

ภาคผนวก

ภาคผนวก ก	มาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม และ มาตรการติดตามตรวจสอบผลกระทบสิ่งแวดล้อม
ภาคผนวก ข	ใบรายงานผลการวิเคราะห์คุณภาพสิ่งแวดล้อม
ภาคผนวก ค	เอกสารประกอบการปฏิบัติตามมาตรการป้องกันและแก้ไข ผลกระทบสิ่งแวดล้อม
ภาคผนวก ง	เอกสารสอบเทียบเครื่องมือ
ภาคผนวก จ	หนังสือขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์
ภาคผนวก ฉ	มาตรฐานที่เกี่ยวข้อง

ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 12:00 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057556
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการตรวจ T22AN192-0002		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H+ B)	7.6 (32°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	60.6	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	25.6	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 09:50 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057557
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรียนรู้ และวิจัย จุดอาคาร ศูนย์การเรียนรู้ T22AN192-0003		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.9 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	62.0	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	30.7	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	3	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
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

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 A, NOTIFICATION OF THE
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PART 125 D, DATED DECEMBER 29, 2005.

ND : NON-DETECTABLE.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

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SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 10:10 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057558
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรือนริ และวิจัย จดอาคาร ปรักคณิกและศูนย์วิจัย T22AN192-0004		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	82.4	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	174	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	11	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			GREY/TURBID		
SEDIMENT			GREY		

^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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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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
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CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 13:00 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057559
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 1 T22AN192-0005		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	83.7	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	45.9	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	3	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 12:40 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057560
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 2 T22AN192-0006		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.0 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	156	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	193	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	4	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.


(MISS CHAWEEWAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
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CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 13:10 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057561
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 3 T22AN192-0007		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	93.3	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	118	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	4	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

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SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 13:20 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057562
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 4 T22AN192-0008		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.5 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	68.8	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	31.0	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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ND : NON-DETECTABLE.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
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SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 12:30 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JULY 5, 2022
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REPORT NO. : 2022-U057563
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการตรวจหาสาร T22AN192-0009		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	71.7	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	41.5	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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


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ND : NON-DETECTABLE.


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(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

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SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 12:20 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057564
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0010

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอดักเจ้าน้ำที่ T22AN192-0010		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	52.0	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	20.7	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 11:40 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057565
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0011

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการ วิเคราะห์ T22AN192-0011		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.8 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	389	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	239	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	48	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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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.


.....
(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 11:30 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057566
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0012

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			โรงจอดรถ และซ่อมบำรุงรถ T22AN192-0012		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.0 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	174	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	105	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	7	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			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

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 A, NOTIFICATION OF THE
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PART 125 D, DATED DECEMBER 29, 2005.

ND : NON-DETECTABLE.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 10:55 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057567
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0013

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			สถานีไฟฟ้าลอบ T22AN192-0013		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.1 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	130	-	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)

^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 : 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 10:30 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057568
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0014

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการวิเคราะห์ T22AN192-0014		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.0 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	400	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	90.8	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	8	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			GREY/TURBID GREY		

^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 : 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.


(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 11:10 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-18, 2022
REPORT NO. : 2022-U057569
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0015

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคาร บำบัดน้ำเสียรวม T22AN192-0015		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.3 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	2.1	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
FLOW RATE ^c	m ³ /hr	CURRENT METER AND CALCULATION	19.3	-	-
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	49	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR 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 : 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 13:40 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057570
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0016

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ม่อนว่งน้ำทางด้านทิศตะวันตกใกล้กับอาคารโรงพยาบาล T22AN192-0016		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.0 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	40.8	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	2,400	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
SEDIMENT			BROWN		

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

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ND : NON-DETECTABLE.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 13:30 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057571
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0017

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อนำทางด้าน ทิศตะวันออกใกล้กับ อาคารนันทนาการ T22AN192-0017		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.1 (32°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	2.2	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	11.0	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	460	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/CLEAR		
SEDIMENT			GREEN		

^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

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REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS A, NOTIFICATION OF THE
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PART 125 D, DATED DECEMBER 29, 2005.

ND : NON-DETECTABLE.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : JULY 5, 2022
SAMPLING TIME : 10:45 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR APISIT SRIKONGKAEW
ANALYZED BY : MISS AMONRAT PUTTAALEE

RECEIVED DATE : JULY 5, 2022
ANALYTICAL DATE : JULY 5-14, 2022
REPORT NO. : 2022-U057572
WORK NO. : 2022-004580
ANALYSIS NO. : T22AN192-0018

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการสุ่มน้ำ T22AN192-0018		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.4 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	6.0	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	16.2	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	7,000	-	1.8
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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

JULY 25, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 10:15 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066654
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ค่ามาตรฐาน และที่ปรึกษา T22AP620-0001		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.9 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	4.7	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	6.0	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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

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

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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 10:30 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066655
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการตรวจ T22AP620-0002		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	51.3	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	30.6	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 09:45 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066656
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรียนรู้ และวิจัย จุฬาลงกรณ์ ศูนย์การเรียนรู้ T22AP620-0003		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	16.8	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	14.2	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 10:00 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALÉE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066657
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรือนรู้ และวิจัย จุฬาลงกรณ์ มหาวิทยาลัย T22AP620-0004		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H+ B)	7.6 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	73.6	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	171	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			GREY/TURBID GREY		

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

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

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

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 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.

Chaweevan B.

(MISS CHAWEEWAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 12:10 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066658
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 1 T22AP620-0005		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	72.4	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	39.4	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 12:00 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066659
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 2 T22AP620-0006		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.0 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	60.2	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	30.3	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.



(MISS CHAWEEWAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 11:55 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066660
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลพิกัดศึกษา และบุคลากร 3 T22AP620-0007		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	56.0	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	46.2	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	6	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Chaweevan B.

(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 11:45 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066661
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 4 T22AP620-0008		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	104	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	39.7	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	4	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 12:20 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066662
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการวิเคราะห์ T22AP620-0009		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	69.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	42.5	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID GREY		

^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 : 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 11:30 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066663
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0010

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลพิกษาณนำที่ T22AP620-0010		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.0 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	40.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	17.6	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 09:30 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066664
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0011

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคารวิศวกรรม บริการ T22AP620-0011		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	54.3	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	22.6	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 09:20 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066665
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0012

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			โรงจอดรถ และซ่อมบำรุงรถ T22AP620-0012		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.8 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	42.4	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	35.3	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	3	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 11:15 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066667
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0013

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			สถานีไฟฟ้าผอขม T22AP620-0013		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.0 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	2,600	-	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)

^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 : 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 10:40 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066668
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0014

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการพิเคราะห์ T22AP620-0014		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	6.7 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	218	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	98.9	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	23	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 11:10 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-23, 2022
REPORT NO. : 2022-U066669
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0015

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคาร บำบัดน้ำเสียรวม T22AP620-0015		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (29°C)	5-9	-
FLOW RATE ^c	m ³ /hr	CURRENT METER AND CALCULATION	22.33	-	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	2.0	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR 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 : 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 12:45 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066671
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0016

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อน้ำทางด้าน ทิศตะวันตกใกล้กับ อาคารโรงพยาบาล T22AP620-0016		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.3 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	5.8	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	21.0	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	33	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID GREEN		

^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 : 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 12:30 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066673
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0017

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อน้ำทางด้าน ทิศตะวันออกใกล้กับ อาคารนันทนาการ T22AP620-0017		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.9 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	5.2	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	11.3	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	1,100	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
SEDIMENT			GREEN		

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

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

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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : AUGUST 9, 2022
SAMPLING TIME : 10:50 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : AUGUST 9, 2022
ANALYTICAL DATE : AUGUST 9-16, 2022
REPORT NO. : 2022-U066675
WORK NO. : 2022-004580
ANALYSIS NO. : T22AP620-0018

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการสุ่มน้ำ T22AP620-0018		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H+ B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	18.9	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	149	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	92,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

AUGUST 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 09:45 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075709
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ค่ามาตรฐาน และที่ปรึกษา T22AR497-0001		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	5.9	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	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)

^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 : 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.


 (MISS CHAWEEWAN BOONLA)
 LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 09:00 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075710
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการตรวจ T22AR497-0002		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	89.4	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	57.3	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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 : 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.


(MISS CHAWEEWAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 09:30 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075711
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรือนรู้ และวิจัย จดอาคาร ศูนย์การเรือนรู้ T22AR497-0003		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	7.8	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	9.4	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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

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

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

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 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.


 (MISS CHAWEEVAN BOONLA)
 LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 09:35 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075713
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรียนรู้ และวิจัย จุฬาลงกรณ์ มหาวิทยาลัย T22AR497-0004		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	76.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	35.8	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	14	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.


 (MISS CHAWEEVAN BOONLA)
 LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 10:55 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075715
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 1 T22AR497-0005		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H* B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	47.8	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	39.8	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.


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(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 10:50 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075717
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 2 T22AR497-0006		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	80.8	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	35.6	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.


 (MISS CHAWEEWAN BOONLA)
 LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 10:45 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075719
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 3 T22AR497-0007		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.5 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	52.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	46.8	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	7	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.


.....
(MISS CHAWEEWAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 10:40 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075721
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษา และบุคลากร 4 T22AR497-0008		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	99.2	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	37.4	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.


.....
(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 11:10 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075761
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการตรวจวิเคราะห์ T22AR497-0009		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.5 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	80.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	24.1	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID GREY		

^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 : 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.



(MISS CHAWEEWAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 10:35 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075763
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0010

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักเจ้าหน้าที่ T22AR497-0010		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	33.5	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	15.5	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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

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

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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

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CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 10:05 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075766
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0011

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการวิเคราะห์ บริการ T22AR497-0011		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H+ B)	7.3 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	57.3	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	45.6	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID GREY		

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

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

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

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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.


(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 10:10 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075772
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0012

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			โรงจวดรต และซ่อมบำรุงรต T22AR497-0012		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H* B)	7.5 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	35.8	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	20.1	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.


(MISS CHAWEEWAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 10:15 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075775
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0013

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			สถานีไฟฟ้าขอม T22AR497-0013		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.8 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	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)

^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 : 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.


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(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 10:00 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075778
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0014

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคารพิภพ T22AR497-0014		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.4 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	73.4	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	61.1	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.


(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 10:25 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075780
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0015

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคาร บำบัดน้ำเสียรวม T22AR497-0015		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H+ B)	7.6 (29°C)	5-9	-
FLOW RATE °	m³/hr	CURRENT METER AND CALCULATION	31	-	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	330	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR YELLOW		

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

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

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

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

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ND : NON-DETECTABLE.


(MISS CHAWEEWAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
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CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 11:25 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075782
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0016

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อน้ำทางด้าน ทิศตะวันตกใกล้กับ อาคารโรงพยาบาล T22AR497-0016		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.8 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	2.1	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	15.8	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	4,600	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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

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

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

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

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PART 125 D, DATED DECEMBER 29, 2005.

ND : NON-DETECTABLE.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 11:20 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075783
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0017

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อน้ำทางด้านทิศตะวันออกใกล้กับอาคารนันทนาการ T22AR497-0017		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.0 (3°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	7.1	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	17.5	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	17,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			GREEN/TURBID GREEN		

^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 : 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 09:55 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U075788
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR497-0018

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคารสุมน้ำ T22AR497-0018		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.5 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	7.4	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	33.4	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.



(MISS CHAWEEVAN BOONLA)
LABORATORY SUPERVISOR

OCTOBER 3, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : SURFACE WATER
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 11:40 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR ACHITA SAENGJAN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U071983
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR496-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ผลของสี T22AR496-0001	
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H° B)	7.6 (30°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: 2550 B)	30	-
DISSOLVED OXYGEN °	mg/L	AZIDE MODIFICATION METHOD AT SITE (SM: 4500-O C)	3.6	0.5
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	5.8	1.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	28.2	5.0
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			GREEN/TURBID GREEN	

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

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

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

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

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

SEPTEMBER 20, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : SURFACE WATER
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 12:00 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR ACHITA SAENGJAN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U071984
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR496-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			คลองสุวรรณี T22AR496-0002	
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H° B)	7.6 (30°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: 2550 B)	30	-
DISSOLVED OXYGEN °	mg/L	AZIDE MODIFICATION METHOD AT SITE (SM: 4500-O C)	2.6	0.5
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	3.4	1.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	26.3	5.0
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	3
SAMPLE CONDITION				
WATER'S COLOUR/TURBID			GREEN/TURBID	
SEDIMENT			GREEN	

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

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

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

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

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

SEPTEMBER 20, 2022



ANALYSIS REPORT

CUSTOMER NAME	: CHAKRI NARUEBODINDRA MEDICAL INSTITUTE	RECEIVED DATE	: SEPTEMBER 6, 2022
ADDRESS	: 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540	ANALYTICAL DATE	: SEPTEMBER 6-13, 2022
CONTACT INFORMATION	: TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu	REPORT NO.	: 2022-U071985
SAMPLING SOURCE	: RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL	WORK NO.	: 2022-004580
SAMPLE TYPE	: SURFACE WATER	ANALYSIS NO.	: T22AR496-0003
SAMPLING DATE	: SEPTEMBER 6, 2022		
SAMPLING TIME	: 11:50 HOUR		
SAMPLING METHOD °	: GRAB		
SAMPLING BY °	: MR ACHITA SAENGJAN		
ANALYZED BY	: MISS AMONRAT PUTTALEE		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			คล่องตาสา T22AR496-0003	
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H° B)	7.8 (31°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: 2550 B)	31	-
DISSOLVED OXYGEN °	mg/L	AZIDE MODIFICATION METHOD AT SITE (SM: 4500-O C)	4.7	0.5
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	11.9	1.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	119	5.0
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	3
SAMPLE CONDITION				
WATER'S COLOUR/TURBID			GREEN/TURBID	
SEDIMENT			GREEN	

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

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

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

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

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

SEPTEMBER 20, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : SURFACE WATER
SAMPLING DATE : SEPTEMBER 6, 2022
SAMPLING TIME : 11:35 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR ACHITA SAENGJAN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 6, 2022
ANALYTICAL DATE : SEPTEMBER 6-13, 2022
REPORT NO. : 2022-U071986
WORK NO. : 2022-004580
ANALYSIS NO. : T22AR496-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ผลการตรวจ T22AR496-0004	
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H° B)	7.7 (30°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: 2550 B)	30	-
DISSOLVED OXYGEN °	mg/L	AZIDE MODIFICATION METHOD AT SITE (SM: 4500-O C)	4.1	0.5
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	2.7	1.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	12.5	5.0
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

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

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

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

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

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

SEPTEMBER 20, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 13:50 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083665
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศาลาประชาม และพิพิธภัณฑ T22AT672-0001		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.3 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	4.6	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	9.2	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	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)

^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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09.2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 14:40 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083666
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการตรวจ T22AT672-0002		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	27.9	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	17.3	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 13:30 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083667
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรียนรู้และ วิจัย จุดอาคารศูนย์ การเรียนรู้ T22AT672-0003		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.5 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	20.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	14.4	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	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)

^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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 13:40 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083668
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรียนรู้และ วิจัย อนาคต ประเทศไทย T22AT672-0004		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.5 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	58.0	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	38.1	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 15:20 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083669
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและบุคลากร 1 T22AT672-0005		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.4 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	133	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	73.7	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
SEDIMENT			BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 15:05 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083670
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ อาคาร 2 T22AT672-0006		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.1 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	62.6	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	33.7	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 15:00 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083672
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ บุคลากร 3 T22AT672-0007		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.1 (24°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	50.1	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	35.0	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 14:55 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083673
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ บุคลากร 4 T22AT672-0008		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.0 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	65.8	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	40.5	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 15:10 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083675
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคารนิพนธ์การ T22AT672-0009		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H° B)	7.6 (27°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	36.7	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	20.7	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 14:50 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083676
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0010

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หฟฟกเจรณนทที่ T22AT672-0010		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H° B)	7.7 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	16.4	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	17.2	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1.
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 14:30 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083677
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0011

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคารวิศวกรรม บริการ T22AT672-0011		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.5 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	30.4	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	27.0	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 14:35 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083678
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0012

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			โรงจอดรค และซ่อม ปารุงรค T22AT672-0012		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.8 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	16.8	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	18.9	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 14:20 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083679
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0013

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			สถานีไฟฟ้าอบบ T22AT672-0013		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H+ B)	7.6 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	3.4	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	9.1	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	35,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 14:05 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083680
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0014

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการวิเคราะห์ T22AT672-0014		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	31.4	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	35.2	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 14:10 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-17, 2022
REPORT NO. : 2022-U083681
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0015

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการป้ดน้ำเสียบ รวม T22AT672-0015		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H° B)	7.6 (30°C)	5-9	-
FLOW RATE °	m³/hr	CURRENT METER AND CALCULATION	32.5	-	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	5.3	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	330	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 14:45 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083682
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0016

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อน้ำทางด้านทิศตะวันตกใกล้กับอาคารโรงพยาบาล T22AT672-0016		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H° B)	7.9 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	3.8	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	23.8	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	920	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/CLEAR		
SEDIMENT			GREEN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 15:30 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083683
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0017

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อน้ำทางด้านทิศตะวันออกใกล้กับอาคารนันทนาการ T22AT672-0017		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.1 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	7.3	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	12.1	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	11,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR GREEN		

^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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : OCTOBER 4, 2022
SAMPLING TIME : 14:00 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083684
WORK NO. : 2022-004580
ANALYSIS NO. : T22AT672-0018

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคารสุมน้ำ T22AT672-0018		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.5 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	11.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	27.9	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	92,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : -
SAMPLE TYPE : BLANK (BUILDING EFFLUENT)
SAMPLING DATE : -
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : -
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : OCTOBER 4, 2022
ANALYTICAL DATE : OCTOBER 4-12, 2022
REPORT NO. : 2022-U083685
WORK NO. : 2022-004580
ANALYSIS NO. : 2022-FB1019, 2022-TB0992

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			1 2022-FB1019	2 2022-TB0992	
BIOCHEMICAL OXYGEN DEMAND	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	ND	2.0
SUSPENDED SOLIDS	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	ND	5.0
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	ND	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	< 1.8	< 1.8	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR -	COLOURLESS/CLEAR -	

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

RESULT 1 : FIELD BLANK

RESULT 2 : TRIP BLANK

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 14:30 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089239
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศาลาประชาม และพิพิธภัณฑ T22AV662-0001		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	4.3	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	8.1	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR 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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 14:40 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALÉE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089240
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการตรวจ T22AV662-0002		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	68.2	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	25.3	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 14:10 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089241
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรียนรู้และวิจัย จุดอาคารศูนย์การเรียนรู้ T22AV662-0003		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.8 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	33.7	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	18.7	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 14:20 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089242
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเริ่มรับและ วิจัย จดอาคาร ปรีคณิก T22AV662-0004		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	74.2	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	31.6	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME	: CHAKRI NARUEBODINDRA MEDICAL INSTITUTE	RECEIVED DATE	: NOVEMBER 1, 2022
ADDRESS	: 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540	ANALYTICAL DATE	: NOVEMBER 1-8, 2022
CONTACT INFORMATION	: TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu	REPORT NO.	: 2022-U089243
SAMPLING SOURCE	: RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL	WORK NO.	: 2022-004580
SAMPLE TYPE	: BUILDING EFFLUENT	ANALYSIS NO.	: T22AV662-0005
SAMPLING DATE	: NOVEMBER 1, 2022		
SAMPLING TIME	: 16:20 HOUR		
SAMPLING METHOD	: GRAB, GRAB AND STERILE TECHNIQUE		
SAMPLING BY	: MR PEERAPAT BANYATSIN		
ANALYZED BY	: MISS AMONRAT PUTTALEE		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ บุคลากร 1 T22AV662-0005		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.4 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	104	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	39.0	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 16:10 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089244
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ บุคลากร 2 T22AV662-0006		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.9 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	83.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	31.4	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	6	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 16:40 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089245
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ บุคลากร 3 T22AV662-0007		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	77.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	32.1	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 16:30 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089246
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ บุคลากร 4 T22AV662-0008		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	77.7	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	25.1	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 16:00 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089247
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคารนันทนาการ T22AV662-0009		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.7 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	55.8	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	30.0	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID GREY		

^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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 15:50 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089249
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0010

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลพิกเจ้าน้ำที่ T22AV662-0010		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.8 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	37.1	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	14.8	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 15:40 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089250
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0011

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคารวิศวกรรม บริการ T22AV662-0011		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.2 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	147	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	223	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	7	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	2,400	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			BROWN/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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 15:30 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089251
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0012

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			โรงจวดรด และพ้อม ปารุงรด T22AV662-0012		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.5 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	139	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	46.0	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	5	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 15:10 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089252
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0013

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			สถานีไฟฟ้าขอม T22AV662-0013		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.9 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	16.7	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	11.5	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	4	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR GREY		

^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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME	: CHAKRI NARUEBODINDRA MEDICAL INSTITUTE	RECEIVED DATE	: NOVEMBER 1, 2022
ADDRESS	: 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540	ANALYTICAL DATE	: NOVEMBER 1-8, 2022
CONTACT INFORMATION	: TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu	REPORT NO.	: 2022-U089253
SAMPLING SOURCE	: RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL	WORK NO.	: 2022-004580
SAMPLE TYPE	: BUILDING EFFLUENT	ANALYSIS NO.	: T22AV662-0014
SAMPLING DATE	: NOVEMBER 1, 2022		
SAMPLING TIME	: 15:00 HOUR		
SAMPLING METHOD	: GRAB, GRAB AND STERILE TECHNIQUE		
SAMPLING BY	: MR PEERAPAT BANYATSIN		
ANALYZED BY	: MISS AMONRAT PUTTALEE		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการวิเคราะห์ T22AV662-0014		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.2 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	543	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	172	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	11	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID GREY		

^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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 15:20 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-10, 2022
REPORT NO. : 2022-U089254
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0015

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการบำบัด น้ำเสียรวม T22AV662-0015		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (30°C)	5-9	-
FLOW RATE ^c	m ³ /hr	CURRENT METER AND CALCULATION	21.1	-	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	< 1.8	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
 LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 16:50 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089255
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0016

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อนำทางด้าน ทิศตะวันตกใกล้กับ อาคารโรงพยาบาล T22AV662-0016		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.2 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	4.3	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	18.2	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	110	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID GREEN		

^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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : NOVEMBER 1, 2022
SAMPLING TIME : 17:00 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PEERAPAT BANYATSIN
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 1, 2022
ANALYTICAL DATE : NOVEMBER 1-8, 2022
REPORT NO. : 2022-U089256
WORK NO. : 2022-004580
ANALYSIS NO. : T22AV662-0017

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อนำทางด้าน ทิศตะวันออกใกล้กับ อาคารนันทนาการ T22AV662-0017		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.1 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	6.2	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	15.8	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	790	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
SEDIMENT			GREEN		

^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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME	: CHAKRI NARUEBODINDRA MEDICAL INSTITUTE	RECEIVED DATE	: NOVEMBER 1, 2022
ADDRESS	: 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540	ANALYTICAL DATE	: NOVEMBER 1-8, 2022
CONTACT INFORMATION	: TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu	REPORT NO.	: 2022-U089257
SAMPLING SOURCE	: RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL	WORK NO.	: 2022-004580
SAMPLE TYPE	: BUILDING EFFLUENT	ANALYSIS NO.	: T22AV662-0018
SAMPLING DATE	: NOVEMBER 1, 2022		
SAMPLING TIME	: 14:50 HOUR		
SAMPLING METHOD	: GRAB, GRAB AND STERILE TECHNIQUE		
SAMPLING BY	: MR PEERAPAT BANYATSIN		
ANALYZED BY	: MISS AMONRAT PUTTALEE		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการสุ่มน้ำ T22AV662-0018		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.0 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	2.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	13.1	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	54,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 13:35 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099960
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศาลาประชาม และพิธีภักดี T22AY301-0001		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.5 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	6.6	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	30.4	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 13:45 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099961
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการตรวจ T22AY301-0002		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H+ B)	7.8 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	28.3	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	25.5	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 13:30 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099962
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรียนรู้และ วิจัย จุดอาคารศูนย์ การเรียนรู้ T22AY301-0003		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.8 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	79.0	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	33.4	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 15:20 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099963
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ศูนย์การเรียนรู้และวิจัย จุฬาลงกรณ์มหาวิทยาลัย T22AY301-0004		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	72.0	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	60.7	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 15:00 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099966
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ บุคลากร 1 T22AY301-0005		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.4 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	72.2	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	31.1	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	3	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 14:55 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099967
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ บุคลากร 2 T22AY301-0006		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.8 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	68.8	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	31.0	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 14:40 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099968
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ บุคลากร 3 T22AY301-0007		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	46.0	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	19.5	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 14:35 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099969
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอพักนักศึกษาและ บุคลากร 4 T22AY301-0008		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	71.1	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	33.0	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	3	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 14:50 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099970
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการวิเคราะห์ T22AY301-0009		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	53.4	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	48.0	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 14:30 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099971
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0010

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			หอยพักเจ้าหน้าที่ T22AY301-0010		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.8 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	23.0	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	24.1	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 14:15 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099972
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0011

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการวิเคราะห์ บริการ T22AY301-0011		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	51.0	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	41.7	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
SEDIMENT			BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 14:20 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099973
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0012

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			รับรอง และ ชี้แจง ปารุณ T22AY301-0012		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.3 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	125	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	73.9	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	10	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 14:00 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099974
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0013

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคารพิษขยะ T22AY301-0013		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.2 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	134	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	101	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	5	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 14:05 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099977
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0016

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			สถานีไฟฟ้าผอ.มย T22AY301-0016		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.6 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	7,900	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR 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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 13:50 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099975
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0014

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			อาคารบำบัด น้ำเสียรวม T22AY301-0014		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.1 (30°C)	5-9	-
FLOW RATE ^c	m ³ /hr	CURRENT METER AND CALCULATION	18	-	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	2.2	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	ND	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	49	-	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)

^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 : 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 13:15 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099978
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0017

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ม่อนนางน้ำทางด้าน ทิศตะวันตกใกล้กับ อาคารโรงพยาบาล T22AY301-0017		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	7.3 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	3.5	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	26.7	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	130	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 15:10 HOUR
SAMPLING METHOD ^c : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^c : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099979
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0018

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อน้ำทางด้านทิศตะวันออกใกล้กับอาคารนิทรรศการ T22AY301-0018		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H ⁺ B)	8.1 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	7.9	≤ 20	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	15.3	≤ 30	5.0
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	24,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022



ANALYSIS REPORT

CUSTOMER NAME : CHAKRI NARUEBODINDRA MEDICAL INSTITUTE
ADDRESS : 111 MOO 14 BANG PLA BANG PHLI SAMUT PRAKAN 10540
CONTACT INFORMATION : TEL : 09 2492 8914 e-mail : pakwipa.pai@mahidol.edu
SAMPLING SOURCE : RAMADHIBODI CHAKRI NARUEBODINDRA HOSPITAL
SAMPLE TYPE : BUILDING EFFLUENT
SAMPLING DATE : DECEMBER 6, 2022
SAMPLING TIME : 13:55 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR PHATSAWUT THOSAKOON
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 6, 2022
ANALYTICAL DATE : DECEMBER 6-14, 2022
REPORT NO. : 2022-U099976
WORK NO. : 2022-004580
ANALYSIS NO. : T22AY301-0015

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลการสุ่มน้ำ T22AY301-0015		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H° B)	7.2 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	7.1	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	36.6	≤ 30	5.0
FREE CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA °	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	54,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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

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 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.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 19, 2022

