

ผลวิเคราะห์คุณภาพน้ำทิ้งของโครงการ KANTARY HILLS HOTEL CHIANGMAI อาคาร A



United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260

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NSC-TISI-TIS 17025
TESTING 0207



TESTING
No. 0063

ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : JULY 26, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JULY 27, 2022
ANALYTICAL DATE : JULY 27 - AUGUST 9, 2022
REPORT NO. : 2022-U061819
WORK NO. : 2022-005461
ANALYSIS NO. : T22A0884-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT (BUILDING A) T22A0884-0001		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.9 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	8.2	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	11.1	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	6.8	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
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)

^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.

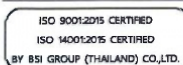
REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS B, NOTIFICATION OF THE MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 122, PART 125 D, DATED DECEMBER 29, 2005.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

AUGUST 11, 2022



• DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL .

• REPORTED ANALYSIS REFERS TO SUBMITTED SAMPLE ONLY.

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ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : AUGUST 4, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 5, 2022
ANALYTICAL DATE : AUGUST 5-17, 2022
REPORT NO. : 2022-U063813
WORK NO. : 2022-005824
ANALYSIS NO. : T22AP426-0001 - T22AP426-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AP426-0001	2 T22AP426-0002		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.7 (25°C)	6.9 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	492	13.4	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	1,387	9.4	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	61.7	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	38	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	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)

^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 (BUILDING A)

RESULT 2 : EFFLUENT (BUILDING A)

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.

ND : NON-DETECTABLE.

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

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

AUGUST 18, 2022

ISO 9001:2015 CERTIFIED
ISO 14001:2015 CERTIFIED
BY BSI GROUP (THAILAND) CO., LTD.

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ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : SEPTEMBER 26, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 28, 2022
ANALYTICAL DATE : SEPTEMBER 28 - OCTOBER 4, 2022
REPORT NO. : 2022-U078888
WORK NO. : 2022-007083
ANALYSIS NO. : T22AT195-0001 - T22AT195-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AT195-0001	2 T22AT195-0002		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.9 (25°C)	6.9 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	970	21.1	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	1,458	15.8	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	203	9.3	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	197	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	YELLOW/TURBID BROWN		

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

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^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 (BUILDING A)

RESULT 2 : EFFLUENT (BUILDING A)

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.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 10, 2022



ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : OCTOBER 17, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE
RECEIVED DATE : OCTOBER 19, 2022
ANALYTICAL DATE : OCTOBER 19-27, 2022
REPORT NO. : 2022-U084691
WORK NO. : 2022-007960
ANALYSIS NO. : T22AU740-0001 - T22AU740-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AU740-0001	2 T22AU740-0002		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.9 (25°C)	6.8 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	1,344	7.2	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	1,138	5.0	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	137	5.5	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	271	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	YELLOW/TURBID 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.

RESULT 1 : INFLUENT (BUILDING A)

RESULT 2 : EFFLUENT (BUILDING A)

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.

ND : NON-DETECTABLE.

Benjawan V.

(MISS BENJAWAN VIRIYOTHAI)
LABORATORY SUPERVISOR

NOVEMBER 1, 2022

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ISO 14001:2015 CERTIFIED
BY SSI GROUP (THAILAND) CO., LTD.

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ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER **RECEIVED DATE** : NOVEMBER 10, 2022
SAMPLING DATE : NOVEMBER 9, 2022 **ANALYTICAL DATE** : NOVEMBER 10-17, 2022
SAMPLING TIME : - **REPORT NO.** : 2022-U092131
SAMPLING METHOD : - **WORK NO.** : 2022-008792
SAMPLING BY : CUSTOMER **ANALYSIS NO.** : T22AW454-0001 - T22AW454-0002
ANALYZED BY : MISS AMONRAT PUTTALEE

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AW454-0001	2 T22AW454-0002		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.5 (25°C)	7.0 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	1,695	13.0	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	3,898	11.9	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	170	9.8	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	326	ND	≤ 20	3
SAMPLE CONDITION						
WATER'S COLOUR/TURBID			BROWN/TURBID	YELLOW/CLEAR		
SEDIMENT			BROWN	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.

RESULT 1 : INFLUENT (BUILDING A)

RESULT 2 : EFFLUENT (BUILDING A)

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.

ND : NON-DETECTABLE

Benjawan V.

(MISS BENJAWAN VIRIYOTHAI)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022



ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : DECEMBER 12, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALAE
RECEIVED DATE : DECEMBER 13, 2022
ANALYTICAL DATE : DECEMBER 13-22, 2022
REPORT NO. : 2022-U102061
WORK NO. : 2022-009601
ANALYSIS NO. : T22AY781-0001 - T22AY781-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AY781-0001	2 T22AY781-0002		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.6 (25°C)	7.3 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	2,100	4.4	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	2,685	ND	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	130	5.7	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	6	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	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)

^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 (BUILDING A)

RESULT 2 : EFFLUENT (BUILDING A)

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.

ND : NON-DETECTABLE.

Benjawan V.

(MISS BENJAWAN VIRIYOTHAI)
LABORATORY SUPERVISOR

DECEMBER 26, 2022



ผลวิเคราะห์คุณภาพน้ำทิ้งของโครงการ KANTARY HILLS HOTEL CHIANGMAI อาคาร B



United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260

Tel. 0 2763 2828 Fax 0 2763 2800 www.uaec consultant.com E-mail: uae@uaec consultant.com



NSC-TISI-TIS 17025
TESTING 0207



TESTING
No. 0063

ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : JULY 26, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JULY 27, 2022
ANALYTICAL DATE : JULY 27 - AUGUST 9, 2022
REPORT NO. : 2022-U061822
WORK NO. : 2022-005461
ANALYSIS NO. : T22AO884-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT (BUILDING B) T22AO884-0002		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.8 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	2.3	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	17.0	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
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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IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

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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.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

AUGUST 11, 2022



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ANALYSIS REPORT

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ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : AUGUST 4, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 5, 2022
ANALYTICAL DATE : AUGUST 5-17, 2022
REPORT NO. : 2022-U063815
WORK NO. : 2022-005824
ANALYSIS NO. : T22AP426-0003 - T22AP426-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AP426-0003	2 T22AP426-0004		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.6 (25°C)	6.6 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O ₂ C AND 5210 B)	588	ND	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	1,058	10.2	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	137	12.1	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	30	ND	≤ 20	3
SAMPLE CONDITION						
WATER'S COLOUR/TURBID			YELLOW/TURBID	YELLOW/CLEAR		
SEDIMENT			BROWN	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.

RESULT 1 : INFLUENT (BUILDING B)

RESULT 2 : EFFLUENT (BUILDING B)

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.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

AUGUST 18, 2022

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

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ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : SEPTEMBER 26, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 28, 2022
ANALYTICAL DATE : SEPTEMBER 28 - OCTOBER 4, 2022
REPORT NO. : 2022-U078889
WORK NO. : 2022-007083
ANALYSIS NO. : T22AT195-0003 - T22AT195-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AT195-0003	2 T22AT195-0004		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	7.3 (25°C)	6.6 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	306	7.7	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	264	5.4	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	112	8.0	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	8	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	YELLOW/TURBID 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.

RESULT 1 : INFLUENT (BUILDING B)

RESULT 2 : EFFLUENT (BUILDING B)

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.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 10, 2022

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ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : OCTOBER 17, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 19, 2022
ANALYTICAL DATE : OCTOBER 19-27, 2022
REPORT NO. : 2022-U084692
WORK NO. : 2022-007960
ANALYSIS NO. : T22AU740-0003 - T22AU740-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AU740-0003	2 T22AU740-0004		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	7.2 (25°C)	6.7 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	188	2.4	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	153	5.8	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	120	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	10	ND	≤ 20	3
SAMPLE CONDITION						
WATER'S COLOUR/TURBID			YELLOW/TURBID	YELLOW/CLEAR		
SEDIMENT			BROWN	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.

RESULT 1 : INFLUENT (BUILDING B)

RESULT 2 : EFFLUENT (BUILDING B)

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.

ND : NON-DETECTABLE.

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

Benjawan V.

(MISS BENJAWAN VIRIYOTHA)
LABORATORY SUPERVISOR

NOVEMBER 1, 2022

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ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : NOVEMBER 9, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 10, 2022
ANALYTICAL DATE : NOVEMBER 10-17, 2022
REPORT NO. : 2022-U092132
WORK NO. : 2022-008792
ANALYSIS NO. : T22AW454-0003 - T22AW454-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AW454-0003	2 T22AW454-0004		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.3 (25°C)	6.4 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	658	2.6	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	513	ND	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	139	8.0	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	10	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	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)

^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 (BUILDING B)

RESULT 2 : EFFLUENT (BUILDING B)

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.

ND : NON-DETECTABLE.

Benjawan V.

(MISS BENJAWAN VIRIYOTHAI)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022



ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : DECEMBER 12, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 13, 2022
ANALYTICAL DATE : DECEMBER 13-22, 2022
REPORT NO. : 2022-U102063
WORK NO. : 2022-009601
ANALYSIS NO. : T22AY781-0003 - T22AY781-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AY781-0003	2 T22AY781-0004		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.8 (25°C)	6.9 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	180	6.6	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	141	8.5	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	49.3	5.2	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	15	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	YELLOW/TURBID 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.

RESULT 1 : INFLUENT (BUILDING B)

RESULT 2 : EFFLUENT (BUILDING B)

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.

ND : NON-DETECTABLE.

Benjawan V.

(MISS BENJAWAN VIRIYOTHAI)
LABORATORY SUPERVISOR

DECEMBER 26, 2022

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ผลวิเคราะห์คุณภาพน้ำทิ้งของโครงการ KANTARY HILLS HOTEL CHIANGMAI อาคาร C



United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260

Tel. 0 2763 2828 Fax 0 2763 2800 www.uaec consultant.com E-mail: uae@uaec consultant.com



NSC-TISI-TIS 17025
TESTING 0207



TESTING
No. 0063

ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : JULY 26, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JULY 27, 2022
ANALYTICAL DATE : JULY 27 - AUGUST 9, 2022
REPORT NO. : 2022-U061824
WORK NO. : 2022-005461
ANALYSIS NO. : T22A0884-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT (BUILDING C) T22A0884-0003		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	7.5 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	11.8	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	10.0	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	12.6	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
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)

^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.

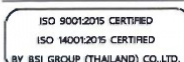
REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS B, NOTIFICATION OF THE MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL. 122, PART 125 D, DATED DECEMBER 29, 2005.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

AUGUST 11, 2022



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• REPORTED ANALYSIS REFERS TO SUBMITTED SAMPLE ONLY.

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ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : AUGUST 4, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 5, 2022
ANALYTICAL DATE : AUGUST 5-17, 2022
REPORT NO. : 2022-U063816
WORK NO. : 2022-005824
ANALYSIS NO. : T22AP426-0005 - T22AP426-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AP426-0005	2 T22AP426-0006		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	6.8 (25°C)	6.8 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	378	7.6	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	1,189	6.6	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	121	6.8	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	22	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	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)

^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 (BUILDING C)

RESULT 2 : EFFLUENT (BUILDING C)

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.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

AUGUST 18, 2022

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ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : SEPTEMBER 26, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE
RECEIVED DATE : SEPTEMBER 28, 2022
ANALYTICAL DATE : SEPTEMBER 28 - OCTOBER 4, 2022
REPORT NO. : 2022-U078890
WORK NO. : 2022-007083
ANALYSIS NO. : T22AT195-0005 - T22AT195-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AT195-0005	2 T22AT195-0006		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	7.3 (25°C)	7.3 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	27.2	4.2	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	27.7	ND	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	25.2	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	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)

^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 (BUILDING C)

RESULT 2 : EFFLUENT (BUILDING C)

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.

ND : NON-DETECTABLE

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

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 10, 2022

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ISO 14001:2015 CERTIFIED
BY BSI GROUP (THAILAND) CO., LTD.

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• REPORTED ANALYSIS REFERS TO SUBMITTED SAMPLE ONLY.

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ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : OCTOBER 17, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 19, 2022
ANALYTICAL DATE : OCTOBER 19-27, 2022
REPORT NO. : 2022-U084693
WORK NO. : 2022-007960
ANALYSIS NO. : T22AU740-0005 - T22AU740-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AU740-0005	2 T22AU740-0006		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	7.2 (25°C)	6.5 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	402	2.6	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	890	10.1	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	125	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	22	ND	≤ 20	3
SAMPLE CONDITION						
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	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)

^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 (BUILDING C)

RESULT 2 : EFFLUENT (BUILDING C)

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.

ND : NON-DETECTABLE.

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

Benjawan V.

(MISS BENJAWAN VIRIYOTHAI)
LABORATORY SUPERVISOR

NOVEMBER 1, 2022



ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : NOVEMBER 9, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 10, 2022
ANALYTICAL DATE : NOVEMBER 10-17, 2022
REPORT NO. : 2022-U092133
WORK NO. : 2022-008792
ANALYSIS NO. : T22AW454-0005 - T22AW454-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AW454-0005	2 T22AW454-0006		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	7.4 (25°C)	6.5 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	141	6.0	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	213	7.5	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	117	8.4	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	5	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	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)

^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 (BUILDING C)

RESULT 2 : EFFLUENT (BUILDING C)

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.

ND : NON-DETECTABLE.

Benjawan V.

(MISS BENJAWAN VIRIYOTHA)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

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• REPORTED ANALYSIS REFERS TO SUBMITTED SAMPLE ONLY.

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ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ COMPANY LIMITED (KANTARY HILLS HOTEL CHIANG MAI)
ADDRESS : 44, 44 / 1-4 NIMMANHEMIN ROAD SUTHEP MUEANG CHIANG MAI CHIANG MAI
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY HILLS HOTEL CHIANGMAI
SAMPLE TYPE : WASTEWATER **RECEIVED DATE** : DECEMBER 13, 2022
SAMPLING DATE : DECEMBER 12, 2022 **ANALYTICAL DATE** : DECEMBER 13-22, 2022
SAMPLING TIME : - **REPORT NO.** : 2022-U102064
SAMPLING METHOD : - **WORK NO.** : 2022-009601
SAMPLING BY : CUSTOMER **ANALYSIS NO.** : T22AY781-0005 - T22AY781-0006
ANALYZED BY : MISS AMONRAT PUTTALEE

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T22AY781-0005	2 T22AY781-0006		
pH ^a	-	ELECTROMETRIC METHOD (SM: 4500-H ⁺ B)	7.3 (25°C)	6.9 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	136	3.4	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	236	5.0	≤ 40	5.0
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	93.8	7.3	≤ 35	1.5
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	8	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	YELLOW/TURBID 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.

RESULT 1 : INFLUENT (BUILDING C)

RESULT 2 : EFFLUENT (BUILDING C)

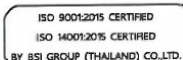
REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS B, NOTIFICATION OF THE MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 122, PART 125 D, DATED DECEMBER 29, 2005.

ND : NON-DETECTABLE.



(MISS BENJAWAN VIRIYOTHA)
LABORATORY SUPERVISOR

DECEMBER 26, 2022



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