

ANALYSIS REPORT

CUSTOMER NAME : NONGKHAINAYU CO., LTD.
ADDRESS : 223/61 14TH FLOOR, COUNTRY COMPLEX TOWER A, SANPAWUT RD, BANG NA BANG NA BANGKOK 10260
CONTACT INFORMATION : TEL : 086-8216191 e-mail : jetchan.c@supercorp.co.th
SAMPLING SOURCE : บริษัท หนองคายนาอยู่ จำกัด จังหวัดหนองคาย
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : APRIL 30, 2024
SAMPLING TIME : 09:25 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PRACHCHAPOL SOPHA
ANALYZED BY : MISS AKSARIN BUNKONG

RECEIVED DATE : MAY 2, 2024
ANALYTICAL DATE : MAY 2-13, 2024
ISSUE DATE : MAY 28, 2024
REPORT NO. : 2024-U045196
WORK NO. : 2023-008979
ANALYSIS NO. : T24AJ107-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			น้ำเสียก่อนเข้าระบบ บำบัดน้ำเสีย T24AJ107-0001	
pH	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H ⁺ B AND 1060 B	8.7 (36°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	36	-
FLOW RATE	m ³ /hr	CURRENT METER AND CALCULATION	0	-
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	ND	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	4,114	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	10,968	25.0
TOTAL SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	363	5.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	25,700	25
OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	38	3
METALS				
CADMIUM	mg/L Cd	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ	0.002
LEAD	mg/L Pb	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ	0.015
MANGANESE	mg/L Mn	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	0.342	0.004
MERCURY	mg/L Hg	COLD VAPOUR AAS METHOD (SM: PART 3112 B)	ND	0.0005
ZINC	mg/L Zn	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	0.998	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			น้ำเสียก่อนเข้าระบบ บำบัดน้ำเสีย T24AJ107-0001	
MICROBIOLOGY				
COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	230	1.8
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 E)	< 1.8	1.8
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			BROWN/TURBID GREY	

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

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

ND : NON-DETECTABLE.

< LOQ : < LIMIT OF QUANTITATION (CADMIUM ≥ 0.002 AND < 0.020 mg/L, LEAD ≥ 0.015 AND < 0.200 mg/L).

Bhuchonk p.

(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

ANALYSIS REPORT

CUSTOMER NAME	: NONGKHAINAYU CO., LTD.	RECEIVED DATE	: MAY 2, 2024
ADDRESS	: 223/61 14TH FLOOR, COUNTRY COMPLEX TOWER A, SANPHAWUT RD, BANG NA BANG NA BANGKOK 10260	ANALYTICAL DATE	: MAY 2-13, 2024
CONTACT INFORMATION	: TEL : 086-8216191 e-mail : jetchan.c@supercorp.co.th	ISSUE DATE	: MAY 28, 2024
SAMPLING SOURCE	: บริษัท หนองคายนาอูญ จำกัด จังหวัดหนองคาย	REPORT NO.	: 2024-U045197
SAMPLE TYPE	: EFFLUENT	WORK NO.	: 2023-008979
SAMPLING DATE	: APRIL 30, 2024	ANALYSIS NO.	: T24AJ107-0002
SAMPLING TIME	: 09:10 HOUR		
SAMPLING METHOD	: GRAB, GRAB AND STERILE TECHNIQUE		
SAMPLING BY	: MR PRACHCHAPOL SOPHA		
ANALYZED BY	: MISS AKSARIN BUNKONG		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 300 ลูกบาศก์เมตร T24AJ107-0002		
pH	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H ⁺ B AND 1060 B	8.9 (30°C)	5.5-9.0	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	30	≤ 40	-
FLOW RATE	m ³ /hr	CURRENT METER AND CALCULATION	0	-	-
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	3.7	-	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	6.6	≤ 20	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	75.5	≤ 120	25.0
TOTAL SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	8.7	≤ 50	5.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	2,734	≤ 3,000	25
OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
METALS					
CADMIUM	mg/L Cd	IN-HOUSE METHOD: UAE.TP.IV.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ	≤ 0.03	0.002
LEAD	mg/L Pb	IN-HOUSE METHOD: UAE.TP.IV.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	ND	≤ 0.2	0.015
MANGANESE	mg/L Mn	IN-HOUSE METHOD: UAE.TP.IV.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ	≤ 5.0	0.004
MERCURY	mg/L Hg	COLD VAPOUR AAS METHOD (SM: PART 3112 B)	ND	≤ 0.005	0.0005
ZINC	mg/L Zn	IN-HOUSE METHOD: UAE.TP.IV.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	0.136	≤ 5.0	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			มัลทิทิวทิวบ์เริ่มต้น กลับมาใช้ใหม่ ความจุ 300 ลูกบาศก์เมตร T24AJ107-0002		
MICROBIOLOGY					
COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	< 1.8	-	1.8
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221E)	< 1.8	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR GREEN		

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

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

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

< LOQ : < LIMIT OF QUANTITATION (CADMIUM ≥ 0.002 AND < 0.020 mg/L, MANGANESE ≥ 0.004 AND < 0.050 mg/L).

Bhuchonk P.

(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

ANALYSIS REPORT

CUSTOMER NAME : NONGKHAINAYU CO., LTD.
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CONTACT INFORMATION : TEL : 086-8216191 e-mail : jetchan.c@supercorp.co.th
SAMPLING SOURCE : บริษัท นองคายน้ำอยู่ จำกัด จังหวัดนongคาย
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : APRIL 30, 2024
SAMPLING TIME : 08:55 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR PRACHCHAPOL SOPHA
ANALYZED BY : MISS AKSARIN BUNKONG

RECEIVED DATE : MAY 2, 2024
ANALYTICAL DATE : MAY 2-13, 2024
ISSUE DATE : MAY 28, 2024
REPORT NO. : 2024-U045198
WORK NO. : 2023-008979
ANALYSIS NO. : T24AJ107-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 2,500 ลูกบาศก์เมตร T24AJ107-0003		
pH	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H ⁺ B AND 1060 B	7.5 (31°C)	5.5-9.0	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	31	≤ 40	-
FLOW RATE	m ³ /hr	CURRENT METER AND CALCULATION	0	-	-
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	4.3	-	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	< 2.0	≤ 20	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	63.4	≤ 120	25.0
TOTAL SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	ND	≤ 50	5.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	1,506	≤ 3,000	25
OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
METALS					
CADMIUM	mg/L Cd	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ	≤ 0.03	0.002
LEAD	mg/L Pb	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ	≤ 0.2	0.015
MANGANESE	mg/L Mn	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ	≤ 5.0	0.004
MERCURY	mg/L Hg	COLD VAPOUR AAS METHOD (SM: PART 3112 B)	ND	≤ 0.005	0.0005
ZINC	mg/L Zn	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	0.328	≤ 5.0	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 2,500 ลูกบาศก์เมตร T24AJ107-0003		
MICROBIOLOGY					
COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B)	490	-	1.8
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221E)	490	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/CLEAR		
SEDIMENT			BROWN		

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

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

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

< LOQ : < LIMIT OF QUANTITATION (CADMIUM ≥ 0.002 AND < 0.020 mg/L, LEAD ≥ 0.015 AND < 0.200 mg/L,
MANGANESE ≥ 0.004 AND < 0.050 mg/L).



(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

ANALYSIS REPORT

CUSTOMER NAME : NONGKHAINAYU CO., LTD.
ADDRESS : 223/61 14TH FLOOR, COUNTRY COMPLEX TOWER A, SANPHAWUT RD, BANG NA BANG NA BANGKOK 10260
CONTACT INFORMATION : TEL : 086-8216191 e-mail : jetchan.c@supercorp.co.th
SAMPLING SOURCE : -
SAMPLE TYPE : BLANK (WASTEWATER) **RECEIVED DATE** : MAY 2, 2024
SAMPLING DATE : - **ANALYTICAL DATE** : MAY 2-13, 2024
SAMPLING TIME : - **ISSUE DATE** : MAY 28, 2024
SAMPLING METHOD : - **REPORT NO.** : 2024-U045195
SAMPLING BY : - **WORK NO.** : 2023-008979
ANALYZED BY : MISS AKSARIN BUNKONG **ANALYSIS NO.** : 2024-FB0419, 2024-TB0408

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			1 2024-FB0419	2 2024-TB0408	
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	< 2.0	< 2.0	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	ND	ND	25.0
TOTAL SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	ND	ND	5.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	ND	ND	25
OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	ND	3
METALS					
CADMIUM	mg/L Cd	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	ND	ND	0.002
LEAD	mg/L Pb	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	ND	ND	0.015
MANGANESE	mg/L Mn	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	ND	ND	0.004
MERCURY	mg/L Hg	COLD VAPOUR AAS METHOD (SM: PART 3112 B)	ND	ND	0.0005
ZINC	mg/L Zn	IN-HOUSE METHOD: UAE.TP.IW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	ND	ND	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			1	2	
			2024-FB0419	2024-TB0408	
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 E)	< 1.8	< 1.8	1.8
COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	< 1.8	< 1.8	1.8
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 E)	< 1.8	< 1.8	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR	COLOURLESS/CLEAR	
SEDIMENT			-	-	

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

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

RESULT 1 : FIELD BLANK

RESULT 2 : TRIP BLANK

ND : NON-DETECTABLE.

Bhuchonk p.

(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR