

ผลวิเคราะห์คุณภาพน้ำทิ้ง โครงการ KANTARY HOTEL AYUTTHAYA



United Analyst and Engineering Consultant Co., Ltd.

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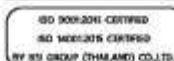


TESTING
No. 0063

ANALYSIS REPORT

CUSTOMER NAME	: RANGSIT PROSPER ESTATE COMPANY LIMITED (KANTARY HOTEL AYUTTHAYA)		
ADDRESS	: 168 MOO 1 ROJANA ROAD THANU UTHAI PHRA NAKHON SI AYUTTHAYA 13000		
CONTACT INFORMATION	: TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com		
SAMPLING SOURCE	: WASTEWATER TREATMENT PLANT OF KANTARY HOTEL AYUTTHAYA		
SAMPLE TYPE	: WASTEWATER	RECEIVED DATE	: JANUARY 14, 2021
SAMPLING DATE	: JANUARY 13, 2021	ANALYTICAL DATE	: JANUARY 14-20, 2021
SAMPLING TIME	: -	REPORT NO.	: 2021-U03245
SAMPLING METHOD	: -	WORK NO.	: 2020-009023
SAMPLING BY	: CUSTOMER	ANALYSIS NO.	: T21AA510-0001 - T21AA510-0002
ANALYZED BY	: MISS PORNPIMOL WAENTHONG		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T21AA510-0001	2 T21AA510-0002		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	7.0 (25°C)	7.6 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O ₂ C AND 5210 B)	293	4.9	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	218	ND	≤ 40	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 103-105 °C (SM: 2540 C)	552	438	500*	25
SETTLABLE SOLIDS ^b	mL/L	IM-HOFF CONE (SM: 2540 F)	4.5	< 0.1	≤ 0.5	0.1
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD UAE.TP.TN.02 (KJELDAHL METHOD); SM: 4500-Norg C	39.3	ND	≤ 35	15
SULPHIDE ^c	mg/L	IODOMETRIC METHOD (SM: 4500-S ²⁻ F)	1.58	ND	≤ 1.0	0.13
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	31	ND	≤ 20	3
RESIDUAL CHLORINE ^c	mg/L Cl ₂	DPD FERROUS TITRIMETRIC METHOD (SM: 4500-Cl F)	ND	ND	-	0.1



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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T21AA510-0001	2 T21AA510-0002		
MICROBIOLOGY						
COLIFORM BACTERIA [®]	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221 B)	>160,000	< 1.8	-	1.8
SAMPLE CONDITION						
WATER'S COLOUR/TURBID			YELLOW/TURBID	YELLOW/CLEAR		
SEDIMENT			BROWN	YELLOW		

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

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

^c : 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, 23RD EDITION, 2017.

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

RESULT 1 : INFLUENT

RESULT 2 : EFFLUENT

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.

500^g : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED
(TOTAL DISSOLVED SOLIDS STANDARD VALUE OF TAP WATER QUALITY IS 1,000 mg/L).

ND : NON-DETECTABLE

Piyapol S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

JANUARY 22, 2021

ANALYSIS REPORT

CUSTOMER NAME : RANGSIT PROSPER ESTATE COMPANY LIMITED
ADDRESS : 68 MOO 1 ROJANA ROAD THANU UTHAI PHRA NAKHON SI AYUTTHAYA 13000
CONTACT INFORMATION : TEL : 0 2233 8969-96 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HOTEL AYUTTHAYA
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : APRIL 1, 2021
SAMPLING TIME : -
SAMPLING METHOD : GRAB
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE
RECEIVED DATE : APRIL 1, 2021
ANALYTICAL DATE : APRIL 1-9, 2021
REPORT NO. : 2021-U23270
WORK NO. : 2021-002372
ANALYSIS NO. : T21AF563-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT T21AF563-0001		
pH °	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	7.8 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O ₂ C AND 5210 B)	4.1	≤ 30	2.0
SUSPENDED SOLIDS *	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	5.2	≤ 40	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 103-105 °C (SM: 2540 C)	392	500*	25
SETTLABLE SOLIDS °	mL/L	IM-HOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE °	mg/L	IODOMETRIC METHOD (SM: 4500-S ²⁻ F)	ND	≤ 1.0	0.13
TOTAL KJELDAHL NITROGEN °	mg/L	IN-HOUSE METHOD UAE/TP.TN.02 (KJELDAHL METHOD); SM: 4500-Norg C	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE *	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE °	mg/L Cl ₂	DPD FERROUS TITRIMETRIC METHOD (SM: 4500-Cl F)	ND	-	0.1



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T21AF563-0001	REGULATORY STANDARD	DETECTION LIMIT
MICROBIOLOGY					
COLIFORM BACTERIA ^a	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221 B)	< 18	-	18
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/CLEAR		
SEDIMENT			YELLOW		

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

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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.

500^c : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED
(TOTAL DISSOLVED SOLIDS STANDARD VALUE OF TAP WATER QUALITY IS 1,000 mg/L).

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 19, 2021

ผลวิเคราะห์ค่าสารที่ละลายทั้งหมด (Total dissolved solids; TDS)

ในน้ำใช้ (น้ำประปา) ของทางโครงการ Kantar Hotel Ayutthaya

(ตรวจวิเคราะห์ค่า TDS -น้ำประปา เพื่อใช้หาค่า TDS น้ำทิ้ง (หลังผ่านระบบบำบัดน้ำเสีย)



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ANALYSIS REPORT

CUSTOMER NAME : RANGSIT PROSPER ESTATE COMPANY LIMITED (KANTARY HOTEL AYUTTHAYA)
ADDRESS : 168 MOO 1 ROJANA ROAD THANU UTHAI PHRA NAKHON SI AYUTTHAYA 13000
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : k-j-qc@kasetmkj.com
SAMPLING SOURCE : KANTARY HOTEL AYUTTHAYA
SAMPLE TYPE : WATER SUPPLY
SAMPLING DATE : JANUARY 13, 2021
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS PORNPIMOL WAENTHONG
RECEIVED DATE : JANUARY 14, 2021
ANALYTICAL DATE : JANUARY 14-18, 2021
REPORT NO. : 2021-U03246
WORK NO. : 2020-009023
ANALYSIS NO. : T21AA510-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			WATER SUPPLY T21AA510-0003		
TOTAL DISSOLVED SOLIDS ¹⁾	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM 2540 C)	274	≤ 600	25
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR		
SEDIMENT					

¹⁾ : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

²⁾ : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

³⁾ : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

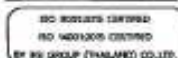
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

REGULATORY STANDARD : WATER SUPPLY STANDARDS, NOTIFICATION OF THE PROVINCIAL WATERWORKS AUTHORITY FOLLOW AS WORLD HEALTH ORGANIZATION (WHO) GUIDELINE VALUE, B.E. 2554 (2011).

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

JANUARY 22, 2021



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CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemij.com
SAMPLING SOURCE : KANTARY HOTEL AYUTTHAYA
SAMPLE TYPE : WATER SUPPLY
SAMPLING DATE : APRIL 1, 2021
SAMPLING TIME : -
SAMPLING METHOD : GRAB
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS PORNPIMOL WAENTHONG

RECEIVED DATE : APRIL 1, 2021
ANALYTICAL DATE : APRIL 1-8, 2021
REPORT NO. : 2021-023271
WORK NO. : 2021-002372
ANALYSIS NO. : T21AF563-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			WATER SUPPLY T21AF563-0002		
TOTAL DISSOLVED SOLIDS ^b	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM 2540 C)	201	≤ 800	25
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR		
SEDIMENT					

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

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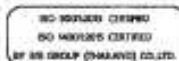
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

REGULATORY STANDARD : WATER SUPPLY STANDARDS, NOTIFICATION OF THE PROVINCIAL WATERWORKS AUTHORITY FOLLOW AS WORLD HEALTH ORGANIZATION (WHO) GUIDELINE VALUE, B.E. 2554 (2011).

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(MRS PIYAPAT SUTTAMANTWONG)
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APRIL 19, 2021



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