



Analysis / Test Report

TESTING
No.0166

Client : Bangkok Phuket Hospital Co., Ltd.
2/1, Hongyok Utis Road, Taladyai, Muang, Phuket Thailand 83000

P/O :

Project Name : Water Testing : BPK

Project Location :

Lot ID: 2241843

Date Received : Apr 06, 2022

Date Reported : Apr 26, 2022

Report Number : 2277971-1

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Sample Number	2241843-1
Sampled Date	Apr 05, 2022 12:01 PM
Sample Description	น้ำในถาด Cooling Tower
Location	Cooling Tower
Date Analysis Commenced	Apr 06, 2022
Condition of Sample	Contained in five plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.001	0.005	0.06	≤1.0	Based on APHA (2017), 3125	Songkhla
Microbiological Testing							
<i>Legionella spp.</i> *	CFU/L	-	-	Not Detected**	Not Detected (1)	ISO 11731 (2017)	Bangkok
Water Testing							
Calcium Hardness as CaCO ₃ *	mg/L	-	1	71	No Standard	Based on APHA (2017), 3500-Ca (B)	Songkhla
^[A] Chloride as Cl	mg/L	0.06	0.2	178	≤300	APHA (2017), 4110 B	Bangkok
Conductivity *	micromhos/cm	-	0.5	1451	≤3000	Based on APHA (2017), 2510 B	Songkhla
pH at 25 degree C		-	-	7.9	7-9	Based on APHA (2017), 4500-H (B)	Songkhla
Phosphate as P *	mg/L	0.15	0.5	Not Detected	≤20	APHA (2017), 4110 B	Bangkok
Silica as SiO ₂ *	mg/L	0.02	0.05	142	≤120	Based on APHA (2017), 4500-SiO ₂ (D)	Bangkok
Total Alkalinity as CaCO ₃ *	mg/L	-	1	199	≤1000	Based on APHA (2017), 2320 B	Songkhla
Total Dissolved solids Dried at 180 degree C	mg/L	-	5	904	≤2000	APHA (2017), 2540 C	Songkhla
Total Hardness as CaCO ₃	mg/L	-	1	94	≤300	APHA (2017), 2340 C	Songkhla

Guideline : หนังสือการปรุงแต่งคุณภาพน้ำ มาตรฐานน้ำใน Cooling Tower ดร.มันสิน ตัณฑุลเวศน์
(1) ประกาศกรมอนามัย พ.ศ. 2544 เรื่องข้อปฏิบัติในการควบคุมเชื้อลิจิโอนลลา ในหอผึ่งเย็นของอาคารในประเทศไทย

Note : ** Not Detected mean Bacteria not found in agar plate.

Sampled By : Yuttapong Rattana , Thaksin Aintrom

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- [A] Analysis conducted by ALS Laboratory Group (Thailand) Co.,Ltd. Bangkok Branch, DMSc Accreditation No. 1031/47.

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