

## 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** : บริษัท นองคายนาอยู่ จำกัด จังหวัดนongคาย  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : JUNE 27, 2024  
**SAMPLING TIME** : 09:40 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR PRACHCHAPOL SOPHA  
**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : JUNE 28, 2024  
**ANALYTICAL DATE** : JUNE 28 - JULY 16, 2024  
**ISSUE DATE** : JULY 19, 2024  
**REPORT NO.** : 2024-U065877  
**WORK NO.** : 2023-008979  
**ANALYSIS NO.** : T24AO502-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			น้ำเสียบก่อนเข้าระบบ บำบัดน้ำเสีย T24AO502-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	8.2 (31°C)	-
TEMPERATURE <sup>c</sup>	°C	LABORATORY AND FIELD METHODS (SM: PART 2550 B)	31	-
FLOW RATE <sup>c</sup>	m³/s	CURRENT METER AND CALCULATION	0	-
DISSOLVED OXYGEN <sup>c</sup>	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O G	ND	0.5
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	1,005	2.0
CHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	4,774	25.0
TOTAL SUSPENDED SOLIDS <sup>a</sup>	mg/L	DRIED FROM 103 TO 105 °C (SM: PART 2540 D)	342	5.0
TOTAL DISSOLVED SOLIDS <sup>c</sup>	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	15,720	25
FAT OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	11	3
<b>METALS</b>				
CADMIUM <sup>c</sup>	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	0.005
LEAD <sup>c</sup>	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	0.020
MANGANESE <sup>c</sup>	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.343	0.005
MERCURY <sup>c</sup>	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	ND	0.0005
ZINC <sup>c</sup>	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.460	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			น้ำเสียก่อนเข้าระบบ บำบัดน้ำเสีย T24A0502-0001	
MICROBIOLOGY				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B AND C)	< 1.8	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B, C AND E)	< 1.8	1.8
SAMPLE CONDITION				
WATER'S COLOUR/TURBID			BROWN/TURBID	
SEDIMENT			BLACK	

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24<sup>th</sup> EDITION, 2023.

ND : NOT DETECTED.

< LOQ : < LIMIT OF QUANTITATION (LEAD  $\geq$  0.020 AND < 0.200 mg/L).

*Bhuchonk p.*

(MR BHUCHONK PANICHLERTUMPI)  
LABORATORY SUPERVISOR

## 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 หนงคายน้ำอยู่ จำกัด จังหวัดหนองคาย  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : JUNE 27, 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** : JUNE 28, 2024  
**ANALYTICAL DATE** : JUNE 28 - JULY 16, 2024  
**ISSUE DATE** : JULY 19, 2024  
**REPORT NO.** : 2024-U065878  
**WORK NO.** : 2023-008979  
**ANALYSIS NO.** : T24AO502-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ผลพิก้าน้ำหนนเวียน กลับมามีใหม่ ความจ 300 ลูกบาศก์เมตร T24AO502-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	7.8 (29°C)	5.5-9.0	-
TEMPERATURE <sup>c</sup>	°C	LABORATORY AND FIELD METHODS (SM: PART 2550 B)	29	≤ 40	-
FLOW RATE <sup>c</sup>	m <sup>3</sup> /s	CURRENT METER AND CALCULATION	0	-	-
DISSOLVED OXYGEN <sup>c</sup>	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O G	4.2	-	0.5
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	6.7	≤ 20	2.0
CHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	36.8	≤ 120	25.0
TOTAL SUSPENDED SOLIDS <sup>a</sup>	mg/L	DRIED FROM 103 TO 105 °C (SM: PART 2540 D)	6.6	≤ 50	5.0
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	743	≤ 3,000	25
OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
<b>METALS</b>					
CADMIUM <sup>c</sup>	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.005
LEAD <sup>c</sup>	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	≤ 0.2	0.020
MANGANESE <sup>c</sup>	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	≤ 5.0	0.005
MERCURY <sup>c</sup>	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	ND	≤ 0.005	0.0005
ZINC <sup>c</sup>	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.265	≤ 5.0	0.003





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 300 ลูกบาศก์เมตร T24AO502-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B AND C)	1,300	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B, C AND E)	490	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID  BROWN		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24<sup>th</sup> EDITION, 2023.

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 : NOT DETECTED.

< LOQ : < LIMIT OF QUANTITATION (LEAD  $\geq 0.020$  AND < 0.200 mg/L, MANGANESE  $\geq 0.005$  AND < 0.050 mg/L).

*Bhuchonk*

(MR BHUCHONK PANICHLERTUMPI)  
LABORATORY SUPERVISOR

## 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 นองคายน้ำอยู่ จำกัด จังหวัดนongคาย  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : JUNE 27, 2024  
**SAMPLING TIME** : 09:10 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR PRACHCHAPOL SOPHA  
**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : JUNE 28, 2024  
**ANALYTICAL DATE** : JUNE 28 - JULY 16, 2024  
**ISSUE DATE** : JULY 19, 2024  
**REPORT NO.** : 2024-U065879  
**WORK NO.** : 2023-008979  
**ANALYSIS NO.** : T24AO502-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ข้อพิพาทน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 2,500 ลูกบาศก์เมตร T24AO502-0003		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	7.6 (28°C)	5.5-9.0	-
TEMPERATURE <sup>c</sup>	°C	LABORATORY AND FIELD METHODS (SM: PART 2550 B)	28	≤ 40	-
FLOW RATE <sup>c</sup>	m <sup>3</sup> /s	CURRENT METER AND CALCULATION	0	-	-
DISSOLVED OXYGEN <sup>c</sup>	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O G	3.4	-	0.5
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.3	≤ 20	2.0
CHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	33.0	≤ 120	25.0
TOTAL SUSPENDED SOLIDS <sup>a</sup>	mg/L	DRIED FROM 103 TO 105 °C (SM: PART 2540 D)	6.2	≤ 50	5.0
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	721	≤ 3,000	25
OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
<b>METALS</b>					
CADMIUM <sup>c</sup>	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.005
LEAD <sup>c</sup>	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.2	0.020
MANGANESE <sup>c</sup>	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	≤ 5.0	0.005
MERCURY <sup>c</sup>	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	ND	≤ 0.005	0.0005
ZINC <sup>c</sup>	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.242	≤ 5.0	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 2,500 ลูกบาศก์เมตร T24A0502-0003		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B AND C)	3,300	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B, C AND E)	790	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/CLEAR		
SEDIMENT			BROWN		

<sup>a</sup> : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

<sup>b</sup> : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24<sup>th</sup> EDITION, 2023.

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 : NOT DETECTED.

< LOQ : < LIMIT OF QUANTITATION (MANGANESE  $\geq 0.005$  AND < 0.050 mg/L).

*Bhuchonk p.*

(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** : JUNE 28, 2024  
**SAMPLING DATE** : - **ANALYTICAL DATE** : JUNE 28 - JULY 16, 2024  
**SAMPLING TIME** : - **ISSUE DATE** : JULY 19, 2024  
**SAMPLING METHOD** : - **REPORT NO.** : 2024-U065880  
**SAMPLING BY** : MR PRACHCHAPOL SOPHA **WORK NO.** : 2023-008979  
**ANALYZED BY** : MISS AKSARIN BUNKONG **ANALYSIS NO.** : 2024-FB0623, 2024-TB0607

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			1 2024-FB0623	2 2024-TB0607	
BIOCHEMICAL OXYGEN DEMAND	mg/L	5-DAY BOD TEST, 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	DRIED FROM 103 TO 105 °C (SM: PART 2540 D)	ND	ND	5.0
TOTAL DISSOLVED SOLIDS	mg/L	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
<b>METALS</b>					
CADMIUM	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	ND	0.005
LEAD	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	ND	0.020
MANGANESE	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	ND	0.005
MERCURY	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	ND	ND	0.0005
ZINC	mg/L Zn	DIGESTION, 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 2024-FB0623	2 2024-TB0607	
MICROBIOLOGY					
COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B AND C)	< 1.8	< 1.8	1.8
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B, C AND 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, 24<sup>th</sup> EDITION, 2023.

RESULT 1 : FIELD BLANK

RESULT 2 : TRIP BLANK

ND : NOT DETECTED.

*Bhuchonk p.*

(MR BHUCHONK PANICHLERTUMPI)  
LABORATORY SUPERVISOR