

TEST REPORT

REPORT NO:-QMTL/R-82968

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-82968
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 07.12.2019
Sample Description : North Side, Water Tank Sample Onsite Temp: 26°C Sample Receipt Temp: 4°C	Source: Valve	Date(s) Tested: 07-09.12.2019
	Sample Container: 1X 500 ml PB	Date Reported: 12.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 07.12.2019/02.05 PM
On-Site Treatment: NA	Tested by Emp#: 55&74	Location: AUH

TEST RESULTS

PARAMETERS	TEST METHOD (APHA 23 RD EDITION)	UNITS	SPECIFICATIONS	RESULTS
MICROBIOLOGICAL ANALYSIS				
Total Bacterial Count	APHA 9215 B	CFU/ml	10@37°C	<1
Total Coliforms	APHA 9222 B	CFU/100ml	Zero	Zero
Faecal coliform	APHA 9222 D	CFU/100ml	Zero	Zero
Pseudomonas aeruginosa	APHA 9213 E	CFU/100ml	Zero	Zero
Escherichia coli	APHA 9222 H & I	CFU/100ml	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.

Key Words:- CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, 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



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END OF REPORT

TEST REPORT

REPORT NO:-QMTL/R-82969

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-82969
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 07.12.2019
Sample Description : North Side, Irrigation Tank Sample Onsite Temp: 28°C Sample Receipt Temp: 4°C	Source: Tank	Date(s) Tested: 07-09.12.2019
	Sample Container: 1X 500 ml PB	Date Reported: 12.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 07.12.2019/02.21 PM
On-Site Treatment: NA	Tested by Emp#: 55&74	Location: AUH

TEST RESULTS

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

REMARKS:The sample meets RSB Recycled Water and Biosolids Regulations 2018(Second Edition) requirements for irrigation water with respect to the above tests only.

Key Words:- CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, 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-82970

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-82970
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 07.12.2019
Sample Description : North Side, Drinking Water Fountain(NYUAD: 00202988) Sample Onsite Temp: 22°C Sample Receipt Temp: 4°C	Source: Tap	Date(s) Tested: 07-09.12.2019
	Sample Container: 1X 500 ml PB	Date Reported: 12.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 07.12.2019/02.44 PM
On-Site Treatment: NA	Tested by Emp#: 55&74	Location: AUH

TEST RESULTS

PARAMETERS	TEST METHOD (APHA 23 RD EDITION)	UNITS	SPECIFICATIONS	RESULTS
MICROBIOLOGICAL ANALYSIS				
Total Bacterial Count	APHA 9215 B	CFU/ml	10@37°C	<1
Total Coliforms	APHA 9222 B	CFU/100ml	Zero	Zero
Faecal coliform	APHA 9222 D	CFU/100ml	Zero	Zero
Pseudomonas aeruginosa	APHA 9213 E	CFU/100ml	Zero	Zero
Escherichia coli	APHA 9222 H & I	CFU/100ml	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.

Key Words:- CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, 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-82971

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-82971
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 07.12.2019
Sample Description : North Side Janitor Closed Sample Onsite Temp: 24°C Sample Receipt Temp: 4°C	Source: Tap	Date(s) Tested: 07-09.12.2019
	Sample Container: 1X 500 ml PB	Date Reported: 12.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 07.12.2019/02.44 PM
On-Site Treatment: NA	Tested by Emp#: 55&74	Location: AUH

TEST RESULTS

PARAMETERS	TEST METHOD (APHA 23 RD EDITION)	UNITS	SPECIFICATIONS	RESULTS
MICROBIOLOGICAL ANALYSIS				
Total Bacterial Count	APHA 9215 B	CFU/ml	10@37°C	<1
Total Coliforms	APHA 9222 B	CFU/100ml	Zero	Zero
Faecal coliform	APHA 9222 D	CFU/100ml	Zero	Zero
Pseudomonas aeruginosa	APHA 9213 E	CFU/100ml	Zero	Zero
Escherichia coli	APHA 9222 H & I	CFU/100ml	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.

Key Words:- CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, 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-82997

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-82997
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 07.12.2019
Sample Description : North Side, Water Tank Sample Onsite Temp: 26°C Sample Receipt Temp: 16°C	Source: Valve	Date(s) Tested: 07-17.12.2019
	Sample Container: 1X 1L PB	Date Reported: 17.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 07.12.2019/02.05 PM
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	<1	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 RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.

Key Words:- CFU: Colony Forming Unit, CCFRA: Campden & Chorleywood Food Research Association, RSB: Regulation & Supervision Bureau, 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- 82998

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-82998
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 07.12.2019
Sample Description : North Side, Irrigation Tank Sample Onsite Temp: 28°C Sample Receipt Temp: 16°C	Source: Tank	Date(s) Tested: 07-17.12.2019
	Sample Container: 1x1 L PB	Date Reported: 17.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 07.12.2019/02.21 PM
On-Site Treatment: NA	Tested by Emp#: 55 & 74	Location: AUH

TEST RESULTS

PARAMETER	TEST METHOD	UNIT	LIMIT	RESULT
LEGIONELLA ANALYSIS				
Legionella	CCFRA 3.9.1 (5 th Edition)	cfu/litre	100 (cfu/ml) (circulating water)	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 RSB Recycled Water and Biosolids Regulations 2018 requirements for irrigation water with respect to the above tests only.

Key Words: CFU: Colony Forming Unit, BS: British Standards, CCFRA: Campden & Chorleywood Food Research Association., RSB: Regulation &- Supervision Bureau, NA: Not Applicable

Report prepared by Emp#: 75

Test Method deviation : None

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TEST REPORT

REPORT NO:-QMTL/R-82999

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-82999
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 07.12.2019
Sample Description : North Side, Drinking Water Fountain(NYUAD: 00202988) Sample Onsite Temp: 22°C Sample Receipt Temp: 16°C	Source: Tap	Date(s) Tested: 07-17.12.2019
	Sample Container: 1X 1L PB	Date Reported: 17.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 07.12.2019/02.44 PM
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	<1	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 RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.

Key Words:- CFU: Colony Forming Unit, CCFRA: Campden & Chorleywood Food Research Association, RSB: Regulation & Supervision Bureau, 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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END OF REPORT

TEST REPORT

REPORT NO:-QMTL/R-83000

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-83000
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 07.12.2019
Sample Description : North Side Janitor Closed Sample Onsite Temp: 24°C Sample Receipt Temp: 16°C	Source: Tap	Date(s) Tested: 07-17.12.2019
	Sample Container: 1X 1L PB	Date Reported: 17.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 07.12.2019/03.30 PM
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	<1	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 RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.

Key Words:- CFU: Colony Forming Unit, CCFRA: Campden & Chorleywood Food Research Association, RSB: Regulation & Supervision Bureau, 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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END OF REPORT



CONSULTING SERVICE REPORT

CUSTOMER: SERCO - NEW YORK UNIVERSITY, ABU DHABI	To: Mr. Ratheesh Muttath Operations Engineer	DATE: 07-12-2019
CUSTOMER ID: 3003	Copy: SERCO - NYUAD	LAST VISIT: 10-11-2019

AMBIENT WATER ANALYSIS

PARAMETER	CONTROL LIMITS	North Side Water Tank			
pH at 25°C	7.0 - 9.2	8.16			
Conductivity at 25°C, µs/cm	1600 Max.	236			
Total Dissolved Solids (TDS)	1000 Max.	153			
Total Hardness, ppm as CaCO ₃	300 Max.	64			
Calcium Hardness, ppm as CaCO ₃	200 Max.	61			
Total Alkalinity	--	42			
Chloride, ppm as Cl ⁻	250 Max.	43			
Iron, ppm as Fe	0.2 Max.	<0.05			
Sulphate (SO ₄), mg/l	250 Max.	<10			
Copper (Cu), mg/l	1 Max.	<0.05			
Aluminum (Al), mg/l	0.2 Max.	<0.05			
Zinc (Zn), mg/l	5 Max.	<0.05			
Nitrate (NO ₃ ⁻), mg/l	50 Max.	<1.0			
Nitrite (NO ₂ ⁻), mg/l	30 Max.	<0.05			
Fluorides (F), mg/l	15 Max.	<0.01			
Potassium (K), mg/l	12 Max.	<5.0			

Treatment Residuals

Odor	Unobjectionable	ND			
Free Residual Chlorine as Cl	0.2 - 0.5	0.39			
Turbidity in NTU	4.0 Max	<1.0			

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

COMMENTS:

ACTION:

The pH and Conductivity/TDS are found satisfactory. ⇨	No action recommended.
Dissolved iron levels are within control limits. ⇨	No action recommended.
Chlorine levels found satisfactory. ⇨	No action recommended.

The dosing system is calibrated. Dosing pumps, low level sensor, dosing tubes are in good condition.
There is no recirculation line/system for the water tank.
Please check chlorine levels daily. Kindly inform Crystalline if levels fluctuate.

INVENTORY LEVELS

DOSAGE SCHEDULE

Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
Crystal SHC			--	
Service Engineer:	Murugaraaj	Client:	Mr. Ratheesh Muttath	
Signature:	<i>P. Murugaraaj</i>	Signature:		



CONSULTING SERVICE REPORT

CUSTOMER: SERCO - NEW YORK UNIVERSITY, ABU DHABI	To: Mr. Ratheesh Muttath Operations Engineer	DATE: 07-12-2019
CUSTOMER ID: 3003	Copy: SERCO - NYUAD	LAST VISIT: 10-11-2019

AMBIENT WATER ANALYSIS

PARAMETER	CONTROL LIMITS	North Side Janitor Closed			
pH at 25°C	7.0 - 9.2	8.17			
Conductivity at 25°C, µs/cm	1600 Max.	229			
Total Dissolved Solids (TDS)	1000 Max.	148			
Total Hardness, ppm as CaCO ₃	300 Max.	62			
Calcium Hardness, ppm as CaCO ₃	200 Max.	57			
Total Alkalinity	--	40			
Chloride, ppm as Cl ⁻	250 Max.	44			
Iron, ppm as Fe	0.2 Max.	<0.05			
Sulphate (SO ₄), mg/l	250 Max.	<10			
Copper (Cu), mg/l	1 Max.	<0.05			
Aluminum (Al), mg/l	0.2 Max.	<0.05			
Zinc (Zn), mg/l	5 Max	<0.05			
Nitrate (NO ₃ ⁻), mg/l	50 Max.	<1.0			
Nitrite (NO ₂ ⁻), mg/l	30 Max.	<0.05			
Fluorides (F), mg/l	15 Max.	<0.01			
Potassium (K), mg/l	12 Max.	<5.0			

Treatment Residuals

Odor	Unobjectionable	ND			
Free Residual Chlorine as Cl	0.2 - 0.5	0.40			
Turbidity in NTU	4.0 Max	<1.0			

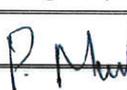
All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (µmhos).

COMMENTS:

COMMENTS:	⇒	ACTION:
The pH and Conductivity/TDS are found satisfactory.	⇒	No action recommended.
Dissolved iron levels are within control limits.	⇒	No action recommended.
Chlorine levels found satisfactory.	⇒	No action recommended.

INVENTORY LEVELS

DOSAGE SCHEDULE

Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
Crystal SHC			--	
Service Engineer:	Murugaraaj	Client:	Mr. Ratheesh Muttath	
Signature:		Signature:		

