

ภาคผนวก ข  
ใบรายงานผลการติดตามตรวจสอบผลกระทบสิ่งแวดล้อม

---





**JAE** United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA ST RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : e-mail :  
**SAMPLING SOURCE** :  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : MARCH 7, 2024  
**SAMPLING TIME** : 12:15 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR. THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : MARCH 8, 2024  
**ANALYTICAL DATE** : MARCH 8-18, 2024  
**ISSUE DATE** : MARCH 19, 2024  
**REPORT NO.** : 2024-U022704  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AE807-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (SM: PART 4500-H B)	7.1 (25°C)	-
TEMPERATURE <sup>c</sup>	°C	THERMOMETER AT SITE (SM: PART 2550 B)	38	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	128	2.0
CHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	304	25.0
TOTAL SUSPENDED SOLIDS <sup>a</sup>	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	137	5.0
TOTAL DISSOLVED SOLIDS <sup>c</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	16,150	25
SULPHIDE <sup>c</sup>	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S <sup>b</sup> D)	0.11	0.02
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	71	3
CYANIDE <sup>c</sup>	mg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 0.005	0.005
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			BROWN/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, 23<sup>rd</sup> EDITION, 2017.  
RELEASE ORDER NO. : EV-07-03-002

(MRS. PIYAPAT SUTTANANUTWONG)  
LABORATORY SUPERVISOR  
MARCH 20, 2024

**JAE** United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA ST RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : e-mail :  
**SAMPLING SOURCE** :  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : MARCH 7, 2024  
**SAMPLING TIME** : 12:15 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR. THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : MARCH 8, 2024  
**ANALYTICAL DATE** : MARCH 8-12, 2024  
**ISSUE DATE** : MARCH 19, 2024  
**REPORT NO.** : 2024-U022706  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AE807-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
TOTAL SOLIDS	mg/L	TOTAL SOLIDS DRIED AT 103-105 °C (SM: PART 2540 B)	19,625	25
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			BROWN/TURBID BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
RELEASE ORDER NO. : EV-07-03-002

(MRS. PIYAPAT SUTTANANUTWONG)  
LABORATORY SUPERVISOR  
MARCH 20, 2024



**United Analyst and Engineering Consultant Co., Ltd.**  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel: 0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

**United Analyst and Engineering Consultant Co., Ltd.**  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel: 0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

**United Analyst and Engineering Consultant Co., Ltd.**  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel: 0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

## ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : [REDACTED] e-mail : [REDACTED]  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : JUNE 6, 2024  
**SAMPLING TIME** : 09:05 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : JUNE 7, 2024  
**ANALYTICAL DATE** : JUNE 7-13, 2024  
**ISSUE DATE** : JUNE 18, 2024  
**REPORT NO.** : 2024-U053310  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AM380-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LHW001 : INLET API T24AM380-0001 6.5 (25°C)	DETECTION LIMIT
pH <sup>c</sup>	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	42	-
TEMPERATURE <sup>c</sup>	°C	THERMOMETER (AT SITE) SM: PART 2550 B	192	2.0
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O <sub>2</sub> G)	370	25.0
CHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	64.0	5.0
TOTAL SUSPENDED SOLIDS <sup>a</sup>	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	2,581	25
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	0.11	0.02
SULPHIDE <sup>c</sup>	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S <sup>-</sup> D)	39	3
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.044	0.005
CYANIDE <sup>c</sup>	mg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	BROWN/TURBID BROWN	
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT				

<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.  
RELEASE ORDER NO. : EV-06-06-002

(MRS PIYAPAT SUTTAMANTWONG)  
LABORATORY SUPERVISOR

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.



1/1

- End of Analysis Report -

## ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : [REDACTED] e-mail : [REDACTED]  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : JUNE 6, 2024  
**SAMPLING TIME** : 09:05 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : JUNE 7, 2024  
**ANALYTICAL DATE** : JUNE 7-10, 2024  
**ISSUE DATE** : JUNE 18, 2024  
**REPORT NO.** : 2024-U053314  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AM380-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LHW001 : INLET API T24AM380-0002 2.712	DETECTION LIMIT
TOTAL SOLIDS	mg/L	TOTAL SOLIDS DRIED AT 103-105 °C (SM: PART 2540 B)	BROWN/TURBID BROWN	25
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT				

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24<sup>th</sup> EDITION, 2023.  
RELEASE ORDER NO. : EV-06-06-002

(MRS PIYAPAT SUTTAMANTWONG)  
LABORATORY SUPERVISOR

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.



1/1

- End of Analysis Report -





United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA GLOM BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLING SOURCE :  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : MARCH 7, 2024  
SAMPLING TIME : 10:55 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR. THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM  
RECEIVED DATE : MARCH 8, 2024  
ANALYTICAL DATE : MARCH 8-18, 2024  
ISSUE DATE : MARCH 19, 2024  
REPORT NO. : 2024-U022711  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AE807-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	7.3 (25°C)	-
TEMPERATURE <sup>c</sup>	°C	THERMOMETER AT SITE (SM: PART 2550 B)	32	-
BIO-CHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O <sub>2</sub> C)	< 2.0	2.0
CHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	80.8	25.0
TOTAL SUSPENDED SOLIDS <sup>a</sup>	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	7.4	5.0
TOTAL DISSOLVED SOLIDS <sup>c</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36.925	25
SULPHIDE <sup>d</sup>	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S <sup>2-</sup> D)	< 0.02	0.02
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.9	3
CYANIDE <sup>e</sup>	mg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 0.005	0.005
SAMPLE CONDITION				
WATER'S COLOUR/TURBID			YELLOW/CLEAR	
SEDIMENT			BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-07-03-002

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

PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/1

End of Analysis Report -

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLING SOURCE :  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : MARCH 7, 2024  
SAMPLING TIME : 10:55 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR. THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM  
RECEIVED DATE : MARCH 8, 2024  
ANALYTICAL DATE : MARCH 8-12, 2024  
ISSUE DATE : MARCH 19, 2024  
REPORT NO. : 2024-U022712  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AE807-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
TOTAL SOLIDS	mg/L	TOTAL SOLIDS DRIED AT 103-105 °C (SM: PART 2540 B)	42.975	25
SAMPLE CONDITION				
WATER'S COLOUR/TURBID			YELLOW/CLEAR	
SEDIMENT			BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
RELEASE ORDER NO. : EV-07-03-002

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

PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/1

End of Analysis Report -





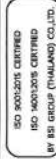
ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SKIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLING SOURCE :  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : JUNE 6, 2024  
SAMPLING TIME : 10:00 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUNOKKHUM  
RECEIVED DATE : JUNE 7, 2024  
ANALYTICAL DATE : JUNE 7-13, 2024  
ISSUE DATE : JUNE 18, 2024  
REPORT NO. : 2024-U053318  
WORK NO. : 2019-00202  
ANALYSIS NO. : T24AM380-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	7.7 (25°C)	-
TEMPERATURE <sup>c</sup>	°C	THERMOMETER (AT SITE) SM: PART 2550 B	33	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O <sub>2</sub> G)	3.0	2.0
CHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	68.2	25.0
TOTAL SUSPENDED SOLIDS <sup>a</sup>	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	9.7	5.0
TOTAL DISSOLVED SOLIDS <sup>c</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	38.940	25
SULPHIDE <sup>c</sup>	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S <sup>2</sup> D)	< 0.02	0.02
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	3
CYANIDE <sup>c</sup>	mg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 0.005	0.005
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR 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.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-06-06-002



\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.



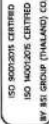
- End of Analysis Report -

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SKIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLING SOURCE :  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : JUNE 6, 2024  
SAMPLING TIME : 10:00 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUNOKKHUM  
RECEIVED DATE : JUNE 7, 2024  
ANALYTICAL DATE : JUNE 7-10, 2024  
ISSUE DATE : JUNE 18, 2024  
REPORT NO. : 2024-U053319  
WORK NO. : 2019-00202  
ANALYSIS NO. : T24AM380-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
TOTAL SOLIDS	mg/L	TOTAL SOLIDS DRIED AT 103-105 °C (SM: PART 2540 B)	43.600	25
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24<sup>th</sup> EDITION, 2023.  
RELEASE ORDER NO. : EV-06-06-002



\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/1

- End of Analysis Report -





United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk-41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax.0 2763 2800 www.laeconsultant.com E-mail: lae@laeconsultant.com

NSC-TISI-TIS 17025  
TESTING 0207

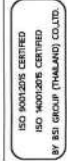
ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SE RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] e-mail : [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : JANUARY 4, 2024  
SAMPLING TIME : 09:30 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM

RECEIVED DATE : JANUARY 5, 2024  
ANALYTICAL DATE : JANUARY 5-11, 2024  
REPORT NO. : 2024-U003858  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AA194-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW005 : RETINERY MIX T24AA194-0006	DETECTION LIMIT
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.5 (25°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)	31	-
SALINITY °	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	35.1	0.1
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O+ G)	< 2.0	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	819	25.0
TOTAL SUSPENDED SOLIDS *	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	15.9	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36.675	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S+ D)	< 0.02	0.02
NITRATE °	mg/L NO <sub>3</sub>	CADMIUM REDUCTION METHOD (SM: PART 4500-NO <sub>3</sub> E)	15.2	0.09
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	2.0	3

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR SUBMITTED SAMPLES.



United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk-41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax.0 2763 2800 www.laeconsultant.com E-mail: lae@laeconsultant.com

NSC-TISI-TIS 17025  
TESTING 0207

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW005 : RETINERY MIX T24AA194-0006	DETECTION LIMIT
METALS				
LEAD °	mg/L Pb	IN-HOUSE METHOD: UAE TP.W.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< 0.015	0.015
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

\* : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)  
b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)  
c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE: THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO.: EV-04-01-002

(MRS. PYPAPAT SUTAPANUTWONG)  
LABORATORY SUPERVISOR  
JANUARY 15, 2024

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR SUBMITTED SAMPLES.

- End of Analysis Report -









PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW005 : REFINERY MIX TZ4AC094-0006	DETECTION LIMIT
METALS				
LEAD <sup>a</sup>	mg/L Pb	IN-HOUSE METHOD: UAE TPW.01 NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD), SM. PART 3030 E AND PART 3111 B	< 0.015	0.015
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR 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

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

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

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-01-02-001

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] e-mail : [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : FEBRUARY 7, 2024  
SAMPLING TIME : 09:25 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM  
RECEIVED DATE : FEBRUARY 9, 2024  
ANALYTICAL DATE : FEBRUARY 9-14, 2024  
ISSUE DATE : FEBRUARY 20, 2024  
REPORT NO. : 2024-U014159  
WORK NO. : 2019-00202  
ANALYSIS NO. : TZ4AC589-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW005 : REFINERY MIX TZ4AC589-0005	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM. PART 4500-H <sup>+</sup> B)	7.9 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM. PART 2550 B)	35	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM. PART 2540 C)	39.333	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM. PART 5520 B)	1.4	3
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-08-02-003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW005 : REFINERY MIX TZ4AC094-0006	DETECTION LIMIT
METALS				
LEAD <sup>a</sup>	mg/L Pb	IN-HOUSE METHOD: UAE TPW.01 NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD), SM. PART 3030 E AND PART 3111 B	< 0.015	0.015
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR 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

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

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

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-01-02-001

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] e-mail : [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : FEBRUARY 7, 2024  
SAMPLING TIME : 09:25 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM  
RECEIVED DATE : FEBRUARY 9, 2024  
ANALYTICAL DATE : FEBRUARY 9-14, 2024  
ISSUE DATE : FEBRUARY 20, 2024  
REPORT NO. : 2024-U014159  
WORK NO. : 2019-00202  
ANALYSIS NO. : TZ4AC589-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW005 : REFINERY MIX TZ4AC589-0005	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM. PART 4500-H <sup>+</sup> B)	7.9 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM. PART 2550 B)	35	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM. PART 2540 C)	39.333	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM. PART 5520 B)	1.4	3
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-08-02-003





ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] e-mail : [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : MARCH 7, 2024  
SAMPLING TIME : 10:35 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR. THANADET WANSAWOR  
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM  
RECEIVED DATE : MARCH 8, 2024  
ANALYTICAL DATE : MARCH 8-18, 2024  
ISSUE DATE : MARCH 19, 2024  
REPORT NO. : 2024-U022713  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AE807-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW005 : RETINERY MIX T24AE807-0008	DETECTION LIMIT
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.5 (25°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)	35	-
SALINITY °	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	32.4	0.1
BIOCHEMICAL OXYGEN DEMAND *	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	< 2.0	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	75.2	25.0
TOTAL SUSPENDED SOLIDS *	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	6.1	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	37.700	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S <sup>2</sup> D)	< 0.02	0.02
NITRATE °	mg/L NO <sub>3</sub>	CADMIUM REDUCTION METHOD (SM: PART 4500-NO <sub>3</sub> E)	10.0	0.09
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.7	3



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] e-mail : [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : MARCH 7, 2024  
SAMPLING TIME : 10:35 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR. THANADET WANSAWOR  
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM  
RECEIVED DATE : MARCH 8, 2024  
ANALYTICAL DATE : MARCH 8-18, 2024  
ISSUE DATE : MARCH 19, 2024  
REPORT NO. : 2024-U022713  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AE807-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW005 : RETINERY MIX T24AE807-0008	DETECTION LIMIT
LEAD °	mg/L Pb	IN-HOUSE METHOD: UAE TP W/D1 NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD; SM: PART 3030 E AND PART 3111 B	< 0.015	0.015
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)  
b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)  
c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-07-03-002



United Analyst and Engineering Consultant Co., Ltd.

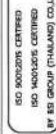
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaconsultant.com E-mail: ua@uaconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHIA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] e-mail : [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : EFFLUENT  
MEASURING DATE : MARCH 7, 2024  
MEASURING TIME : 10:35 HOUR  
SAMPLING METHOD : GRAB  
MEASURED BY : MR THANADET WANSANOR  
RECEIVED DATE : -  
ANALYTICAL DATE : MARCH 19, 2024  
ISSUE DATE : 2024-0022714  
REPORT NO. : 2019-002022  
WORK NO. : T24AB07-0009  
ANALYSIS NO. : T24AB07-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM PART 4500-O G)	4.2	0.5
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR WHITE	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
RELEASE ORDER NO. : EV-07-03-002



\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/1

- End of Analysis Report -



United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaconsultant.com E-mail: ua@uaconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHIA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] e-mail : [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : MARCH 14, 2024  
SAMPLING TIME : 09:45 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NARAPORN KHUNNOKKHAM  
RECEIVED DATE : MARCH 15, 2024  
ANALYTICAL DATE : MARCH 15-20, 2024  
ISSUE DATE : MARCH 25, 2024  
REPORT NO. : 2024-U024990  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AF413-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM PART 4500-H <sup>+</sup> B)	7.2 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM PART 2550 B)	34	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM PART 2540 C)	41750	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	1.1	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-14-03-004



\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/1

- End of Analysis Report -







United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.ljaeconsultant.com E-mail: uae@ljaeconsultant.com



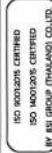
United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.ljaeconsultant.com E-mail: uae@ljaeconsultant.com

## ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHIA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : e-mail :  
**SAMPLING SOURCE** :  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : APRIL 11, 2024  
**SAMPLING TIME** : 09:50 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : APRIL 11, 2024  
**ANALYTICAL DATE** : APRIL 11-19, 2024  
**ISSUE DATE** : APRIL 24, 2024  
**REPORT NO.** : 2024-U033689  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24H887-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : REFINERY MIX T24H887-0005	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	7.8 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	36	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	39,800	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.8	3
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-11-04-004



PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.

THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

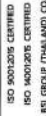
1/1

End of Analysis Report -

## ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHIA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : e-mail :  
**SAMPLING SOURCE** :  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : MAY 2, 2024  
**SAMPLING TIME** : 10:40 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : MAY 3, 2024  
**ANALYTICAL DATE** : MAY 3-10, 2024  
**ISSUE DATE** : MAY 21, 2024  
**REPORT NO.** : 2024-U041199  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24A3207-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : REFINERY MIX T24A3207-0009	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	7.8 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	36	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	34.2	0.1
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O <sub>2</sub> G)	< 2.0	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	85.5	25.0
TOTAL SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	19.8	5.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	41,075	25
SULPHIDE	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S <sup>2-</sup> D)	< 0.02	0.02
NITRATE	mg/L NO <sub>3</sub>	CADMIUM REDUCTION METHOD (SM: PART 4500-NO <sub>3</sub> E)	23.4	0.09
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	3



PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.

THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/2



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW005 : REFINERY MIX T24AJ207-0009		
METALS					
LEAD	mg/L Pb	IN-HOUSE METHOD: UAE TP.W.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ		0.015
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
< LOQ : < LIMIT OF QUANTITATION (LEAD ≥ 0.015 AND < 0.200 mg/L)  
FAT, OIL AND GREASE: THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO.: EV-02-05-001

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLING SOURCE : -  
SAMPLE TYPE : EFFLUENT  
SAMPLING DATE : MAY 9, 2024  
SAMPLING TIME : 09:30 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS MAPAPORN KHUNNOKKHUM  
RECEIVED DATE : MAY 10, 2024  
ANALYTICAL DATE : MAY 10-14, 2024  
ISSUE DATE : MAY 21, 2024  
REPORT NO. : 2024-U043121  
WORK NO. : 2019-00202  
ANALYSIS NO. : T24AJ0757-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM PART 4500-H <sup>+</sup> B)	LBW005 : REFINERY MIX T24AJ757-0005 7.9 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM PART 2550 B)	38	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	38.600	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	0.8	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE: THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO.: EV-09-05-003

(MISS PIYAPAT SUTTANANUTWONG)  
LABORATORY SUPERVISOR







NSC-TISI-TIS 17025  
TESTING BODY

## LAE United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel: 0 2763 2828 Fax: 0 2763 2800 www.laeconsultant.com E-mail: lae@laeconsultant.com

### ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : [REDACTED] e-mail : [REDACTED]  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : JUNE 13, 2024  
**SAMPLING TIME** : 10:10 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS KANNIKAR SUMLEETHA

**RECEIVED DATE** : JUNE 13, 2024  
**ANALYTICAL DATE** : JUNE 13-17, 2024  
**ISSUE DATE** : JUNE 25, 2024  
**REPORT NO.** : 2024-U056779  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AN053-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	LBW005 : REFINERY MIX T24AN053-0005 8.0 (25°C)	-
TEMPERATURE <sup>c</sup>	°C	THERMOMETER (AT SITE) SM: PART 2550 B	35	-
TOTAL DISSOLVED SOLIDS <sup>c</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	38,520	25
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	3
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR 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.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-19-06-004

.....  
(MRS PRADAT SUTAMANUNONG)  
LABORATORY SUPERVISOR

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/1

- End of Analysis Report -

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



## United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel: 0 2763 2828 Fax: 0 2763 2800 www.laeconsultant.com E-mail: lae@laeconsultant.com

### ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : [REDACTED] e-mail : [REDACTED]  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : SEAWATER  
**SAMPLING DATE** : JANUARY 4, 2024  
**SAMPLING TIME** : 09:50 HOUR  
**SAMPLING METHOD** : COMPOSITE  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS KANNIKAR SUMLEETHA

**RECEIVED DATE** : JANUARY 5, 2024  
**ANALYTICAL DATE** : JANUARY 5-11, 2024  
**REPORT NO.** : 2024-U003881  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AA195-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	LBW006 : 500 M OFFSHORE (JETTY) T24AA195-0001 7.7 (25°C)	-
PHENOLS	mg/L	DISTILLATION, 4-AMINANTIPYRINE METHOD (SM: PART 5530 B AND PART 5530 C)	< 0.005	0.005
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	28	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	313	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O <sub>2</sub> G)	5.1	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O <sub>2</sub> G)	0.8	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	77.1	25.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	5.3	1.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	34,125	25
CYANIDE	µg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 5	5
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, IL6))	8.22	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1998, CHAPTER 5)	< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.7	3

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR SUBMITTED SAMPLES.

1/2

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









United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok 10260  
Tel.0 2763 2828 Fax.0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com



United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax.0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKULA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLING SOURCE : -  
SAMPLE TYPE : SEAWATER  
SAMPLING DATE : FEBRUARY 1, 2024  
SAMPLING TIME : 10:21 HOUR  
SAMPLING METHOD : COMPOSITE  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS KANNIKAR SUMLEETHA  
RECEIVED DATE : FEBRUARY 2, 2024  
ANALYTICAL DATE : FEBRUARY 2-9, 2024  
ISSUE DATE : FEBRUARY 20, 2024  
REPORT NO. : 2024-U011829  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AC093-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AC093-0001		
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.6 (25 °C)	-	-
PHENOLS	mg/L	DISTILLATION 4 AMINOANTHRACENE METHOD (SM: PART 5530 B AND PART 5530 C)	< 0.005	0.005	0.005
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	30	-	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	29.5	0.1	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4600 O °C)	5.0	0.5	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.1	0.5	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5520 C)	76.2	25.0	25.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	7.8	10	10
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	35,700	25	25
CYANIDE	µg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 5	5	5
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II 6))	3.54	0.50	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.4	3	3

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AC093-0001		
METALS					
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.500	0.100	0.100
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-0102-001

(PRICED AT 30 THAI BATH/WONG)  
LABORATORY SUPERVISOR  
FEBRUARY 20, 2024



United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax.0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com



United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax.0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

## ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : [REDACTED] e-mail : [REDACTED]  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : SEAWATER  
**SAMPLING DATE** : FEBRUARY 7, 2024  
**SAMPLING TIME** : 08:55 HOUR  
**SAMPLING METHOD** : COMPOSITE  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : FEBRUARY 9, 2024  
**ANALYTICAL DATE** : FEBRUARY 9-14, 2024  
**ISSUE DATE** : FEBRUARY 20, 2024  
**REPORT NO.** : 2024-U014161  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AC589-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AC589-0006		
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	8.1 (25°C)	-	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	30	-	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	34.267	25	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.8	3	3
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>RD</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION, ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-08-02-003

[REDACTED] (g)  
LABORATORY SUPERVISOR

FEBRUARY 20, 2024

\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/1

- End of Analysis Report -



## ANALYSIS REPORT

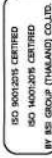
**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : [REDACTED] e-mail : [REDACTED]  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : SEAWATER  
**SAMPLING DATE** : MARCH 7, 2024  
**SAMPLING TIME** : 08:59 HOUR  
**SAMPLING METHOD** : COMPOSITE  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : MARCH 8, 2024  
**ANALYTICAL DATE** : MARCH 8-19, 2024  
**ISSUE DATE** : MARCH 26, 2024  
**REPORT NO.** : 2024-U022989  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AE812-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AE812-0001		
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	7.4 (25°C)	-	-
PHENOLS	mg/L	DISTILLATION, 4-AMINOANTIPYRINE METHOD (SM: PART 5530 B AND PART 5530 C)	< 0.005	0.005	0.005
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	32	-	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	28.1	0.1	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O <sub>2</sub> G)	4.8	0.5	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O <sub>2</sub> G)	0.7	0.5	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	56.0	25.0	25.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	7.3	1.0	1.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	35.940	25	25
CYANIDE	µg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 5	5	5
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6))	5.22	0.50	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1996, CHAPTER 5)	< 10	10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	1.0	3	3

\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/2



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW006 : 500 M OFFSHORE (JETTY) TZ4AF13-0001	DETECTION LIMIT
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF: 1999 CHAPTER 12)	120	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-07/03-002

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLE TYPE : SEAWATER  
SAMPLING DATE : MARCH 14, 2024  
SAMPLING TIME : 09:20 HOUR  
SAMPLING METHOD : COMPOSITE  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUINKOKKULUM  
RECEIVED DATE : MARCH 15, 2024  
ANALYTICAL DATE : MARCH 15-19, 2024  
ISSUE DATE : MARCH 25, 2024  
REPORT NO. : 2024-U024991  
WORK NO. : 2019-002022  
ANALYSIS NO. : TZ4AF13-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW006 : 500 M OFFSHORE (JETTY) TZ4AF13-0006	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	7.4 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	31	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36,200	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.9	3
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-14-03-004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW006 : 500 M OFFSHORE (JETTY) TZ4AF13-0001	DETECTION LIMIT
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF: 1999 CHAPTER 12)	120	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-07/03-002





United Analyst and Engineering Consultant Co., Ltd.

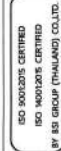
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaconsultant.com E-mail: uae@uaeconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] e-mail : [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : SEAWATER  
SAMPLING DATE : APRIL 4, 2024  
SAMPLING TIME : 09:03 HOUR  
SAMPLING METHOD : COMPOSITE  
SAMPLING BY : MR THANDET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUNOKKHUM  
RECEIVED DATE : APRIL 5, 2024  
ANALYTICAL DATE : APRIL 5-11, 2024  
ISSUE DATE : APRIL 18, 2024  
REPORT NO. : 2024-U031337  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AH256-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AH256-0001	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.9 (25°C)	-
PHENOLS	mg/L	DISTILLATION, 4-AMINOANTHRACENE METHOD (SM: PART 5530 B AND PART 5530 C)	< 0.005	0.005
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	32	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	27.8	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500 O G)	5.0	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500 O G)	19	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REF LUX, TITRIMETRIC METHOD (SM: PART 5220 C)	88.0	25.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	8.6	10
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36.460	25
CYANIDE	µg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 5	5
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, IL6))	3.91	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.4	3

\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.



United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaconsultant.com E-mail: uae@uaeconsultant.com

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AH256-0001	
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.600	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-04-04-002

(MRS) PRAPAT SUTTHANUTWONG  
LABORATORY SUPERVISOR  
APRIL 18, 2024

\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.





United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel: 0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com



United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel: 0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

### ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : [REDACTED] e-mail : [REDACTED]  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : SEAWATER  
**SAMPLING DATE** : APRIL 11, 2024  
**SAMPLING TIME** : 10:05 HOUR  
**SAMPLING METHOD** : COMPOSITE  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : APRIL 11, 2024  
**ANALYTICAL DATE** : APRIL 11-19, 2024  
**ISSUE DATE** : APRIL 24, 2024  
**REPORT NO.** : 2024-U033690  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24H887-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006: 500 M OFFSHORE (JETTY) T24H887-0006	7.9 (25°C)	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)			-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)		33	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)		37.500	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)		0.4	3
<b>SAMPLE CONDITION</b>					
WATER'S COLOUR/TURBID SEDIMENT				YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE: THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-1104-004

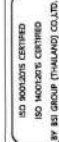
(MRS. PIYAPAT SUTTAPANUTWONG)  
LABORATORY SUPERVISOR

APRIL 24, 2024

\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/1

- End of Analysis Report -



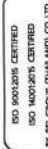
### ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : [REDACTED] e-mail : [REDACTED]  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : SEAWATER  
**SAMPLING DATE** : MAY 2, 2024  
**SAMPLING TIME** : 09:40 HOUR  
**SAMPLING METHOD** : COMPOSITE  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : MAY 3, 2024  
**ANALYTICAL DATE** : MAY 3-16, 2024  
**ISSUE DATE** : MAY 21, 2024  
**REPORT NO.** : 2024-U041452  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24H205-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006: 500 M OFFSHORE (JETTY) T24H205-0001	7.9 (25°C)	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)			-
PHENOLS	mg/L	DISTILLATION 4-AMINOANTIPYRINE METHOD (SM: PART 5530 B AND PART 5530 C)		< 0.005	0.005
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)		33	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)		31.8	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)		5.1	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)		12	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)		66.5	25.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)		4.7	10
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)		37.450	25
CYANIDE	µg/L CN	DISTILLATION PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)		< 5	5
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STROCKLAND AND PARSON, 1972, I16))		4.97	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)		< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)		0.8	3

\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/2



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW006 : 500 M OFFSHORE (DETTY) TZ44J757-0001	DETECTION LIMIT
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.140	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-02-05-001

(MRS PIPAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL. [REDACTED] E-mail: [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : SEAWATER  
SAMPLING DATE : MAY 9, 2024  
SAMPLING TIME : 10:00 HOUR  
SAMPLING METHOD : COMPOSITE  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NARAPORN KHUNOKKHUM  
RECEIVED DATE : MAY 10, 2024  
ANALYTICAL DATE : MAY 10-14, 2024  
ISSUE DATE : MAY 21, 2024  
REPORT NO. : 2024-U043122  
WORK NO. : 2019-002022  
ANALYSIS NO. : TZ44J757-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW006. 500 M OFFSHORE (DETTY) TZ44J757-0006	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM. PART 4500-H <sup>+</sup> B)	7.9 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM. PART 2550 B)	33	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM. PART 2540 C)	34,540	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM. PART 5520 B)	0.7	3
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-09-05-003

(MRS PIPAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY

CUSTOMER NAME : BANGCHAK SKIRACHA PUBLIC COMPANY LIMITED

ADDRESS : 118 MOO 2 THUNG SUKHUA SI RACHA CHON BURI 20230

CONTACT INFORMATION : TEL : e-mail :

SAMPLING SOURCE : -

SAMPLE TYPE : SEAWATER

SAMPLING DATE : JUNE 6, 2024

SAMPLING TIME : 10:35 HOUR

SAMPLING METHOD : COMPOSITE

SAMPLING BY : MR. THANADET WANANOR

ANALYZED BY : MISS NAPAPORN KUHNOKKHUM

RECEIVED DATE : JUNE 7, 2024

ANALYTICAL DATE : JUNE 7-21, 2024

ISSUE DATE : JUNE 25, 2024

REPORT NO. : 2024-U054109

WORK NO. : 2019-002022

ANALYSIS NO. : T24M382-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24M382-0001		
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	7.9 (25°C)	-	-
PHENOLS	mg/L	DISTILLATION 4-AMINOANTHRACENE METHOD (SM: PART 5530 B AND PART 5530 C)	< 0.005	0.005	0.005
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	32	-	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1680 B	24.1	0.1	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O <sub>2</sub> G	4.9	0.5	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O <sub>2</sub> G)	1.7	0.5	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	74.8	25.0	25.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	10.6	1.0	1.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	35,140	25	25
CYANIDE	µg/L CN	DISTILLATION PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 5	5	5
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STROCKLAND AND PARSON, 1972, IIE))	5.03	0.50	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.7	3	3

ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : 0 3314 2891 e-mail : wanlop.boongor@bangchak.co.th  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : SEAWATER  
**SAMPLING DATE** : JUNE 13, 2024  
**SAMPLING TIME** : 10:30 HOUR  
**SAMPLING METHOD** : COMPOSITE  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHAM

**RECEIVED DATE** : JUNE 13, 2024  
**ANALYTICAL DATE** : JUNE 13-17, 2024  
**ISSUE DATE** : JUNE 25, 2024  
**REPORT NO.** : 2024-U056780  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AN053-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006.500 M OFFSHORE (JETTY) T24AN053-0006	8.0 (25°C)	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)		32	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B			-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)		34,600	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)		0.6	3
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24<sup>th</sup> EDITION, 2023.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-13-06-004

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/1

- End of Analysis Report -



ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : e-mail :  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : SEAWATER  
**SAMPLING DATE** : JANUARY 4, 2024  
**SAMPLING TIME** : 10:20 HOUR  
**SAMPLING METHOD** : COMPOSITE  
**SAMPLING BY** : MR THANADET WANSANOR  
**ANALYZED BY** : MISS KANNIKAR SUMLEETHA

**RECEIVED DATE** : JANUARY 5, 2024  
**ANALYTICAL DATE** : JANUARY 5-11, 2024  
**REPORT NO.** : 2024-U003882  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AA195-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW007 : BERTH ISLAND T24AA195-0002	7.8 (25°C)	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)		29	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)			-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2020 B)		31.4	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)		4.9	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500 O G)		0.8	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)		62.6	25.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)		38,333	25
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, IL6))		2.73	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)		< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)		0.8	3

\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR SUBMITTED SAMPLES.

1/2



PARAMETER		UNIT	METHOD OF ANALYSIS	RESULT LBW007 : BERTH ISLAND T24AA195-0002	DETECTION LIMIT
METALS					
LEAD		µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.460	0.100
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT				COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>RD</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : E/04-01-002

*Rapatt S.*  
(MRS PIYAPAT SUTTANANUTWONG)  
LABORATORY SUPERVISOR  
JANUARY 15, 2024

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLING SOURCE : SEAWATER  
SAMPLE TYPE :  
SAMPLING DATE : FEBRUARY 1, 2024  
SAMPLING TIME : 09:10 HOUR  
SAMPLING METHOD : COMPOSITE  
SAMPLING BY : MR. THANADET WANSANOR  
ANALYZED BY : MISS KANNIKAR SUMLEETHA  
RECEIVED DATE : FEBRUARY 2, 2024  
ANALYTICAL DATE : FEBRUARY 2-9, 2024  
ISSUE DATE : FEBRUARY 20, 2024  
REPORT NO. : 2024-U011830  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AC093-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW007 : BERTH ISLAND T24AC093-0002		
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	7.7 (25 °C)		-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	30		-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	29.5		0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	4.8		0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	0.7		0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	80.0		25.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	35,100		25
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, IL6))	4.32		0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10		10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.4		3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW007 : BERTH ISLAND T24AC093-0002	DETECTION LIMIT
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.300	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE: THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-01-02-001

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLING SOURCE : SEAWATER  
SAMPLE TYPE :  
SAMPLING DATE : MARCH 7, 2024  
SAMPLING TIME : 09:25 HOUR  
SAMPLING METHOD : COMPOSITE  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM  
RECEIVED DATE : MARCH 8, 2024  
ANALYTICAL DATE : MARCH 8-19, 2024  
ISSUE DATE : MARCH 26, 2024  
REPORT NO. : 2024-U022990  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AE812-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW007 : BERTH ISLAND T24AE812-0002	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H <sup>+</sup> B)	7.6 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	31	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	28.4	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O <sub>2</sub> G)	5.1	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5270 B AND PART 4500-O <sub>2</sub> G)	0.8	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	56.0	25.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	35.860	25
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6))	4.47	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.8	3





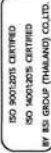
United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaiconsultant.com E-mail: uae@uaiconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] e-mail : [REDACTED]  
SAMPLING SOURCE : [REDACTED]  
SAMPLE TYPE : SEAWATER  
SAMPLING DATE : APRIL 4, 2024  
SAMPLING TIME : 09:35 HOUR  
SAMPLING METHOD : COMPOSITE  
SAMPLING BY : MR THANADET WANISANOR  
ANALYZED BY : MISS NAPAPORN KHUNOKKHUM  
RECEIVED DATE : APRIL 5, 2024  
ANALYTICAL DATE : APRIL 5-11, 2024  
ISSUE DATE : APRIL 18, 2024  
REPORT NO. : 2024-U031338  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AH256-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW007 : BERTH ISLAND T24AH256-0002	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM. PART 4500-H B)	8.0 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM. PART 2550 B)	32	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM. PART 2520 B)	28.1	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM. PART 4500-O G)	5.2	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM. PART 5210 B AND PART 4500-O G)	19	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM. PART 5220 C)	84.8	25.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM. PART 2540 C)	36.365	25
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, IL6))	3.60	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM. PART 5520 B)	0.6	3



PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.



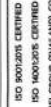
United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaiconsultant.com E-mail: uae@uaiconsultant.com

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW007 : BERTH ISLAND T24AH256-0002	DETECTION LIMIT
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.600	0.100
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-04-04-002

(PACS) PAKHAT SUTTHANUWONG  
LABORATORY SUPERVISOR  
APRIL 18, 2024



PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.





United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

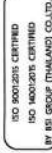


United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

### ANALYSIS REPORT

**PROJECT NAME** : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
**CUSTOMER NAME** : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
**ADDRESS** : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
**CONTACT INFORMATION** : TEL : [REDACTED] e-mail : [REDACTED]  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : SEAWATER  
**SAMPLING DATE** : MAY 2, 2024  
**SAMPLING TIME** : 10:00 HOUR  
**SAMPLING METHOD** : COMPOSITE  
**SAMPLING BY** : MR. THANADET WANISANOR  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : MAY 3, 2024  
**ANALYTICAL DATE** : MAY 3-16, 2024  
**ISSUE DATE** : MAY 21, 2024  
**REPORT NO.** : 2024-U041456  
**WORK NO.** : 2019-002022  
**ANALYSIS NO.** : T24AJ205-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW007 : BERTH ISLAND T24AJ205-0003		
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	8.0 (25°C)		-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	32		-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	27.5		0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	5.1		0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	1.4		0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	60.2		25.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 G)	38.675		25
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6))	3.77		0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10		10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.8		3



• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

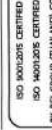


United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260  
Tel.0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW007 : BERTH ISLAND T24AJ205-0003		
METALS					
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.110		0.100
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR YELLOW		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-02-05-001

(MRS. PAKHAT SUTTAMANIUTWONG)  
LABORATORY SUPERVISOR



• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.



United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phra Khanong, Bangkok 10260  
Tel: 0 2763 2828 Fax: 0 2763 2800 www.uaconsultant.com E-mail: uae@uaconsultant.com

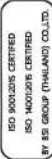


United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phra Khanong, Bangkok 10260  
Tel: 0 2763 2828 Fax: 0 2763 2800 www.uaconsultant.com E-mail: uae@uaconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] e-mail : [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : SEAWATER  
SAMPLING DATE : JUNE 6, 2024  
SAMPLING TIME : 10:43 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR. THANADET WANSANOR  
ANALYZED BY : MISS NAPAORN KUINNOKKHUM  
RECEIVED DATE : JUNE 7, 2024  
ANALYTICAL DATE : JUNE 7-21, 2024  
ISSUE DATE : JUNE 25, 2024  
REPORT NO. : 2024-U054110  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24M382-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW007 : BERTH ISLAND T24M382-0002	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.8 (25°C)	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	32	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	24.9	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O G	5.0	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	15	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	816	25.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	34,380	25
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, 116))	4.15	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.4	3



\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW007 : BERTH ISLAND T24M382-0002	DETECTION LIMIT
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	< 0.000	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24<sup>th</sup> EDITION, 2023.  
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.  
RELEASE ORDER NO. : EV-06-06-002

(MRS. PIYAPAT SUTTANANTJONG)  
LABORATORY SUPERVISOR

\* PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
\* THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLING SOURCE :  
SAMPLE TYPE : SEAWATER  
SAMPLING DATE : JUNE 6, 2024  
SAMPLING TIME : 10:43 HOUR  
SAMPLING METHOD : GRAB  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM  
RECEIVED DATE : JUNE 7, 2024  
ANALYTICAL DATE : JUNE 7, 2024  
ISSUE DATE : JUNE 25, 2024  
REPORT NO. : 2024-U054111  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AN1382-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM PART 2540 D)	LBW007-BERTH ISLAND T24AN1382-0003 6.2	1.0
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24<sup>th</sup> EDITION, 2023.  
RELEASE ORDER NO. : EV-06-06-002

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : e-mail :  
SAMPLING SOURCE :  
SAMPLE TYPE : SEAWATER  
SAMPLING DATE : APRIL 25, 2024  
SAMPLING TIME : \*  
SAMPLING METHOD : PLANKTON NET  
SAMPLING BY : MR THANADET WANSANOR  
ANALYZED BY : MISS NAPAPORN PURATAKO  
RECEIVED DATE : APRIL 25, 2024  
ANALYTICAL DATE : APRIL 25-26, 2024  
ISSUE DATE : MAY 7, 2024  
REPORT NO. : 2024-U036799  
WORK NO. : 2019-002022  
ANALYSIS NO. : T24AB662-0001, T24AB662-0003

PHYTOPLANKTON (UNITS/m3)	COUNTING UNIT	RESULT
Division Cyanophyta Class Cyanophyceae Family Oscillatoriaceae <i>Oscillatoria</i> spp.	FLAMENT	SAMPLE NO. 1 13:40 HOUR * T24AB662-0001 784,714 SAMPLE NO. 2 13:10 HOUR * T24AB662-0003 111,067
Division Chromophyta Class Bacillariophyceae Family Thalassiosiraceae <i>Lauderia annulata</i> <i>Thalassiosira</i> spp.	FLAMENT CELL	282,326 747,347 135,299 551,281
Family Leptocylindraceae <i>Leptocylindrus danicus</i> Family Coscinodiscaceae	FLAMENT	373,674 163,567
<i>Coscinodiscus</i> spp. <i>Parvireta hardmaniana</i> Family Rhizosoleniaceae	CELL CELL	512,758 6,228 163,567 0
<i>Dactylosolen</i> spp. <i>Guanardia</i> spp. <i>Proboscila alata</i> <i>Rhizosolenia</i> spp.	CELL CELL CELL CELL	319,693 572,966 112,102 1,091,191 66,639 528,071 102,987 951,112
Family Hemialaulaceae <i>Cerataulina</i> spp. <i>Eucampia</i> spp. <i>Hemialulus</i> spp.	CELL CELL CELL	112,102 261,572 99,647 18,175 393,678 54,523
Family Chetocerotaceae <i>Bacteriastrium</i> spp. <i>Chetoceros</i> spp. Family Lithodesmaceae <i>Ditylum</i> spp.	FLAMENT CELL CELL	2,379,052 76,038,306 120,401 599,652 15,264,221 0



PHYTOPLANKTON (UNITS/m3)	COUNTING UNIT	RESULT	
		SAMPLE NO. 1 13:40 HOUR * T24A1662-0001	SAMPLE NO. 2 13:10 HOUR * T24A1662-0003
Family Eupodidae <i>Odotella</i> spp.	CELL	83,034	9,088
Family Thalassiomalaceae <i>Thalassionema frauenfeldii</i>	CELL	1,165,686	122,183
<i>T. nitzschoides</i>	CELL	51,894	36,349
Family Naviculaceae <i>Amphora</i> spp.	CELL	99,647	24,233
<i>Meuniera membranacea</i>	CELL	182,680	409,925
<i>Navicula</i> spp.	CELL	546,054	39,751
<i>Pleurosigma</i> spp.	CELL	2,495,311	1,872,017
Family Bacillariaceae <i>Bacillaria paxillifer</i>	CELL	3,973,390	411,947
<i>Cylindrotheca gracilis</i>	CELL	2,486,997	2,628,187
<i>Nitzschia</i> spp.	CELL	0	18,175
<i>N. longissima</i>	CELL	211,749	226,170
<i>Pseudo-nitzschia</i> spp.	CELL	3,118,100	1,344,884
Family Surirellaceae <i>Ectonionella</i> spp.	CELL	0	42,407
<i>Surirella</i> spp.	CELL	224,204	80,777
Class Dinophyceae Family Prorocentraceae <i>Prorocentrum</i> spp.	CELL	157,768	0
Family Dinophysiaceae <i>Dinophysis</i> spp.	CELL	18,684	25,240
Family Noctilucaeae <i>Noctiluca</i> spp.	CELL	43,596	70,675
Family Ceratiliaceae <i>Ceratium</i> spp.	CELL	24,912	15,146
<i>C. furca</i>	CELL	20,755	7,066
<i>C. fusus</i>	CELL	16,613	10,095

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

PHYTOPLANKTON (UNITS/m3)	COUNTING UNIT	RESULT	
		SAMPLE NO. 1 13:40 HOUR * T24A1662-0001	SAMPLE NO. 2 13:10 HOUR * T24A1662-0003
Family Peridiniaceae <i>Peridinium</i> spp.	CELL	236,660	123,183
Family Prorocentraceae <i>Prorocentrum</i> spp.	CELL	278,185	129,241
TOTAL ABUNDANCE	UNITS/m <sup>3</sup>	99,253,758	26,884,583
ORGANISMS COUNTED	NUMBER	36	35
SAMPLE CONDITION (VISUAL OBSERVATION) COLOUR AND TURBIDITY OF WATER COLOUR OF SEDIMENT		GREENTURBID GREEN	GREENTURBID GREEN

REMARK : PLANKTON COUNTING TECHNIQUES IS NATURAL UNIT COUNT. REFERENCE : AMERICAN PUBLIC HEALTH ASSOCIATION, AMERICAN WATER WORKS ASSOCIATION ENVIRONMENT AND WATER FEDERATION (APHA, AWWA AND WEF) 2017. STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, AMERICAN PUBLIC HEALTH ASSOCIATION WASHINGTON, DC, U.S.A.

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

ZOOPLANKTON (UNITS/m <sup>3</sup> )	COUNTING UNIT	RESULT	
		SAMPLE NO. 1 13:40 HOUR * T24A1662-0001	SAMPLE NO. 2 13:10 HOUR * T24A1662-0003
Phylum Protozoa Class Sarcodina Family Sticholobochidae <i>Sticholobos</i> sp.	CELL	10,998	6,382
Class Ciliata Family Codonellidae <i>Codonellopsis</i> sp.	CELL	0	737
Family Cyclarocylinidae <i>Favella</i> sp.	CELL	8,508	0
Phylum Chaetognatha Class Sagittidae <i>Sagitta</i> sp.	INDIVIDUAL	1,996	484
Phylum Annelida Class Polychaeta Polychaete Larva	INDIVIDUAL	19,010	5,646
Phylum Arthropoda Class Crustacea Cyclopoid Copepod	INDIVIDUAL	54,508	16,436
Calanoid Copepod	INDIVIDUAL	66,016	48,335
Harpacticoid Copepod	INDIVIDUAL	0	3,187
Nauplius of Copepod	INDIVIDUAL	144,034	94,947
Ceripedia Nauplius	INDIVIDUAL	4,502	1,473
Phylum Mollusca Class Bivalvia Bivalvia Larva	INDIVIDUAL	10,008	1,473
Phylum Echinodermata Class Echinoidea Echinopluteus Larva	INDIVIDUAL	1,501	0

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

ZOOPLANKTON (UNITS/m <sup>3</sup> )	COUNTING UNIT	RESULT	
		SAMPLE NO. 1 13:40 HOUR * T24A1662-0001	SAMPLE NO. 2 13:10 HOUR * T24A1662-0003
Phylum Chordata Class Larvacea Family Oikopleuridae <i>Oikopleura</i> sp.	INDIVIDUAL	13,504	9,325
TOTAL ABUNDANCE	UNITS/m <sup>3</sup>	334,585	188,438
ORGANISMS COUNTED	NUMBER	11	11
SAMPLE CONDITION (VISUAL OBSERVATION) COLOUR AND TURBIDITY OF WATER COLOUR OF SEDIMENT		GREEN/TURBID GREEN	GREEN/TURBID GREEN

SAMPLE NAME SAMPLE NO. 1 500 METERS OFFSHORE (JETTY)  
SAMPLE NO. 2 BERTH ISLAND

(MISS CHAWEEWAT BOONLA)  
LABORATORY SUPERVISOR

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.



United Analyst and Engineering Consultant Co., Ltd.  
3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260  
Tello 2763 2828 Fax 0 2763 2800 www.uaconsultant.com E-mail: uae@uaconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY  
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED  
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230  
CONTACT INFORMATION : TEL : [REDACTED] E-mail : [REDACTED]  
SAMPLING SOURCE : -  
SAMPLE TYPE : SEDIMENT RECEIVED DATE : APRIL 26, 2024  
SAMPLING DATE : APRIL 25, 2024 ANALYTICAL DATE : APRIL 26, 2024  
SAMPLING TIME : \* ISSUE DATE : MAY 7, 2024  
SAMPLING METHOD : PETERSEN GRAB REPORT NO. : 2024-U036800  
SAMPLING BY : MR THANADET WANSEANOR WORK NO. : 2019-002022  
ANALYZED BY : MISS PATCHAREE KONGCHUMNAN ANALYSIS NO. : T24AI662-0002, T24AI662-0004

BENTHOS (INDIVIDUALS/m²)	RESULT	
	SAMPLE NO. 1 13:50 HOUR * T24AI662-0002	SAMPLE NO. 2 13:30 HOUR * T24AI662-0004
Phylum Annelida		
Class Polychaeta		
Family Nephtyidae	7	7
Family Glyceridae	7	0
Family Capitellidae	21	7
Family Lumbrineridae	7	7
Family Sternaspidae	7	0
Family Nereididae	7	0
Family Spionidae	49	21
Phylum Arthropoda		
Class Malacostraca		
Tanaid	14	0
TOTAL DENSITY (INDIVIDUALS/m²)	119	42
AMOUNT OF SPECIES	8	4
SAMPLE CONDITION	CLAY	CLAY

SAMPLE NO. 1 500 METERS OFFSHORE (JETTY)  
SAMPLE NO. 2 BERTH ISLAND

(MISS CHAWEEWAN BOONLA)  
LABORATORY SUPERVISOR

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.  
• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

1/1

- End of Analysis Report -



Your P.O. #: 4510178805  
Your Project #: SRT-RF-2024-01

Attention: Tanaphorn Taweeyat  
BANGCHAK SRIRACHA REFINING COMPANY  
3195/17-29 Rama 4 Road  
Klongton, Klongtoey  
Bangkok, --  
Thailand

Report Date: 04/01/2024  
Report #: 88089022  
Version: 1 - Final

ANALYTICAL REPORT

BV LABS JOB #: C490191

Received: 03/26/2024, 00:00

Sample Matrix: Passive Monitor  
# Samples Received: 2

Analytes	Date		Laboratory Method	Analytical Method
	Quantity	Analyzed		
Naphthas by NIOSH 1550 - Monitor	2	03/30/2024	NOV4SOP-00001	NIOSH 1550 / 1551
Volatiles (VOC) - List 1 - GC/FID-Monitor	2	03/30/2024	NOV SOP-00005	NOV SOP-00005

Remarks:

Report Qualifier - Any general comments can be added to appear here.  
This report shall not be reproduced except in full, without the written approval of the laboratory.  
Results relate only to the items tested.  
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

Encryption Key

Morgan Stupac  
11111111111111111111111111111111  
01 Apr 2024 16:23:24

Please direct all questions regarding this Analytical Report to your Project Manager.  
Wendy Lesniak, CS  
Email: Wendy.Lesniak@bureauveritas.com  
Phone# (248) 344-1770

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.  
This report is authorized by Jason Forbes, Director of Operations responsible for Michigan Industrial Hygiene laboratory operations.

Total Cover Pages : 1





BV Labs Job #: C490191  
Report Date: 04/01/2024

BANGCHAK SRIRACHA REFINING COMPANY  
Client Project #: SRT-RF-2024-01  
Your P.O. #: 4510178805

ANALYTICAL RESULTS

Client ID: SRT-RF-2024-01-001		Matrix:		Passive Monitor	
BV Labs ID: YST750		Sample Media:		AT 566/3M3500+	
Date Sampled: 03/13/2024		Sampling Time (Minutes):		420	
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Date Analyzed
Benzene	9.7	<0.50	<0.12	0.50	03/30/2024
THCs as n-Hexane	9.9	<30	<7.2	30	03/30/2024
RL = Reporting Limit					

Client ID: SRT-RF-2024-01-BLANK		Matrix:		Passive Monitor	
BV Labs ID: YST751		Sample Media:		AT 566/3M3500+	
Date Sampled:					
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Date Analyzed
Benzene	9.7	<0.50	N/A	0.50	03/30/2024
THCs as n-Hexane	9.9	37	N/A	30	03/30/2024
RL = Reporting Limit					



BV Labs Job #: C490191  
Report Date: 04/01/2024

BANGCHAK SRIRACHA REFINING COMPANY  
Client Project #: SRT-RF-2024-01  
Your P.O. #: 4510178805

GENERAL COMMENTS

Unless otherwise noted below the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and /or do not adversely affect the reported results and 3) the industrial hygiene results have not been blank corrected.

The client provided their pertinent field sampling data on the analysis request paperwork submitted with the samples. Results apply to the sample as received.

Sample YST751 [SRT-RF-2024-01-BLANK] : Actual value of the client THCs as n-hexane blank; results have been blank corrected. This value includes background present in the solvent and does not necessarily indicate contamination of the media.

**Results relate only to the items tested.**



Your Project #: SRT-RF-2024-02

Attention: Tanaphorn Taweeyat  
BANGCHAK SRIRACHA REFINING COMPANY  
3195/17-29 Rama 4 Road  
Klongton, Klongtoey  
Bangkok, --  
Thailand

Report Date: 07/08/2024  
Report #: R8224809  
Version: 1 - Final

### ANALYTICAL REPORT

BV LABS JOB #: C419350  
Received: 07/01/2024, 00:00  
Sample Matrix: Passive Monitor  
# Samples Received: 6

Analyses	Quantity	Date Analyzed	Laboratory Method	Analytical Method
Naphthalene by NIOSH 1550 - Monitor	6	07/04/2024	NOV4SOP-00001	NIOSH 1550 / 1551
Volatiles (VOC) - List 1 - GC/FID-Monitor	6	07/04/2024	NOV SOP-00005	NOV SOP-00005

#### Remarks:

Report Qualifier - Any general comments can be added to appear here.  
This report shall not be reproduced except in full, without the written approval of the laboratory.  
Results relate only to the items tested.  
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

Nendy Lesniak  
08 Jul 2024 14:25:50

#### Encryption Key

Please direct all questions regarding this Analytical Report to your Project Manager.

Wendy Lesniak, CS  
Email: Wendy.Lesniak@bureauveritas.com  
Phone: (248) 344-1770

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.  
This report is authorized by Jason Forbes, Director of Operations responsible for Michigan Industrial Hygiene laboratory operations.

Total Cover Pages : 1

Bureau Veritas North America Inc.: 22345 Roethel Dr., Novi, MI 48375

Page 1 of 5



## Request for Laboratory Analytical Services

**IMPORTANT:** Date results required: ☒ Yes ☐ No  
Rush charges authorized? Yes ☐ No ☒  
Fax or ☐ E-mail results ☐  
E-mail Address: \_\_\_\_\_

Page: \_\_\_\_\_  
For Lab Use Only  
Lab Project #: \_\_\_\_\_

### Bureau Veritas North America, Inc.

Report results to:	Client Project Number:	SRT-RF-2024-01	Send invoice to:	BV Thailand	P.O. No.	4510178805
Name	Tanaphorn Taweeyat		Name	Sathaporn Runnaparichai		
Company	Bangchak Sriracha Public Company Limited		Company	Bureau Veritas (Thailand) Co., Ltd.		
Mailing Address	Tanaphorn.taweeyat@bangchak.co.th		Address	2170 New Petchburi Road, 16th Floor, Bangkok Tower Bangkapi, Huaykwang, Bangkok, Thailand		
City, State, Zip	118 Moo 2, Sukhaphibhan 7 Road, Tungsuksila, Sriracha, Chonburi 20230		City, State, Zip	10310		
Telephone No.	[Redacted] Fax No.		-			

Special instructions and/or specific regulatory requirements:  
(method, limit of detection, etc.)  
-

Asbestos/Soil samples only: Which state are these from? \_\_\_\_\_

Client Sample Identification	Date Sampled	Time Sampled	Matrix/Media	Air Volume (Liters)	# of Jars	ANALYSIS REQUESTED (List each analyte on the lines below, multiple analytes per line)
SRT-RF-2024-01-001	13-Mar-24	420 mins	AT 566	-	-	Bz & THC
SRT-RF-2024-01-Blank	-	-	AT 566	-	-	Bz & THC

Collected by:	[Redacted]	Date/Time	22-May-24	Collector's Signature:	[Redacted]	Date/Time	
Relinquished by:	[Redacted]	Date/Time		Received by:	[Redacted]	Date/Time	
Relinquished by:	[Redacted]	Date/Time		Received by:	[Redacted]	Date/Time	
Method of Shipment:	[Redacted]	Sample Condition on Receipt:					
Authorized by:	[Redacted]	22-May-24	Acceptable	Other: (Explain)			
(Signature MUST accompany request)							

<b>Ship to:</b> Detroit Lab 22345 Roethel Drive Novi, MI 48375 248.344.2652 800.806.5887	<b>Atlanta Lab</b> 3380 Chastain Meadows Pkwy., Ste 300 Kennesaw, GA 30144 770.499.7701 800.806.5887	<b>Chicago Lab</b> 95 Oakwood Road Lake Zurich, IL 60047 888.576.7522 847.726.3320	<b>Canadian Clients</b> 1415 Janette Ave Windsor, ON N8X 1Z1 "Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas' standard Terms & Conditions. Signing of this Chain of Custody document is acknowledgment & acceptance of our terms available at <a href="http://www.bvlabs.com/terms-and-conditions">http://www.bvlabs.com/terms-and-conditions</a>
Fax: 248.344.2655	Fax: 770.499.7511	Fax: 847.726.3323	



BV Labs Job #: C419350  
Report Date: 07/08/2024

BANGCHAK SRIRACHA REFINING COMPANY  
Client Project #: SRT-RF-2024-02

ANALYTICAL RESULTS

Client ID: SRT-RF-2024-02-001		Matrix:		Passive Monitor	
BV Labs ID: ZP1963		Sample Media:		AT 566/3M3500+	
Date Sampled: 06/20/2024		Sampling Time (Minutes):		480	
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Date Analyzed
Benzene	9.7	<0.50	<0.11	0.50	07/04/2024
THCs as n-Hexane	9.9	<30	<6.3	<1.8	07/04/2024
RL = Reporting Limit					

Client ID: SRT-RF-2024-02-002		Matrix:		Passive Monitor	
BV Labs ID: ZP1964		Sample Media:		AT 566/3M3500+	
Date Sampled: 06/25/2024		Sampling Time (Minutes):		480	
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Date Analyzed
Gasoline	9.2	<30	<6.8	N/A	07/04/2024
Benzene	9.7	<0.50	<0.11	<0.034	07/04/2024
THCs as n-Hexane	9.9	<30	<6.3	<1.8	07/04/2024
Toluene	9.5	<3.0	<0.66	<0.17	07/04/2024
Xylenes	7.5	<6.0	<1.7	<0.38	07/04/2024
RL = Reporting Limit					

Client ID: SRT-RF-2024-02-003		Matrix:		Passive Monitor	
BV Labs ID: ZP1965		Sample Media:		AT 566/3M3500+	
Date Sampled: 06/25/2024		Sampling Time (Minutes):		480	
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Date Analyzed
Gasoline	9.2	<30	<6.8	N/A	07/04/2024
Benzene	9.7	<0.50	<0.11	<0.034	07/04/2024
THCs as n-Hexane	9.9	<30	<6.3	<1.8	07/04/2024
Toluene	9.5	<3.0	<0.66	<0.17	07/04/2024
Xylenes	7.5	<6.0	<1.7	<0.38	07/04/2024
RL = Reporting Limit					

Client ID: SRT-RF-2024-02-004		Matrix:		Passive Monitor	
BV Labs ID: ZP1966		Sample Media:		AT 566/3M3500+	
Date Sampled: 06/25/2024		Sampling Time (Minutes):		480	
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Date Analyzed
Gasoline	9.2	<30	<6.8	N/A	07/04/2024
Benzene	9.7	<0.50	<0.11	<0.034	07/04/2024
THCs as n-Hexane	9.9	<30	<6.3	<1.8	07/04/2024
Toluene	9.5	<3.0	<0.66	<0.17	07/04/2024
Xylenes	7.5	<6.0	<1.7	<0.38	07/04/2024
RL = Reporting Limit					



BV Labs Job #: C419350  
Report Date: 07/08/2024

BANGCHAK SRIRACHA REFINING COMPANY  
Client Project #: SRT-RF-2024-02

ANALYTICAL RESULTS

Client ID: SRT-RF-2024-02-005		Matrix:		Passive Monitor	
BV Labs ID: ZP1967		Sample Media:		AT 566/3M3500+	
Date Sampled: 06/25/2024		Sampling Time (Minutes):		480	
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Date Analyzed
Gasoline	9.2	<30	<6.8	N/A	07/04/2024
Benzene	9.7	<0.50	<0.11	<0.034	07/04/2024
THCs as n-Hexane	9.9	<30	<6.3	<1.8	07/04/2024
Toluene	9.5	<3.0	<0.66	<0.17	07/04/2024
Xylenes	7.5	<6.0	<1.7	<0.38	07/04/2024
RL = Reporting Limit					

Client ID: SRT-RF-2024-02-BLANK		Matrix:		Passive Monitor	
BV Labs ID: ZP1968		Sample Media:		AT 566/3M3500+	
Date Sampled:		Sampling Time (Minutes):		480	
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Date Analyzed
Gasoline	9.2	<30	<6.8	N/A	07/04/2024
Benzene	9.7	<0.50	<0.11	<0.034	07/04/2024
THCs as n-Hexane	9.9	40	8.4	2.4	07/04/2024
Toluene	9.5	<3.0	<0.66	<0.17	07/04/2024
Xylenes	7.5	<6.0	<1.7	<0.38	07/04/2024
RL = Reporting Limit					



Page 4 of 5