

ภาคผนวก ค  
ใบรายงานผลการวิเคราะห์คุณภาพสิ่งแวดล้อม

- ค 1 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนมกราคม พ.ศ. 2566
- ค 2 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนกุมภาพันธ์ พ.ศ. 2566
- ค 3 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนมีนาคม พ.ศ. 2566
- ค 4 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนเมษายน พ.ศ. 2566
- ค 5 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนพฤษภาคม พ.ศ. 2566
- ค 6 รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง เดือนมิถุนายน พ.ศ. 2566



ภาคผนวก ค 1  
รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนมกราคม 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 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** : WASTEWATER

**SAMPLING DATE** : JANUARY 11, 2023

**SAMPLING TIME** : 14:00 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : JANUARY 11, 2023

**ANALYTICAL DATE** : JANUARY 11-19, 2023

**REPORT NO.** : 2023-U005958

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AA487-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ถึงปริมณฑล (ระบบบำบัด) T23AA487-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.2 (30°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: 4500-O <sub>2</sub> G AND 5210 B)	579	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	1,761	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	1.1	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	118	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	10	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: 9221 B)	>160,000	1.8
SAMPLE CONDITION				
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

JANUARY 27, 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** : JANUARY 11, 2023

**SAMPLING TIME** : 14:05 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : JANUARY 11, 2023

**ANALYTICAL DATE** : JANUARY 11-19, 2023

**REPORT NO.** : 2023-U005959

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AA487-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบบำบัด) T23AA487-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.2 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: 4500-O <sub>2</sub> G AND 5210 B)	7.8	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	12.4	≤ 30	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	21.0	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 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
			ส่งฟิโกลาโซ (ระบบฟิโกลาโซ) T23AA487-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221B)	17,000	-	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 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

JANUARY 27, 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** : JANUARY 11, 2023

**SAMPLING DATE** : JANUARY 11, 2023 **ANALYTICAL DATE** : JANUARY 11-22, 2023

**SAMPLING TIME** : 13:35 HOUR **REPORT NO.** : 2023-U005960

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

**SAMPLING BY \*** : MR WEERAYUT MOKKAEW **ANALYSIS NO.** : T23AA487-0003

**ANALYZED BY** : MISS SUJIRA PRASERTSUKHO

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ตัวอย่างรับ (COOLING TOWER) T23AA487-0003		
pH *	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	8.6 (26°C)	-	-
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: 9221 B)	46	-	1.8
<i>Legionella</i> spp. #	CFU/L	ISO 11731:2017-05 (E)	500	NOT DETECTED	-
<b>SAMPLE CONDITION</b>					
WATER'S COLOUR/TURBID			YELLOW/CLEAR		
SEDIMENT			YELLOW		

# : 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.

ND : NON-DETECTABLE.

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

JANUARY 27, 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** : COOLING WATER  
**SAMPLING DATE** : JANUARY 11, 2023  
**SAMPLING TIME** : 13:40 HOUR  
**SAMPLING METHOD \*** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY \*** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS SUJIRA PRASERTSUKHO  
**RECEIVED DATE** : JANUARY 11, 2023  
**ANALYTICAL DATE** : JANUARY 11-22, 2023  
**REPORT NO.** : 2023-U005961  
**WORK NO.** : 2022-008318  
**ANALYSIS NO.** : T23AA487-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอน้ำทิ้งจาก หอผึ่งเย็น (COOLING TOWER) T23AA487-0004		
pH *	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	8.6 (28°C)	-	-
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: 9221B)	2.0	-	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			YELLOW/CLEAR		
SEDIMENT			YELLOW		

# : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF MEDICAL SCIENCE (DMSQ)  
\* : 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.

ND : NON-DETECTABLE.

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

JANUARY 27, 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** : JANUARY 11, 2023

**SAMPLING TIME** : 13:50 HOUR

**SAMPLING METHOD \*** : STERILE TECHNIQUE

**SAMPLING BY \*** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS SUJIRA PRASERTSUKHO

**RECEIVED DATE** : JANUARY 11, 2023

**ANALYTICAL DATE** : JANUARY 11-22, 2023

**REPORT NO.** : 2023-U005962

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AA487-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT
			ROOF TANK T23AA487-0006
MICROBIOLOGY			
Legionella spp. #	CFU/L	ISO 11731:2017-05 (E)	200
SAMPLE CONDITION			
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR WHITE

# : 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

JANUARY 27, 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

**SAMPLING DATE** : JANUARY 11, 2023

**SAMPLING TIME** : 13:45 HOUR

**SAMPLING METHOD \*** : STERILE TECHNIQUE

**SAMPLING BY \*** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS SUJIRA PRASERTSUKHO

**RECEIVED DATE** : JANUARY 11, 2023

**ANALYTICAL DATE** : JANUARY 11-22, 2023

**REPORT NO.** : 2023-U005963

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AA487-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT
			GUEST ROOM NO.3221 T23AA487-0007
MICROBIOLOGY			
Legionella spp. #	CFU/L	ISO 11731:2017-05 (E)	NOT DETECTED
SAMPLE CONDITION			COLOURLESS/CLEAR  -
WATER'S COLOUR/TURBID			
SEDIMENT			

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

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

JANUARY 27, 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** : JANUARY 11, 2023  
**SAMPLING TIME** : 13:30 HOUR  
**SAMPLING METHOD <sup>a</sup>** : GRAB AND STERILE TECHNIQUE  
**SAMPLING BY <sup>a</sup>** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : JANUARY 11, 2023  
**ANALYTICAL DATE** : JANUARY 11-15, 2023  
**REPORT NO.** : 2023-U006618  
**WORK NO.** : 2022-008318  
**ANALYSIS NO.** : T23AA487-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AA487-0005		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	< 1.1	< 10	1.1
<i>E. coli</i> <sup>b</sup>	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: 9221 D AND F)	NOT DETECTED	NOT DETECTED	-
STANDARD PLATE COUNT <sup>b</sup>	CFU/mL	STANDARD PLATE COUNT (SM: 9215 B)	1	-	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

JANUARY 27, 2023



ภาคผนวก ค 2  
รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนกุมภาพันธ์ 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** : FEBRUARY 1, 2023

**SAMPLING TIME** : 13:05 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : FEBRUARY 1, 2023

**ANALYTICAL DATE** : FEBRUARY 1-7, 2023

**REPORT NO.** : 2023-U009787

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AB672-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ถึงปริมาณน้ำ (ระบบบำบัด) T23AB672-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	8.1 (28°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: 4500-O <sub>2</sub> G AND 5210 B)	314	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	107	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	23.8	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	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: 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

FEBRUARY 14, 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** : FEBRUARY 1, 2023

**SAMPLING TIME** : 13:00 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : FEBRUARY 1, 2023

**ANALYTICAL DATE** : FEBRUARY 1-7, 2023

**REPORT NO.** : 2023-U009788

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AB672-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ดังที่แนบมา (ระบอบนำมิด) T23AB672-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.6 (26°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: 4500-O <sub>2</sub> G AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sub>2</sub> <sup>-</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: 4500-Norg C	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 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 (ระบุมาตรฐาน) T23AB672-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	3,300	-	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.

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

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

FEBRUARY 14, 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** : FEBRUARY 1, 2023  
**SAMPLING TIME** : 13:10 HOUR  
**SAMPLING METHOD <sup>c</sup>** : GRAB AND STERILE TECHNIQUE  
**SAMPLING BY <sup>c</sup>** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : FEBRUARY 1, 2023  
**ANALYTICAL DATE** : FEBRUARY 1-5, 2023  
**REPORT NO.** : 2023-U009789  
**WORK NO.** : 2022-008318  
**ANALYSIS NO.** : T23AB672-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AB672-0003		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	< 1.1	< 10	1.1
<i>E. coli</i> <sup>b</sup>	/100 mL	FLUOROGENIC SUBSTRATE TEST (SM: 9221 D AND F)	NOT DETECTED	NOT DETECTED	-
STANDARD PLATE COUNT <sup>b</sup>	CFU/mL	STANDARD PLATE COUNT (SM: 9215 B)	24	-	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

FEBRUARY 14, 2023



ภาคผนวก ค 3  
รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนมีนาคม 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 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** : WASTEWATER

**SAMPLING DATE** : MARCH 2, 2023

**SAMPLING TIME** : 13:55 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : MARCH 2, 2023

**ANALYTICAL DATE** : MARCH 2-13, 2023

**REPORT NO.** : 2023-U018056

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AD713-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ถึงรับสภาพน้ำ (ระบบบำบัด) T23AD713-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	8.0 (27°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 4500-O <sub>2</sub> G AND PART 5210 B)	85.2	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	87.3	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	13.0	1.5
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	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 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.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MARCH 16, 2023



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบต่อสิ่งแวดล้อม  
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** : EFFLUENT

**SAMPLING DATE** : MARCH 2, 2023

**SAMPLING TIME** : 13:50 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : MARCH 2, 2023

**ANALYTICAL DATE** : MARCH 2-10, 2023

**REPORT NO.** : 2023-U018057

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AD713-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ทั้งปากน้ำใส (ระบบบำบัด) T23AD713-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.8 (27°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 4500-O <sub>2</sub> G AND PART 5210 B)	3.4	≤ 20	2.0
SUSPENDED SOLIDS <sup>c</sup>	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	< LOQ	≤ 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
			ดังฟ้ากน้ำใส (ระบบน้ำดื่ม) T23AD713-0002		
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/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.

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

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MARCH 16, 2023

## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบต่อสิ่งแวดล้อม  
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** : MARCH 2, 2023  
**SAMPLING TIME** : 14:00 HOUR  
**SAMPLING METHOD <sup>c</sup>** : GRAB AND STERILE TECHNIQUE  
**SAMPLING BY <sup>c</sup>** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : MARCH 2, 2023  
**ANALYTICAL DATE** : MARCH 2-6, 2023  
**REPORT NO.** : 2023-U018058  
**WORK NO.** : 2022-008318  
**ANALYSIS NO.** : T23AD713-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AD713-0003		
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)	35	-	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 DISTRIEMENTAL TO HEALTH, B.E. 2530 (1987).

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

MARCH 16, 2023





ภาคผนวก ค 4  
รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนเมษายน 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 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** : WASTEWATER

**SAMPLING DATE** : APRIL 7, 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** : APRIL 7, 2023

**ANALYTICAL DATE** : APRIL 7-21, 2023

**REPORT NO.** : 2023-U029491

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AG363-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ถึงรับสภาพน้ำ (ระบอบบำบัด) T23AG363-0001	
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	8.0 (32°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	43.6	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	60.6	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	43.6	15
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	4	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 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.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

APRIL 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 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** : EFFLUENT

**SAMPLING DATE** : APRIL 7, 2023

**SAMPLING TIME** : 14:05 HOUR

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

**SAMPLING BY °** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS NATACHA WAENNAIMUANG

**RECEIVED DATE** : APRIL 7, 2023

**ANALYTICAL DATE** : APRIL 7-21, 2023

**REPORT NO.** : 2023-U029492

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AG363-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ส่งพัสดุไปรษณีย์ (ระบบปิด) T23AG363-0002		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.8 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	≤ 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	< 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
			ส่งฟักปัสสาวะ (ระบบปิด) T23AG363-0002		
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			COLOURLESS/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.

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



(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

APRIL 24, 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** : APRIL 7, 2023

**SAMPLING TIME** : 14:15 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** : APRIL 7, 2023

**ANALYTICAL DATE** : APRIL 7-13, 2023

**REPORT NO.** : 2023-U029493

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AG363-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AG363-0003		
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)	4.4x10 <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 DISTRIENTAL TO HEALTH, B.E. 2530 (1987).

[Redacted Signature]

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

APRIL 24, 2023



ภาคผนวก ค 5  
รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนพฤษภาคม 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 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** : WASTEWATER

**SAMPLING DATE** : MAY 3, 2023

**SAMPLING TIME** : 12:00 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** : MAY 3, 2023

**ANALYTICAL DATE** : MAY 3-17, 2023

**REPORT NO.** : 2023-U036910

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AH896-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ส่งปริมสภาพน้ำ (ระบบบำบัด) T23AH896-0001	
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	8.2 (28°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	257	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	244	5.0
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	5.3	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	8	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 9221 B)	>160,000	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

MAY 19, 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 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** : EFFLUENT **RECEIVED DATE** : MAY 3, 2023

**SAMPLING DATE** : MAY 3, 2023 **ANALYTICAL DATE** : MAY 3-17, 2023

**SAMPLING TIME** : 11:55 HOUR **REPORT NO.** : 2023-U036911

**SAMPLING METHOD <sup>c</sup>** : GRAB, GRAB AND STERILE TECHNIQUE **WORK NO.** : 2022-008318

**SAMPLING BY <sup>c</sup>** : MR SUKSAN BOONLEANG **ANALYSIS NO.** : T23AH896-0002

**ANALYZED BY** : MISS AKSARIN BUNKONG

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ส่งฟักน้ำใส (ระบบบำบัด) T23AH896-0002		
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.7 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.8	≤ 20	2.0
SUSPENDED SOLIDS <sup>c</sup>	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	23.6	≤ 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
			ห้องฟักน้ำใส (ระบบปิด) T23AH896-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	22,000	-	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

MAY 19, 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** : MAY 3, 2023  
**SAMPLING TIME** : 11:50 HOUR  
**SAMPLING METHOD <sup>c</sup>** : GRAB AND STERILE TECHNIQUE  
**SAMPLING BY <sup>c</sup>** : MR SUKSAN BOONLEANG  
**ANALYZED BY** : MISS ITSARTYAPORN BUATIB

**RECEIVED DATE** : MAY 3, 2023  
**ANALYTICAL DATE** : MAY 3-9, 2023  
**REPORT NO.** : 2023-U036912  
**WORK NO.** : 2022-008318  
**ANALYSIS NO.** : T23AH896-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AH896-0003		
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)	66	-	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 DISTRIEMENTAL TO HEALTH, B.E. 2530 (1987).

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

MAY 19, 2023



ภาคผนวก ค 6  
รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนมิถุนายน 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 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** : WASTEWATER

**SAMPLING DATE** : JUNE 7, 2023

**SAMPLING TIME** : 13:35 HOUR

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

**SAMPLING BY °** : MR SUKSAN BOONLEANG

**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : JUNE 8, 2023

**ANALYTICAL DATE** : JUNE 8-20, 2023

**REPORT NO.** : 2023-U049555

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AK574-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ส่งปรับสภาพน้ำ (ระบบบำบัด) T23AK574-0001	
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)	182	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	88.7	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	31.9	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	13	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.

(MISS PAWEENA CHARASCHOTEPINIT)  
LABORATORY SUPERVISOR

JUNE 21, 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** : JUNE 7, 2023  
**SAMPLING TIME** : 13:30 HOUR  
**SAMPLING METHOD <sup>c</sup>** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY <sup>c</sup>** : MR SUKSAN BOONLEANG  
**ANALYZED BY** : MISS NATACHA WAENNAIMUANG

**RECEIVED DATE** : JUNE 8, 2023  
**ANALYTICAL DATE** : JUNE 8-15, 2023  
**REPORT NO.** : 2023-U049556  
**WORK NO.** : 2022-008318  
**ANALYSIS NO.** : T23AK574-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ส่งพนักงานใส่ (ระบบบำบัด) T23AK574-0002		
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.9 (29°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>c</sup>	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	< LOQ	≤ 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
			ถังพักน้ำใส (ระบมป่าป๋อ) T23AK574-0002		
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/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).

(MISS PAWEENA CHARASCHOTEPINIT)  
LABORATORY SUPERVISOR

JUNE 21, 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** : JUNE 7, 2023

**SAMPLING TIME** : 13:40 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** : JUNE 8, 2023

**ANALYTICAL DATE** : JUNE 8-13, 2023

**REPORT NO.** : 2023-U049557

**WORK NO.** : 2022-008318

**ANALYSIS NO.** : T23AK574-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SWIMMING POOL T23AK574-0003		
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)	1.1x10 <sup>4</sup>	-	1
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR		
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

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

JUNE 21, 2023

