applicable, WI: Work Instruction
----------	--

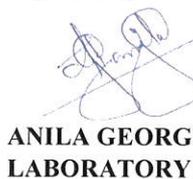
Test method deviation	None
-----------------------	------

Test performed by Emp#	14 & 74
------------------------	---------

Report prepared by Emp#	72
-------------------------	----

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-127500/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-127500
		Date Received	08 Oct 2020
		Date(s) Tested	08 Oct 2020 - 10 Oct 2020
ATTN : MR. JASMAN PINTO		Date Reported	14 Oct 2020
Sample Description	C10A Omega, Low Zone		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	City Of Light, Al Reem Island	Sampling Date/Time	08.10.2020 / 10:55 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	13°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	Zero	Zero
Fecal coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	Zero	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	Zero	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	10@37°C	2
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	Zero	Zero

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
---------	--

Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, NP: Not Provided, NA: Not Applicable, WI: Work Instruction
----------	--

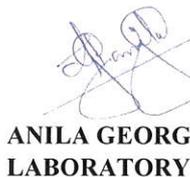
Test method deviation	None
-----------------------	------

Test performed by Emp#	14 & 74
------------------------	---------

Report prepared by Emp#	72
-------------------------	----

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-127501/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-127501
ATTN : MR. JASMAN PINTO		Date Received	08 Oct 2020
		Date(s) Tested	08 Oct 2020 - 10 Oct 2020
		Date Reported	14 Oct 2020
Sample Description	C10A Omega, High Zone		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	City Of Light, Al Reem Island	Sampling Date/Time	08.10.2020 / 11:05 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	12.3°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	Zero	Zero
Fecal coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	Zero	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	Zero	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	10@37°C	5
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	Zero	Zero

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
---------	--

Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, NP: Not Provided, NA: Not Applicable, WI: Work Instruction
----------	--

Test method deviation	None
-----------------------	------

Test performed by Emp#	14 & 74
------------------------	---------

Report prepared by Emp#	72
-------------------------	----

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-127515/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-127515
ATTN : MR. JASMAN PINTO		Date Received	08 Oct 2020
		Date(s) Tested	08 Oct 2020 - 18 Oct 2020
		Date Reported	21 Oct 2020
Sample Description	C11 Sigma -1		
Sample Type	Water	Sampling Method	QMTL-WI-16
Client Name/Project	NP	Sampled By	QMTL Representative
Location	City Of Light, Al Reem Island	Sampling Date/Time	08.10.2020 / 10:20 AM
Sample Container	1x1L PB	Sampling Point	Valve
Sample Receipt Temp	21°C	Sample Onsite Temp	13.6°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
LEGIONELLA ANALYSIS				
Legionella	ISO 11731:2017 E (Matrix A-Procedure-5)	CFU/litre	<1	<1
Legionella Species	ISO 11731:2017 E	-	-	Absent
Legionella pneumophila sero group 1	ISO 11731:2017 E	-	-	Absent
Legionella pneumophila sero group 2-15	ISO 11731:2017 E	-	-	Absent

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
---------	--

Keywords	CFU: Colony Forming Unit, ISO: International Organization for Standardization, RSB: Regulation & Supervision Bureau, NP: Not Provided, NA: Not Applicable, WI: Work Instruction, BCYE: Buffered Charcoal Yeast Extract, Culture Media :- BCYE Agar
----------	--

Test method deviation	None
-----------------------	------

Test performed by Emp#	14 & 74
------------------------	---------

Report prepared by Emp#	72
-------------------------	----

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-127516/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-127516
ATTN : MR. JASMAN PINTO		Date Received	08 Oct 2020
		Date(s) Tested	08 Oct 2020 - 18 Oct 2020
		Date Reported	21 Oct 2020
Sample Description	C10 Sigma -2		
Sample Type	Water	Sampling Method	QMTL-WI-16
Client Name/Project	NP	Sampled By	QMTL Representative
Location	City Of Light, Al Reem Island	Sampling Date/Time	08.10.2020 / 10:35 AM
Sample Container	1x1L PB	Sampling Point	Valve
Sample Receipt Temp	21°C	Sample Onsite Temp	16.3°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
LEGIONELLA ANALYSIS				
Legionella	ISO 11731:2017 E (Matrix A-Procedure-5)	CFU/litre	<1	<1
Legionella Species	ISO 11731:2017 E	-	-	Absent
Legionella pneumophila sero group 1	ISO 11731:2017 E	-	-	Absent
Legionella pneumophila sero group 2-15	ISO 11731:2017 E	-	-	Absent

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
---------	--

Keywords	CFU: Colony Forming Unit, ISO: International Organization for Standardization, RSB: Regulation & Supervision Bureau, NP: Not Provided, NA: Not Applicable, WI: Work Instruction, BCYE: Buffered Charcoal Yeast Extract, Culture Media :- BCYE Agar
----------	--

Test method deviation	None
Test performed by Emp#	14 & 74
Report prepared by Emp#	72
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-127517/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-127517
ATTN : MR. JASMAN PINTO		Date Received	08 Oct 2020
		Date(s) Tested	08 Oct 2020 - 18 Oct 2020
		Date Reported	21 Oct 2020
Sample Description	C10A Omega, Low Zone		
Sample Type	Water	Sampling Method	QMTL-WI-16
Client Name/Project	NP	Sampled By	QMTL Representative
Location	City Of Light, Al Reem Island	Sampling Date/Time	08.10.2020 / 10:47 AM
Sample Container	1x1L PB	Sampling Point	Valve
Sample Receipt Temp	21°C	Sample Onsite Temp	13°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
LEGIONELLA ANALYSIS				
Legionella	ISO 11731:2017 E (Matrix A-Procedure-5)	CFU/litre	<1	<1
Legionella Species	ISO 11731:2017 E	-	-	Absent
Legionella pneumophila sero group 1	ISO 11731:2017 E	-	-	Absent
Legionella pneumophila sero group 2-15	ISO 11731:2017 E	-	-	Absent

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
---------	--

Keywords	CFU: Colony Forming Unit, ISO: International Organization for Standardization, RSB: Regulation & Supervision Bureau, NP: Not Provided, NA: Not Applicable, WI: Work Instruction, BCYE: Buffered Charcoal Yeast Extract, Culture Media :- BCYE Agar
----------	--

Test method deviation	None
Test performed by Emp#	14 & 74
Report prepared by Emp#	72
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-127518/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-127518
ATTN : MR. JASMAN PINTO		Date Received	08 Oct 2020
		Date(s) Tested	08 Oct 2020 - 18 Oct 2020
		Date Reported	21 Oct 2020
Sample Description	C10A Omega, High Zone		
Sample Type	Water	Sampling Method	QMTL-WI-16
Client Name/Project	NP	Sampled By	QMTL Representative
Location	City Of Light, Al Reem Island	Sampling Date/Time	08.10.2020 / 11:01 AM
Sample Container	1x1L PB	Sampling Point	Valve
Sample Receipt Temp	21°C	Sample Onsite Temp	12.3°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

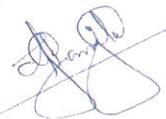
PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
LEGIONELLA ANALYSIS				
Legionella	ISO 11731:2017 E (Matrix A-Procedure-5)	CFU/litre	<1	<1
Legionella Species	ISO 11731:2017 E	-	-	Absent
Legionella pneumophila sero group 1	ISO 11731:2017 E	-	-	Absent
Legionella pneumophila sero group 2-15	ISO 11731:2017 E	-	-	Absent

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
---------	--

Keywords	CFU: Colony Forming Unit, ISO: International Organization for Standardization, RSB: Regulation & Supervision Bureau, NP: Not Provided, NA: Not Applicable, WI: Work Instruction, BCYE: Buffered Charcoal Yeast Extract, Culture Media :- BCYE Agar
----------	--

Test method deviation	None
Test performed by Emp#	14 & 74
Report prepared by Emp#	72
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



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING TEST REPORT

CUSTOMER: TAFAWUQ FACILITY MANAGEMENT	
Site Location: C 10- Sigma Building - 02	Date: 08-10-2020
Sample Point: ETS Room	Sampled By: Crystalline Rep

CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	9.83
Conductivity, $\mu\text{s}/\text{cm}$	Max 3500	734
TDS, ppm	--	477
Iron, ppm as Fe	0 - 2.0	0.03
Treatment Residuals		
Nitrite, ppm	> 800	580
Dipslide	<10 ³	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity levels are satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within the control limits. \Rightarrow	No action recommended.
Nitrite levels are Low. \Rightarrow	Please maintained control limits above 800PPM.

Reported By


Murugaraaj
Service Engineer



CLEANER WATER GREENER TOMORROW



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING TEST REPORT

CUSTOMER: TAFAWUQ FACILITY MANAGEMENT	
Site Location: C 11- Sigma Building - 01	Date: 08-10-2020
Sample Point: ETS Room	Sampled By: Crystalline Rep

CHILLED WATER ANALYSIS

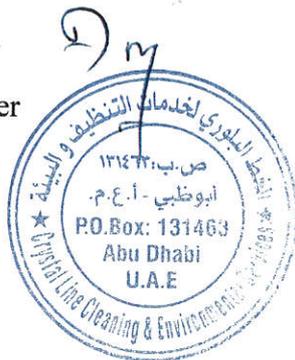
PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	10.24
Conductivity, $\mu\text{s}/\text{cm}$	Max 3500	1236
TDS, ppm	--	803
Iron, ppm as Fe	0 - 2.0	0.11
Treatment Residuals		
Nitrite, ppm	> 800	670
Dipslide	<10 ³	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity levels are satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within the control limits. \Rightarrow	No action recommended.
Nitrite levels are Low. \Rightarrow	Please maintained control limits above 800PPM.

Reported By


Murugaraaj
Service Engineer



CLEANER WATER GREENER TOMORROW



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING TEST REPORT

CUSTOMER: TAFAWUQ FACILITY MANAGEMENT	
Site Location: C10a - Omega Building	Date: 08-10-2020
Sample Point: Chiller Room (Low Zone)	Sampled By: Crystalline

CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	10.10
Conductivity, $\mu\text{s}/\text{cm}$	Max 3500	1059
TDS, ppm	--	688
Iron, ppm as Fe	0 - 2.0	0.03
Treatment Residuals		
Nitrite, ppm	> 800	510
Dipslide	<10 ³	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity levels are satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within the control limits. \Rightarrow	No action recommended.
Nitrite levels are low. \Rightarrow	Please maintained control limits above 800PPM.

Reported By


Murugaraaj
Service Engineer



CLEANER WATER GREENER TOMORROW



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING TEST REPORT

CUSTOMER: TAFAWUQ FACILITY MANAGEMENT	
Site Location: C10a - Omega Building	Date: 08-10-2020
Sample Point: Chiller Room (High Zone)	Sampled By: Crystalline Rep

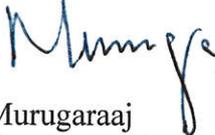
CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	10.60
Conductivity, $\mu\text{s}/\text{cm}$	Max 3500	2029
TDS, ppm	--	1318
Iron, ppm as Fe	0 - 2.0	0.13
Treatment Residuals		
Nitrite, ppm	> 800	1150
Dipslide	<10 ³	ND

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

COMMENTS:	ACTION:
The pH Levels are high \Rightarrow	Please maintained control limits.
The Conductivity levels are satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within the control limits. \Rightarrow	No action recommended.
Corrosion Inhibitor levels are satisfactory \Rightarrow	No action recommended.

Reported By


Murugaraaj
Service Engineer



CLEANER WATER GREENER TOMORROW