

TEST REPORT

REPORT NO:-QMTL/R- 79612

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-79612
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 13.11.2019
Sample Description : North Side Water Tank Sample Onsite Temp: 23.5°C Sample Receipt Temp: 4°C	Source: Tank	Date(s) Tested: 13-15.11.2019
	Sample Container: 1X 500ml PB	Date Reported: 19.11.2019
	Sample Appearance: Clear	Date of Sampling/Time: 13.11.2019/3.30PM
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



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-79613

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-79613
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 13.11.2019
Sample Description : North Side Irrigation Water Tank Sample Onsite Temp: 28°C Sample Receipt Temp: 4°C	Source: Tank	Date(s) Tested: 13-15.11.2019
	Sample Container: 1X 500 ml PB	Date Reported: 19.11.2019
	Sample Appearance: Clear	Date of Sampling/Time: 13.11.2019/3.30PM
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

Reported By

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LABORATORY MANAGER



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END OF REPORT

TEST REPORT

REPORT NO:-QMTL/R- 79614

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-79614
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 13.11.2019
Sample Description : North Side, Drinking Water Fountain (NYUAD: 00179878) Sample Onsite Temp: 23°C Sample Receipt Temp: 4°C	Source: Drinking Water Fountain	Date(s) Tested: 13-15.11.2019
	Sample Container: 1X 500ml PB	Date Reported: 19.11.2019
	Sample Appearance: Clear	Date of Sampling/Time: 13.11.2019/3.30PM
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

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END OF REPORT

TEST REPORT

REPORT NO:-QMTL/R- 79615

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-79615
Reference: NYUAD	Sampled By: QMTL Representative	Date Received: 13.11.2019
Sample Description : North Side, Janitor Closed Sample Onsite Temp: 27°C Sample Receipt Temp: 4°C	Source: Tank	Date(s) Tested: 13-15.11.2019
	Sample Container: 1X 500ml PB	Date Reported: 19.11.2019
	Sample Appearance: Clear	Date of Sampling/Time: 13.11.2019/3.30PM
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

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END OF REPORT

CONSULTING SERVICE REPORT

CUSTOMER: SERCO - NEW YORK UNIVERSITY, ABU DHABI	To: Mr. Ratheesh Muttath Operations Engineer	DATE: 10-11-2019
CUSTOMER ID: 3003	Copy: SERCO - NYUAD	LAST VISIT: 05-10-2019

AMBIENT WATER ANALYSIS

PARAMETER	CONTROL LIMITS	North Side Water Tank			
pH at 25°C	7.0 - 9.2	8.33			
Conductivity at 25°C, µs/cm	1600 Max.	197			
Total Dissolved Solids (TDS)	1000 Max.	125			
Total Hardness, ppm as CaCO ₃	300 Max.	61			
Calcium Hardness, ppm as CaCO ₃	200 Max.	55			
Total Alkalinity	--	37			
Chloride, ppm as Cl ⁻	250 Max.	40			
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	0.44			
Turbidity in NTU	4.0 Max	<1.0			

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

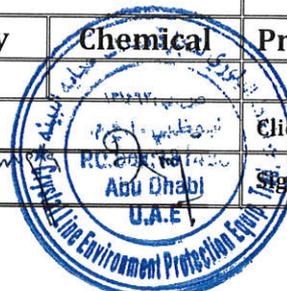
COMMENTS:

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.

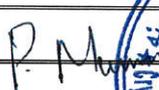
The dosing system is calibrated. Dosing pumps, low level sensor, dosing tubes are in good condition.
There is no recirculation line/system for the water tank.
Please check chlorine levels daily. Kindly inform Crystalline if levels fluctuate.

INVENTORY LEVELS

DOSAGE SCHEDULE

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

CONSULTING SERVICE REPORT

CUSTOMER: SERCO - NEW YORK UNIVERSITY, ABU DHABI		To: Mr. Ratheesh Muttath Operations Engineer		DATE: 10-11-2019	
CUSTOMER ID: 3003		Copy: SERCO - NYUAD		LAST VISIT: 05-10-2019	
AMBIENT WATER ANALYSIS					
PARAMETER	CONTROL LIMITS	North Side Janitor Closed			
pH at 25°C	7.0 - 9.2	8.28			
Conductivity at 25°C, µs/cm	1600 Max.	199			
Total Dissolved Solids (TDS)	1000 Max.	129			
Total Hardness, ppm as CaCO ₃	300 Max.	64			
Calcium Hardness, ppm as CaCO ₃	200 Max.	59			
Total Alkalinity	--	36			
Chloride, ppm as Cl ⁻	250 Max.	38			
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	0.38			
Turbidity in NTU	4.0 Max	<1.0			
<i>All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (µmhos).</i>					
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:		

