

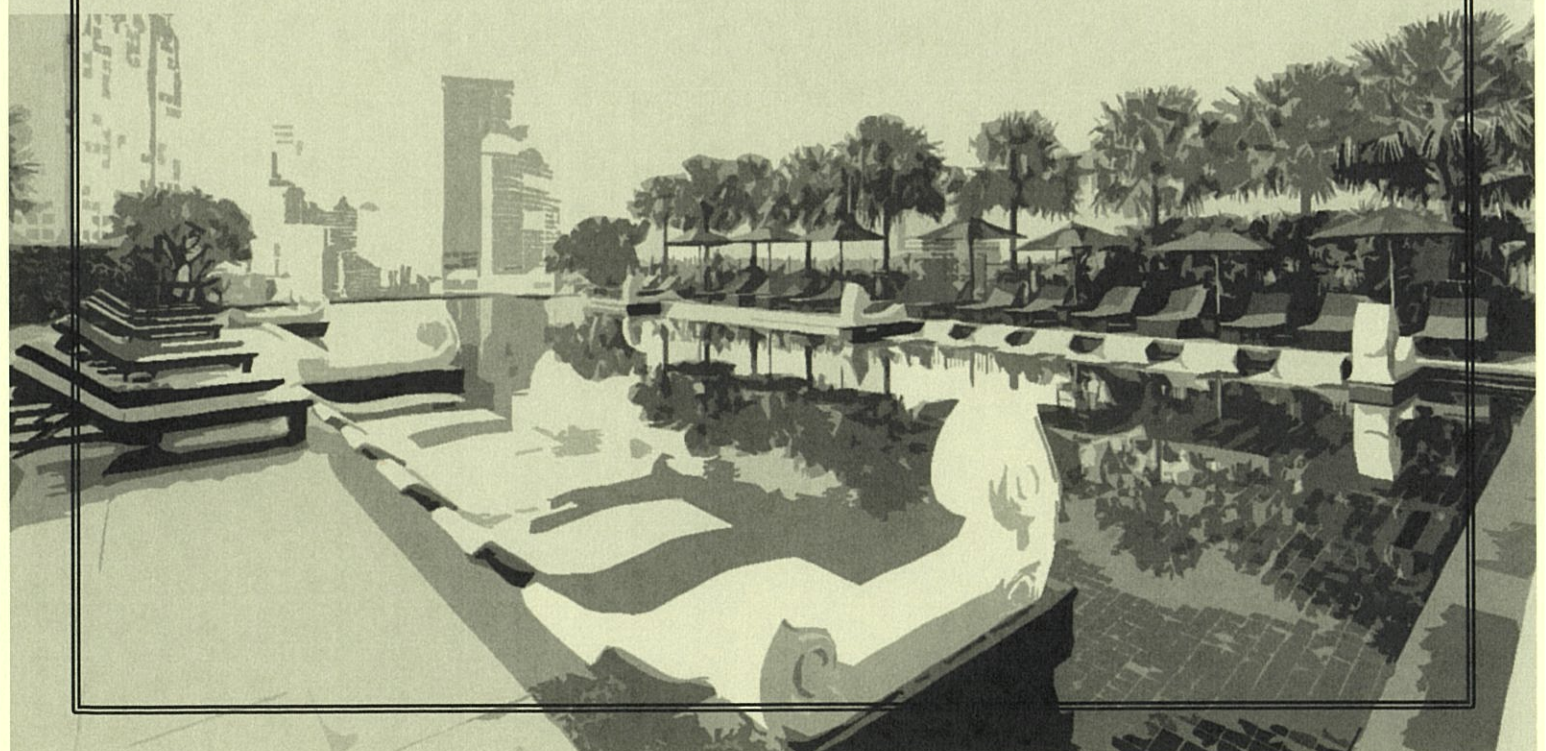
ภาคผนวก ค  
รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง





*Grande Centre Point*  
TERMINAL 21 · BANGKOK

รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนมกราคม พ.ศ. 2565





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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** : JANUARY 5, 2022

**SAMPLING TIME** : 13:35 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : JANUARY 6, 2022

**ANALYTICAL DATE** : JANUARY 6-11, 2022

**REPORT NO.** : 2022-U003824

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AA120-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ทั้งปริมสภาพน้ำ (ระบบบำบัด) T22AA120-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	6.9 (29°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	8.5	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	35.7	5.0
SULPHIDE <sup>c</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	< LOQ	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
MICROBIOLOGY				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	35,000	1.8
SAMPLE CONDITION			YELLOW/TURBID	
WATER'S COLOUR/TURBID SEDIMENT			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.

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

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JANUARY 25, 2022



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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 5, 2022

**SAMPLING TIME** : 13:30 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : JANUARY 6, 2022

**ANALYTICAL DATE** : JANUARY 6-11, 2022

**REPORT NO.** : 2022-U003825

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AA120-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบบำบัด) T22AA120-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.1 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C 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>c</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	≤ 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)	0.1	-	0.1





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบบำบัด) T22AA120-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	5,400	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/CLEAR		
SEDIMENT			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.

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.

ND : NON-DETECTABLE.

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

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JANUARY 25, 2022



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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 6, 2022

**SAMPLING DATE** : JANUARY 5, 2022 **ANALYTICAL DATE** : JANUARY 6-13, 2022

**SAMPLING TIME** : 13:40 HOUR **REPORT NO.** : 2022-U003826

**SAMPLING METHOD <sup>c</sup>** : GRAB, GRAB AND STERILE TECHNIQUE **WORK NO.** : 2021-006039

**SAMPLING BY <sup>c</sup>** : MR WEERAYUT MOKKAEW **ANALYSIS NO.** : T22AA120-0003

**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อ้างอิงรับ (COOLING TOWER) T22AA120-0003		
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	8.0 (28°C)	-	-
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	0.1	-	0.1
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221B)	< 1.8	-	1.8
Legionella spp. <sup>c</sup>	CFU/L	ISO 11731:2017-05 (E)	NOT DETECTED	NOT DETECTED	-
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/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 : ANNOUNCEMENT OF THE DEPARTMENT OF HEALTH (THAILAND), PRACTICE FOR THE CONTROL OF LEGIONELLA BACTERIA IN COOLING TOWERS, JANUARY 2001.



(MISS CHAWEEVAN BOONLA)  
LABORATORY SUPERVISOR

JANUARY 25, 2022





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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 5, 2022

**SAMPLING TIME** : 13:45 HOUR

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

**SAMPLING BY <sup>c</sup>** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS ITSARIYAPORN BUATIB

**RECEIVED DATE** : JANUARY 6, 2022

**ANALYTICAL DATE** : JANUARY 6-13, 2022

**REPORT NO.** : 2022-U003827

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AA120-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอน้ำทิ้งจาก หอผึ่งเย็น (COOLING TOWER) T22AA120-0004		
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	8.0 (28°C)	-	-
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	0.1	-	0.1
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	< 1.8	-	1.8
<i>Legionella</i> spp. <sup>c</sup>	CFU/L	ISO 11731:2017-05 (E)	NOT DETECTED	NOT DETECTED	-
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/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 : ANNOUNCEMENT OF THE DEPARTMENT OF HEALTH (THAILAND), PRACTICE FOR THE CONTROL OF LEGIONELLA BACTERIA IN COOLING TOWERS, JANUARY 2001.



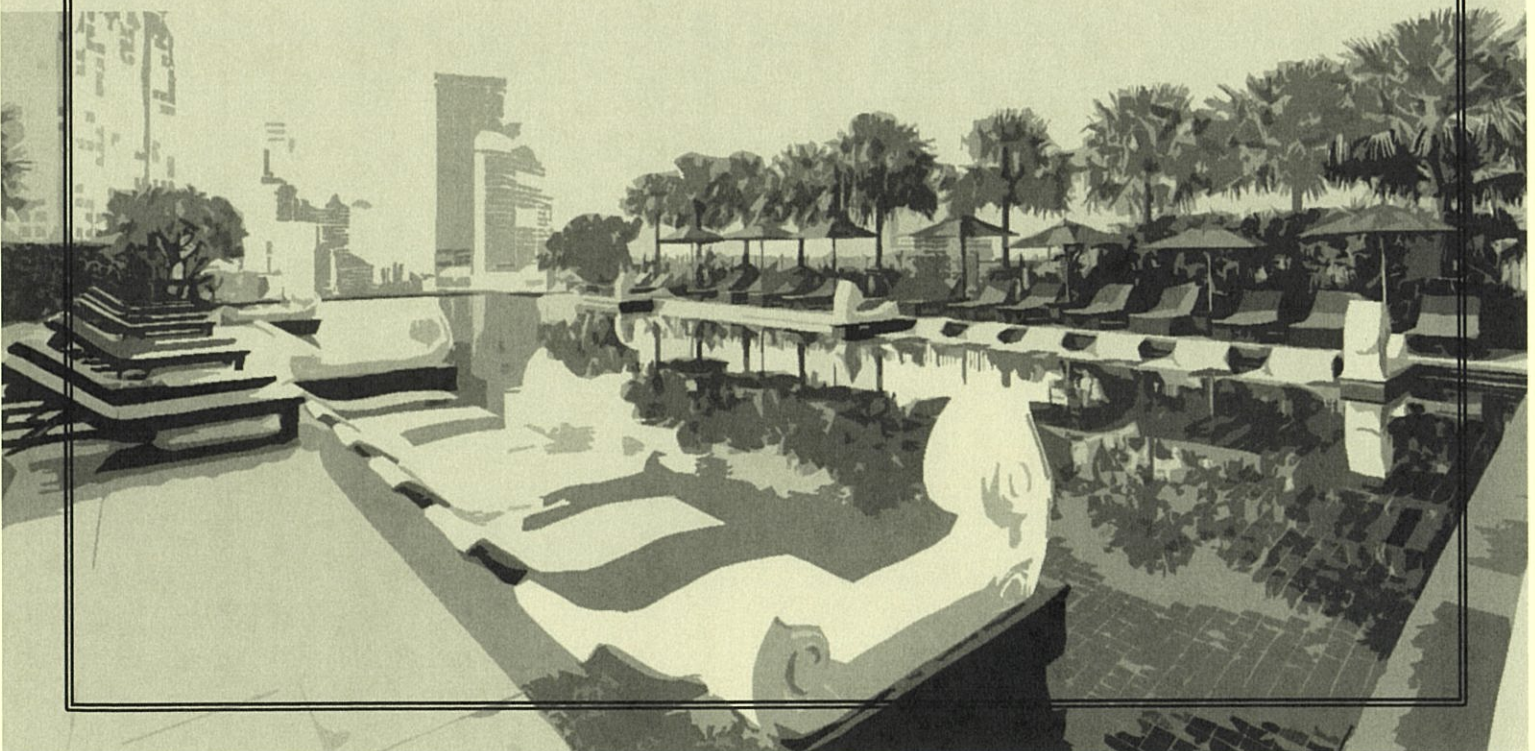
(MISS CHAWEEVAN BOONLA)  
LABORATORY SUPERVISOR

JANUARY 25, 2022





รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนกุมภาพันธ์ พ.ศ. 2565





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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 2, 2022

**SAMPLING TIME** : 13:35 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : FEBRUARY 2, 2022

**ANALYTICAL DATE** : FEBRUARY 2-9, 2022

**REPORT NO.** : 2022-U010272

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AB849-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ถังรับสภาพน้ำ (ระบบบำบัด) T22AB849-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.2 (30°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	16.9	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	78.0	5.0
SULPHIDE <sup>c</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	7.8	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
MICROBIOLOGY				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 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.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

FEBRUARY 14, 2022





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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 2, 2022

**SAMPLING TIME** : 13:30 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALAE

**RECEIVED DATE** : FEBRUARY 2, 2022

**ANALYTICAL DATE** : FEBRUARY 2-9, 2022

**REPORT NO.** : 2022-U010273

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AB849-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบบำบัด) T22AB849-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.3 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C 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>c</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	≤ 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)	0.1	-	0.1





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบอบบำบัด) T22AB849-0002		
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			YELLOW/TURBID		
SEDIMENT			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.

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.

ND : NON-DETECTABLE.

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

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

FEBRUARY 14, 2022



*Grande Centre Point*  
TERMINAL 21 · BANGKOK

รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนมีนาคม พ.ศ. 2565





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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** : MARCH 2, 2022

**SAMPLING TIME** : 13:35 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : MARCH 3, 2022

**ANALYTICAL DATE** : MARCH 3-14, 2022

**REPORT NO.** : 2022-U018974

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AD872-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ทั้งปริมสภาพน้ำ (ระบบบำบัด) T22AD872-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.2 (29°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	3.4	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	5.5	5.0
SULPHIDE <sup>c</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sub>2</sub> F)	ND	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	< LOQ	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 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.

< LOQ : < LEVEL OF QUANTITATION (TOTAL KJELDAHL NITROGEN ≥ 1.5 AND < 5.0 mg/L).

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MARCH 16, 2022





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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** : MARCH 2, 2022

**SAMPLING TIME** : 13:30 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALAE

**RECEIVED DATE** : MARCH 3, 2022

**ANALYTICAL DATE** : MARCH 3-14, 2022

**REPORT NO.** : 2022-U018975

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AD872-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบบำบัด) T22AD872-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.3 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	3.3	≤ 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>c</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	≤ 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)	0.1	-	0.1





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบบำบัด) T22AD872-0002		
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 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.

ND : NON-DETECTABLE.

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

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MARCH 16, 2022



*Grande Centre Point*  
TERMINAL 21 · BANGKOK

รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนเมษายน พ.ศ. 2565





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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** : APRIL 11, 2022

**SAMPLING TIME** : 10:20 HOUR

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

**SAMPLING BY <sup>c</sup>** : MR PHATSAWUT THOSAKOON

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : APRIL 11, 2022

**ANALYTICAL DATE** : APRIL 11-22, 2022

**REPORT NO.** : 2022-U029679

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AG958-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ถังรับสภาพน้ำ (ระบบบำบัด) T22AG958-0001	
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.2 (27°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	108	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	834	5.0
SULPHIDE <sup>c</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	62.1	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	3	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	DPD FERROUS TITRIMETRIC METHOD (SM: 4500-Cl F)	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 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.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

APRIL 25, 2022





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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 11, 2022

**SAMPLING TIME** : 10:15 HOUR

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

**SAMPLING BY <sup>c</sup>** : MR PHATSAWUT THOSAKOON

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : APRIL 11, 2022

**ANALYTICAL DATE** : APRIL 11-22, 2022

**REPORT NO.** : 2022-U029680

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AG958-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบบำบัด) T22AG958-0002		
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.5 (27°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	6.2	≤ 30	5.0
SULPHIDE <sup>c</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	≤ 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>	DPD FERROUS TITRIMETRIC METHOD (SM: 4500-Cl F)	ND	-	0.1





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบบำบัด) T22AG958-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	9,400	-	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.

ND : NON-DETECTABLE.

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

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

APRIL 25, 2022



*Grande Centre Point*  
TERMINAL 21 · BANGKOK

รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนพฤษภาคม พ.ศ. 2565





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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** : MAY 11, 2022

**SAMPLING TIME** : 13:15 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALAE

**RECEIVED DATE** : MAY 11, 2022

**ANALYTICAL DATE** : MAY 11-20, 2022

**REPORT NO.** : 2022-U037936

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22A1865-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			กึ่งปรับสภาพน้ำ (ระบบบำบัด) T22A1865-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	8.3 (30°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	304	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	319	5.0
SULPHIDE <sup>c</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	1.34	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	53.7	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			YELLOW/TURBID	
WATER'S COLOUR/TURBID			BROWN	
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.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MAY 25, 2022





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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** : MAY 11, 2022

**SAMPLING TIME** : 13:10 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : MAY 11, 2022

**ANALYTICAL DATE** : MAY 11-20, 2022

**REPORT NO.** : 2022-U037937

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22A1865-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบบบำบัด) T22A1865-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.4 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	3.0	≤ 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>c</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	≤ 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
			ถังพักน้ำใส (ระบมปำมัด) T22AI865-0002		
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 SEDIMENT			COLOURLESS/CLEAR  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.

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.

ND : NON-DETECTABLE.

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

*Piyapat S.*

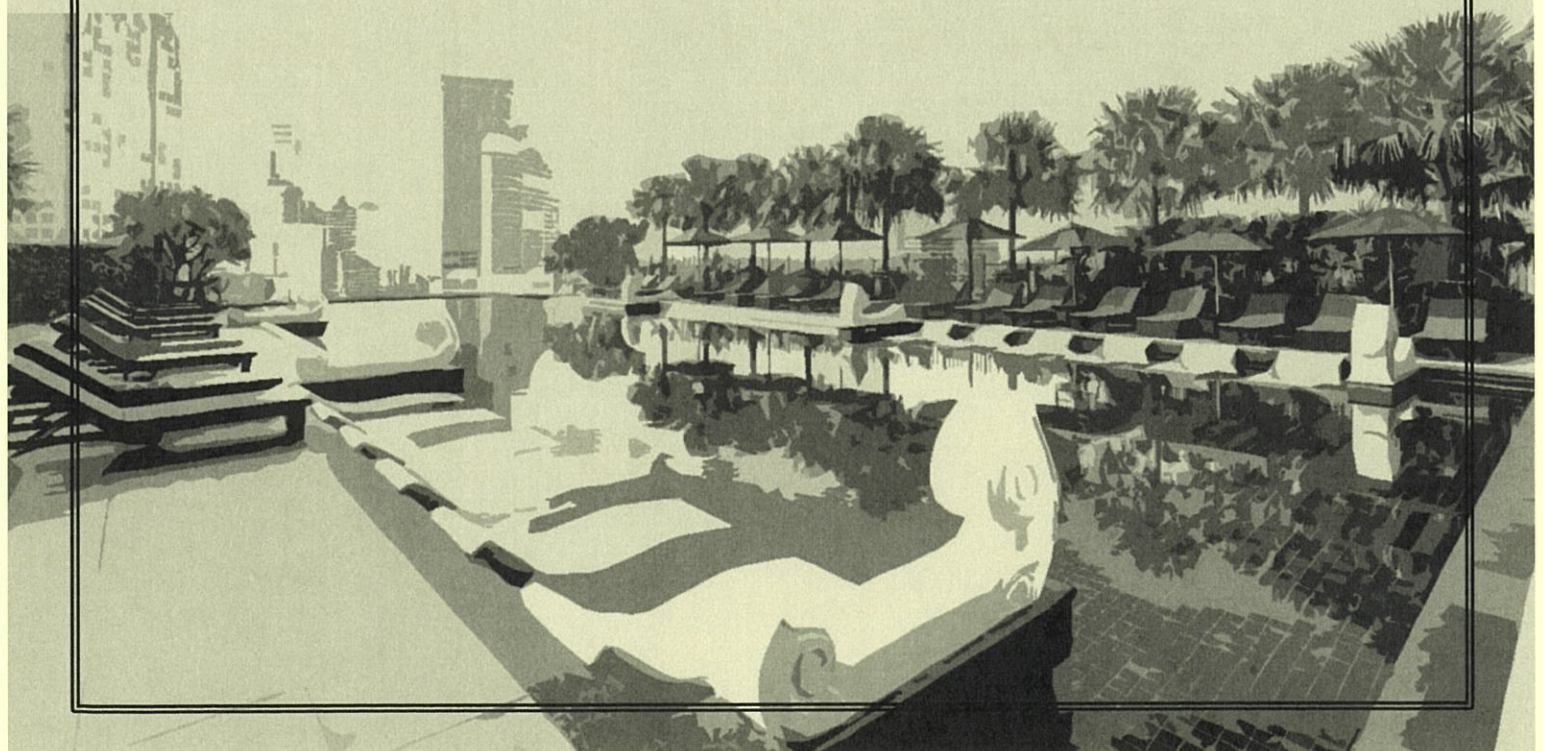
(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MAY 25, 2022



*Grande Centre Point*  
TERMINAL 21 · BANGKOK

รายงานผลการติดตามตรวจสอบคุณภาพน้ำทิ้ง  
เดือนมิถุนายน พ.ศ. 2565





## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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** : JUNE 1, 2022

**SAMPLING TIME** : 13:10 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : JUNE 1, 2022

**ANALYTICAL DATE** : JUNE 1-10, 2022

**REPORT NO.** : 2022-U044865

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AK453-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ถึงปรับสภาพน้ำ (ระบบบำบัด) T22AK453-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	8.2 (30°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	112	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	59.9	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	70.1	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
MICROBIOLOGY				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 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.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JUNE 17, 2022



## ANALYSIS REPORT

**PROJECT NAME** : การตรวจวัดคุณภาพสิ่งแวดล้อม และการตรวจสอบการปฏิบัติตามมาตรฐานการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
โครงการ GRANDE CENTRE POINT HOTEL TERMINAL 21 ประจำปี 2565

**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 1, 2022

**SAMPLING TIME** : 13:05 HOUR

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

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : JUNE 1, 2022

**ANALYTICAL DATE** : JUNE 1-10, 2022

**REPORT NO.** : 2022-U044866

**WORK NO.** : 2021-006039

**ANALYSIS NO.** : T22AK453-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ถังพักน้ำใส (ระบมบนำบัด) T22AK453-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.4 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	3.1	≤ 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 <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	5.6	≤ 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
			ถังพักน้ำใส (ระบบบำบัด) T22AK453-0002		
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/CLEAR		
SEDIMENT			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)

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MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 122,  
PART 125 D, DATED DECEMBER 29, 2005.

ND : NON-DETECTABLE.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JUNE 17, 2022