

ผลวิเคราะห์คุณภาพน้ำทิ้ง โครงการ KANTARY HOTEL AYUTTHAYA



United Analyst and Engineering Consultant Co., Ltd.

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NSC-TISI-TIS 17025
TESTING 0207



TESTING
No. 0063

ANALYSIS REPORT

CUSTOMER NAME : RANGSIT PROSPER ESTATE COMPANY LIMITED
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
SAMPLING DATE : MARCH 2, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : MARCH 3, 2022
ANALYTICAL DATE : MARCH 3-15, 2022
REPORT NO. : 2022-U019305
WORK NO. : 2022-001403
ANALYSIS NO. : T22AD938-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT T22AD938-0001		
pH ^a	-	ELECTROMETRIC METHOD (SM 4500-H ⁺ B)	7.6 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM 4500-O C AND 5210 B)	6.3	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM 2540 D)	7.4	≤ 40	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAO.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105 °C); SM 2540 C	348	500*	25
SETTLABLE SOLIDS ^c	ml/L	IMHOFF CONE (SM 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE ^c	mg/L	IODOMETRIC METHOD (SM 4500-S ²⁻ F)	ND	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM 4500-Norg C	< LOQ	≤ 35	15
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE ^c	mg/L Cl ₂	DPD FERROUS TITRIMETRIC METHOD (SM 4500-Cl F)	ND	-	0.1

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 ISO 14001:2015 CERTIFIED
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• REPORTED ANALYSIS REFERS TO SUBMITTED SAMPLE ONLY.

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT T22AD938-0001		
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			BROWN		

^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.

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^o : 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

MARCH 16, 2022

ANALYSIS REPORT

CUSTOMER NAME : RANGSIT PROSPER ESTATE COMPANY LIMITED
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
SAMPLING DATE : JUNE 2, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JUNE 2, 2022
ANALYTICAL DATE : JUNE 2-13, 2022
REPORT NO. : 2022-U04698
WORK NO. : 2022-003836
ANALYSIS NO. : T22AKS33-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT T22AK533-0001		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	7.3 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^b	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O ₂ C AND 5210 B)	ND	≤ 30	2.0
SUSPENDED SOLIDS ^c	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	6.8	≤ 40	5.0
TOTAL DISSOLVED SOLIDS ^d	mg/L	IN-HOUSE METHOD: UAE.TP.WAO.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105 °C); SM 2540 C	408	500*	25
SETTLABLE SOLIDS ^e	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE ^f	mg/L	IODOMETRIC METHOD (SM: 4500-S ²⁻ F)	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN ^h	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM 4500-Norg C	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE ^g	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE ⁱ	mg/L Cl ₂	DPD FERROUS TITRIMETRIC METHOD (SM: 4500-Cl F)	ND	-	0.1



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT T22AK533-0001		
MICROBIOLOGY					
COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	< 1.8	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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

^b : 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.

500^a : 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 : < LIMIT OF QUANTITATION (TOTAL KJELDAHL NITROGEN ≥ 1.5 AND < 5.0 mg/L).

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

JUNE 17, 2022

ผลวิเคราะห์ค่าสารที่ละลายทั้งหมด (Total dissolved solids; TDS)

ในน้ำใช้ (น้ำประปา) ของทางโครงการ Kantar Hotel Ayutthaya

(ตรวจวิเคราะห์ค่า TDS -น้ำประปา เพื่อใช้หาค่า TDS น้ำทิ้ง (หลังผ่านระบบบำบัดน้ำเสีย)



United Analyst and Engineering Consultant Co., Ltd.

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NSC-TISI-TIS 17025
TESTING 0207



TESTING
No. 0063

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT T22AK533-0001		
MICROBIOLOGY					
COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	< 1.8	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/CLEAR		
SEDIMENT			BROWN		

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

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500^c : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED
(TOTAL DISSOLVED SOLIDS STANDARD VALUE OF TAP WATER QUALITY IS 1000 mg/L).

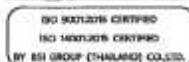
ND : NON-DETECTABLE.

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

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

JUNE 17, 2022



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2022-U044698

ANALYSIS REPORT

CUSTOMER NAME : RANGSIT PROSPER ESTATE COMPANY LIMITED
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 : KANTARY HOTEL AYUTTHAYA
SAMPLE TYPE : WATER SUPPLY
SAMPLING DATE : MARCH 2, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS PORNPIMOL WAENTHONG

RECEIVED DATE : MARCH 3, 2022
ANALYTICAL DATE : MARCH 3-8, 2022
REPORT NO. : 2022-U019307
WORK NO. : 2022-001403
ANALYSIS NO. : T22AD938-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			WATER SUPPLY T22AD938-0002		
TOTAL DISSOLVED SOLIDS ^a	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C)	234	≤ 600	25
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR		
SEDIMENT			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

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

MARCH 16, 2022

