

ภาคผนวก ค  
ใบรายงานผลการวิเคราะห์คุณภาพสิ่งแวดล้อม

- ค 1 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนกรกฎาคม พ.ศ. 2566
- ค 2 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนสิงหาคม พ.ศ. 2566
- ค 3 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนกันยายน พ.ศ. 2566
- ค 4 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนตุลาคม พ.ศ. 2566
- ค 5 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนพฤศจิกายน พ.ศ. 2566
- ค 6 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนธันวาคม พ.ศ. 2566



ภาคผนวก ค 1

รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง

เดือนกรกฎาคม พ.ศ. 2566



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WASTEWATER

**SAMPLING DATE** : JULY 13, 2023

**SAMPLING TIME** : 13:45 HOUR

**SAMPLING METHOD <sup>c</sup>** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY <sup>c</sup>** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : JULY 13, 2023

**ANALYTICAL DATE** : JULY 13-24, 2023

**REPORT NO.** : 2023-U061473

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AN499-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ถังปริมณภาพน้ำ (รวมปริมณ) T23AN499-0001	
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	8.5 (28°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	284	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	143	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	1.5	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	140	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	15	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
MICROBIOLOGY				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	>180,000	1.8
SAMPLE CONDITION			YELLOW/TURBID BROWN	
WATER'S COLOUR/TURBID SEDIMENT				

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JULY 25, 2023



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : EFFLUENT

**SAMPLING DATE** : JULY 13, 2023

**SAMPLING TIME** : 13:40 HOUR

**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY °** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : JULY 13, 2023

**ANALYTICAL DATE** : JULY 13-24, 2023

**REPORT NO.** : 2023-U061474

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AN499-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			กักเก็บน้ำ (ระบบบำบัด) T23AN499-0002		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.7 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	5.0	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	ND	≤ 30	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	211	≤ 35	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE °	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ส่งพักน้ำใส (ระบุแบบฉบับ) T23AN499-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR  BROWN		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS B, NOTIFICATION OF THE  
MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 122,  
PART 125 D, DATED DECEMBER 29, 2005 AND VOL 139 SPECIAL PART 171 D, DATED JULY 21, 2022.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JULY 25, 2023

## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : COOLING TOWER OF GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : COOLING WATER **RECEIVED DATE** : JULY 13, 2023

**SAMPLING DATE** : JULY 13, 2023 **ANALYTICAL DATE** : JULY 13-24, 2023

**SAMPLING TIME** : 13:50 HOUR **REPORT NO.** : 2023-U061475

**SAMPLING METHOD \*** : GRAB, GRAB AND STERILE TECHNIQUE **WORK NO.** : 2022-008318

**SAMPLING BY \*** : MR SUKSAN BOONLEANG **ANALYSIS NO.** : T23AN499-0003

**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT ค่าจริงรับ (COOLING TOWER) T23AN499-0003	REGULATORY STANDARD	DETECTION LIMIT
pH *	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H* B)	8.2 (3°C)	-	-
RESIDUAL CHLORINE *	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	0.1	-	0.1
MICROBIOLOGY					
COLIFORM BACTERIA *	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	17	-	1.8
<i>Legionella</i> spp. #	CFU/L	ISO 11731:2017-05 (E)	NOT DETECTED	NOT DETECTED	-
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR WHITE		

# : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF MEDICAL SCIENCE (DMSC)

\* : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : ANNOUNCEMENT OF THE DEPARTMENT OF HEALTH (THAILAND), PRACTICE FOR THE CONTROL OF LEGIONELLA BACTERIA IN COOLING TOWERS, JANUARY 2001.

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(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

JULY 25, 2023





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : COOLING WATER

**SAMPLING DATE** : JULY 13, 2023

**SAMPLING TIME** : 13:55 HOUR

**SAMPLING METHOD \*** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY \*** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : JULY 13, 2023

**ANALYTICAL DATE** : JULY 13-24, 2023

**REPORT NO.** : 2023-U061477

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : 723AN499-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ห่อปากหึ่งจาก หอผึ่งเย็น (COOLING TOWER) T23AN499-0004		
pH *	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	8.4 (31°C)	-	-
RESIDUAL CHLORINE *	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	0.1	-	0.1
<b>MICROBIOLOGY</b>					
COLIFORM BACTERIA *	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	22	-	1.8
<i>Legionella</i> spp. #	CFU/L	ISO 11731:2017-05 (E)	NOT DETECTED	NOT DETECTED	-
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR WHITE		

# : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF MEDICAL SCIENCE (DMSC)

\* : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : ANNOUNCEMENT OF THE DEPARTMENT OF HEALTH (THAILAND), PRACTICE FOR THE CONTROL OF LEGIONELLA BACTERIA IN COOLING TOWERS, JANUARY 2001.

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

JULY 25, 2023



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WATER SAMPLE FROM SWIMMING POOL

**SAMPLING DATE** : JULY 13, 2023

**SAMPLING TIME** : 14:00 HOUR

**SAMPLING METHOD <sup>c</sup>** : GRAB AND STERILE TECHNIQUE

**SAMPLING BY <sup>c</sup>** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : JULY 13, 2023

**ANALYTICAL DATE** : JULY 13-18, 2023

**REPORT NO.** : 2023-U061479

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AN499-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AN499-0005		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	>23	< 10	1.1
<i>E. coli</i> <sup>b</sup>	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: PART 9221 D AND F)	DETECTED	NOT DETECTED	-
STANDARD PLATE COUNT <sup>b</sup>	CFU/mL	STANDARD PLATE COUNT (SM: PART 9215 B)	3.0x10 <sup>5</sup>	-	1
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR		
			-		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : BANGKOK METROPOLITAN REGULATIONS FOR THE BUSINESS DISTRICTIONAL TO HEALTH, B.E. 2530 (1987).

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

JULY 25, 2023





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WATER SUPPLY **RECEIVED DATE** : JULY 13, 2023

**SAMPLING DATE** : JULY 13, 2023 **ANALYTICAL DATE** : JULY 13-24, 2023

**SAMPLING TIME** : 14:10 HOUR **REPORT NO.** : 2023-U061480

**SAMPLING METHOD \*** : STERILE TECHNIQUE **WORK NO.** : 2022-008318

**SAMPLING BY \*** : MR SUKSAN BOONLEANG **ANALYSIS NO.** : T23AN499-0006

**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT
			ROOF TANK T23AN499-0006
MICROBIOLOGY			
Legionella spp. #	CFU/L	ISO 11731:2017-05 (E)	NOT DETECTED
SAMPLE CONDITION			COLOURLESS/CLEAR WHITE
WATER'S COLOUR/TURBID			
SEDIMENT			

# : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF MEDICAL SCIENCE (DMSC)  
\* : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

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LABORATORY SUPERVISOR

JULY 25, 2023



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WATER SUPPLY

**SAMPLING DATE** : JULY 13, 2023

**SAMPLING TIME** : 14:15 HOUR

**SAMPLING METHOD \*** : STERILE TECHNIQUE

**SAMPLING BY \*** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : JULY 13, 2023

**ANALYTICAL DATE** : JULY 13-24, 2023

**REPORT NO.** : 2023-U061481

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AN499-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT
			GUEST ROOM NO.3225 T23AN499-0007
MICROBIOLOGY			
Legionella spp. #	CFU/L	ISO 11731:2017-05 (E)	NOT DETECTED
SAMPLE CONDITION			COLOURLESS/CLEAR  WHITE
WATER'S COLOUR/TURBID			
SEDIMENT			

# : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF MEDICAL SCIENCE (DMSC)  
\* : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED



(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

JULY 25, 2023



ภาคผนวก ค 2  
รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนสิงหาคม พ.ศ. 2566



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WASTEWATER

**SAMPLING DATE** : AUGUST 9, 2023

**SAMPLING TIME** : 12:35 HOUR

**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY °** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : AUGUST 9, 2023

**ANALYTICAL DATE** : AUGUST 9-22, 2023

**REPORT NO.** : 2023-U069484

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AP290-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			กึ่งนับสภาพน้ำ (ระบบบำบัด) T23AP290-0001	
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.9 (29°C)	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	34.4	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	47.1	5.0
SULPHIDE °	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN °	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	11.0	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	3
RESIDUAL CHLORINE °	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
<b>MICROBIOLOGY</b>				
COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	>160,000	1.8
<b>SAMPLE CONDITION</b>				
WATER'S COLOUR/TURBID			YELLOW/TURBID	
SEDIMENT			BROWN	

° : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

° : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

° : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

AUGUST 23, 2023



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : EFFLUENT

**SAMPLING DATE** : AUGUST 9, 2023

**SAMPLING TIME** : 12:30 HOUR

**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY °** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : AUGUST 9, 2023

**ANALYTICAL DATE** : AUGUST 9-17, 2023

**REPORT NO.** : 2023-U069485

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AP290-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ส่งพิษไปใส่ (ระบบบำบัด) T23AP290-0002		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.4 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	4.9	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	ND	≤ 30	5.0
SULPHIDE °	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN °	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE °	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ส่งพักน้ำใน (ระบบบำบัด) T23AP290-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	13,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS A, NOTIFICATION OF THE  
MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 122,  
PART 125 D, DATED DECEMBER 29, 2005 AND VOL 139 SPECIAL PART 171 D, DATED JULY 21, 2022.

ND : NON-DETECTABLE.

< LOQ : < LIMIT OF QUANTITATION (TOTAL KJELDAHL NITROGEN  $\geq$  1.5 AND < 5.0 mg/L).

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

AUGUST 23, 2023



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WATER SAMPLE FROM SWIMMING POOL

**SAMPLING DATE** : AUGUST 9, 2023

**SAMPLING TIME** : 12:40 HOUR

**SAMPLING METHOD <sup>a</sup>** : GRAB AND STERILE TECHNIQUE

**SAMPLING BY <sup>c</sup>** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : AUGUST 9, 2023

**ANALYTICAL DATE** : AUGUST 9-15, 2023

**REPORT NO.** : 2023-U069486

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AP290-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AP290-0003		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	< 1.1	< 10	1.1
<i>E. coli</i> <sup>b</sup>	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: PART 9221 D AND F)	NOT DETECTED	NOT DETECTED	-
STANDARD PLATE COUNT <sup>b</sup>	CFU/mL	STANDARD PLATE COUNT (SM: PART 9215 B)	7.0x10 <sup>2</sup>	-	1
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR		
			-		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : BANGKOK METROPOLITAN REGULATIONS FOR THE BUSINESS DISTRIKMENTAL TO HEALTH, B.E. 2530 (1987).

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[Signature]  
.....

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

AUGUST 23, 2023



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รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนกันยายน พ.ศ. 2566



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WASTEWATER

**SAMPLING DATE** : SEPTEMBER 14, 2023

**SAMPLING TIME** : 11:45 HOUR

**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY °** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : SEPTEMBER 14, 2023

**ANALYTICAL DATE** : SEPTEMBER 14-22, 2023

**REPORT NO.** : 2023-U080873

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AS196-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ทั้งป็นสภาพน้ำ (ระบบบำบัด) T23AS196-0001	
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	8.4 (30°C)	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	323	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	256	5.0
SULPHIDE °	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	1.6	0.50
TOTAL KJELDAHL NITROGEN °	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	129	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	10	3
RESIDUAL CHLORINE °	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
MICROBIOLOGY				
COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	>160,000	1.8
SAMPLE CONDITION			YELLOW/TURBID BROWN	
WATER'S COLOUR/TURBID SEDIMENT				

° : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

° : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

° : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

SEPTEMBER 22, 2023

## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : EFFLUENT

**SAMPLING DATE** : SEPTEMBER 14, 2023

**SAMPLING TIME** : 11:40 HOUR

**SAMPLING METHOD <sup>c</sup>** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY <sup>c</sup>** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : SEPTEMBER 14, 2023

**ANALYTICAL DATE** : SEPTEMBER 14-21, 2023

**REPORT NO.** : 2023-U080875

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AS196-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ดังที่กล่าวไว้ (ระบบบำบัด) T23AS196-0002		
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.9 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	7.1	≤ 30	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	22.6	≤ 35	1.5
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			กึ่งฟักน้ำใส (ระบบน้ำปิด) T23AS196-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	4,900	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR  BROWN		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>RD</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>RD</sup> EDITION, 2017.

REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS A, NOTIFICATION OF THE  
MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 122,  
PART 125 D, DATED DECEMBER 29, 2005 AND VOL 139 SPECIAL PART 171 D, DATED JULY 21, 2022.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

SEPTEMBER 22, 2023

## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566  
**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED  
**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110  
**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com  
**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21  
**SAMPLE TYPE** : WATER SAMPLE FROM SWIMMING POOL  
**SAMPLING DATE** : SEPTEMBER 14, 2023  
**SAMPLING TIME** : 11:50 HOUR  
**SAMPLING METHOD °** : GRAB AND STERILE TECHNIQUE  
**SAMPLING BY °** : MR SUKSAN BOONLEANG  
**ANALYZED BY** : MISS ITSARIYAPORN BUATTB

**RECEIVED DATE** : SEPTEMBER 14, 2023  
**ANALYTICAL DATE** : SEPTEMBER 14-17, 2023  
**REPORT NO.** : 2023-U080876  
**WORK NO.** : 2022-008318  
**ANALYSIS NO.** : T23AS196-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AS196-0003		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	< 1.1	< 10	1.1
<i>E. coli</i> <sup>b</sup>	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: PART 9221 D AND F)	NOT DETECTED	NOT DETECTED	-
STANDARD PLATE COUNT <sup>b</sup>	CFU/mL	STANDARD PLATE COUNT (SM: PART 9215 B)	31	-	1
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR -		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : BANGKOK METROPOLITAN REGULATIONS FOR THE BUSINESS DISTRIMENTAL TO HEALTH, B.E. 2530 (1987).

.....  
(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

SEPTEMBER 22, 2023





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รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนตุลาคม พ.ศ. 2566



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WATER SAMPLE FROM SWIMMING POOL

**SAMPLING DATE** : OCTOBER 4, 2023

**SAMPLING TIME** : 11:50 HOUR

**SAMPLING METHOD °** : GRAB AND STERILE TECHNIQUE

**SAMPLING BY °** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : OCTOBER 4, 2023

**ANALYTICAL DATE** : OCTOBER 4-9, 2023

**REPORT NO.** : 2023-U086487

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AT714-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AT714-0001		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	< 1.1	< 10	1.1
<i>E. coli</i> <sup>b</sup>	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: PART 9221 D AND F)	NOT DETECTED	NOT DETECTED	-
STANDARD PLATE COUNT <sup>b</sup>	CFU/mL	STANDARD PLATE COUNT (SM: PART 9215 B)	28	-	1
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR  -		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : BANGKOK METROPOLITAN REGULATIONS FOR THE BUSINESS DISTRIKTAL TO HEALTH, B.E. 2530 (1987).



(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

OCTOBER 12, 2023



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WASTEWATER

**SAMPLING DATE** : OCTOBER 5, 2023

**SAMPLING TIME** : 14:15 HOUR

**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY °** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : OCTOBER 6, 2023

**ANALYTICAL DATE** : OCTOBER 6-18, 2023

**REPORT NO.** : 2023-U089200

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AT861-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ส่งปริมณฑล (ระบบบำบัด) T23AT861-0001	
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.5 (28°C)	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	31.1	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	59.1	5.0
SULPHIDE °	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN °	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	14.3	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	3
RESIDUAL CHLORINE °	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ส่งปรับสภาพน้ำ (ระบบบำบัด) T23AT861-0001	
MICROBIOLOGY				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	>160,000	1.8
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID YELLOW	

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>RD</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>RD</sup> EDITION, 2017.

ND : NON-DETECTABLE.

[Redacted Signature]

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

OCTOBER 24, 2023

## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : EFFLUENT

**SAMPLING DATE** : OCTOBER 5, 2023

**SAMPLING TIME** : 14:10 HOUR

**SAMPLING METHOD <sup>c</sup>** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY <sup>c</sup>** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : OCTOBER 6, 2023

**ANALYTICAL DATE** : OCTOBER 6-18, 2023

**REPORT NO.** : 2023-U089201

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AT861-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบบำบัด) T23AT861-0002		
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.1 (27°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	46.4	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	17.4	≤ 30	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	21.6	≤ 35	1.5
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ดังที่กล่าวถึง (ระบบภายใน) T23AT861-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS A, NOTIFICATION OF THE  
MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 122,  
PART 125 D, DATED DECEMBER 29, 2005 AND VOL 139 SPECIAL PART 171 D, DATED JULY 21, 2022.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

OCTOBER 24, 2023



ภาคผนวก ค 5  
รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนพฤศจิกายน พ.ศ. 2566



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WASTEWATER

**SAMPLING DATE** : NOVEMBER 2, 2023

**SAMPLING TIME** : 13:45 HOUR

**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY °** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : NOVEMBER 2, 2023

**ANALYTICAL DATE** : NOVEMBER 2-9, 2023

**REPORT NO.** : 2023-U097119

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AV790-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			กังปรับสภาพน้ำ (ระบบบำบัด) T23AV790-0001	
pH °	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	8.3 (28°C)	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	498	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	530	5.0
SULPHIDE °	mg/L	IODOMETRIC METHOD (SM: PART 4500-S° F)	3.1	0.50
TOTAL KJELDAHL NITROGEN °	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	110	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	17	3
RESIDUAL CHLORINE °	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
<b>MICROBIOLOGY</b>				
COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	>160,000	1.8
<b>SAMPLE CONDITION</b>				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	

° : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

° : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

° : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

NOVEMBER 15, 2023



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : EFFLUENT

**SAMPLING DATE** : NOVEMBER 2, 2023

**SAMPLING TIME** : 13:40 HOUR

**SAMPLING METHOD <sup>c</sup>** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY <sup>c</sup>** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : NOVEMBER 2, 2023

**ANALYTICAL DATE** : NOVEMBER 2-9, 2023

**REPORT NO.** : 2023-U097121

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AV790-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ส่งพิษน้ำใส (ระบบบำบัด) T23AV790-0002		
pH <sup>c</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	7.3 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	11.5	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	6.6	≤ 30	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500 -S <sup>2-</sup> F)	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	7.9	≤ 35	1.5
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			สิ่งปกปิดน้ำใส (ระบบปิด) T23AV790-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/CLEAR		
SEDIMENT			BROWN		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS A, NOTIFICATION OF THE  
MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 122,  
PART 125 D, DATED DECEMBER 29, 2005 AND VOL 139 SPECIAL PART 171 D, DATED JULY 21, 2022.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

NOVEMBER 15, 2023

## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WATER SAMPLE FROM SWIMMING POOL

**SAMPLING DATE** : NOVEMBER 2, 2023

**SAMPLING TIME** : 13:30 HOUR

**SAMPLING METHOD <sup>a</sup>** : GRAB AND STERILE TECHNIQUE

**SAMPLING BY <sup>a</sup>** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : NOVEMBER 2, 2023

**ANALYTICAL DATE** : NOVEMBER 2-8, 2023

**REPORT NO.** : 2023-U097122

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AV790-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AV790-0003		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	< 1.1	< 10	1.1
<i>E. coli</i> <sup>b</sup>	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: PART 9221 D AND F)	NOT DETECTED	NOT DETECTED	-
STANDARD PLATE COUNT <sup>b</sup>	CFU/mL	STANDARD PLATE COUNT (SM: PART 9215 B)	7.1x10 <sup>2</sup>	-	1
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR -		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : BANGKOK METROPOLITAN REGULATIONS FOR THE BUSINESS DISTRIKTAL TO HEALTH, B.E. 2530 (1987).



(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

NOVEMBER 15, 2023



ภาคผนวก ค 6  
รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนธันวาคม พ.ศ. 2566





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : WASTEWATER

**SAMPLING DATE** : DECEMBER 6, 2023

**SAMPLING TIME** : 15:25 HOUR

**SAMPLING METHOD <sup>a</sup>** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY <sup>c</sup>** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : DECEMBER 6, 2023

**ANALYTICAL DATE** : DECEMBER 6-14, 2023

**REPORT NO.** : 2023-U108580

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AY350-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ถึงปรับสภาพน้ำ (ระบบบำบัด) T23AY350-0001	
pH <sup>c</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	8.7 (28°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	386	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	250	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	2.6	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	209	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	12	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
<b>MICROBIOLOGY</b>				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	>160,000	1.8
<b>SAMPLE CONDITION</b>				
WATER'S COLOUR/TURBID			YELLOW/TURBID	
SEDIMENT			BROWN	

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

DECEMBER 19, 2023



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566

**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED

**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110

**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com

**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21

**SAMPLE TYPE** : EFFLUENT

**SAMPLING DATE** : DECEMBER 6, 2023

**SAMPLING TIME** : 15:20 HOUR

**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY °** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : DECEMBER 6, 2023

**ANALYTICAL DATE** : DECEMBER 6-13, 2023

**REPORT NO.** : 2023-U108581

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AY350-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ทั้งพักน้ำใส (ระบบบำบัด) T23AY350-0002		
pH °	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	7.3 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	11.8	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	6.1	≤ 30	5.0
SULPHIDE °	mg/L	IODOMETRIC METHOD (SM: PART 4500 -S <sup>2-</sup> F)	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN °	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	8.6	≤ 35	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE °	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบน้ำใส) T23AY350-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	17,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR  BROWN		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>RD</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>RD</sup> EDITION, 2017.

REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS A, NOTIFICATION OF THE  
MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 122,  
PART 125 D, DATED DECEMBER 29, 2005 AND VOL 139 SPECIAL PART 171 D, DATED JULY 21, 2022.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

DECEMBER 19, 2023

## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2566  
**CUSTOMER NAME** : L&H HOTEL MANAGEMENT COMPANY LIMITED  
**ADDRESS** : 2 SOI SUKHUMVIT 19 (WATTANA) SUKHUMVIT ROAD KHLONG TOEI NUEA WATTHANA BANGKOK 10110  
**CONTACT INFORMATION** : TEL : 0 2091 9000, 08 6901 0182 e-mail : phatsakon.c@gcphotels.com  
**SAMPLING SOURCE** : GRANDE CENTRE POINT HOTEL TERMINAL 21  
**SAMPLE TYPE** : WATER SAMPLE FROM SWIMMING POOL  
**SAMPLING DATE** : DECEMBER 6, 2023  
**SAMPLING TIME** : 15:15 HOUR  
**SAMPLING METHOD °** : GRAB AND STERILE TECHNIQUE  
**SAMPLING BY °** : MR SUKSAN BOONLEANG  
**ANALYZED BY** : MISS ITSARTYAPORN BUATIB

**RECEIVED DATE** : DECEMBER 6, 2023  
**ANALYTICAL DATE** : DECEMBER 6-12, 2023  
**REPORT NO.** : 2023-U108582  
**WORK NO.** : 2022-008318  
**ANALYSIS NO.** : T23AY350-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AY350-0003		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	2.2	< 10	1.1
<i>E. coli</i> <sup>b</sup>	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: PART 9221 D AND F)	NOT DETECTED	NOT DETECTED	-
STANDARD PLATE COUNT <sup>b</sup>	CFU/mL	STANDARD PLATE COUNT (SM: PART 9215 B)	1.4x10 <sup>4</sup>	-	1
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR -		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : BANGKOK METROPOLITAN REGULATIONS FOR THE BUSINESS DISTRIMENTAL TO HEALTH, B.E. 2530 (1987).

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

DECEMBER 19, 2023

