

TEST REPORT

REPORT NO:-QMTL/R-84467

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-84467
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Ground Floor, Pantry- Hot Water Sample Onsite Temp: 48.2°C Sample Receipt Temp: 4°C	Source: Tap	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: 14.12.2019/09.00 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@37°C	8
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 with 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-84468

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-84468
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Ground Floor, Kitchen- Hot Water Sample Onsite Temp: 51.3°C Sample Receipt Temp: 4°C	Source: Tap	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: 14.12.2019/09.09 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@37°C	2
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 with 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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REPORT NO:-QMTL/R-84469

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-84469
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Ground Floor, Male Wash Room- Hot Water Sample Onsite Temp: 50°C Sample Receipt Temp: 4°C	Source: Tap	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: 14.12.2019/09.16 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@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 with 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

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TEST REPORT

REPORT NO:-QMTL/R-84470

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-84470
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Mezzanine Floor, Male Wash Room- Hot Water Sample Onsite Temp: 55.8°C Sample Receipt Temp: 4°C	Source: Tap	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: 14.12.2019/09.21 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@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 with 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

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TEST REPORT

REPORT NO:-QMTL/R-84481

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-84481
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Ground Floor, Pantry- Hot Water Sample Onsite Temp: 48.2°C Sample Receipt Temp: 16°C	Source: Tap	Date(s) Tested: 14-24.12.2019
	Sample Container: 1x1 L PB	Date Reported: 28.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 14.12.2019/09.00 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	<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, BS: British Standards, CCFRA: Campden & Chorleywood Food Research Association, RSB: Regulation & Supervision Bureau, 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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TEST REPORT

REPORT NO:-QMTL/R-84482

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-84482
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Ground Floor, Kitchen- Hot Water Sample Onsite Temp: 51.3°C Sample Receipt Temp: 16°C	Source: Tap	Date(s) Tested: 14-24.12.2019
	Sample Container: 1x1 L PB	Date Reported: 28.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 14.12.2019/09.09 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	<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, BS: British Standards, CCFRA: Campden & Chorleywood Food Research Association, RSB: Regulation & Supervision Bureau, NA: Not Applicable.

Report prepared by Emp#: 61

Test Method deviation : None

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TEST REPORT

REPORT NO:-QMTL/R-84483

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-84483
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Ground Floor, Male Wash Room- Hot Water Sample Onsite Temp: 50°C Sample Receipt Temp: 16°C	Source: Tap	Date(s) Tested: 14-24.12.2019
	Sample Container: 1x1 L PB	Date Reported: 28.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 14.12.2019/09.16 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	<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, BS: British Standards, CCFRA: Campden & Chorleywood Food Research Association, RSB: Regulation & Supervision Bureau, 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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TEST REPORT

REPORT NO:-QMTL/R-84484

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-84484
Reference: ADIA – BRC	Sampled By: QMTL Representative	Date Received: 14.12.2019
Sample Description : Mezzanine Floor, Male Wash Room- Hot Water Sample Onsite Temp: 55.8°C Sample Receipt Temp: 16°C	Source: Tap	Date(s) Tested: 14-24.12.2019
	Sample Container: 1x1 L PB	Date Reported: 28.12.2019
	Sample Appearance: Clear	Date of Sampling/Time: 14.12.2019/09.21 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	<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, BS: British Standards, CCFRA: Campden & Chorleywood Food Research Association, RSB: Regulation & Supervision Bureau, 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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END OF REPORT

POTABLE 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	Location	ADIA - BRC
Sample Type	Potable Water (Hot Outlet)	Sample Point	Ground Floor Pantry

	Parameter	Control Limits	Test Results
1	pH at 25°C	7.0 - 9.2	8.12
2	Conductivity at 25°C, µs/cm	----	218
3	Total Dissolved Solids (TDS)	Max 1000	141
4	Odor	Unobjectionable	ND
5	Turbidity (including suspended solids)	4.0	<1.0
6	Residual Chlorine	0.2 – 0.5	<0.03
7	Calcium Hardness at 25°C	200	46
8	Total Hardness at 25°C	300	53

Inorganic Chemical Parameters

1	Sulphate	Max 250.0	<10
2	Chlorides	Max 250.0	35
3	Iron	Max 0.2	<0.05
4	Copper	Max 1.0	<0.05
5	Zinc	Max 5.0	<0.05
6	Nitrate	Max 50.0	<1.0
7	Nitrite	Max 3.0	<0.05
8	potassium	Max 12.0	<5.0
9	Aluminium	Max 0.2	<0.05

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

COMMENTS AND RECOMMENDATIONS

1	PH, Conductivity & TDS levels are normal
2	Residual chlorine level is low, kindly maintain the level with in the control limit
3	Calcium hardness and Total Hardness levels are satisfactory
4	All inorganic parameters are within the control limit

Reported By,

Murugaraaj
Murugaraaj
Service Engineer



POTABLE 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	Location	ADIA - BRC
Sample Type	Potable Water (Hot Outlet)	Sample Point	Ground Floor Kitchen

	Parameter	Control Limits	Test Results
1	pH at 25°C	7.0 - 9.2	8.13
2	Conductivity at 25°C, µs/cm	----	220
3	Total Dissolved Solids (TDS)	Max 1000	136
4	Odor	Unobjectionable	ND
5	Turbidity (including suspended solids)	4.0	<1.0
6	Residual Chlorine	0.2 - 0.5	<0.03
7	Calcium Hardness at 25°C	200	53
8	Total Hardness at 25°C	300	60

Inorganic Chemical Parameters

1	Sulphate	Max 250.0	<10
2	Chlorides	Max 250.0	32
3	Iron	Max 0.2	<0.05
4	Copper	Max 1.0	<0.05
5	Zinc	Max 5.0	<0.05
6	Nitrate	Max 50.0	<1.0
7	Nitrite	Max 3.0	<0.05
8	potassium	Max 12.0	<5.0
9	Aluminium	Max 0.2	<0.05

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

COMMENTS AND RECOMMENDATIONS

1	PH, Conductivity & TDS levels are normal
2	Residual chlorine level is low, kindly maintain the level with in the control limit
3	Calcium hardness and Total Hardness levels are satisfactory
4	All inorganic parameters are within the control limit

Reported By,
Murugaraaj
Service Engineer



POTABLE 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	Location	ADIA - BRC
Sample Type	Potable Water (Hot Outlet)	Sample Point	Ground Floor Wash Room

	Parameter	Control Limits	Test Results
1	pH at 25°C	7.0 - 9.2	8.12
2	Conductivity at 25°C, µs/cm	----	229
3	Total Dissolved Solids (TDS)	Max 1000	148
4	Odor	Unobjectionable	ND
5	Turbidity (including suspended solids)	4.0	<1.0
6	Residual Chlorine	0.2 - 0.5	<0.03
7	Calcium Hardness at 25°C	200	45
8	Total Hardness at 25°C	300	51

Inorganic Chemical Parameters

1	Sulphate	Max 250.0	<10
2	Chlorides	Max 250.0	33
3	Iron	Max 0.2	<0.05
4	Copper	Max 1.0	<0.05
5	Zinc	Max 5.0	<0.05
6	Nitrate	Max 50.0	<1.0
7	Nitrite	Max 3.0	<0.05
8	potassium	Max 12.0	<5.0
9	Aluminium	Max 0.2	<0.05

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

COMMENTS AND RECOMMENDATIONS

1	PH, Conductivity & TDS levels are normal
2	Residual chlorine level is low, kindly maintain the level with in the control limit
3	Calcium hardness and Total Hardness levels are satisfactory
4	All inorganic parameters are within the control limit

Reported By,
Murugaraaj
Service Engineer



POTABLE 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	Location	ADIA - BRC
Sample Type	Potable Water (Hot Outlet)	Sample Point	Mezzanine Floor Wash Room

	Parameter	Control Limits	Test Results
1	pH at 25°C	7.0 - 9.2	8.16
2	Conductivity at 25°C, µs/cm	----	231
3	Total Dissolved Solids (TDS)	Max 1000	150
4	Odor	Unobjectionable	ND
5	Turbidity (including suspended solids)	4.0	<1.0
6	Residual Chlorine	0.2 - 0.5	<0.03
7	Calcium Hardness at 25°C	200	49
8	Total Hardness at 25°C	300	55

Inorganic Chemical Parameters

1	Sulphate	Max 250.0	<10
2	Chlorides	Max 250.0	32
3	Iron	Max 0.2	<0.05
4	Copper	Max 1.0	<0.05
5	Zinc	Max 5.0	<0.05
6	Nitrate	Max 50.0	<1.0
7	Nitrite	Max 3.0	<0.05
8	potassium	Max 12.0	<5.0
9	Aluminium	Max 0.2	<0.05

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

COMMENTS AND RECOMMENDATIONS

1	PH, Conductivity & TDS levels are normal
2	Residual chlorine level is low, kindly maintain the level with in the control limit
3	Calcium hardness and Total Hardness levels are satisfactory
4	All inorganic parameters are within the control limit

Reported By,
Murugaraaj
Service Engineer

