



Microbiology Test Report

Customer Details

Report No. WA-R-L-2004-7005

Crystalline Environmental Services



| | | | |
|-----------------------|---|---------------------|-----------------------|
| Request No. | : WA-Q-L-2004-1133 | Sample No. | : WA-S-L-2004-6845 |
| Sampling Date/time | : 12/4/2020 , 14:30 | Report Date. | : 15/4/2020 |
| Analysis Start Date. | : 12/4/2020 | Analysis End Date. | : 14/4/2020 |
| Sample Location. | : Serco Middle East,(Rihan Heights Abu Dhabi) | Sampled By | : Jameel |
| Sample Identification | : Not Applicable | Sample Submitted as | : Water |
| Sample Certificate No | : 0375 | Sampling Method | : APHA 9060 A&B |
| Temperature °C | : 26 | Site Observation | : Clear |
| Sampling Container | : Sterile Plastic Bottle | Source of Sample | : Swimming Pool Water |
| Sampling Point | : Tower C | Preservation | : 4-8°C |
| Sample Description | : Swimming Pool Water | | |

| Parameters | Test Methods | Units | Results | Specification |
|---------------------------|--------------------------------|-----------|--------------|---------------|
| Escherichia Coli | APHA 9222 B,H& I 23rd Ed. 2017 | CFU/100ml | Not Detected | -- |
| Faecal Coliforms | APHA 9222 D 23rd Ed. 2017 | CFU/100ml | Not Detected | Zero/100ml |
| Heterotrophic plate count | APHA 9215 B 23rd Ed. 2017 | CFU/ml | 30 | 1000CFU/ml |
| Pseudomonas aeroginosa | CCFRA 2.5.2 5th Ed. 2007 | CFU/100ml | Not Detected | Zero/100ml |
| Total Coliforms | APHA 9222 B 23rd Ed. 2017 | CFU/100ml | Not Detected | Zero/100ml |

Note : Not Detected=<1CFU

Limit based on: Guide to the Executive Regulations of Law No.(2) for the year of 2012 (Swimming Pool), Issued by the Head of Urban Planning and Municipalities No.(3) for the year 2018, Page No.3.

Remarks :The tested results of the sample are found to be satisfactory within the specified limits.

| | | |
|---------|-------------|------------------|
| Analyst | Reviewed By | Method Variation |
| HS | SM | None |

Key Words :CFU-Colony Forming Unit; APHA-American Public Health Association; CCFRA-Campden Chorleywood Food Research Association.

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D
Senior Microbiologist

Test results relate only to the samples tested.

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Legionella Test Report

Customer Details

Crystalline Environmental Services

Report No. WA-R-L-2004-7059



| | | | |
|-----------------------|---|---------------------|-----------------------|
| Request No. | : WA-Q-L-2004-1137 | Sample No. | : WA-S-L-2004-6903 |
| Sampling Date/time | : 12/4/2020 , 14:30 | Report Date. | : 22/4/2020 |
| Analysis Start Date. | : 12/4/2020 | Analysis End Date. | : 22/4/2020 |
| Sample Location. | : Serco Middle East,(Rihan Heights Abu Dhabi) | Sampled By | : Jameel |
| Sample Identification | : Not Applicable | Sample Submitted as | : Water |
| Sample Certificate No | : 0375 | Sampling Method | : BS 7592 |
| Temperature °C | : 26 | Site Observation | : Clear |
| Sampling Container | : Sterile Plastic Bottle | Source of Sample | : Swimming Pool Water |
| Sampling Point | : Tower C | Preservation | : 10°C |
| Sample Description | : Swimming Pool Water | | |

| Parameters | Test Methods | Units | Results | Specification |
|------------|-----------------|-------|--------------|---------------|
| Legionella | ISO 11731: 2017 | CFU/L | Not Detected | <1CFU/L |

Note : Not Detected=<1CFU/L

Procedure: WSOP-MB-0051 Direct Placing of Membrane on BCYE+L-Cysteine/Membrane Filter followed by Washing Procedure in Funnel.

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

Remarks :The tested result of the sample is found to be satisfactory within the specified limits.

| Analyst | Reviewed By | Method Variation |
|---------|-------------|------------------|
| HS | SM | None |

Key Words :CFU-Colony Forming Unit; BS-British Standard; ISO-International Organization for Standardization.

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Senior Microbiologist

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SWIMMING POOL - WATER ANALYSIS REPORT

| | | | |
|--|------------------|---------------------|--------------------|
| Client Name: SERCO MIDDLE EAST, ABU DHABI | | | |
| Site Name: | RIHAN HEIGHTS | Visit Date: | 15-04-2020 |
| Sampled By: | Crystalline Rep. | Sample Point | Main Swimming Pool |
| Source of Sample | Swimming Pool | | |

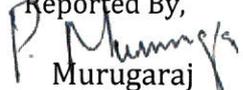
TEST RESULT

| No | Parameter | Control limits | Test Results |
|----|-----------------------------|------------------|--------------|
| 1 | pH at 25°C | 7.2 - 7.6 | 7.56 |
| 2 | Conductivity at 25°C, µs/cm | --- | 741 |
| 3 | TDS, ppm | Max 1500 | 481 |
| 4 | Alkalinity | 80 - 120 | 93 |
| 5 | Calcium Hardness | 200 - 500 | 214 |
| 6 | Residual Chlorine | 1.0 - 3.0 | 1.37 |
| 7 | Cyanuric Acid | 20 - 60 | 42 |
| 8 | Dip slide | <10 ³ | ND |

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

COMMENTS AND RECOMMENDATIONS

- All Parameters are within control limit – No action Recommended.

Reported By,

 Murugaraj
 Service Engineer

