

ภาคผนวก

ภาคผนวก ก
รายงานผลการวิเคราะห์



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

NSC-TISI-TIS 17025
TESTING 0207



ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION

SAMPLING SOURCE : BAN AO UDOM
SAMPLE TYPE : AMBIENT
SAMPLING DATE : APRIL 29, 2024
SAMPLING TIME : APRIL 29 - MAY 3, 2024
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIJET
ANALYZED BY : MISS JETJARIN TUMSA-AT

RECEIVED DATE : APRIL 29, 2024
ANALYTICAL DATE : APRIL 29 - MAY 3, 2024
ISSUE DATE : MAY 9, 2024
REPORT NO. : 2024-U039128
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIBS1-0010

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			BAN AO UDOM	
TOTAL SUSPENDED PARTICULATE	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	T24AIBS1-0008	T24AIBS1-0010
PARTICULATE MATTER (≤ 10 µm)	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	0.057	0.055
SAMPLE CONDITION			COMPLETE	COMPLETE

REMARK
TSP, PM10
TSP : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
: US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX B, REFERENCE METHOD FOR THE DETERMINATION OF SUSPENDED PARTICULATE MATTER IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
PM10 : US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX J, REFERENCE METHOD FOR THE DETERMINATION OF PARTICULATE MATTER AS PM10 IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
* : SAMPLING FROM 09:00 HOUR ON APRIL 20, 2024 TO 09:00 HOUR ON APRIL 21, 2024.
** : SAMPLING FROM 09:00 HOUR ON APRIL 21, 2024 TO 09:00 HOUR ON APRIL 22, 2024.
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(MISS BUDSAKORN LERDPANUNJAS)
LABORATORY SUPERVISOR



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ANALYSIS REPORT

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

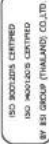
CONTACT INFORMATION

SAMPLING SOURCE : BAN AO UDOM
SAMPLE TYPE : AMBIENT
SAMPLING DATE : APRIL 29, 2024
SAMPLING TIME : APRIL 29 - MAY 3, 2024
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIJET
ANALYZED BY : MISS JETJARIN TUMSA-AT

RECEIVED DATE : APRIL 29, 2024
ANALYTICAL DATE : APRIL 29 - MAY 3, 2024
ISSUE DATE : MAY 9, 2024
REPORT NO. : 2024-U039128
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIBS1-0011

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			BAN AO UDOM	
TOTAL SUSPENDED PARTICULATE	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	T24AIBS1-0011	T24AIBS1-0014
PARTICULATE MATTER (≤ 10 µm)	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	0.061	0.062
SAMPLE CONDITION			COMPLETE	COMPLETE

REMARK
TSP, PM10
TSP : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
: US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX B, REFERENCE METHOD FOR THE DETERMINATION OF SUSPENDED PARTICULATE MATTER IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
PM10 : US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX J, REFERENCE METHOD FOR THE DETERMINATION OF PARTICULATE MATTER AS PM10 IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
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(MISS BUDSAKORN LERDPANUNJAS)
LABORATORY SUPERVISOR



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NSC-TIS1-TIS 17025
TESTING Q207

ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : LAM CHABANG PORT'S G

SAMPLE TYPE : AMBIENT

SAMPLING DATE : APRIL 29, 2024

SAMPLING TIME : APRIL 29 - MAY 3, 2024

SAMPLING BY : MR SIRAPAT JONGPHADUNGKIEI

ANALYZED BY : MISS JETARIN TUMSA-AT

RECEIVED DATE : APRIL 29, 2024

ANALYTICAL DATE : APRIL 29 - MAY 3, 2024

ISSUE DATE : MAY 9, 2024

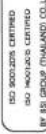
REPORT NO. : 2024-U039130

WORK NO. : 2019-002022

ANALYSIS NO. : T24AIBS1-0015 - T24AIBS1-0017

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LAM CHABANG PORT'S G	
TOTAL SUSPENDED PARTICULATE	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	T24AIBS1-0015	T24AIBS1-0017
PARTICULATE MATTER (≤ 10 µm)	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	0.040	0.034
SAMPLE CONDITION			COMPLETE	COMPLETE

REMARK
TSP, PM10
TSP : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
: US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX B, REFERENCE METHOD FOR THE DETERMINATION OF SUSPENDED PARTICULATE MATTER IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
PM10 : US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX J, REFERENCE METHOD FOR THE DETERMINATION OF PARTICULATE MATTER AS PM10 IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
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**** :



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NSC-TIS1-TIS 17025
TESTING Q207

ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : LAM CHABANG PORT'S G

SAMPLE TYPE : AMBIENT

SAMPLING DATE : APRIL 29, 2024

SAMPLING TIME : APRIL 29 - MAY 3, 2024

SAMPLING BY : MR SIRAPAT JONGPHADUNGKIEI

ANALYZED BY : MISS JETARIN TUMSA-AT

RECEIVED DATE : APRIL 29, 2024

ANALYTICAL DATE : APRIL 29 - MAY 3, 2024

ISSUE DATE : MAY 9, 2024

REPORT NO. : 2024-U039131

WORK NO. : 2019-002022

ANALYSIS NO. : T24AIBS1-0018 - T24AIBS1-0021

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LAM CHABANG PORT'S G	
TOTAL SUSPENDED PARTICULATE	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	T24AIBS1-0018	T24AIBS1-0020
PARTICULATE MATTER (≤ 10 µm)	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	0.036	0.030
SAMPLE CONDITION			COMPLETE	COMPLETE

REMARK
TSP, PM10
TSP : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
: US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX B, REFERENCE METHOD FOR THE DETERMINATION OF SUSPENDED PARTICULATE MATTER IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
PM10 : US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX J, REFERENCE METHOD FOR THE DETERMINATION OF PARTICULATE MATTER AS PM10 IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
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NSC-TISI-TIS 17025
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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

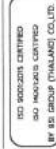
CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : K.U.STATION
SAMPLE TYPE : AMBIENT
SAMPLING DATE : APRIL 29, 2024
SAMPLING TIME : APRIL 29 - MAY 3, 2024
SAMPLING BY : MR. SIRAPAT JONGPHADUNOKIET
ANALYZED BY : MISS JETJARIN TUMSA-AT

RECEIVED DATE : APRIL 29, 2024
ANALYTICAL DATE : APRIL 29 - MAY 3, 2024
ISSUE DATE : MAY 9, 2024
REPORT NO. : 2024-U039133
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIBS1-0022 - T24AIBS1-0024

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		
			* T24AIBS1-0022	** T24AIBS1-0023	*** T24AIBS1-0024
TOTAL SUSPENDED PARTICULATE	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	0.046	0.044	0.037
PARTICULATE MATTER (≤ 10 µm)	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	0.034	0.033	0.025
SAMPLE CONDITION			COMPLETE	COMPLETE	COMPLETE

REMARK
TSP, PM10
TSP : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
: US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX B, REFERENCE METHOD FOR THE DETERMINATION OF SUSPENDED PARTICULATE MATTER IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
PM10 : US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX J, REFERENCE METHOD FOR THE DETERMINATION OF PARTICULATE MATTER AS PM10 IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
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*** : SAMPLING FROM 08:30 HOUR ON APRIL 22, 2024 TO 08:30 HOUR ON APRIL 23, 2024.



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NSC-TISI-TIS 17025
TESTING 0207

ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

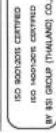
CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : K.U.STATION
SAMPLE TYPE : AMBIENT
SAMPLING DATE : APRIL 29, 2024
SAMPLING TIME : APRIL 29 - MAY 3, 2024
SAMPLING BY : MR. SIRAPAT JONGPHADUNOKIET
ANALYZED BY : MISS JETJARIN TUMSA-AT

RECEIVED DATE : APRIL 29, 2024
ANALYTICAL DATE : APRIL 29 - MAY 3, 2024
ISSUE DATE : MAY 9, 2024
REPORT NO. : 2024-U039134
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIBS1-0025 - T24AIBS1-0028

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		
			* T24AIBS1-0025	** T24AIBS1-0026	*** T24AIBS1-0027
TOTAL SUSPENDED PARTICULATE	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	0.043	0.036	0.037
PARTICULATE MATTER (≤ 10 µm)	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	0.017	0.017	0.018
SAMPLE CONDITION			COMPLETE	COMPLETE	COMPLETE

REMARK
TSP, PM10
TSP : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
: US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX B, REFERENCE METHOD FOR THE DETERMINATION OF SUSPENDED PARTICULATE MATTER IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
PM10 : US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX J, REFERENCE METHOD FOR THE DETERMINATION OF PARTICULATE MATTER AS PM10 IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
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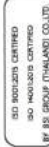


ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE : REFINERY GATE
SAMPLE TYPE : AMBIENT
SAMPLING DATE : APRIL 29 - MAY 3, 2024
SAMPLING TIME : MAY 9, 2024
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIEI
ANALYZED BY : MISS JETJARIN TUMSA-AT
RECEIVED DATE : APRIL 29 - MAY 3, 2024
ANALYTICAL DATE : APRIL 29 - MAY 3, 2024
ISSUE DATE : MAY 9, 2024
REPORT NO. : 2024-U039126
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIBS1-0001 - T24AIBS1-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		
			*	**	***
TOTAL SUSPENDED PARTICULATE	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	T24AIBS1-0001	T24AIBS1-0002	T24AIBS1-0003
			0.043	0.056	0.036
PARTICULATE MATTER (≤ 10 µm)	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	COMPLETE	COMPLETE	COMPLETE
SAMPLE CONDITION					
			COMPLETE	COMPLETE	COMPLETE

REMARK
TSP, PM10
TSP : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
: US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX B, REFERENCE METHOD FOR THE DETERMINATION OF SUSPENDED PARTICULATE MATTER IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
REVISED AS OF JULY 1, 2021.
PM10 : US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX J, REFERENCE METHOD FOR THE DETERMINATION OF PARTICULATE MATTER AS PM10 IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE : REFINERY GATE
SAMPLE TYPE : AMBIENT
SAMPLING DATE : APRIL 29 - MAY 3, 2024
SAMPLING TIME : MAY 9, 2024
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIEI
ANALYZED BY : MISS JETJARIN TUMSA-AT
RECEIVED DATE : APRIL 29 - MAY 3, 2024
ANALYTICAL DATE : APRIL 29 - MAY 3, 2024
ISSUE DATE : MAY 9, 2024
REPORT NO. : 2024-U039127
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIBS1-0004 - T24AIBS1-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		
			*	**	***
TOTAL SUSPENDED PARTICULATE	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	T24AIBS1-0004	T24AIBS1-0005	T24AIBS1-0007
			0.041	0.032	0.039
PARTICULATE MATTER (≤ 10 µm)	mg/m ³	GRAVIMETRIC (HIGH VOLUME METHOD)	COMPLETE	COMPLETE	COMPLETE
SAMPLE CONDITION					
			COMPLETE	COMPLETE	COMPLETE

REMARK
TSP, PM10
TSP : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
: US EPA, CODE OF FEDERAL REGULATIONS, 40 CFR CHAPTER I-PART 50 APPENDIX B, REFERENCE METHOD FOR THE DETERMINATION OF SUSPENDED PARTICULATE MATTER IN THE ATMOSPHERE (HIGH-VOLUME METHOD)
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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
MEASURING PLACE : BAN AO UDOM
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : APRIL 20-27, 2024
MEASURING TIME : *
MEASURING METHOD : CHEMILUMINESCENCE
MEASURED BY : MR SIRAPAT JONGPHADUNGKJET
RECEIVED DATE : APRIL 20-27, 2024
ANALYTICAL DATE : APRIL 20-27, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037543
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIBS1-0008 - T24AIBS1-0014

TIME *	RESULT (ppm)		
	NITROGEN DIOXIDE		
	BAN AO UDOM		
	APRIL 20-21, 2024 T24AIBS1-0008	APRIL 21-22, 2024 T24AIBS1-0009	APRIL 22-23, 2024 T24AIBS1-0010
	08:00-09:00 HOUR 0.0112	0.0100 0.0109	0.0100 0.0109
09:00-10:00 HOUR 0.0105	0.0108 0.0100	0.0100 0.0105	0.0100 0.0105
10:00-11:00 HOUR 0.0111	0.0100 0.0107	0.0100 0.0099	0.0100 0.0099
11:00-12:00 HOUR 0.0107	0.0108 0.0107	0.0108 0.0108	0.0108 0.0108
12:00-13:00 HOUR 0.0108	0.0101 0.0101	0.0101 0.0101	0.0101 0.0101
13:00-14:00 HOUR 0.0101	0.0107 0.0101	0.0109 0.0111	0.0107 0.0111
14:00-15:00 HOUR 0.0107	0.0101 0.0101	0.0100 0.0104	0.0101 0.0104
15:00-16:00 HOUR 0.0101	0.0109 0.0110	0.0100 0.0108	0.0104 0.0108
16:00-17:00 HOUR 0.0110	0.0108 0.0108	0.0102 0.0107	0.0108 0.0107
17:00-18:00 HOUR 0.0108	0.0101 0.0101	0.0101 0.0101	0.0101 0.0101
18:00-19:00 HOUR 0.0101	0.0109 0.0109	0.0109 0.0109	0.0107 0.0107
19:00-20:00 HOUR 0.0101	0.0100 0.0103	0.0099 0.0093	0.0110 0.0103
20:00-21:00 HOUR 0.0103	0.0102 0.0088	0.0092 0.0088	0.0101 0.0088
21:00-22:00 HOUR 0.0102	0.0093 0.0105	0.0100 0.0096	0.0096 0.0096
22:00-23:00 HOUR 0.0088	0.0105 0.0100	0.0096 0.0100	0.0098 0.0095
23:00-00:00 HOUR 0.0093	0.0100 0.0100	0.0096 0.0100	0.0096 0.0091
00:00-01:00 HOUR 0.0105	0.0100 0.0100	0.0098 0.0100	0.0095 0.0104
01:00-02:00 HOUR 0.0100	0.0100 0.0100	0.0098 0.0098	0.0091 0.0107
02:00-03:00 HOUR 0.0100	0.0104 0.0093	0.0095 0.0104	0.0104 0.0104
03:00-04:00 HOUR 0.0104	0.0099 0.0108	0.0091 0.0105	0.0091 0.0107
04:00-05:00 HOUR 0.0099	0.0108 0.0102	0.0105 0.0108	0.0105 0.0104
05:00-06:00 HOUR 0.0108	0.0109 0.0109	0.0106 0.0106	0.0106 0.0107
06:00-07:00 HOUR 0.0102	0.0109 0.0109	0.0106 0.0106	0.0106 0.0107
07:00-08:00 HOUR 0.0109	0.0106 0.0106	0.0106 0.0106	0.0106 0.0107

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TIME *	RESULT (ppm)		
	NITROGEN DIOXIDE		
	BAN AO UDOM		
	APRIL 23-24, 2024 T24AIBS1-0011	APRIL 24-25, 2024 T24AIBS1-0012	APRIL 25-26, 2024 T24AIBS1-0013
	08:00-09:00 HOUR 0.0108	0.0099 0.0105	0.0111 0.0100
09:00-10:00 HOUR 0.0109	0.0107 0.0110	0.0101 0.0103	0.0107 0.0105
10:00-11:00 HOUR 0.0107	0.0108 0.0108	0.0102 0.0102	0.0100 0.0100
11:00-12:00 HOUR 0.0110	0.0109 0.0109	0.0101 0.0101	0.0105 0.0105
12:00-13:00 HOUR 0.0107	0.0108 0.0108	0.0108 0.0108	0.0098 0.0101
13:00-14:00 HOUR 0.0112	0.0109 0.0109	0.0101 0.0101	0.0102 0.0107
14:00-15:00 HOUR 0.0109	0.0104 0.0107	0.0108 0.0106	0.0108 0.0105
15:00-16:00 HOUR 0.0104	0.0105 0.0105	0.0109 0.0109	0.0113 0.0100
16:00-17:00 HOUR 0.0107	0.0107 0.0099	0.0108 0.0105	0.0101 0.0098
17:00-18:00 HOUR 0.0105	0.0108 0.0108	0.0104 0.0104	0.0106 0.0095
18:00-19:00 HOUR 0.0107	0.0102 0.0102	0.0112 0.0110	0.0103 0.0107
19:00-20:00 HOUR 0.0099	0.0108 0.0108	0.0105 0.0105	0.0095 0.0100
20:00-21:00 HOUR 0.0108	0.0102 0.0102	0.0112 0.0110	0.0091 0.0095
21:00-22:00 HOUR 0.0102	0.0108 0.0108	0.0105 0.0105	0.0100 0.0100
22:00-23:00 HOUR 0.0102	0.0100 0.0100	0.0107 0.0107	0.0096 0.0099
23:00-00:00 HOUR 0.0100	0.0092 0.0094	0.0104 0.0100	0.0104 0.0103
00:00-01:00 HOUR 0.0092	0.0092 0.0093	0.0108 0.0104	0.0105 0.0109
01:00-02:00 HOUR 0.0094	0.0092 0.0092	0.0109 0.0109	0.0104 0.0104
02:00-03:00 HOUR 0.0092	0.0092 0.0092	0.0104 0.0104	0.0106 0.0104
03:00-04:00 HOUR 0.0094	0.0092 0.0093	0.0108 0.0104	0.0105 0.0109
04:00-05:00 HOUR 0.0092	0.0093 0.0092	0.0109 0.0109	0.0104 0.0104
05:00-06:00 HOUR 0.0093	0.0092 0.0092	0.0104 0.0104	0.0106 0.0104
06:00-07:00 HOUR 0.0092	0.0092 0.0092	0.0104 0.0104	0.0106 0.0104
07:00-08:00 HOUR 0.0092	0.0092 0.0092	0.0104 0.0104	0.0106 0.0104

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Tel.0 2763 2828 Fax 0 2763 2800 www.ljaeconsultant.com E-mail: use@ljaeconsultant.com

ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHA SI RACHA CHON BURI 20230
CONTACT INFORMATION : [REDACTED]
MEASURING PLACE : LAM CHABANG PORT'S G
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : APRIL 20-27, 2024
MEASURING TIME : *
MEASURING METHOD : CHEMILUMINESCENCE
MEASURED BY : MR SIRAPAT JONGPHADUNGKIJET
RECEIVED DATE : APRIL 20-27, 2024
ANALYTICAL DATE : APRIL 20-27, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037544
WORK NO. : 2019-002022
ANALYSIS NO. : T24AB51-0015 - T24AB51-0021

TIME *	RESULT (ppm)		
	NITROGEN DIOXIDE		
	LAM CHABANG PORT'S G		
	APRIL 20-21, 2024 T24AB51-0015	APRIL 21-22, 2024 T24AB51-0016	APRIL 22-23, 2024 T24AB51-0017
	08:00-09:00 HOUR 09:00-10:00 HOUR 10:00-11:00 HOUR 11:00-12:00 HOUR 12:00-13:00 HOUR 13:00-14:00 HOUR 14:00-15:00 HOUR 15:00-16:00 HOUR 16:00-17:00 HOUR 17:00-18:00 HOUR 18:00-19:00 HOUR 19:00-20:00 HOUR 20:00-21:00 HOUR 21:00-22:00 HOUR 22:00-23:00 HOUR 23:00-00:00 HOUR 00:00-01:00 HOUR 01:00-02:00 HOUR 02:00-03:00 HOUR 03:00-04:00 HOUR 04:00-05:00 HOUR 05:00-06:00 HOUR 06:00-07:00 HOUR 07:00-08:00 HOUR	0.0122 0.0115 0.0121 0.0117 0.0116 0.0114 0.0118 0.0117 0.0112 0.0120 0.0116 0.0120 0.0117 0.0119 0.0122 0.0111 0.0119 0.0117 0.0116 0.0112 0.0108 0.0115 0.0116 0.0121	0.0112 0.0118 0.0116 0.0118 0.0115 0.0120 0.0117 0.0119 0.0119 0.0120 0.0118 0.0117 0.0117 0.0118 0.0111 0.0117 0.0118 0.0116 0.0112 0.0110 0.0105 0.0118 0.0113



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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
MEASURING PLACE : K.U.STATION
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : APRIL 20-27, 2024
MEASURING TIME : *
MEASURING METHOD : CHEMILUMINESCENCE
MEASURED BY : MR SIRAPAT JONGPHADUNGKIJET
RECEIVED DATE : APRIL 20-27, 2024
ANALYTICAL DATE : APRIL 20-27, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037545
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIBS1-0022 - T24AIBS1-0028

TIME *	RESULT (ppm)		
	NITROGEN DIOXIDE		
	APRIL 20-21, 2024 T24AIBS1-0022	APRIL 21-22, 2024 T24AIBS1-0023	APRIL 22-23, 2024 T24AIBS1-0024
08:00-09:00 HOUR	0.0102	0.0072	0.0084
09:00-10:00 HOUR	0.0110	0.0071	0.0080
10:00-11:00 HOUR	0.0101	0.0070	0.0080
11:00-12:00 HOUR	0.0099	0.0074	0.0079
12:00-13:00 HOUR	0.0092	0.0063	0.0077
13:00-14:00 HOUR	0.0090	0.0076	0.0083
14:00-15:00 HOUR	0.0083	0.0072	0.0081
15:00-16:00 HOUR	0.0084	0.0076	0.0082
16:00-17:00 HOUR	0.0079	0.0083	0.0082
17:00-18:00 HOUR	0.0084	0.0080	0.0078
18:00-19:00 HOUR	0.0088	0.0079	0.0079
19:00-20:00 HOUR	0.0075	0.0072	0.0086
20:00-21:00 HOUR	0.0073	0.0072	0.0086
21:00-22:00 HOUR	0.0071	0.0073	0.0083
22:00-23:00 HOUR	0.0069	0.0070	0.0086
23:00-00:00 HOUR	0.0066	0.0069	0.0080
00:00-01:00 HOUR	0.0074	0.0069	0.0077
01:00-02:00 HOUR	0.0073	0.0064	0.0074
02:00-03:00 HOUR	0.0073	0.0066	0.0067
03:00-04:00 HOUR	0.0073	0.0074	0.0068
04:00-05:00 HOUR	0.0069	0.0075	0.0068
05:00-06:00 HOUR	0.0076	0.0084	0.0076
06:00-07:00 HOUR	0.0075	0.0080	0.0067
07:00-08:00 HOUR	0.0075	0.0078	0.0075



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TIME *	RESULT (ppm)		
	NITROGEN DIOXIDE		
	APRIL 23-24, 2024 T24AIBS1-0025	APRIL 24-25, 2024 T24AIBS1-0026	APRIL 25-26, 2024 T24AIBS1-0027
08:00-09:00 HOUR	0.0081	0.0076	0.0085
09:00-10:00 HOUR	0.0082	0.0083	0.0085
10:00-11:00 HOUR	0.0076	0.0079	0.0082
11:00-12:00 HOUR	0.0087	0.0084	0.0077
12:00-13:00 HOUR	0.0079	0.0080	0.0082
13:00-14:00 HOUR	0.0077	0.0084	0.0088
14:00-15:00 HOUR	0.0078	0.0084	0.0082
15:00-16:00 HOUR	0.0084	0.0079	0.0082
16:00-17:00 HOUR	0.0077	0.0075	0.0081
17:00-18:00 HOUR	0.0075	0.0085	0.0086
18:00-19:00 HOUR	0.0085	0.0088	0.0078
19:00-20:00 HOUR	0.0084	0.0082	0.0079
20:00-21:00 HOUR	0.0074	0.0079	0.0080
21:00-22:00 HOUR	0.0083	0.0080	0.0080
22:00-23:00 HOUR	0.0077	0.0086	0.0080
23:00-00:00 HOUR	0.0074	0.0081	0.0087
00:00-01:00 HOUR	0.0077	0.0079	0.0085
01:00-02:00 HOUR	0.0075	0.0081	0.0081
02:00-03:00 HOUR	0.0073	0.0082	0.0078
03:00-04:00 HOUR	0.0068	0.0087	0.0086
04:00-05:00 HOUR	0.0078	0.0084	0.0080
05:00-06:00 HOUR	0.0069	0.0079	0.0077
06:00-07:00 HOUR	0.0064	0.0078	0.0080
07:00-08:00 HOUR	0.0069	0.0077	0.0083

(MR.SILA BANJONGJAIKUK)
LABORATORY SUPERVISOR



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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
MEASURING PLACE : REFINERY GATE
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : APRIL 20-27, 2024
MEASURING TIME : *
MEASURING METHOD : CHEMILUMINESCENCE
MEASURED BY : MR SIRAPAT JONGPHADUNGKJET
RECEIVED DATE : APRIL 20-27, 2024
ANALYTICAL DATE : APRIL 20-27, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037542
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIBS1-0001 - T24AIBS1-0007

TIME *	RESULT (ppm)		
	NITROGEN DIOXIDE		
	REFINERY GATE		
TIME *	APRIL 20-21, 2024 T24AIBS1-0001	APRIL 21-22, 2024 T24AIBS1-0002	APRIL 22-23, 2024 T24AIBS1-0003
	08:00-09:00 HOUR	0.0083	0.0090
	09:00-10:00 HOUR	0.0083	0.0088
	10:00-11:00 HOUR	0.0082	0.0078
	11:00-12:00 HOUR	0.0089	0.0093
	12:00-13:00 HOUR	0.0077	0.0087
	13:00-14:00 HOUR	0.0084	0.0081
	14:00-15:00 HOUR	0.0083	0.0090
	15:00-16:00 HOUR	0.0083	0.0083
	16:00-17:00 HOUR	0.0081	0.0090
	17:00-18:00 HOUR	0.0080	0.0085
	18:00-19:00 HOUR	0.0077	0.0088
	19:00-20:00 HOUR	0.0064	0.0084
	20:00-21:00 HOUR	0.0069	0.0072
	21:00-22:00 HOUR	0.0058	0.0069
	22:00-23:00 HOUR	0.0058	0.0072
TIME *	APRIL 20-21, 2024 T24AIBS1-0001	APRIL 21-22, 2024 T24AIBS1-0002	APRIL 22-23, 2024 T24AIBS1-0003
	23:00-00:00 HOUR	0.0078	0.0065
	00:00-01:00 HOUR	0.0067	0.0070
	01:00-02:00 HOUR	0.0057	0.0069
	02:00-03:00 HOUR	0.0067	0.0062
	03:00-04:00 HOUR	0.0078	0.0055
	04:00-05:00 HOUR	0.0081	0.0064
	05:00-06:00 HOUR	0.0078	0.0078
	06:00-07:00 HOUR	0.0087	0.0073
	07:00-08:00 HOUR	0.0081	0.0086
	08:00-09:00 HOUR	0.0083	0.0090
	09:00-10:00 HOUR	0.0083	0.0088
	10:00-11:00 HOUR	0.0082	0.0088
	11:00-12:00 HOUR	0.0089	0.0093
	12:00-13:00 HOUR	0.0077	0.0087
	13:00-14:00 HOUR	0.0084	0.0081
	14:00-15:00 HOUR	0.0083	0.0090
	15:00-16:00 HOUR	0.0083	0.0083
	16:00-17:00 HOUR	0.0081	0.0090
	17:00-18:00 HOUR	0.0080	0.0085
	18:00-19:00 HOUR	0.0077	0.0088
	19:00-20:00 HOUR	0.0064	0.0084
	20:00-21:00 HOUR	0.0069	0.0072
	21:00-22:00 HOUR	0.0058	0.0069
	22:00-23:00 HOUR	0.0058	0.0072
	23:00-00:00 HOUR	0.0078	0.0065
	00:00-01:00 HOUR	0.0067	0.0070
	01:00-02:00 HOUR	0.0057	0.0069
	02:00-03:00 HOUR	0.0067	0.0062
	03:00-04:00 HOUR	0.0078	0.0055
	04:00-05:00 HOUR	0.0081	0.0064
	05:00-06:00 HOUR	0.0078	0.0078
	06:00-07:00 HOUR	0.0087	0.0073
	07:00-08:00 HOUR	0.0081	0.0086

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RESULT (ppm)

TIME *	NITROGEN DIOXIDE		
	REFINERY GATE		
	APRIL 23-24, 2024 T24AIBS1-0004	APRIL 24-25, 2024 T24AIBS1-0005	APRIL 25-26, 2024 T24AIBS1-0006
TIME *	APRIL 23-24, 2024 T24AIBS1-0004	APRIL 24-25, 2024 T24AIBS1-0005	APRIL 25-26, 2024 T24AIBS1-0006
	08:00-09:00 HOUR	0.0089	0.0096
	09:00-10:00 HOUR	0.0091	0.0115
	10:00-11:00 HOUR	0.0095	0.0103
	11:00-12:00 HOUR	0.0089	0.0111
	12:00-13:00 HOUR	0.0083	0.0109
	13:00-14:00 HOUR	0.0092	0.0111
	14:00-15:00 HOUR	0.0099	0.0111
	15:00-16:00 HOUR	0.0092	0.0109
	16:00-17:00 HOUR	0.0091	0.0105
	17:00-18:00 HOUR	0.0100	0.0096
	18:00-19:00 HOUR	0.0099	0.0089
	19:00-20:00 HOUR	0.0100	0.0087
	20:00-21:00 HOUR	0.0093	0.0091
	21:00-22:00 HOUR	0.0094	0.0085
	22:00-23:00 HOUR	0.0088	0.0079
TIME *	APRIL 23-24, 2024 T24AIBS1-0004	APRIL 24-25, 2024 T24AIBS1-0005	APRIL 25-26, 2024 T24AIBS1-0006
	23:00-00:00 HOUR	0.0083	0.0090
	00:00-01:00 HOUR	0.0085	0.0084
	01:00-02:00 HOUR	0.0084	0.0081
	02:00-03:00 HOUR	0.0085	0.0086
	03:00-04:00 HOUR	0.0091	0.0091
	04:00-05:00 HOUR	0.0083	0.0086
	05:00-06:00 HOUR	0.0081	0.0085
	06:00-07:00 HOUR	0.0084	0.0076
	07:00-08:00 HOUR	0.0084	0.0092
	08:00-09:00 HOUR	0.0089	0.0089
	09:00-10:00 HOUR	0.0091	0.0078
	10:00-11:00 HOUR	0.0096	0.0082
	11:00-12:00 HOUR	0.0099	0.0082
	12:00-13:00 HOUR	0.0099	0.0082
	13:00-14:00 HOUR	0.0099	0.0082
	14:00-15:00 HOUR	0.0099	0.0082
	15:00-16:00 HOUR	0.0099	0.0082
	16:00-17:00 HOUR	0.0099	0.0082
	17:00-18:00 HOUR	0.0099	0.0082
	18:00-19:00 HOUR	0.0099	0.0082
	19:00-20:00 HOUR	0.0099	0.0082
	20:00-21:00 HOUR	0.0099	0.0082
	21:00-22:00 HOUR	0.0099	0.0082
	22:00-23:00 HOUR	0.0099	0.0082
	23:00-00:00 HOUR	0.0099	0.0082
	00:00-01:00 HOUR	0.0099	0.0082
	01:00-02:00 HOUR	0.0099	0.0082
	02:00-03:00 HOUR	0.0099	0.0082
	03:00-04:00 HOUR	0.0099	0.0082
	04:00-05:00 HOUR	0.0099	0.0082
	05:00-06:00 HOUR	0.0099	0.0082
	06:00-07:00 HOUR	0.0099	0.0082
	07:00-08:00 HOUR	0.0099	0.0082

(MR. SULA BANDONGSANGRUK)
LABORATORY SUPERVISOR

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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : [REDACTED]
MEASURING PLACE : BAN AO UDOM
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : APRIL 20-27, 2024
MEASURING TIME : *
MEASURING METHOD : UV FLUORESCENCE
MEASURED BY : MR SIRAPAT JONGPHADUNGKIEI
RECEIVED DATE : APRIL 20-27, 2024
ANALYTICAL DATE : APRIL 20-27, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037547
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIB51-0008 - T24AIB51-0014

17871 *	RESULT (ppm)	
	SULPHUR DIOXIDE	
	BAN AO UDOM	
APRIL 20-21, 2024 T24AIB51-0008	APRIL 21-22, 2024 T24AIB51-0009	APRIL 22-23, 2024 T24AIB51-0010
08:00-09:00 HOUR	0.0035	0.0028
09:00-10:00 HOUR	0.0046	0.0027
10:00-11:00 HOUR	0.0038	0.0027
11:00-12:00 HOUR	0.0035	0.0023
12:00-13:00 HOUR	0.0042	0.0030
13:00-14:00 HOUR	0.0040	0.0028
14:00-15:00 HOUR	0.0041	0.0030
15:00-16:00 HOUR	0.0044	0.0031
16:00-17:00 HOUR	0.0039	0.0024
17:00-18:00 HOUR	0.0037	0.0025
18:00-19:00 HOUR	0.0034	0.0027
19:00-20:00 HOUR	0.0031	0.0028
20:00-21:00 HOUR	0.0029	0.0030
21:00-22:00 HOUR	0.0030	0.0026
22:00-23:00 HOUR	0.0030	0.0028
00:00-01:00 HOUR	0.0029	0.0025
01:00-02:00 HOUR	0.0034	0.0028
02:00-03:00 HOUR	0.0029	0.0030
03:00-04:00 HOUR	0.0028	0.0031
04:00-05:00 HOUR	0.0029	0.0030
05:00-06:00 HOUR	0.0031	0.0028
06:00-07:00 HOUR	0.0030	0.0034
07:00-08:00 HOUR	0.0029	0.0033
AVERAGE 24 HOUR	0.0034	0.0029



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17871 *	RESULT (ppm)			
	SULPHUR DIOXIDE			
	BAN AO UDOM			
APRIL 23-24, 2024 T24AIB51-0011	APRIL 24-25, 2024 T24AIB51-0012	APRIL 25-26, 2024 T24AIB51-0013	APRIL 26-27, 2024 T24AIB51-0014	
08:00-09:00 HOUR	0.0029	0.0033	0.0030	0.0029
09:00-10:00 HOUR	0.0033	0.0035	0.0034	0.0030
10:00-11:00 HOUR	0.0041	0.0043	0.0027	0.0029
11:00-12:00 HOUR	0.0043	0.0034	0.0034	0.0028
12:00-13:00 HOUR	0.0044	0.0027	0.0030	0.0029
13:00-14:00 HOUR	0.0047	0.0030	0.0033	0.0028
14:00-15:00 HOUR	0.0036	0.0033	0.0033	0.0030
15:00-16:00 HOUR	0.0040	0.0029	0.0030	0.0031
16:00-17:00 HOUR	0.0039	0.0032	0.0029	0.0029
17:00-18:00 HOUR	0.0041	0.0034	0.0031	0.0031
18:00-19:00 HOUR	0.0046	0.0031	0.0034	0.0034
19:00-20:00 HOUR	0.0044	0.0033	0.0033	0.0032
20:00-21:00 HOUR	0.0043	0.0033	0.0031	0.0028
21:00-22:00 HOUR	0.0045	0.0028	0.0028	0.0029
22:00-23:00 HOUR	0.0030	0.0029	0.0029	0.0028
23:00-00:00 HOUR	0.0031	0.0029	0.0031	0.0029
00:00-01:00 HOUR	0.0029	0.0034	0.0028	0.0032
01:00-02:00 HOUR	0.0034	0.0034	0.0028	0.0031
02:00-03:00 HOUR	0.0033	0.0031	0.0030	0.0033
03:00-04:00 HOUR	0.0032	0.0034	0.0029	0.0029
04:00-05:00 HOUR	0.0034	0.0028	0.0031	0.0032
05:00-06:00 HOUR	0.0034	0.0032	0.0033	0.0033
06:00-07:00 HOUR	0.0039	0.0034	0.0032	0.0031
07:00-08:00 HOUR	0.0030	0.0034	0.0029	0.0029
AVERAGE 24 HOUR	0.0037	0.0032	0.0031	0.0030

(MR. SITA BANNONGJAEKUK)
LABORATORY SUPERVISOR

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UNITED ANALYST AND ENGINEERING CONSULTANT COMPANY LIMITED
CONSULTANT COMPANY LIMITED

ANALYSIS REPORT

CUSTOMER NAME

: BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

ADDRESS

: 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION

MEASURING PLACE : LAM CHABANG PORT'S G

MEASURING TYPE

: AMBIENT (AIR)

MEASURING DATE

: APRIL 20-27, 2024

MEASURING TIME

: *

MEASURING METHOD

: UV FLUORESCENCE

MEASURED BY

: MR SIRAPAT JONGPHADUNGKiet

RECEIVED DATE : APRIL 20-27, 2024

ANALYTICAL DATE : APRIL 20-27, 2024

ISSUE DATE : MAY 7, 2024

REPORT NO. : 2024-U037549

WORK NO. : 2019-02022

ANALYSIS NO. : T24AB51-0015 - T24AB51-0021

1301 *	RESULT (ppm)			
	SULPHUR DIOXIDE			
	LAM CHABANG PORT'S G			
	APRIL 20-21, 2024 T24AB51-0015	APRIL 21-22, 2024 T24AB51-0016	APRIL 22-23, 2024 T24AB51-0017	
08:00-09:00 HOUR	0.0035	0.0035	0.0033	
09:00-10:00 HOUR	0.0038	0.0041	0.0027	
10:00-11:00 HOUR	0.0041	0.0037	0.0030	
11:00-12:00 HOUR	0.0042	0.0033	0.0028	
12:00-13:00 HOUR	0.0053	0.0033	0.0032	
13:00-14:00 HOUR	0.0049	0.0039	0.0035	
14:00-15:00 HOUR	0.0049	0.0033	0.0041	
15:00-16:00 HOUR	0.0045	0.0033	0.0038	
16:00-17:00 HOUR	0.0049	0.0037	0.0033	
17:00-18:00 HOUR	0.0046	0.0039	0.0040	
18:00-19:00 HOUR	0.0044	0.0033	0.0037	
19:00-20:00 HOUR	0.0042	0.0031	0.0035	
20:00-21:00 HOUR	0.0038	0.0029	0.0041	
21:00-22:00 HOUR	0.0037	0.0027	0.0033	
22:00-23:00 HOUR	0.0041	0.0034	0.0036	
23:00-00:00 HOUR	0.0032	0.0030	0.0041	
00:00-01:00 HOUR	0.0038	0.0031	0.0039	
01:00-02:00 HOUR	0.0035	0.0027	0.0034	
02:00-03:00 HOUR	0.0036	0.0027	0.0033	
03:00-04:00 HOUR	0.0039	0.0031	0.0038	
04:00-05:00 HOUR	0.0032	0.0030	0.0040	
05:00-06:00 HOUR	0.0034	0.0033	0.0032	
06:00-07:00 HOUR	0.0034	0.0031	0.0036	
07:00-08:00 HOUR	0.0036	0.0027	0.0033	
AVERAGE 24 HOUR	0.0040	0.0033	0.0035	

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UNITED ANALYST AND ENGINEERING CONSULTANT COMPANY LIMITED
CONSULTANT COMPANY LIMITED

RESULT (ppm)

SULPHUR DIOXIDE

1301 *	LAM CHABANG PORT'S G			
	APRIL 23-24, 2024 T24AB51-0018	APRIL 24-25, 2024 T24AB51-0019	APRIL 25-26, 2024 T24AB51-0020	APRIL 26-27, 2024 T24AB51-0021
08:00-09:00 HOUR	0.0036	0.0036	0.0040	0.0040
09:00-10:00 HOUR	0.0033	0.0036	0.0039	0.0043
10:00-11:00 HOUR	0.0036	0.0032	0.0036	0.0042
11:00-12:00 HOUR	0.0033	0.0039	0.0033	0.0036
12:00-13:00 HOUR	0.0038	0.0032	0.0038	0.0038
13:00-14:00 HOUR	0.0035	0.0035	0.0037	0.0036
14:00-15:00 HOUR	0.0034	0.0040	0.0034	0.0041
15:00-16:00 HOUR	0.0034	0.0033	0.0035	0.0041
16:00-17:00 HOUR	0.0034	0.0037	0.0039	0.0033
17:00-18:00 HOUR	0.0040	0.0034	0.0041	0.0038
18:00-19:00 HOUR	0.0036	0.0035	0.0035	0.0033
19:00-20:00 HOUR	0.0039	0.0033	0.0037	0.0040
20:00-21:00 HOUR	0.0035	0.0033	0.0034	0.0032
21:00-22:00 HOUR	0.0034	0.0038	0.0036	0.0041
22:00-23:00 HOUR	0.0033	0.0036	0.0040	0.0032
23:00-00:00 HOUR	0.0032	0.0034	0.0035	0.0037
00:00-01:00 HOUR	0.0034	0.0038	0.0034	0.0035
01:00-02:00 HOUR	0.0032	0.0033	0.0039	0.0038
02:00-03:00 HOUR	0.0039	0.0032	0.0037	0.0034
03:00-04:00 HOUR	0.0036	0.0035	0.0036	0.0040
04:00-05:00 HOUR	0.0036	0.0041	0.0039	0.0036
05:00-06:00 HOUR	0.0038	0.0038	0.0040	0.0040
06:00-07:00 HOUR	0.0038	0.0037	0.0036	0.0041
07:00-08:00 HOUR	0.0036	0.0033	0.0034	0.0041
AVERAGE 24 HOUR	0.0036	0.0035	0.0037	0.0038

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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
MEASURING PLACE : K.U.STATION
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : APRIL 20-27, 2024
MEASURING TIME : *
MEASURING METHOD : UV FLUORESCENCE
MEASURED BY : MR SIRAPAT JONGPHADUNGKIEI
RECEIVED DATE : APRIL 20-27, 2024
ANALYTICAL DATE : APRIL 20-27, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037552
WORK NO. : 2019-002022
ANALYSIS NO. : T24AB51-0022 - T24AB51-0028

1787 *	RESULT (ppm)	
	SULPHUR DIOXIDE	
	K.U.STATION	
APRIL 20-21, 2024	T24AB51-0022	APRIL 22-23, 2024
	T24AB51-0023	T24AB51-0024
08:00-09:00 HOUR	0.0034	0.0039
09:00-10:00 HOUR	0.0039	0.0035
10:00-11:00 HOUR	0.0037	0.0034
11:00-12:00 HOUR	0.0039	0.0038
12:00-13:00 HOUR	0.0037	0.0039
13:00-14:00 HOUR	0.0035	0.0037
14:00-15:00 HOUR	0.0035	0.0038
15:00-16:00 HOUR	0.0034	0.0039
16:00-17:00 HOUR	0.0037	0.0036
17:00-18:00 HOUR	0.0037	0.0036
18:00-19:00 HOUR	0.0035	0.0036
19:00-20:00 HOUR	0.0037	0.0039
20:00-21:00 HOUR	0.0038	0.0036
21:00-22:00 HOUR	0.0034	0.0037
22:00-23:00 HOUR	0.0036	0.0035
23:00-00:00 HOUR	0.0033	0.0038
00:00-01:00 HOUR	0.0036	0.0037
01:00-02:00 HOUR	0.0035	0.0036
02:00-03:00 HOUR	0.0032	0.0039
03:00-04:00 HOUR	0.0036	0.0039
04:00-05:00 HOUR	0.0033	0.0035
05:00-06:00 HOUR	0.0037	0.0035
06:00-07:00 HOUR	0.0033	0.0034
07:00-08:00 HOUR	0.0032	0.0035
AVERAGE 24 HOUR	0.0035	0.0037



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1787 *	RESULT (ppm)			
	SULPHUR DIOXIDE			
	K.U.STATION			
APRIL 23-24, 2024	T24AB51-0025	APRIL 24-25, 2024	APRIL 25-26, 2024	APRIL 26-27, 2024
	T24AB51-0026	T24AB51-0027	T24AB51-0028	
08:00-09:00 HOUR	0.0043	0.0034	0.0036	0.0038
09:00-10:00 HOUR	0.0041	0.0038	0.0037	0.0036
10:00-11:00 HOUR	0.0044	0.0039	0.0039	0.0037
11:00-12:00 HOUR	0.0036	0.0042	0.0039	0.0037
12:00-13:00 HOUR	0.0042	0.0037	0.0034	0.0038
13:00-14:00 HOUR	0.0037	0.0045	0.0034	0.0034
14:00-15:00 HOUR	0.0033	0.0040	0.0037	0.0038
15:00-16:00 HOUR	0.0034	0.0047	0.0035	0.0038
16:00-17:00 HOUR	0.0035	0.0037	0.0034	0.0035
17:00-18:00 HOUR	0.0038	0.0045	0.0039	0.0037
18:00-19:00 HOUR	0.0042	0.0046	0.0034	0.0037
19:00-20:00 HOUR	0.0039	0.0043	0.0039	0.0039
20:00-21:00 HOUR	0.0036	0.0038	0.0039	0.0036
21:00-22:00 HOUR	0.0039	0.0037	0.0034	0.0035
22:00-23:00 HOUR	0.0038	0.0034	0.0038	0.0038
23:00-00:00 HOUR	0.0039	0.0035	0.0036	0.0039
00:00-01:00 HOUR	0.0038	0.0035	0.0035	0.0035
01:00-02:00 HOUR	0.0034	0.0034	0.0035	0.0039
02:00-03:00 HOUR	0.0037	0.0039	0.0036	0.0038
03:00-04:00 HOUR	0.0039	0.0037	0.0037	0.0037
04:00-05:00 HOUR	0.0036	0.0035	0.0039	0.0038
05:00-06:00 HOUR	0.0036	0.0037	0.0035	0.0035
06:00-07:00 HOUR	0.0039	0.0035	0.0037	0.0035
07:00-08:00 HOUR	0.0037	0.0039	0.0035	0.0037
AVERAGE 24 HOUR	0.0038	0.0039	0.0036	0.0037

(MR SILA BANONGJAIKUN)
LABORATORY SUPERVISOR



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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
MEASURING PLACE :
MEASURING TYPE :
MEASURING DATE :
MEASURING TIME :
MEASURING METHOD :
MEASURED BY :
RECEIVED DATE :
ANALYTICAL DATE :
ISSUE DATE :
REPORT NO. :
WORK NO. :
ANALYSIS NO. :
REFINERY GATE :
T24AIBS1-0001
T24AIBS1-0002
T24AIBS1-0003
T24AIBS1-0004
T24AIBS1-0005
T24AIBS1-0006
T24AIBS1-0007

1301 *	RESULT (ppm)	
	SULPHUR DIOXIDE	
	REFINERY GATE	
	APRIL 20-21, 2024 T24AIBS1-0001	APRIL 21-22, 2024 T24AIBS1-0002
08:00-09:00 HOUR	0.0044	0.0043
09:00-10:00 HOUR	0.0044	0.0043
10:00-11:00 HOUR	0.0048	0.0048
11:00-12:00 HOUR	0.0050	0.0042
12:00-13:00 HOUR	0.0053	0.0050
13:00-14:00 HOUR	0.0053	0.0049
14:00-15:00 HOUR	0.0051	0.0044
15:00-16:00 HOUR	0.0045	0.0048
16:00-17:00 HOUR	0.0051	0.0042
17:00-18:00 HOUR	0.0049	0.0045
18:00-19:00 HOUR	0.0050	0.0053
19:00-20:00 HOUR	0.0052	0.0046
20:00-21:00 HOUR	0.0047	0.0046
21:00-22:00 HOUR	0.0051	0.0051
22:00-23:00 HOUR	0.0050	0.0034
23:00-00:00 HOUR	0.0045	0.0045
00:00-01:00 HOUR	0.0048	0.0042
01:00-02:00 HOUR	0.0048	0.0036
02:00-03:00 HOUR	0.0048	0.0041
03:00-04:00 HOUR	0.0053	0.0042
04:00-05:00 HOUR	0.0042	0.0040
05:00-06:00 HOUR	0.0048	0.0041
06:00-07:00 HOUR	0.0049	0.0039
07:00-08:00 HOUR	0.0052	0.0041
AVERAGE 24 HOUR	0.0049	0.0043



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1301 *	RESULT (ppm)	
	SULPHUR DIOXIDE	
	REFINERY GATE	
	APRIL 23-24, 2024 T24AIBS1-0004	APRIL 24-25, 2024 T24AIBS1-0005
08:00-09:00 HOUR	0.0045	0.0043
09:00-10:00 HOUR	0.0042	0.0043
10:00-11:00 HOUR	0.0051	0.0049
11:00-12:00 HOUR	0.0043	0.0047
12:00-13:00 HOUR	0.0049	0.0048
13:00-14:00 HOUR	0.0047	0.0042
14:00-15:00 HOUR	0.0045	0.0045
15:00-16:00 HOUR	0.0053	0.0049
16:00-17:00 HOUR	0.0044	0.0048
17:00-18:00 HOUR	0.0051	0.0051
18:00-19:00 HOUR	0.0049	0.0050
19:00-20:00 HOUR	0.0044	0.0044
20:00-21:00 HOUR	0.0048	0.0051
21:00-22:00 HOUR	0.0044	0.0051
22:00-23:00 HOUR	0.0046	0.0048
23:00-00:00 HOUR	0.0043	0.0042
00:00-01:00 HOUR	0.0042	0.0045
01:00-02:00 HOUR	0.0046	0.0049
02:00-03:00 HOUR	0.0044	0.0053
03:00-04:00 HOUR	0.0048	0.0045
04:00-05:00 HOUR	0.0045	0.0051
05:00-06:00 HOUR	0.0049	0.0042
06:00-07:00 HOUR	0.0045	0.0047
07:00-08:00 HOUR	0.0045	0.0049
AVERAGE 24 HOUR	0.0046	0.0047

(Signature)
LABORATORY SUPERVISOR



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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
MEASURING PLACE : BAN AO UDOM
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : APRIL 20-27, 2024
MEASURING TIME : *
MEASURING METHOD : WIND SPEED & WIND DIRECTION EQUIPMENT
MEASURED BY : MR SIRAPAT JONGPHADUNGKiet

RECEIVED DATE : APRIL 20-27, 2024
ANALYTICAL DATE : APRIL 20-27, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-1037556
WORK NO. : 2019-002022
ANALYSIS NO. : T24A1851-0008 - T24A1851-0014

TIME *	RESULT (m/s)					
	BAN AO UDOM					
	APRIL 20-21, 2024 T24A1851-0008			APRIL 21-22, 2024 T24A1851-0009		
	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION
08:00-09:00 HOUR	0.8	ESE	2.5	ESE	2.4	NE
09:00-10:00 HOUR	1.6	SE	1.0	ESE	3.4	N
10:00-11:00 HOUR	2.7	SE	0.8	E	2.2	N
11:00-12:00 HOUR	2.3	SSE	3.1	NNE	1.0	NNW
12:00-13:00 HOUR	1.0	SE	2.4	E	1.7	WNW
13:00-14:00 HOUR	2.5	S	2.3	E	1.6	WNW
14:00-15:00 HOUR	0.9	SE	2.9	E	1.0	N
15:00-16:00 HOUR	0.7	ESE	3.4	N	2.2	NNW
16:00-17:00 HOUR	1.1	SSW	3.3	ENE	3.2	N
17:00-18:00 HOUR	1.6	SE	3.0	ENE	2.8	NNW
18:00-19:00 HOUR	2.5	S	2.9	NE	3.3	N
19:00-20:00 HOUR	2.1	S	2.0	NE	1.3	N
20:00-21:00 HOUR	1.8	S	3.3	NNE	1.3	NNW
21:00-22:00 HOUR	3.3	S	0.7	ENE	2.4	N
22:00-23:00 HOUR	1.7	SSW	1.8	NE	0.6	NW
23:00-00:00 HOUR	3.3	ESE	1.2	E	1.6	WNW
00:00-01:00 HOUR	2.4	SSW	2.1	NNE	2.5	SW
01:00-02:00 HOUR	1.1	SSW	1.1	NE	2.9	W
02:00-03:00 HOUR	1.4	SE	1.6	NNE	3.0	WNW
03:00-04:00 HOUR	0.6	SSE	1.7	ENE	1.0	W
04:00-05:00 HOUR	1.7	SSW	2.0	NE	2.0	WSW
05:00-06:00 HOUR	0.8	SE	1.1	E	2.4	SW
06:00-07:00 HOUR	3.3	SSE	1.8	NE	1.1	WNW
07:00-08:00 HOUR	3.0	SSW	3.3	NNE	2.2	WNW

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Tel:0 2763 2828 Fax 0 2763 2800 WWW.uaeconsultant.com E-mail: uae@uaeconsultant.com

RESULT (m/s)

TIME *	BAN AO UDOM					
	APRIL 23-24, 2024 T24A1851-0011			APRIL 24-25, 2024 T24A1851-0012		
	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION
08:00-09:00 HOUR	2.9	SSW	3.2	SE	3.3	ESE
09:00-10:00 HOUR	3.1	W	0.9	ESE	1.1	S
10:00-11:00 HOUR	2.9	WSW	3.0	SSE	2.8	SSE
11:00-12:00 HOUR	2.0	W	0.7	ESE	1.3	SSE
12:00-13:00 HOUR	0.7	WSW	1.2	SSE	3.3	SE
13:00-14:00 HOUR	2.4	WSW	2.9	ESE	1.6	ESE
14:00-15:00 HOUR	1.2	WNW	2.1	SSE	1.1	ESE
15:00-16:00 HOUR	1.1	SSW	2.3	SSW	1.6	SSE
16:00-17:00 HOUR	1.9	S	1.4	ESE	1.1	SE
17:00-18:00 HOUR	0.7	SSE	3.1	SE	3.2	S
18:00-19:00 HOUR	2.3	SSE	1.5	SSE	3.1	SE
19:00-20:00 HOUR	2.4	S	0.9	S	2.7	S
20:00-21:00 HOUR	1.0	SE	3.2	SE	2.8	SSE
21:00-22:00 HOUR	2.9	S	1.1	SE	2.5	ESE
22:00-23:00 HOUR	1.1	SSE	2.2	SE	3.2	S
23:00-00:00 HOUR	2.3	SE	3.2	SE	1.9	SSE
00:00-01:00 HOUR	2.3	SSE	2.4	SE	1.3	ESE
01:00-02:00 HOUR	1.4	ESE	1.8	S	1.5	SSE
02:00-03:00 HOUR	1.4	SE	2.6	ESE	1.9	ESE
03:00-04:00 HOUR	1.7	SE	2.7	SE	2.1	SE
04:00-05:00 HOUR	2.2	SSE	3.0	SE	1.3	SE
05:00-06:00 HOUR	1.6	SSE	2.5	ESE	2.4	S
06:00-07:00 HOUR	2.9	S	1.5	SE	0.6	S
07:00-08:00 HOUR	1.2	SE	0.9	ESE	1.7	SW

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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
MEASURING PLACE : LAM CHABANG PORT'S G
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : APRIL 20-27, 2024
MEASURING TIME : *
MEASURING METHOD : WIND SPEED & WIND DIRECTION EQUIPMENT
MEASURED BY : MR SIRAPAT JONGPHADUNGKiet
RECEIVED DATE : APRIL 20-27, 2024
ANALYTICAL DATE : APRIL 20-27, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037558
WORK NO. : 2019-002022
ANALYSIS NO. : T24A1851-0015 - T24A1851-0021

TIME *	RESULT (m/s)					
	APRIL 20-21, 2024			APRIL 21-22, 2024		
	T24A1851-0015			T24A1851-0016		
	WIND SPEED	WIND DIRECTION		WIND SPEED	WIND DIRECTION	
08:00-09:00 HOUR	1.9	SSE	2.6	NW	0.6	SE
09:00-10:00 HOUR	0.7	SSE	3.4	NW	3.4	SE
10:00-11:00 HOUR	1.5	SSW	0.5	NW	1.1	S
11:00-12:00 HOUR	2.2	SSW	1.7	N	1.1	ESE
12:00-13:00 HOUR	2.4	W	2.3	NW	3.4	SSE
13:00-14:00 HOUR	1.5	WSW	2.9	NNW	2.3	SE
14:00-15:00 HOUR	2.9	NNW	2.9	NW	3.2	ESE
15:00-16:00 HOUR	1.5	SW	2.1	NNW	1.6	ESE
16:00-17:00 HOUR	3.0	W	2.4	NNW	1.6	S
17:00-18:00 HOUR	1.9	SSW	2.5	NNW	3.0	SSE
18:00-19:00 HOUR	0.9	NNW	1.1	SW	2.7	SE
19:00-20:00 HOUR	3.2	SW	0.9	WSW	3.1	S
20:00-21:00 HOUR	1.4	NNW	2.2	W	1.7	S
21:00-22:00 HOUR	2.0	SW	3.3	W	1.6	S
22:00-23:00 HOUR	0.9	WSW	1.4	NNW	3.4	S
23:00-00:00 HOUR	0.6	SSW	0.5	SW	1.9	SE
00:00-01:00 HOUR	2.3	SW	3.2	SSW	0.7	SSE
01:00-02:00 HOUR	1.5	W	1.6	S	3.0	SE
02:00-03:00 HOUR	1.3	SW	1.4	ESE	2.4	SE
03:00-04:00 HOUR	3.4	NNW	3.3	ESE	3.2	SSE
04:00-05:00 HOUR	1.6	NW	0.7	SSW	1.8	SSE
05:00-06:00 HOUR	2.2	N	3.4	ESE	1.1	S
06:00-07:00 HOUR	1.2	N	1.5	SSE	2.5	SSW
07:00-08:00 HOUR	3.1	NW	1.5	S	1.4	S

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RESULT (m/s)

TIME *	LAM CHABANG PORT'S G					
	APRIL 23-24, 2024		APRIL 24-25, 2024		APRIL 25-26, 2024	
	T24A1851-0018		T24A1851-0019		T24A1851-0020	
	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION
08:00-09:00 HOUR	0.6	SSE	1.2	ESE	2.2	ESE
09:00-10:00 HOUR	1.0	SE	1.1	SE	1.0	E
10:00-11:00 HOUR	2.5	SSE	1.1	SSE	1.7	NE
11:00-12:00 HOUR	0.8	ESE	2.8	SSE	2.0	ENE
12:00-13:00 HOUR	2.4	SSW	2.2	SSE	1.4	E
13:00-14:00 HOUR	3.2	ESE	3.0	SSW	1.1	NE
14:00-15:00 HOUR	1.5	SSE	3.2	S	1.9	E
15:00-16:00 HOUR	2.9	SSE	2.4	S	2.8	N
16:00-17:00 HOUR	1.9	ESE	0.7	S	0.9	N
17:00-18:00 HOUR	1.7	SE	2.7	SSE	1.2	NNW
18:00-19:00 HOUR	0.9	SE	1.4	SSE	0.6	NW
19:00-20:00 HOUR	2.7	SE	1.2	ESE	3.1	N
20:00-21:00 HOUR	0.5	SSE	2.8	SSE	0.5	NW
21:00-22:00 HOUR	2.8	S	1.8	SSE	0.9	NNW
22:00-23:00 HOUR	3.1	SSE	0.5	SSE	3.2	WNW
23:00-00:00 HOUR	3.0	ESE	1.9	SE	0.6	NNW
00:00-01:00 HOUR	2.7	ESE	2.5	SE	0.9	NW
01:00-02:00 HOUR	2.8	ESE	2.9	SE	1.5	WNW
02:00-03:00 HOUR	1.3	ESE	2.7	SSE	2.1	W
03:00-04:00 HOUR	0.6	S	1.0	SE	0.7	WSW
04:00-05:00 HOUR	3.0	S	1.9	S	1.9	WNW
05:00-06:00 HOUR	1.5	ESE	0.8	SSW	0.6	WSW
06:00-07:00 HOUR	2.9	SE	1.6	SSW	1.1	SW
07:00-08:00 HOUR	0.9	ESE	1.2	SSW	1.6	SE

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(MR. SULA BANLONGJAEKUK)
LABORATORY SUPERVISOR



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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
MEASURING PLACE : K.U.STATION
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : APRIL 20-27, 2024
MEASURING TIME : *
MEASURING METHOD : WIND SPEED & WIND DIRECTION EQUIPMENT
MEASURED BY : MR SIRAPAT JONGPHADUNGKJET
RECEIVED DATE : APRIL 20-27, 2024
ANALYTICAL DATE : APRIL 20-27, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037559
WORK NO. : 2019-002022
ANALYSIS NO. : T24A1851-0022 - T24A1851-0028

TIME *	RESULT (m/s)					
	K.U.STATION					
	APRIL 20-21, 2024 T24A1851-0022		APRIL 21-22, 2024 T24A1851-0023		APRIL 22-23, 2024 T24A1851-0024	
	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION
08:00-09:00 HOUR	0.6	SSE	1.1	WSW	3.4	ESE
09:00-10:00 HOUR	2.5	SSW	2.5	SSW	3.1	SE
10:00-11:00 HOUR	3.4	ESE	3.4	WSW	1.3	S
11:00-12:00 HOUR	2.9	SE	1.2	W	3.2	SSE
12:00-13:00 HOUR	1.5	S	3.0	SW	3.2	ESE
13:00-14:00 HOUR	1.2	S	2.3	SW	3.4	SE
14:00-15:00 HOUR	1.7	SSE	0.9	SSW	3.3	SSE
15:00-16:00 HOUR	3.0	ESE	2.1	W	3.0	SSE
16:00-17:00 HOUR	3.4	SE	0.9	SSW	0.9	S
17:00-18:00 HOUR	1.6	SE	2.1	SW	2.6	ESE
18:00-19:00 HOUR	3.2	S	1.5	SW	1.0	E
19:00-20:00 HOUR	1.8	S	0.9	S	2.8	NE
20:00-21:00 HOUR	3.3	ESE	2.6	ESE	0.6	NE
21:00-22:00 HOUR	1.2	SSW	0.8	ESE	2.9	E
22:00-23:00 HOUR	0.9	SE	3.3	SSE	1.5	NNE
23:00-00:00 HOUR	2.7	S	3.3	S	0.7	NE
00:00-01:00 HOUR	3.2	SSW	2.5	ESE	3.4	ENE
01:00-02:00 HOUR	0.9	WNW	3.3	SE	3.0	NNE
02:00-03:00 HOUR	1.1	SW	1.9	SE	2.6	NE
03:00-04:00 HOUR	3.5	SSW	0.5	SSE	1.6	NE
04:00-05:00 HOUR	2.2	W	3.4	S	0.5	E
05:00-06:00 HOUR	1.2	WNW	1.4	SSW	0.8	E
06:00-07:00 HOUR	2.4	W	1.7	S	1.1	SSW
07:00-08:00 HOUR	2.6	W	0.6	SE	1.6	ESE

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RESULT (m/s)

TIME *	K.U.STATION					
	APRIL 23-24, 2024 T24A1851-0025		APRIL 24-25, 2024 T24A1851-0026		APRIL 25-26, 2024 T24A1851-0027	
	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION
08:00-09:00 HOUR	2.4	S	2.0	W	2.1	SE
09:00-10:00 HOUR	3.0	S	1.3	NW	1.1	SSE
10:00-11:00 HOUR	1.8	S	1.2	NW	1.9	SSW
11:00-12:00 HOUR	1.4	S	3.1	NW	0.7	S
12:00-13:00 HOUR	2.2	SSE	1.5	NNW	1.8	SE
13:00-14:00 HOUR	1.8	S	3.0	NW	1.7	ESE
14:00-15:00 HOUR	1.7	SE	2.0	N	2.4	S
15:00-16:00 HOUR	0.5	SSE	2.7	N	1.7	ESE
16:00-17:00 HOUR	3.0	SSW	0.7	NNW	1.3	SE
17:00-18:00 HOUR	2.9	SSW	3.3	NW	3.5	SSW
18:00-19:00 HOUR	0.6	WSW	1.2	WNW	1.0	SSE
19:00-20:00 HOUR	0.9	SSW	2.5	WNW	2.3	SE
20:00-21:00 HOUR	2.3	WSW	1.7	SW	0.9	S
21:00-22:00 HOUR	2.2	SW	0.9	W	0.9	SSW
22:00-23:00 HOUR	1.4	SW	1.3	W	0.9	SE
23:00-00:00 HOUR	1.3	WNW	3.5	WSW	1.2	SSW
00:00-01:00 HOUR	3.1	W	2.0	SSW	2.1	S
01:00-02:00 HOUR	2.1	WSW	2.3	S	0.5	SSE
02:00-03:00 HOUR	0.6	WSW	3.0	S	2.9	S
03:00-04:00 HOUR	3.4	SSW	1.7	SSE	1.9	SSW
04:00-05:00 HOUR	1.6	SW	0.7	SSE	1.8	ESE
05:00-06:00 HOUR	2.9	SW	2.9	S	3.3	ESE
06:00-07:00 HOUR	0.5	WSW	0.8	ESE	3.3	S
07:00-08:00 HOUR	0.7	SW	2.3	SE	1.8	S

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(MR SULA BANDONGJARUK)
LABORATORY SUPERVISOR

- End of Analysis Report -



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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA-SI RACHA CHON BURI 20230
CONTACT INFORMATION :
MEASURING PLACE : REFINERY GATE
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : APRIL 20-27, 2024
MEASURING TIME : *
MEASURING METHOD : WIND SPEED & WIND DIRECTION EQUIPMENT
MEASURED BY : MR SIRAPAT JONGPHADUNGKiet

RECEIVED DATE : APRIL 20-27, 2024
ANALYTICAL DATE : APRIL 20-27, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037554
WORK NO. : 2019-002022
ANALYSIS NO. : T24A1851-0001 - T24A1851-0007

TIME *	RESULT (m/s)					
	REFINERY GATE					
	APRIL 20-21, 2024 T24A1851-0001		APRIL 21-22, 2024 T24A1851-0002		APRIL 22-23, 2024 T24A1851-0003	
	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION
08:00-09:00 HOUR	1.6	SSW	1.4	SSW	1.1	SSE
09:00-10:00 HOUR	2.0	SSE	0.8	SSW	1.1	ESE
10:00-11:00 HOUR	2.5	SSE	2.4	SW	0.5	SE
11:00-12:00 HOUR	2.5	SSE	2.8	WSW	2.0	S
12:00-13:00 HOUR	2.6	SE	1.4	SW	1.7	SSW
13:00-14:00 HOUR	3.1	S	0.7	WNW	1.4	SSE
14:00-15:00 HOUR	0.9	ESE	0.6	W	3.1	S
15:00-16:00 HOUR	2.8	S	3.4	SSW	2.7	ESE
16:00-17:00 HOUR	2.1	ESE	1.3	W	1.8	SE
17:00-18:00 HOUR	1.0	SE	1.9	WSW	0.8	S
18:00-19:00 HOUR	2.4	S	2.4	WSW	2.4	S
19:00-20:00 HOUR	3.2	SSW	0.6	WSW	3.2	SSE
20:00-21:00 HOUR	0.9	SE	1.1	SSW	3.1	S
21:00-22:00 HOUR	2.4	ESE	2.2	SSW	1.1	ESE
22:00-23:00 HOUR	2.6	SE	1.7	WNW	1.0	ESE
23:00-00:00 HOUR	0.7	ESE	1.9	SW	3.3	ESE
00:00-01:00 HOUR	3.3	ESE	2.0	W	0.7	S
01:00-02:00 HOUR	1.0	SE	1.1	W	3.4	SSW
02:00-03:00 HOUR	3.2	SE	1.9	SSW	2.2	S
03:00-04:00 HOUR	2.3	S	2.4	W	2.5	SE
04:00-05:00 HOUR	1.1	SSE	1.7	WSW	1.2	SSW
05:00-06:00 HOUR	2.5	S	1.2	SW	2.7	SSE
06:00-07:00 HOUR	2.6	S	0.8	WNW	3.1	S
07:00-08:00 HOUR	0.7	SSE	2.5	SSW	2.8	SE



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RESULT (m/s)

TIME *	REFINERY GATE					
	T24A1851-0004					
	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION	WIND SPEED	WIND DIRECTION
08:00-09:00 HOUR	0.7	ESE	0.9	SSE	3.0	ESE
09:00-10:00 HOUR	1.9	E	1.0	SSE	0.9	SSE
10:00-11:00 HOUR	2.9	ENE	2.0	S	3.1	S
11:00-12:00 HOUR	3.1	NNE	1.2	S	1.2	SE
12:00-13:00 HOUR	3.1	NE	1.3	S	0.5	S
13:00-14:00 HOUR	2.7	NE	3.0	SSW	1.9	ESE
14:00-15:00 HOUR	1.7	E	0.8	SE	2.1	SSE
15:00-16:00 HOUR	1.7	ENE	1.4	S	2.0	SSE
16:00-17:00 HOUR	0.8	ENE	3.1	ESE	3.0	S
17:00-18:00 HOUR	2.4	NNE	2.4	S	1.4	SSE
18:00-19:00 HOUR	2.2	NE	1.7	SSE	0.8	ESE
19:00-20:00 HOUR	0.8	E	2.4	SSE	1.7	ESE
20:00-21:00 HOUR	3.0	E	2.1	S	1.1	SE
21:00-22:00 HOUR	2.6	ESE	2.4	S	3.4	S
22:00-23:00 HOUR	2.2	SSE	2.7	E	1.8	S
23:00-00:00 HOUR	1.6	ESE	3.1	SSE	0.6	S
00:00-01:00 HOUR	3.4	SSE	0.8	SSW	1.6	SSE
01:00-02:00 HOUR	1.3	ESE	2.6	S	2.5	SSW
02:00-03:00 HOUR	3.1	SE	1.3	SE	1.9	ESE
03:00-04:00 HOUR	2.4	SE	1.0	ESE	2.6	SSE
04:00-05:00 HOUR	1.1	SSE	2.9	ESE	1.6	S
05:00-06:00 HOUR	0.6	E	3.2	ESE	0.6	SSE
06:00-07:00 HOUR	3.4	S	2.3	SE	0.6	ESE
07:00-08:00 HOUR	2.5	SSE	0.5	SE	2.6	ESE



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UNITED ANALYST AND ENGINEERING CONSULTANT COMPANY LIMITED

ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

SAMPLING SOURCE : STACK

SAMPLE TYPE : APRIL 23, 2024

SAMPLING DATE : APRIL 29-MAY 3, 2024

SAMPLING TIME : 10:40-11:35 HOUR

SAMPLING BY : MR ATTAPORN THEPTONG ๗-145-๙-0008

ANALYZED BY : MISS SUWAN KONGTHONG ๗-145-๙-0025

RECEIVED DATE : APRIL 29, 2024

ANALYTICAL DATE : APRIL 29-MAY 3, 2024

ISSUE DATE : MAY 7, 2024

REPORT NO. : 2024-U037594

WORK NO. : 2019-002022

ANALYSIS NO. : T24A1850-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			CRUDE DISTILLATION FURNACE (F-101) T24A1850-0001	7% OXYGEN
TOTAL SUSPENDED PARTICULATE	mg/m ³	ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5)	0.53	0.47
SULPHUR DIOXIDE	ppm	ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6)	< 130	< 130
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	30.4	27.1
COMPLETE				

DESCRIPTION	UNIT	RESULT
		CRUDE DISTILLATION FURNACE (F-101) T24A1850-0001
AMBIENT PRESSURE	mmHg	758
AMBIENT TEMPERATURE	°C	35
STACK TEMPERATURE	°C	369.5
DIAMETER	m	1.65
GAS VELOCITY	m/s	7.86
FLOW RATE	Nm ³ /hr	23,534.57
OXYGEN	%	5.33
MOISTURE	%	15.85
CARBONDIOXIDE	%	8.88
VOLUME OF DRY GAS AT STP	m ³	0.935692

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
๗-145-๙-0011

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UNITED ANALYST AND ENGINEERING CONSULTANT COMPANY LIMITED

ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

SAMPLING SOURCE : STACK

SAMPLE TYPE : APRIL 23, 2024

SAMPLING DATE : APRIL 29-MAY 3, 2024

SAMPLING TIME : 10:30-11:50 HOUR

SAMPLING BY : MR ATTAPORN THEPTONG ๗-145-๙-0008

ANALYZED BY : MISS SUWAN KONGTHONG ๗-145-๙-0025

RECEIVED DATE : APRIL 29, 2024

ANALYTICAL DATE : APRIL 29-MAY 3, 2024

ISSUE DATE : MAY 7, 2024

REPORT NO. : 2024-U037595

WORK NO. : 2019-002022

ANALYSIS NO. : T24A1850-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			CRUDE DISTILLATION FURNACE (F-102) T24A1850-0002	7% OXYGEN
TOTAL SUSPENDED PARTICULATE	mg/m ³	ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5)	0.63	0.55
SULPHUR DIOXIDE	ppm	ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6)	< 130	< 130
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	34.4	29.8
COMPLETE				

DESCRIPTION	UNIT	RESULT
		CRUDE DISTILLATION FURNACE (F-102) T24A1850-0002
AMBIENT PRESSURE	mmHg	758
AMBIENT TEMPERATURE	°C	32.25
STACK TEMPERATURE	°C	232.25
DIAMETER	m	1.52
GAS VELOCITY	m/s	10.07
FLOW RATE	Nm ³ /hr	35,750.08
OXYGEN	%	4.84
MOISTURE	%	7.43
CARBONDIOXIDE	%	9.16
VOLUME OF DRY GAS AT STP	m ³	0.948639

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

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LABORATORY SUPERVISOR
๗-145-๙-0011

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UNITED ANALYST AND ENGINEERING CONSULTANT COMPANY LIMITED

ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

SAMPLE TYPE : STACK

SAMPLING DATE : APRIL 26, 2024

SAMPLING TIME : 10:00-11:20 HOUR

SAMPLING BY : MR ATTAPORN THEPTONG ๗-145-๙-0008

ANALYZED BY : MISS SUWAN KONGTHONG ๗-145-๙-0025

ANALYSIS NO. : T24AIB50-0011

RECEIVED DATE : APRIL 29, 2024

ANALYTICAL DATE : APRIL 29-MAY 3, 2024

ISSUE DATE : MAY 7, 2024

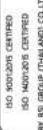
REPORT NO. : 2024-U037606

WORK NO. : 2019-002022

ANALYSIS NO. : T24AIB50-0011

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			COMMON STACK OF BOILER 3 & 4 T24AIB50-0011	7% OXYGEN
TOTAL SUSPENDED PARTICULATE	mg/m ³	ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5)	106	184
SULPHUR DIOXIDE	ppm	ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6)	< 130	< 130
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	29.9	518
SAMPLE CONDITION			COMPLETE	

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.



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

CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

SAMPLE TYPE : STACK

SAMPLING DATE : APRIL 25, 2024

SAMPLING TIME : 10:40-12:10 HOUR

SAMPLING BY : MR ATTAPORN THEPTONG ๗-145-๙-0008

ANALYZED BY : MISS SUWAN KONGTHONG ๗-145-๙-0025

ANALYSIS NO. : T24AIB50-0008

RECEIVED DATE : APRIL 29, 2024

ANALYTICAL DATE : APRIL 29-MAY 3, 2024

ISSUE DATE : MAY 7, 2024

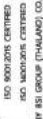
REPORT NO. : 2024-U037602

WORK NO. : 2019-002022

ANALYSIS NO. : T24AIB50-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			FCCU REGENERATOR T24AIB50-0008	7% OXYGEN
TOTAL SUSPENDED PARTICULATE	mg/m ³	ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5)	19.4	14.0
SULPHUR DIOXIDE	ppm	ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6)	366	264
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	20.0	14.5
SAMPLE CONDITION			COMPLETE	

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.



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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

SAMPLE TYPE : STACK

SAMPLING DATE : APRIL 25, 2024

SAMPLING TIME : 10:50-11:20 HOUR

SAMPLING BY : MR ATTAPORN THEPTONG

ANALYZED BY : MISS SUWAN KONGTHONG

RECEIVED DATE : APRIL 29, 2024

ANALYTICAL DATE : APRIL 29-MAY 3, 2024

ISSUE DATE : MAY 7, 2024

REPORT NO. : 2024-1037603

WORK NO. : 2019-02022

ANALYSIS NO. : T24AIB50-0008

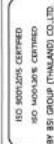
PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			FCCU REGENERATOR T24AIB50-0008	7% OXYGEN
HYDROGEN CYANIDE	mg/m ³	FILTERING, ION-SPECIFIC ELECTRODE METHOD (OSHA METHOD ID120)	< 0.20	< 0.20
SAMPLE CONDITION			COMPLETE	

DESCRIPTION	UNIT	RESULT
AMBIENT PRESSURE	mmHg	758
AMBIENT TEMPERATURE	°C	32.58
STACK TEMPERATURE	°C	270
DIAMETER	m	1.58
GAS VELOCITY	m/s	38.4
FLOW RATE	Nm ³ /hr	126,998.70
OXYGEN	%	1.66
MOISTURE	%	15
CARBONDIOXIDE	%	18.97
VOLUME OF DRY GAS AT STP	m ³	0.9466

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.



(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR



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CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

SAMPLE TYPE : STACK

SAMPLING DATE : APRIL 24, 2024

SAMPLING TIME : 09:50-11:10 HOUR

SAMPLING BY : MR ATTAPORN THEPTONG

ANALYZED BY : MISS SUWAN KONGTHONG

RECEIVED DATE : APRIL 29, 2024

ANALYTICAL DATE : APRIL 29-MAY 3, 2024

ISSUE DATE : MAY 7, 2024

REPORT NO. : 2024-1037605

WORK NO. : 2019-02022

ANALYSIS NO. : T24AIB50-0010

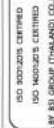
PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			COMMON STACK OF PAREX FURNACE T24AIB50-0010	7% OXYGEN
TOTAL SUSPENDED PARTICULATE	mg/m ³	ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5)	0.53	0.43
SULPHUR DIOXIDE	ppm	ABSORPTION, BARLIUM THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 8)	< 130	< 130
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	12.9	10.5
SAMPLE CONDITION			COMPLETE	

DESCRIPTION	UNIT	RESULT
AMBIENT PRESSURE	mmHg	758
AMBIENT TEMPERATURE	°C	31.5
STACK TEMPERATURE	°C	208.42
DIAMETER	m	3.65
GAS VELOCITY	m/s	6.99
FLOW RATE	Nm ³ /hr	140,665.67
OXYGEN	%	3.88
MOISTURE	%	13.36
CARBONDIOXIDE	%	9.7
VOLUME OF DRY GAS AT STP	m ³	0.951181

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.



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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
SAMPLING SOURCE : STACK
SAMPLE TYPE : APRIL 29, 2024
SAMPLING DATE : APRIL 29-MAY 3, 2024
SAMPLING TIME : 10:30-11:20 HOUR
SAMPLING BY : MR ATTAPORN THEPTONG 7-145-a-0008
ANALYZED BY : MISS SUWAN KONGTHONG 7-145-p-0025
RECEIVED DATE : APRIL 29, 2024
ANALYTICAL DATE : APRIL 29-MAY 3, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-1037598
WORK NO. : 2019-002022
ANALYSIS NO. : T24A1B50-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			GTG-1 + HRSG-1 (3001) T24A1B50-0005	7% OXYGEN
SULPHUR DIOXIDE	ppm	ABSORPTION, BARUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6)	< 130	< 130
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	8.24	30.4
SAMPLE CONDITION				
COMPLETE				

DESCRIPTION	UNIT	RESULT
AMBIENT PRESSURE	mmHg	758
AMBIENT TEMPERATURE	°C	32.75
STACK TEMPERATURE	°C	205.17
DIAMETER	m	2.95
GAS VELOCITY	m/s	8.62
FLOW RATE	Nm³/hr	121,454.52
OXYGEN	%	17.13
MOISTURE	%	7.88
CARBONDIOXIDE	%	2.19
VOLUME OF DRY GAS AT STP	m³	0.58536

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
SAMPLING SOURCE : STACK
SAMPLE TYPE : APRIL 29, 2024
SAMPLING DATE : APRIL 29-MAY 3, 2024
SAMPLING TIME : 12:00-12:50 HOUR
SAMPLING BY : MR ATTAPORN THEPTONG 7-145-a-0008
ANALYZED BY : MISS SUWAN KONGTHONG 7-145-p-0025
RECEIVED DATE : APRIL 29, 2024
ANALYTICAL DATE : APRIL 29-MAY 3, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-1037599
WORK NO. : 2019-002022
ANALYSIS NO. : T24A1B50-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			GTG-2 + HRSG-2 (4001) T24A1B50-0006	7% OXYGEN
SULPHUR DIOXIDE	ppm	ABSORPTION, BARUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6)	< 130	< 130
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	15.3	52.4
SAMPLE CONDITION				
COMPLETE				

DESCRIPTION	UNIT	RESULT
AMBIENT PRESSURE	mmHg	758
AMBIENT TEMPERATURE	°C	34.67
STACK TEMPERATURE	°C	210
DIAMETER	m	2.95
GAS VELOCITY	m/s	8.97
FLOW RATE	Nm³/hr	123,344.26
OXYGEN	%	16.85
MOISTURE	%	9.12
CARBONDIOXIDE	%	2.35
VOLUME OF DRY GAS AT STP	m³	0.582088

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
7-145-p-0011



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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : [REDACTED]
SAMPLING SOURCE : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : APRIL 22, 2024
SAMPLING TIME : 10:45-11:35 HOUR
SAMPLING BY : MR ATTAPORN THEPTONG ๓-145-a-0008
ANALYZED BY : MISS SUWAN KONGTHONG ๓-145-a-0025
RECEIVED DATE : APRIL 29, 2024
ANALYTICAL DATE : APRIL 29-MAY 3, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-1037600
WORK NO. : 2019-002022
ANALYSIS NO. : T24A1850-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			GTG-3 + HRSG-3 (5101) T24A1850-0007	7% OXYGEN
SULPHUR DIOXIDE	ppm	ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6)	< 1.30	< 1.30
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	10.4	55.7
SAMPLE CONDITION			COMPLETE	

DESCRIPTION	UNIT	RESULT
AMBIENT PRESSURE	mmHg	758
AMBIENT TEMPERATURE	°C	31
STACK TEMPERATURE	°C	203
DIAMETER	m	3.8
GAS VELOCITY	m/s	13.58
FLOW RATE	Nm³/hr	314,634.20
OXYGEN	%	16.06
MOISTURE	%	9.01
CARBONDIOXIDE	%	2.8
VOLUME OF DRY GAS AT STP	m³	0.617057

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

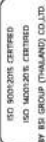
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UNITED ANALYST AND ENGINEERING CONSULTANT COMPANY LIMITED

ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : [REDACTED]
SAMPLING SOURCE : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : APRIL 24, 2024
SAMPLING TIME : 10:20-11:15 HOUR
SAMPLING BY : MR ATTAPORN THEPTONG ๓-145-a-0008
ANALYZED BY : MISS SUWAN KONGTHONG ๓-145-a-0025
RECEIVED DATE : APRIL 29, 2024
ANALYTICAL DATE : APRIL 29-MAY 3, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-1037597
WORK NO. : 2019-002022
ANALYSIS NO. : T24A1850-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			CCR PLATFORMER FURNACE 1 (F-3401S) T24A1850-0004	7% OXYGEN
SULPHUR DIOXIDE	ppm	ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6)	< 1.30	< 1.30
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	24.8	23.8
SAMPLE CONDITION			COMPLETE	

DESCRIPTION	UNIT	RESULT
AMBIENT PRESSURE	mmHg	758
AMBIENT TEMPERATURE	°C	30
STACK TEMPERATURE	°C	199.42
DIAMETER	m	2.52
GAS VELOCITY	m/s	8.64
FLOW RATE	Nm³/hr	78,757.96
OXYGEN	%	6.45
MOISTURE	%	19.22
CARBONDIOXIDE	%	8.24
VOLUME OF DRY GAS AT STP	m³	0.624808

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

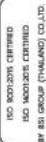
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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
SAMPLING SOURCE : STACK
SAMPLE TYPE : STACK
SAMPLING DATE : APRIL 25, 2024
SAMPLING TIME : 10:25-11:10 HOUR
SAMPLING BY : MR ATTAPORN THEPTONG ๓-145-๔-0008
ANALYZED BY : MISS SUWAN KONGTHONG ๓-145-๔-0025
RECEIVED DATE : APRIL 29, 2024
ANALYTICAL DATE : APRIL 29-MAY 3, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-1037596
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIB50-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			AP52/VP52 : COMMON STACK OF CRUDE DISTILLATION FURNACE 2 & VACUUM DISTILLATION FURNACE 2 & NHF-2 FURNACE (F-3101 & F-3601 & F-3301)	7% OXYGEN T24AIB50-0003
SULPHUR DIOXIDE	ppm	ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6)	< 130	< 130
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	40.5	33.0
SAMPLE CONDITION				
COMPLETE				

DESCRIPTION	UNIT	RESULT
		AP52/VP52 : COMMON STACK OF CRUDE DISTILLATION FURNACE 2 & VACUUM DISTILLATION FURNACE 2 & NHF-2 FURNACE (F-3101 & F-3601 & F-3301) T24AIB50-0003
AMBIENT PRESSURE	mmHg	758
AMBIENT TEMPERATURE	°C	30
STACK TEMPERATURE	°C	351.33
DIAMETER	m	3.2
GAS VELOCITY	m/s	14.05
FLOW RATE	Nm³/hr	152,252.51
OXYGEN	%	3.85
MOISTURE	%	21
CARBONDIOXIDE	%	9.72
VOLUME OF DRY GAS AT STP	m³	0.62557

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUNAS)
LABORATORY SUPERVISOR
๓-145-๔-0011

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

ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
SAMPLING SOURCE : STACK
SAMPLE TYPE : STACK
SAMPLING DATE : APRIL 26, 2024
SAMPLING TIME : 10:20-11:40 HOUR
SAMPLING BY : MR ATTAPORN THEPTONG ๓-145-๔-0008
ANALYZED BY : MISS SUWAN KONGTHONG ๓-145-๔-0025
RECEIVED DATE : APRIL 29, 2024
ANALYTICAL DATE : APRIL 29-MAY 3, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-1037604
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIB50-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			SRU/TCGU INCINERATOR T24AIB50-0009	7% OXYGEN
SULPHUR DIOXIDE	ppm	ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6)	74.1	71.0
OXIDE OF NITROGEN AS NITROGEN DIOXIDE	ppm	ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7)	8.82	8.46
HYDROGEN SULPHIDE	ppm	ABSORPTION, IODOMETRIC METHOD AT SITE (US EPA METHOD 11)	< 5.75	< 5.75
SAMPLE CONDITION				
COMPLETE				

DESCRIPTION	UNIT	RESULT
		SRU/TCGU INCINERATOR T24AIB50-0009
AMBIENT PRESSURE	mmHg	758
AMBIENT TEMPERATURE	°C	31
STACK TEMPERATURE	°C	592
DIAMETER	m	1.71
GAS VELOCITY	m/s	6.23
FLOW RATE	Nm³/hr	15,624.47
OXYGEN	%	6.4
MOISTURE	%	11.27
CARBONDIOXIDE	%	8.24
VOLUME OF DRY GAS AT STP	m³	0.625601

REMARK : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUNAS)
LABORATORY SUPERVISOR
๓-145-๔-0011

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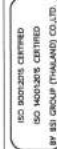
ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : [REDACTED]
MEASURING SOURCE : BAN KON CHA-NANG
MEASURING TYPE : AMBIENT (NOISE)
MEASURING DATE : APRIL 20-23, 2024
MEASURING TIME : *
MEASURING METHOD : INTEGRATED SOUND LEVEL METER
MEASURED BY : MR SIRAPAT JONGPHADUNGKiet

RECEIVED DATE : APRIL 20-23, 2024
ANALYTICAL DATE : APRIL 20-23, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037560
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIB52-0001 - T24AIB52-0003

TIME*	RESULT dB(A)		
	BAN KON CHA-NANG APRIL 20-21, 2024 T24AIB52-0001		
	L _{eq} 1 hour	L _{max} 1 hour	L _{eq} 1 hour
07:00-08:00 HOUR	54.1	64.3	52.7
08:00-09:00 HOUR	54.2	59.5	52.8
09:00-10:00 HOUR	52.2	60.1	50.6
10:00-11:00 HOUR	54.1	58.8	52.6
11:00-12:00 HOUR	54.4	58.0	53.1
12:00-13:00 HOUR	54.3	62.3	52.9
13:00-14:00 HOUR	53.1	57.9	51.8
14:00-15:00 HOUR	52.9	57.4	51.6
15:00-16:00 HOUR	53.0	57.9	51.6
16:00-17:00 HOUR	54.8	76.5	49.8
17:00-18:00 HOUR	53.6	66.0	50.9
18:00-19:00 HOUR	52.7	66.3	51.1
19:00-20:00 HOUR	53.1	59.5	51.6
20:00-21:00 HOUR	53.4	58.9	51.6
21:00-22:00 HOUR	53.1	57.1	52.0
22:00-23:00 HOUR	53.7	59.3	52.3
23:00-00:00 HOUR	52.6	59.7	51.4
00:00-01:00 HOUR	53.3	57.5	51.9
01:00-02:00 HOUR	53.2	58.4	51.6
02:00-03:00 HOUR	52.8	56.7	51.5
03:00-04:00 HOUR	53.0	57.2	51.5
04:00-05:00 HOUR	53.5	58.7	52.1
05:00-06:00 HOUR	53.4	61.6	51.8
06:00-07:00 HOUR	52.8	59.8	51.5
L _{eq} 24 hours	53.4		
L _{dn}	59.6		

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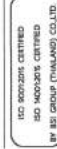


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RESULT dB(A)

TIME*	BAN KON CHA-NANG APRIL 21-22, 2024 T24AIB52-0002		
	L _{eq} 1 hour	L _{max} 1 hour	L _{eq} 1 hour
07:00-08:00 HOUR	53.1	62.5	51.5
08:00-09:00 HOUR	53.2	58.8	51.9
09:00-10:00 HOUR	54.2	63.8	52.4
10:00-11:00 HOUR	55.9	76.8	50.4
11:00-12:00 HOUR	53.4	60.5	52.0
12:00-13:00 HOUR	53.5	58.8	52.2
13:00-14:00 HOUR	53.1	57.9	51.7
14:00-15:00 HOUR	54.2	58.9	52.7
15:00-16:00 HOUR	54.4	60.3	52.8
16:00-17:00 HOUR	54.1	60.0	52.5
17:00-18:00 HOUR	53.9	59.2	52.3
18:00-19:00 HOUR	55.2	58.9	53.6
19:00-20:00 HOUR	54.4	60.4	53.2
20:00-21:00 HOUR	54.8	59.8	53.4
21:00-22:00 HOUR	54.7	62.0	53.3
22:00-23:00 HOUR	55.0	61.7	53.6
23:00-00:00 HOUR	54.5	61.7	53.2
00:00-01:00 HOUR	54.1	59.1	53.0
01:00-02:00 HOUR	54.1	57.9	52.7
02:00-03:00 HOUR	54.2	58.3	52.8
03:00-04:00 HOUR	54.0	58.6	52.5
04:00-05:00 HOUR	53.6	60.3	52.4
05:00-06:00 HOUR	53.5	57.9	52.0
06:00-07:00 HOUR	53.6	57.1	52.2
L _{eq} 24 hours	54.2		
L _{dn}	60.5		

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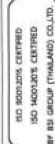
TIME*	RESULT dB(A)		
	BAN KOH CHA-NANG APRIL 22-23, 2024 T24AIB52-0003		
	L _{eq} 1 hour	L _{max} 1 hour	L _{eq} 1 hour
07:00-08:00 HOUR	56.4	74.6	49.8
08:00-09:00 HOUR	53.7	60.7	52.2
09:00-10:00 HOUR	53.3	58.3	52.1
10:00-11:00 HOUR	53.0	57.8	51.6
11:00-12:00 HOUR	52.8	56.8	51.7
12:00-13:00 HOUR	53.2	59.1	51.9
13:00-14:00 HOUR	53.7	59.3	52.1
14:00-15:00 HOUR	53.2	59.0	52.0
15:00-16:00 HOUR	54.4	58.8	53.2
16:00-17:00 HOUR	54.5	60.2	53.4
17:00-18:00 HOUR	53.7	63.2	52.3
18:00-19:00 HOUR	53.5	61.9	52.1
19:00-20:00 HOUR	53.9	58.8	52.3
20:00-21:00 HOUR	54.4	59.4	52.6
21:00-22:00 HOUR	53.6	57.0	52.4
22:00-23:00 HOUR	54.5	62.1	53.1
23:00-00:00 HOUR	53.5	60.3	52.0
00:00-01:00 HOUR	53.4	57.3	52.3
01:00-02:00 HOUR	52.0	57.3	50.5
02:00-03:00 HOUR	52.5	64.3	51.0
03:00-04:00 HOUR	52.4	58.0	50.9
04:00-05:00 HOUR	51.6	61.4	50.0
05:00-06:00 HOUR	52.0	57.1	50.7
06:00-07:00 HOUR	53.5	74.4	50.2
L _{eq} 24 hours		53.6	
L _{den}		59.5	

(MR. SULA BANDONGJAIKIJ)
LABORATORY SUPERVISOR

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2024-U037560

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ANALYSIS REPORT

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION

MEASURING SOURCE : BAN NHONG AUNG
MEASURING TYPE : AMBIENT (NOISE)
MEASURING DATE : APRIL 20-23, 2024
MEASURING TIME : *
MEASURING METHOD : INTEGRATED SOUND LEVEL METER
MEASURED BY : MR SIRAPAT JONGHADUNGKIET

RECEIVED DATE : APRIL 20-23, 2024
ANALYTICAL DATE : APRIL 20-23, 2024
ISSUE DATE : MAY 7, 2024
REPORT NO. : 2024-U037561
WORK NO. : 2019-002022
ANALYSIS NO. : T24AIB52-0004 - T24AIB52-0006

TIME*	RESULT dB(A)		
	BAN NHONG AUNG APRIL 20-21, 2024 T24AIB52-0004		
	L _{eq} 1 hour	L _{max} 1 hour	L _{eq} 1 hour
07:00-08:00 HOUR	50.4	59.3	48.3
08:00-09:00 HOUR	51.1	70.5	48.2
09:00-10:00 HOUR	51.7	63.6	48.5
10:00-11:00 HOUR	53.3	65.3	50.0
11:00-12:00 HOUR	51.0	58.8	48.7
12:00-13:00 HOUR	50.0	56.8	48.0
13:00-14:00 HOUR	51.0	63.1	48.4
14:00-15:00 HOUR	50.2	56.0	48.4
15:00-16:00 HOUR	51.0	70.4	48.5
16:00-17:00 HOUR	49.9	60.5	48.2
17:00-18:00 HOUR	49.7	60.1	48.1
18:00-19:00 HOUR	50.7	58.4	48.8
19:00-20:00 HOUR	50.4	56.8	48.5
20:00-21:00 HOUR	50.4	58.6	48.9
21:00-22:00 HOUR	53.2	67.6	49.3
22:00-23:00 HOUR	51.1	59.8	48.5
23:00-00:00 HOUR	51.4	60.2	49.3
00:00-01:00 HOUR	50.2	58.0	48.6
01:00-02:00 HOUR	51.4	68.3	48.5
02:00-03:00 HOUR	50.4	58.7	48.4
03:00-04:00 HOUR	51.5	64.2	48.8
04:00-05:00 HOUR	50.6	62.5	48.9
05:00-06:00 HOUR	51.8	68.8	48.3
06:00-07:00 HOUR	51.9	69.9	48.6
L _{eq} 24 hours		51.1	
L _{den}		57.6	



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TIME*	RESULT dB(A)		
	BAN NHONG AUNG		
	APRIL 21-22, 2024		
	T24AB52-0005		
	L _{eq} 1 hour	L _{max} 1 hour	L _{eq} 1 hour
07:00-08:00 HOUR	52.6	73.9	47.9
08:00-09:00 HOUR	52.2	61.3	49.5
09:00-10:00 HOUR	53.3	72.0	51.0
10:00-11:00 HOUR	53.4	67.6	49.8
11:00-12:00 HOUR	53.0	67.8	48.7
12:00-13:00 HOUR	51.6	70.9	48.5
13:00-14:00 HOUR	50.3	61.5	48.1
14:00-15:00 HOUR	50.3	59.1	48.2
15:00-16:00 HOUR	50.5	60.6	48.1
16:00-17:00 HOUR	57.4	67.0	48.6
17:00-18:00 HOUR	49.9	59.1	48.0
18:00-19:00 HOUR	50.4	60.7	48.1
19:00-20:00 HOUR	49.7	55.7	48.0
20:00-21:00 HOUR	49.8	65.3	48.0
21:00-22:00 HOUR	54.0	66.8	48.5
22:00-23:00 HOUR	55.6	72.8	49.5
23:00-00:00 HOUR	50.6	62.6	48.2
00:00-01:00 HOUR	53.5	66.5	48.0
01:00-02:00 HOUR	50.3	69.1	48.4
02:00-03:00 HOUR	51.8	67.4	48.7
03:00-04:00 HOUR	52.5	75.5	48.2
04:00-05:00 HOUR	50.6	62.0	48.4
05:00-06:00 HOUR	51.5	65.5	48.5
06:00-07:00 HOUR	51.1	69.1	48.8
L _{eq} 24 hours	52.4		
L _{dn}	58.7		

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

2024-U037561

TIME*	RESULT dB(A)		
	BAN NHONG AUNG		
	APRIL 22-23, 2024		
	T24AB52-0006		
	L _{eq} 1 hour	L _{max} 1 hour	L _{eq} 1 hour
07:00-08:00 HOUR	51.1	65.4	48.9
08:00-09:00 HOUR	51.3	65.7	48.6
09:00-10:00 HOUR	51.1	65.0	48.7
10:00-11:00 HOUR	51.7	61.5	48.5
11:00-12:00 HOUR	50.9	61.5	49.0
12:00-13:00 HOUR	53.1	67.5	49.2
13:00-14:00 HOUR	52.4	63.7	49.8
14:00-15:00 HOUR	51.5	64.3	49.6
15:00-16:00 HOUR	51.9	61.9	50.0
16:00-17:00 HOUR	53.0	63.5	50.7
17:00-18:00 HOUR	53.5	65.3	51.4
18:00-19:00 HOUR	55.0	64.8	52.0
19:00-20:00 HOUR	53.7	60.8	51.9
20:00-21:00 HOUR	54.9	65.4	52.8
21:00-22:00 HOUR	54.0	66.8	51.6
22:00-23:00 HOUR	54.5	65.3	51.9
23:00-00:00 HOUR	53.4	66.0	51.1
00:00-01:00 HOUR	55.3	70.5	51.2
01:00-02:00 HOUR	55.0	68.9	51.6
02:00-03:00 HOUR	55.4	66.3	52.4
03:00-04:00 HOUR	52.9	59.6	51.6
04:00-05:00 HOUR	52.8	58.2	51.4
05:00-06:00 HOUR	52.7	59.2	51.4
06:00-07:00 HOUR	52.9	59.1	51.2
L _{eq} 24 hours	53.3		
L _{dn}	60.3		

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

2024-U037561

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 :
SAMPLING SOURCE :
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : JANUARY 4, 2024
SAMPLING TIME : 11:10 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR. THANADET WANSANOR 7-145-a-0056
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM 7-145-a-0114

RECEIVED DATE : JANUARY 5, 2024
ANALYTICAL DATE : JANUARY 5-11, 2024
REPORT NO. : 2024-U03853
WORK NO. : 2019-002022
ANALYSIS NO. : 7244A194-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW001 : INLET API T244A194-0001	DETECTION LIMIT
pH ^a	-	ELECTROMETRIC METHOD (SM PART 4500-H ⁺ B)	8.6 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER AT SITE (SM PART 2550 B)	40	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM PART 5210 B AND PART 4500-O ₂ C)	223	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM PART 5220 C)	438	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM PART 2540 D)	53.1	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM PART 2540 C)	3.920	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM PART 4500-S ²⁻ D)	9.28	0.02
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	23	3
CYANIDE ^c	mg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM PART 4500-CN C AND PART 4500-CN E)	0.029	0.005
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			GREY/TURBID BROWN	

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

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23RD EDITION, 2017.
RELEASE ORDER NO. : EV-04-01-002

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
7-145-a-0004
JANUARY 15, 2024

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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 :
SAMPLING SOURCE :
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : FEBRUARY 1, 2024
SAMPLING TIME : 12:30 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR. THANADET WANSANOR 7-145-a-0056
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM 7-145-a-0114

RECEIVED DATE : FEBRUARY 2, 2024
ANALYTICAL DATE : FEBRUARY 2-8, 2024
ISSUE DATE : FEBRUARY 13, 2024
REPORT NO. : 2024-U011718
WORK NO. : 2019-002022
ANALYSIS NO. : 7244C094-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW001 : INLET API T244C094-0001	DETECTION LIMIT
pH ^c	-	ELECTROMETRIC METHOD (SM PART 4500-H ⁺ B)	7.7 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER AT SITE (SM PART 2550 B)	40	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM PART 5210 B AND PART 4500-O ₂ C)	404	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM PART 5220 C)	737	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM PART 2540 D)	38.0	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM PART 2540 C)	3,200	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM PART 4500-S ²⁻ D)	0.70	0.02
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	66	3
CYANIDE ^c	mg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM PART 4500-CN C AND PART 4500-CN E)	0.038	0.005
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	

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

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23RD EDITION, 2017.
RELEASE ORDER NO. : EV-0102-001

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
7-145-a-0004
FEBRUARY 13, 2024

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Tel: 0 2763 2828 Fax: 0 2763 2800 www.uaconsultant.com E-mail: ua@uaconsultant.com

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ANALYSIS REPORT

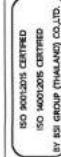
PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : MARCH 7, 2024
SAMPLING TIME : 12:15 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR THANADET WANSANOR
ANALYZED BY : MISS WAPAPORN KHUINKOKKUM

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 °	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.1 (25°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)	38	-
BIOCHEMICAL OXYGEN DEMAND *	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	128	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	304	25.0
TOTAL SUSPENDED SOLIDS *	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	137	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	16,150	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD (SM: PART 4500 S ² D)	0.11	0.02
FAT, OIL AND GREASE *	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	71	3
CYANIDE °	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			BROWN/TURBID BROWN	

* : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
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SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
RELEASE ORDER NO. : EV-07-03-002



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ANALYSIS REPORT

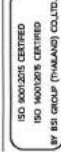
PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : APRIL 4, 2024
SAMPLING TIME : 12:30 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR THANADET WANSANOR
ANALYZED BY : MISS WAPAPORN KHUINKOKKUM

RECEIVED DATE : APRIL 5, 2024
ANALYTICAL DATE : APRIL 5-11, 2024
ISSUE DATE : APRIL 18, 2024
REPORT NO. : 2024-U031824
WORK NO. : 2019-002022
ANALYSIS NO. : T24AH254-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.6 (25°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)	40	-
BIOCHEMICAL OXYGEN DEMAND *	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	268	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	442	25.0
TOTAL SUSPENDED SOLIDS *	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	422	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	6,900	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD (SM: PART 4500 S ² D)	0.33	0.02
FAT, OIL AND GREASE *	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	28	3
CYANIDE °	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			BROWN/TURBID BROWN	

* : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
° : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
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SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
RELEASE ORDER NO. : EV-04-04-002



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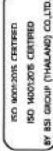
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ANALYSIS REPORT

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 :
SAMPLING SOURCE :
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : MAY 2, 2024
SAMPLING TIME : 12:00 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS NAPAPORN KHUNNOCKHUM
RECEIVED DATE : MAY 3, 2024
ANALYTICAL DATE : MAY 3-9, 2024
ISSUE DATE : MAY 21, 2024
REPORT NO. : 2024-U041183
WORK NO. : 2019-002022
ANALYSIS NO. : T24AJ207-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW001 : INLET API T24AJ207-0001		
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H B)	8.1 (25°C)		-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	38		-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	468		2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	831		25.0
TOTAL SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	843		5.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	8,980		25
SULPHIDE	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S ² D)	4.36		0.02
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	122		3
CYANIDE	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			BROWN/TURBID BROWN		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
RELEASE ORDER NO. : EV-02-05-001



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NSC-TISI-TIS 17025
TESTING 0207

ANALYSIS REPORT

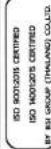
PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : JUNE 6, 2024
SAMPLING TIME : 09:05 HOUR
SAMPLING METHOD : 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. : T24AN380-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH ^a	-	ELECTROMETRIC METHOD (SM PART 4500-H ⁺ B)	6.5 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) SM PART 2550 B	42	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM PART 5210 B AND PART 4500-O G)	192	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM PART 5220 C)	330	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM PART 2540 D)	64.0	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM PART 2540 C)	2,581	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD(SM PART 4500-S ²⁻ D)	0.11	0.02
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	39	3
CYANIDE ^c	mg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM PART 4500-CN C AND PART 4500-CN E)	0.044	0.005
SAMPLE CONDITION		BROWN/TURBID BROWN		
WATER'S COLOUR/TURBID SEDIMENT				

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

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



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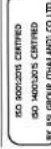
ANALYSIS REPORT

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 :
SAMPLING SOURCE :
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : MAY 2, 2024
SAMPLING TIME : 11:00 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-U04191
WORK NO. : 2019-002022
ANALYSIS NO. : T24A207-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM PART 4500-H ⁺ B)	7.7 (25°C)	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM PART 5210 B AND PART 4500-O G)	40.0	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM PART 5220 C)	163	25.0
TOTAL SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM PART 2540 D)	87.7	5.0
AMMONIA	mg/L NH ₃	KJELDAHL (SM PART 4500-NH ₃ B AND PART 4500-NH ₃ C) AND CALCULATION METHOD	79.5	18
PHOSPHATE	mg/L	VANADOMOLYBDOPHOSPHORIC ACID COLOURIMETRIC METHOD (SM PART 4500-P C)	104	0.03
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	48	3
SAMPLE CONDITION		YELLOW/TURBID BROWN		
WATER'S COLOUR/TURBID SEDIMENT				

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
RELEASE ORDER NO. : EV-02-05-001



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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JANUARY 4, 2024
SAMPLING TIME : 08:55 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR. THAMADET WANSANOR 7-145-a-0036
ANALYZED BY : MISS WAPAPORN KHUINKOKKHUM 7-145-a-0114
RECEIVED DATE : JANUARY 5, 2024
ANALYTICAL DATE : JANUARY 5-11, 2024
REPORT NO. : 2024-U003857
WORK NO. : 2019-002022
ANALYSIS NO. : T24A194-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.6 (25°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2540 B)	28	-
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)	68.1	25.0
TOTAL SUSPENDED SOLIDS *	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	12.6	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36.600	25
SULPHIDE °	mg/l	METHYL FINE BLUE METHOD(SM: PART 4500-SF ⁻ D)	< 0.02	0.02
FAT, OIL AND GREASE °	mg/L	LIQUID LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.7	3
CYANIDE °	mg/L CN	DISTILLATION, PYRIDINEBARBITURIC 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		

* : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
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SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd 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 PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
7-145-a-0004
JANUARY 15, 2024

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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : MAY 2, 2024
SAMPLING TIME : 09:30 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR. THANADET WANSANOR
ANALYZED BY : MISS AKSARIN BUNKONG
RECEIVED DATE : MAY 3, 2024
ANALYTICAL DATE : MAY 3-8, 2024
ISSUE DATE : MAY 21, 2024
REPORT NO. : 2024-U041193
WORK NO. : 2019-002022
ANALYSIS NO. : T24A1007-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	LBW013 : SEDIMENTATION ZONE 2 T24A1007-0006	
			15.6	2.0
			84.0	25.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	35.3	5.0
TOTAL SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	GREEN/TURBID BROWN	
SAMPLE CONDITION				
WATER'S COLOUR/TURBID				
SEDIMENT				

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
RELEASE ORDER NO. : EV-02-05-001

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

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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

SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : FEBRUARY 1, 2024
SAMPLING TIME : 11:40 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR. THANADET WANSANOR
ANALYZED BY : MISS NAPAPORN KHUNOKKHUM

RECEIVED DATE : FEBRUARY 2, 2024
ANALYTICAL DATE : FEBRUARY 2-8, 2024
ISSUE DATE : FEBRUARY 13, 2024
REPORT NO. : 2024-U011726
WORK NO. : 2019-02022
ANALYSIS NO. : T24AC094-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW004 : OP OUTLET	T24AC094-0005	
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.5 (25°C)		-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)		31	-
BIO-CHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)		<2.0	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)		816	25.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)		14.3	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)		37.540	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)		<0.02	0.02
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)		0.6	3
CYANIDE °	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

° : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
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SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23RD 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

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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

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 KHUNOKKHUM

RECEIVED DATE : MARCH 8, 2024
ANALYTICAL DATE : MARCH 8-18, 2024
ISSUE DATE : MARCH 19, 2024
REPORT NO. : 2024-U022711
WORK NO. : 2019-02022
ANALYSIS NO. : T24AE807-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW004 : OP OUTLET	T24AE807-0006	
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.3 (25°C)		-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)		32	-
BIO-CHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)		<2.0	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)		60.8	25.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)		7.4	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)		36.925	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)		<0.02	0.02
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)		0.9	3
CYANIDE °	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

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

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

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UNITED ANALYST AND ENGINEERING
CONSULTANT COMPANY LIMITED

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 : [REDACTED]

SAMPLING SOURCE : [REDACTED]

SAMPLE TYPE : EFFLUENT

SAMPLING DATE : APRIL 4, 2024

SAMPLING TIME : 11:35 HOUR

SAMPLING METHOD : GRAB

SAMPLING BY : MR THANADET WANSANOR

ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM

RECEIVED DATE : APRIL 5, 2024

ANALYTICAL DATE : APRIL 5-11, 2024

ISSUE DATE : APRIL 18, 2024

REPORT NO. : 2024-U031828

WORK NO. : 2019-002022

ANALYSIS NO. : T24AH254-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH ^a	-	ELECTROMETRIC METHOD (SM: PART 4500-H B)	7.8 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER AT SITE (SM: PART 2560 B)	33	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.7	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	57.6	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	210	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	38.925	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S ^b D)	< 0.02	0.02
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	10	3.0
CYANIDE ^c	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		

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

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

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

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

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. PIYAPAT SUTTIMANUTWONG)

LABORATORY SUPERVISOR

APRIL 18, 2024

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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 : [REDACTED]

SAMPLING SOURCE : [REDACTED]

SAMPLE TYPE : EFFLUENT

SAMPLING DATE : MAY 2, 2024

SAMPLING TIME : 11:15 HOUR

SAMPLING METHOD : GRAB

SAMPLING BY : MR THANADET WANSANOR

ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM

RECEIVED DATE : MAY 3, 2024

ANALYTICAL DATE : MAY 3-9, 2024

ISSUE DATE : MAY 21, 2024

REPORT NO. : 2024-U041195

WORK NO. : 2019-002022

ANALYSIS NO. : T24AJ307-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H B)	7.8 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2560 B)	34	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.4	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	74.4	25.0
TOTAL SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	11.1	5.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	39.073	25
SULPHIDE	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S ^b D)	0.02	0.02
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.5	3
CYANIDE	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		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23RD 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. PIYAPAT SUTTIMANUTWONG)

LABORATORY SUPERVISOR

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UNITED ANALYST AND ENGINEERING CONSULTANT COMPANY LIMITED

ANALYSIS REPORT

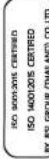
PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
ANALYTICAL DATE : MAY 3, 2024
SAMPLING DATE : MAY 2, 2024
SAMPLING TIME : 11:15 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS NADNAPA KANOLBOON
RECEIVED DATE : MAY 3, 2024
ANALYTICAL DATE : MAY 3-8, 2024
ISSUE DATE : MAY 21, 2024
REPORT NO. : 2024-U041197
WORK NO. : 2019-002022
ANALYSIS NO. : T24AJ207-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS				
MERCURY	mg/L-Hg	COLD VAPOUR AAS METHOD (SM-PART 3112 B)	< 0.0005	0.0005
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
RELEASE ORDER NO.: EV-02-05-001

(MR BHUCHONK PANCHLERTUMPI)
LABORATORY SUPERVISOR

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UNITED ANALYST AND ENGINEERING CONSULTANT COMPANY LIMITED

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SKRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
ANALYTICAL DATE : JUNE 7, 2024
SAMPLING DATE : JUNE 6, 2024
SAMPLING TIME : 10:00 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS NAPAPORN KHUNWOKKHUM
RECEIVED DATE : JUNE 7, 2024
ANALYTICAL DATE : JUNE 7-13, 2024
ISSUE DATE : JUNE 18, 2024
REPORT NO. : 2024-U053318
WORK NO. : 2019-002022
ANALYSIS NO. : T24AM380-0006

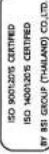
PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH ^c	-	ELECTROMETRIC METHOD (SM-PART 4500-H ⁺ B)	7.7 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) SM-PART 2550 B	33	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM-PART 5210 B AND PART 4500-O G)	3.0	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REBUX, TITRIMETRIC METHOD (SM-PART 5220 C)	68.2	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM-PART 2540 D)	9.7	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM-PART 2540 C)	38,940	25
SULPHIDE ^c	mg/L	METHYL FINE BLUE METHOD (SM-PART 4500-S ²⁻ D)	< 0.02	0.02
FAT, OIL AND GREASE ^c	mg/L	LIQUID LIQUID, PARTITION-GRAVIMETRIC METHOD (SM-PART 5520 B)	0.6	3
CYANIDE ^c	mg/L CN	DISTILLATION PYRINE-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	

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

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th 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 PIPAPAT SUTTANANTUWONG)
LABORATORY SUPERVISOR

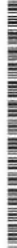
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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 Moo 2 THUNG SUKHA A ST BACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JANUARY 4, 2024
SAMPLING TIME : 09:30 HOUR
SAMPLING METHOD : GBAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS WAPAPORN KHUNNOKGHUM
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	DETECTION LIMIT
			LBW005 : REFINERY MIX T24AA194-0006	
pH ^c	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.5 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER AT SITE (SM: PART 2550 B)	31	-
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	35.1	0.1
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	< 2.0	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	81.9	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	15.9	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36.675	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)	< 0.02	0.02
NITRATE ^c	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	15.2	0.09
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	2.0	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : REFINERY MIX T24AA194-0006	
METALS				
LEAD ^c	mg/L Pb	IN-HOUSE METHOD: UAE TP IW 01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD), SM: PART 3030 E AND PART 3111 B	< 0.015	0.075
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

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IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-04-01-402

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



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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 :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : FEBRUARY 4, 2024
SAMPLING TIME : 11:00 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR. THANADET WANISANOR
ANALYZED BY : MISS NAPAPORN KHUINNOKKHAM
RECEIVED DATE : FEBRUARY 2, 2024
ANALYTICAL DATE : FEBRUARY 2-8, 2024
ISSUE DATE : FEBRUARY 13, 2024
REPORT NO. : 2024-U011728
WORK NO. : 2019-002022
ANALYSIS NO. : T24AC094-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : REFINERY MIX T24AC094-0006	
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.6 (25°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)	34	-
SALINITY °	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2530 B)	34.9	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)	88.0	25.0
TOTAL SUSPENDED SOLIDS *	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	23.1	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	38.030	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ² D)	< 0.02	0.02
NITRATE °	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	11.8	0.09
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	3

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS				
LEAD °	mg/L Pb	IN-HOUSE METHOD: UAE TP10101 (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)
* : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
* : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

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

LABORATORY SUPERVISOR
FEBRUARY 13, 2024

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BY SGS GROUP (THAILAND) CO., LTD.

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- End of Analysis Report -

2024-U011728



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Tel: 0 2763 2828 Fax: 0 2763 2800 www.uaeconsultant.com E-mail: ua@uaeconsultant.com

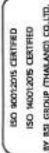
NSC - TIS - TIS 17025
TESTING 0207

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 :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : MARCH 7, 2024
SAMPLING TIME : 10:35 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR. THANADET WANISANOR
ANALYZED BY : MISS NAPAPORN KHUNNOKKHAM
RECEIVED DATE : MARCH 8, 2024
ANALYTICAL DATE : MARCH 8-10, 2024
ISSUE DATE : MARCH 15, 2024
REPORT NO. : 2024-U022713
WORK NO. : 2019-002022
ANALYSIS NO. : T24AE807-0008

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

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NSC - TIS - TIS 17025
TESTING 0207

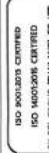
PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW005 : REFINERY MIX T24AE807-0008		
METALS					
LEAD ^c	mg/L Pb	IN-HOUSE METHOD: UAE/TP/W.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< 0.015	0.015	0.015
SAMPLE CONDITION					
WATER'S 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, 23rd EDITION, 2017.
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd 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

(MISS)PYAPAT SUTTANANUTWONG
LABORATORY SUPERVISOR
MARCH 20, 2024

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ANALYSIS REPORT

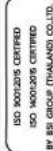
PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHIA SI RACHA, CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : APRIL 4, 2024
SAMPLING TIME : 11:00 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS NAWAPORN KHUINKHUM
RECEIVED DATE : APRIL 5, 2024
ANALYTICAL DATE : APRIL 5-19, 2024
ISSUE DATE : APRIL 23, 2024
REPORT NO. : 2024-U031829
WORK NO. : 2019-002022
ANALYSIS NO. : T24AH254-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW005 : REFINERY MIX T24AH254-0006	DETECTION LIMIT
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.6 (25°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)	36	-
SALINITY °	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	34.3	0.1
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	2.1	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	80.0	25.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	11.2	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	40.075	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)	< 0.02	0.02
NITRATE °	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	2.92	0.09
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	3

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW005 : REFINERY MIX T24AH254-0006	DETECTION LIMIT
METALS				
LEAD °	mg/L Pb	IN-HOUSE METHOD: UAE TPAW.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/TURBID YELLOW	

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

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

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

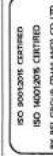
(MRS PIYAPAT SUTTANANTWONG)
LABORATORY SUPERVISOR

APRIL 23, 2024

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2024-U031829



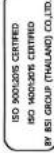
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Tel.0 2763 2828 Fax 0 2763 2800 www.laeconsultant.com E-mail: lae@laeconsultant.com

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 :
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 KHUNOKKHUM
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. : T24AJ207-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : REFINERY MIX T24AJ207-0009	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H 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
BIO-CHEMICAL 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)	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)	41075	25
SULPHIDE	mg/L	METHYLENE BLUE METHOD(SM: PART 4500 S ² D)	< 0.02	0.02
NITRATE	mg/L NO ₃ ⁻	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	23.4	0.09
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	3



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LABORATORY SUPERVISOR

(MRS PIYAPAT SUTTANANTWONG)

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : REFINERY MIX T24AJ207-0009	
METALS				
LEAD	mg/L Pb	IN-HOUSE METHOD: LAE 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			YELLOW/CLEAR	
SEDIMENT			BROWN	

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

< 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-402-05-001



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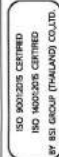
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Tel.0 2763 2828 Fax 0 2763 2800 WWW.UAECONSULTANT.COM E-mail: uae@uaeconsultant.com

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 :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JUNE 6, 2024
SAMPLING TIME : 10:20 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS NARAPORN KHUINKOKKHAM
RECEIVED DATE : JUNE 7, 2024
ANALYTICAL DATE : JUNE 7-13, 2024
ISSUE DATE : JUNE 18, 2024
REPORT NO. : 2024-U053320
WORK NO. : 2019-002022
ANALYSIS NO. : T24AK380-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH ^c	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.4 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) SM: PART 2550 B	35	-
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1960 B	26.5	0.1
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	2.6	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	81.6	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	7.9	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	39.440	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)	< 0.02	0.02
NITRATE ^c	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	15.4	0.09
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.8	3

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS				
LEAD ^a	mg/L Pb	UAE-TP-HBM.004 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD) BASED ON 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

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th 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. PIRAPAT SUTAMANTHONG)
LABORATORY SUPERVISOR

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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 :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JANUARY 4, 2024
SAMPLING TIME : 08:55 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR. THANADET WANSANOR 145-a-0056
ANALYZED BY : MISS NAPAORN KHUNOKKHAM 145-a-0114

RECEIVED DATE : JANUARY 5, 2024
ANALYTICAL DATE : JANUARY 5-11, 2024
REPORT NO. : 2024-U003857
WORK NO. : 2019-002022
ANALYSIS NO. : T24AA194-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.6 (25°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)	28	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	< 2.0	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	59.1	25.0
TOTAL SUSPENDED SOLIDS *	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	12.6	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36.600	25
SULPHIDE °	mg/l	METHYLENE BLUE METHOD(SM: PART 4500-S ² D)	< 0.02	0.02
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.7	3
CYANIDE °	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		

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

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

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 :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : FEBRUARY 1, 2024
SAMPLING TIME : 11:40 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR. THANADET WANSANOR 145-a-0056
ANALYZED BY : MISS NAPAORN KHUNOKKHAM 145-a-0114

RECEIVED DATE : FEBRUARY 2, 2024
ANALYTICAL DATE : FEBRUARY 2-8, 2024
ISSUE DATE : FEBRUARY 13, 2024
REPORT NO. : 2024-U011726
WORK NO. : 2019-002022
ANALYSIS NO. : T24AC094-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.5 (25°C)	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)	31	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	< 2.0	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	81.6	25.0
TOTAL SUSPENDED SOLIDS *	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	14.3	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	37.540	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S ² D)	< 0.02	0.02
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	3
CYANIDE °	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		

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

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
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 SUKHILA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
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
			LBW004 : OP OUTLET T24AE807-0006		
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H B)	7.3 (25°C)		-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)	32		-
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)	60.8		25.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	7.4		5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36.925		25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S° D)	< 0.02		0.02
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.9		3
CYANIDE °	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		

° : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
° : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
° : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
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

(MRS PIYAPAT SUTTANANUTWONG)
LABORATORY SUPERVISOR
MARCH 20, 2024

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : APRIL 4, 2024
SAMPLING TIME : 11:35 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR THANADET WANSANOR
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM
RECEIVED DATE : APRIL 5, 2024
ANALYTICAL DATE : APRIL 5-11, 2024
ISSUE DATE : APRIL 18, 2024
REPORT NO. : 2024-U031828
WORK NO. : 2019-002022
ANALYSIS NO. : T24AH254-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW004 : OP OUTLET T24AH254-0005		
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H B)	7.8 (25°C)		-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM: PART 2550 B)	33		-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	27		2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	57.6		25.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	21.0		5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	38.925		25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S° D)	< 0.02		0.02
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	1.0		3.0
CYANIDE °	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		

° : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
° : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
° : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
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 PIYAPAT SUTTANANUTWONG)
LABORATORY SUPERVISOR
APRIL 18, 2024



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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 SUKHUA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
ANALYTICAL DATE : MAY 3-9, 2024
SAMPLING DATE : MAY 2, 2024
SAMPLING TIME : 11:15 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS NAWAPORN KHUNOKKHUM
RECEIVED DATE : MAY 3, 2024
ANALYTICAL DATE : MAY 3-9, 2024
ISSUE DATE : MAY 21, 2024
REPORT NO. : 2024-U041195
WORK NO. : 2019-002022
ANALYSIS NO. : T24A2307-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H B)	7.8 (25°C)	-
TEMPERATURE	°C	THERMOMETER AT SITE (SM: PART 2550 B)	34	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.4	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFUX, TITRIMETRIC METHOD (SM: PART 5220 C)	74.4	25.0
TOTAL SUSPENDED SOLIDS	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	11.1	5.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	39.073	25
SULPHIDE	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-SF D)	0.02	0.02
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.5	3
CYANIDE	mg/L CN	DISTILLATION, PYRIDINEBARBITURIC 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	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, ANWWA, WEF, 23RD 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 PIVANAT SUTTHANUNTHONG)
LABORATORY SUPERVISOR



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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 : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHUA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
ANALYTICAL DATE : MAY 3, 2024
SAMPLING DATE : MAY 2, 2024
SAMPLING TIME : 11:15 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS NADNAPA KAMOLBOON
RECEIVED DATE : MAY 3, 2024
ANALYTICAL DATE : MAY 3-8, 2024
ISSUE DATE : MAY 21, 2024
REPORT NO. : 2024-U041197
WORK NO. : 2019-002022
ANALYSIS NO. : T24A2307-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS				
MERCURY	mg/L Hg	COLD VAPOUR AAS METHOD (SM: PART 3112 B)	< 0.0005	0.0005
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, ANWWA, WEF, 23RD EDITION, 2017.
RELEASE ORDER NO.: EV-02-05-001

(MR BHUCHONK PANICHLEETUMPI)
LABORATORY SUPERVISOR



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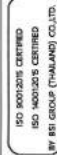
ANALYSIS REPORT

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 :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JUNE 7, 2024
SAMPLING TIME : 10:00 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR THANADET WANSANOR
ANALYZED BY : MISS MAPAPORN KHUNNOKKHUM
RECEIVED DATE : JUNE 7, 2024
ANALYTICAL DATE : JUNE 7-13, 2024
ISSUE DATE : JUNE 18, 2024
REPORT NO. : 2024-U053318
WORK NO. : 2019-002022
ANALYSIS NO. : T24AM380-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW004 : OP OUTLET T24AM380-0006	T24AM380-0006	
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H B)	7.7 (25°C)	-	-
TEMPERATURE °	°C	THERMOMETER (AT SITE) SM: PART 2550 B	33	-	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	3.0	2.0	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	68.2	25.0	25.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	9.7	5.0	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	38.940	25	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S° D)	< 0.02	0.02	0.02
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	3	3
CYANIDE °	mg/L CN	DISTILLATION PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 0.005	0.005	0.005
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

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th 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-08-06-002

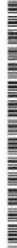


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(MISS PAKARAT SUTTANANTUNONG)
LABORATORY SUPERVISOR



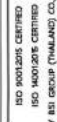
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Tel.0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

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 :
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 MAPAPORN KHUNNOKKHUM
RECEIVED DATE : JANUARY 5, 2024
ANALYTICAL DATE : JANUARY 5-11, 2024
REPORT NO. : 2024-U003958
WORK NO. : 2019-002022
ANALYSIS NO. : T24AA194-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW005 : REFINERY MIX T24AA194-0006	T24AA194-0006	
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 2530 B)	35.1	0.1	0.1
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	< 2.0	2.0	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	81.9	25.0	25.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	15.9	5.0	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36.675	25	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S° D)	< 0.02	0.02	0.02
NITRATE °	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	15.2	0.09	0.09
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	2.0	3	3



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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
LEAD ^c	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	

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

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23RD EDITION, 2017.
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23RD EDITION, 2017.
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 PIYAPAT SUTTANANUTWONG)
LABORATORY SUPERVISOR
JANUARY 15, 2024



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NSC - TSI - TIS 17025
TESTING 0207

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

SAMPLING SOURCE : -

SAMPLE TYPE : EFFLUENT

SAMPLING DATE : FEBRUARY 1, 2024

SAMPLING TIME : 11:00 HOUR

SAMPLING METHOD ^c : GRAB

SAMPLING BY ^c : MR. THANADET WANSANOR

ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM

RECEIVED DATE : FEBRUARY 2, 2024

ANALYTICAL DATE : FEBRUARY 2-8, 2024

ISSUE DATE : FEBRUARY 13, 2024

REPORT NO. : 2024-U011728

WORK NO. : 2019-002022

ANALYSIS NO. : T24AC094-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH ^c	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.6 (25 °C)	-
TEMPERATURE ^c	°C	THERMOMETER AT SITE (SM: PART 2550 B)	34	-
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	34.9	0.1
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ⁻ G)	< 2.0	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	88.0	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	23.1	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	38.030	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)	< 0.02	0.02
NITRATE ^c	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	11.8	0.09
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	3





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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS				
LEAD ^c	mg/L Pb	IN-HOUSE METHOD: UAE/PIW.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	

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

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

LABORATORY SUPERVISOR
FEBRUARY 13, 2024

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NSC-TISI-TIS 17025
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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SURACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : MARCH 7, 2024
SAMPLING TIME : 10:35 HOUR
SAMPLING METHOD^c : GRAB
SAMPLING BY^c : MR. THANADET WANSANOR
ANALYZED BY : MISS NAPAPORN KHUNNOKKIJUM
RECEIVED DATE : MARCH 8, 2024
ANALYTICAL DATE : MARCH 8-10, 2024
ISSUE DATE : MARCH 19, 2024
REPORT NO. : 2024-U022713
WORK NO. : 2019-002022
ANALYSIS NO. : T24AE807-0008

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

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NSC-TISI-TIS 17025
TESTING 0207

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : REFINERY MIX T24AE807-0008	
METALS				
LEAD ^c	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	

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

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

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

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

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

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

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- End of Analysis Report -

2024-U022713



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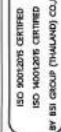
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NSC-TISI-TIS 17025
TESTING 0207

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : -
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : APRIL 4, 2024
SAMPLING TIME : 11:00 HOUR
SAMPLING METHOD ^c : GRAB
SAMPLING BY ^c : MR. THANADET WANSANOR
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM
RECEIVED DATE : APRIL 5, 2024
ANALYTICAL DATE : APRIL 5-19, 2024
ISSUE DATE : APRIL 23, 2024
REPORT NO. : 2024-U031829
WORK NO. : 2019-002022
ANALYSIS NO. : T24AH254-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW005 : REFINERY MIX T24AH254-0006	DETECTION LIMIT
pH ^c	-	ELECTROMETRIC METHOD (SM. PART 4500-H ⁺ B)	7.6 (25 ^o C)	-
TEMPERATURE ^c	°C	THERMOMETER AT SITE (SM. PART 2550 B)	36	-
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM. PART 2530 B)	34.3	0.1
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM. PART 5210 B AND PART 4500-O ₂ G)	2.1	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM. PART 5220 C)	80.0	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM. PART 2540 D)	112	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM. PART 2540 C)	40.075	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM. PART 4500-S ²⁻ D)	< 0.02	0.02
NITRATE ^c	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM. PART 4500-NO ₃ E)	2.92	0.09
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM. PART 5520 B)	0.6	3



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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS			LBW005 : REFINERY MIX T24AJ254-0006	
LEAD c	mg/L Pb	IN-HOUSE METHOD: UAE/PAW.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/TURBID YELLOW	

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

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

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



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ANALYSIS REPORT

ENVIRONMENTAL & SOCIOECONOMIC SURVEY

BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

118 MOO 2 THUNG SUKHUA SI RACHA CHON BURI 20230

CONTACT INFORMATION

SAMPLING SOURCE

SAMPLE TYPE

SAMPLING DATE

SAMPLING TIME

SAMPLING METHOD

SAMPLING BY

ANALYZED BY

RECEIVED DATE

ANALYTICAL DATE

ISSUE DATE

REPORT NO.

WORK NO.

ANALYSIS NO.

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM PART 4500-H ⁺ 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 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)	41075	25
SULPHIDE	mg/L	METHYLENE BLUE METHOD (SM PART 4500-S ²⁻ D)	< 0.02	0.02
NITRATE	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM PART 4500-NO ₃ E)	23.4	0.09
FAT, OIL AND GREASE	mg/L	LIQUID/LIQUID PARTITION-GRAVIMETRIC METHOD (SM PART 5320 B)	0.6	3

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : REFINERY MIX T24A1207-0009	
METALS				
LEAD	mg/L Pb	IN-HOUSE METHOD: UJAE/PIW/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, 23rd EDITION, 2017.
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd 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 SRRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION

SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JUNE 6, 2024
SAMPLING TIME : 10:20 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR. THANADAT WANSANOR
ANALYZED BY : MISS NARAPORN KHUINKOKKHUM

RECEIVED DATE : JUNE 7, 2024
ANALYTICAL DATE : JUNE 7-13, 2024
ISSUE DATE : JUNE 18, 2024
REPORT NO. : 2024-U05320
WORK NO. : 2019-00202
ANALYSIS NO. : T24A1300-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH ^c	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.4 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) SM: PART 2550 B	35	-
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	26.5	0.1
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	2.6	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	816	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	7.9	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	39.440	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S ²⁻ D)	< 0.02	0.02
NITRATE ^c	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	15.4	0.09
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.8	3





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS				
LEAD °	mg/L Pb	UAE-TP-HEM-004 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD) BASED ON 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

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th 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

(MISS PAYAT SUTTHANUNTHONG)
LABORATORY SUPERVISOR



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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 :
SAMPLING SOURCE : SEAWATER
SAMPLE TYPE : JANUARY 5, 2024
SAMPLING DATE : JANUARY 5-11, 2024
SAMPLING TIME : 09:50 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY : MR THANADET WANSAMOR
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. : T24A195-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24A195-0001	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H B)	7.7 (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)	28	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	31.3	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)	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	10
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, II))	8.22	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1996, CHAPTER 5)	< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.7	3



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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AA195-0001		
METALS					
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.150		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, 23RD 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



(MISS PYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
JANUARY 15, 2024



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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SKRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
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 SUMEETHA
RECEIVED DATE : FEBRUARY 2, 2024
ANALYTICAL DATE : FEBRUARY 2-9, 2024
ISSUE DATE : FEBRUARY 20, 2024
REPORT NO. : 2024-U011829
WORK NO. : 2019-00202
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-AMINODIPYRINE 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 4500-O G)	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 REBULOX, TITRIMETRIC METHOD (SM: PART 5220 C)	75.2	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



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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, 23rd EDITION, 2017.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI BACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : MARCH 7, 2024
SAMPLING TIME : 08:59 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY : MR THANADET WANSAMOR
ANALYZED BY : MISS NAPAPORN KHIUNNGKOLUM
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+ B)	7.4 (25°C)		-
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)	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)	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 REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	56.0		25.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	7.3		1.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	35.940		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, 116))	5.22		0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1996, CHAPTER 5)	< 10		10
FAT, OIL AND GREASE	mg/L	LIQUID LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	1.0		3



United Analyst and Engineering Consultant Co., Ltd.

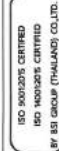
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ANALYSIS REPORT

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 :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : APRIL 4, 2024
SAMPLING TIME : 09:03 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY : MR THAWDET WANSANOR
ANALYZED BY : MISS NADAPORN KHUINKOKKHAM
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-AMINOANTIPYRINE 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 REFLUX, 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)	36.480		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, II(6))	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

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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, 23rd 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

LABORATORY SUPERVISOR
APRIL 18, 2024



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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SKIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
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 NADAPORN 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. : T24A205-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24A205-0001	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.9 (25°C)	-
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 2560 B)	33	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: PART 2520 B)	318	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 REFLEX, 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 (STRICKLAND AND PARSON, 1972, II.6))	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

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24A205-0001	
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.140	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, 23rd EDITION, 2017.
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RELEASE ORDER NO. : EV-02-05-001

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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
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 : MR. KORWIT CHASIRISAKUL
RECEIVED DATE : MAY 3, 2024
ANALYTICAL DATE : MAY 3-10, 2024
ISSUE DATE : MAY 21, 2024
REPORT NO. : 2024-U041454
WORK NO. : 2019-002022
ANALYSIS NO. : T24AJ205-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AJ205-0002		
METALS					
MERCURY	µg/L Hg	COLD-VAPOUR ATOMIC FLUORESCENCE SPECTROMETRIC METHOD (US EPA 2005: 245.7)	< 0.020		0.020
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT				COLOURLESS/CLEAR YELLOW	

RELEASE ORDER NO. : EV-02-05-001

(MR. BRUCHONK MANCHERESTURAPPA)
LABORATORY SUPERVISOR

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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : JUNE 6, 2024
SAMPLING TIME : 10:35 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY : MR. THANADET WANSANOR
ANALYZED BY : MISS NAPAPORN KHUWONGKULUM
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. : T24AM382-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AM382-0001		
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 AND 1000 B	24.1		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)	1.7		0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	74.8		25.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	10.6		1.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	35.40		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, II.6))	5.03		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

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AM382-0001	
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.100	0.100
SAMPLE CONDITION			COLOURLESS/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th 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



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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 :
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. : T24A1662-0001, T24A1662-0003

PHYTOPLANKTON (UNITS/m3)	COUNTING UNIT	RESULT	
		SAMPLE NO. 1 13:40 HOUR * T24A1662-0001	SAMPLE NO. 2 13:10 HOUR * T24A1662-0003
Division Cyanophyta Class Cyanophyceae Family Oscillatoriaceae Oscillatoria spp.	FILAMENT	784,714	111,067
Division Chromophyta Class Bacillariophyceae Family Thalassiosiraceae Lauderia annulata Thalassiosira spp.	FILAMENT CELL	282,326 747,347	135,299 551,281
Family Lepidocylindraceae Lepidocylindrus danicus	FILAMENT	373,674	183,567
Family Coscinodiscaceae Coscinodiscus spp. Palmella hardmaniana	CELL CELL	512,758 6,228	183,567 0
Family Rhizosoleniaceae Dactylosolen spp. Guillardia spp. Proboscia alata Rhizosolenia spp.	CELL CELL CELL CELL	319,693 572,966 112,102 1,001,951	66,639 529,071 102,987 951,112
Family Hemialidaceae Ceratulina spp. Eucampia spp. Hemiaulus spp.	CELL CELL CELL	112,102 261,572 99,647	48,175 383,678 54,523
Family Chaetocerolaceae Bacterisirastrum spp. Chaetoceros spp.	FILAMENT CELL	2,379,052 76,038,306	589,652 15,294,221
Family Lithodermaceae Dityum spp.	CELL	120,401	0

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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 :
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. : T24A1662-0001, T24A1662-0003

PHYTOPLANKTON (UNITS/m3)	COUNTING UNIT	RESULT	
		SAMPLE NO. 1 13:40 HOUR * T24A1662-0001	SAMPLE NO. 2 13:10 HOUR * T24A1662-0003
Family Eupodiscaceae Odontella spp.	CELL	83,034	9,088
Family Thalassiosiraceae Thalassiosira frauenfeldii	CELL	1,496,686	122,168
T. nitzschoides	CELL	51,894	36,349
Family Naviculaceae Amphora spp.	CELL	99,647	24,233
Merulina membranacea	CELL	182,680	409,925
Navicula spp.	CELL	548,054	391,751
Pleurosigma spp.	CELL	2,495,311	1,672,017
Family Bacillariaceae Bacillaria pavillifer	CELL	3,973,390	411,947
Cylindrotheca gracilis	CELL	2,496,997	2,629,187
Nitzschia spp.	CELL	0	18,175
N. longissima	CELL	211,749	226,170
Pseudo-nitzschia spp.	CELL	3,118,100	1,344,884
Family Surirellaceae Surirella spp.	CELL	0	42,407
Class Dinophyceae Family Prorocentraceae Prorocentrum spp.	CELL	224,204	80,777
Family Dinophysiaceae Dinophysis spp.	CELL	157,768	0
Family Noctilucaeae Noctiluca spp.	CELL	18,684	25,240
Family Ceratiliaceae Ceratium spp. C. furca C. lusus	CELL CELL CELL	43,596 24,912 20,755 18,613	70,675 15,146 7,066 10,095

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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. Family Protoperidiniaceae <i>Protoperidinium</i> spp.	CELL	235,660	121,183
	CELL	275,195	129,241
TOTAL ABUNDANCE	UNITS/m ³	99,253,758	26,894,563
ORGANISMS COUNTED	NUMBER	36	35
SAMPLE CONDITION (VISUAL OBSERVATION) COLOUR AND TURBIDITY OF WATER COLOUR OF SEDIMENT		GREEN/TURBID GREEN	GREEN/TURBID 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.

ZOOPLANKTON (UNITS/m ³)	COUNTING UNIT	RESULT	
		SAMPLE NO. 1 13:40 HOUR * T24A1662-0001	SAMPLE NO. 2 13:10 HOUR * T24A1662-0003
Phylum Protozoa			
Class Sarcodina			
Family Sticholonchidae			
<i>Sticholonche</i> sp.	CELL	10,998	6,382
Class Ciliata			
Family Codonelllopsidae			
<i>Codonellopsis</i> sp.	CELL	0	737
Family Cyrtarcyclindae			
<i>Favella</i> sp.	CELL	8,508	0
Phylum Chaetognatha			
Class Sagittirodea			
Family Sagittidae			
<i>Sagitta</i> sp.	INDIVIDUAL	1,996	494
Phylum Annelida			
Class Polychaeta			
Polychaete Larva	INDIVIDUAL	16,040	5,646
Phylum Arthropoda			
Class Crustacea			
Cyclopoid Copepod	INDIVIDUAL	54,508	16,436
Calanoid Copepod	INDIVIDUAL	66,046	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 Echinoidae			
Echinopluteus Larva	INDIVIDUAL	1,501	0

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ZOPLANKTON (UNIT/m ³)	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 UNIT/m ³	13,504 334,595	9,226 188,436
TOTAL ABUNDANCE	NUMBER	11	11
ORGANISMS COUNTED			
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 CHAIWEewan BOONLA)
LABORATORY SUPERVISOR

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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

SAMPLING SOURCE : -

SAMPLE TYPE : SEDIMENT

SAMPLING DATE : APRIL 25, 2024

SAMPLING TIME : *

SAMPLING METHOD : PETERSEN GRAB

SAMPLING BY : MR. THAVADET WANSANOR

ANALYZED BY : MISS PATCHAREE KONGCHUMNAN

RECEIVED DATE : APRIL 26, 2024

ANALYTICAL DATE : APRIL 26, 2024

ISSUE DATE : MAY 7, 2024

REPORT NO. : 2024-U036800

WORK NO. : 2019-002022

ANALYSIS NO. : T24A1662-0002, T24A1662-0004

RESULT

BENTHOS (INDIVIDUALS/m ²)	SAMPLE NO. 1 13:50 HOUR * T24A1662-0002	SAMPLE NO. 2 13:30 HOUR * T24A1662-0004
Phylum Annelida Class Polychaeta Family Nereitidae Family Glyceridae Family Capitellidae Family Lumbrineridae Family Sternaspidae Family Nereididae Family Sponidae Phylum Arthropoda Class Malacostraca Tanaid	7 7 21 7 7 7 7 49 14	7 0 7 7 0 0 21 0
TOTAL DENSITY (INDIVIDUALS/m ²)	119	42
AMOUNT OF SPECIES	8	4
SAMPLE CONDITION	CLAY	CLAY

SAMPLE NO. 1 500 METERS OFFSHORE (JETTY)

SAMPLE NO. 2 BERTH ISLAND

(MISS CHAIWEewan 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.

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

1/1

- End of Analysis Report -



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 #: 88224809
Version: 1 - Final

ANALYTICAL REPORT

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

Analytes	Quantity	Date		Laboratory Method	Analytical Method
		Analized	Received		
Naphthas 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.

Encryption Key

Wendy Lesniak
08 Jul 2024 14:25:50

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.



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: ZPI963		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	30	07/04/2024
RL = Reporting Limit					

Client ID: SRT-RF-2024-02-002		Matrix:		Passive Monitor	
BV Labs ID: ZPI964		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	0.50	07/04/2024
THCs as n-Hexane	9.9	<30	<6.3	30	07/04/2024
Toluene	9.5	<3.0	<0.66	3.0	07/04/2024
Xylenes	7.5	<6.0	<1.7	6.0	07/04/2024
RL = Reporting Limit					

Client ID: SRT-RF-2024-02-003		Matrix:		Passive Monitor	
BV Labs ID: ZPI965		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	0.50	07/04/2024
THCs as n-Hexane	9.9	<30	<6.3	30	07/04/2024
Toluene	9.5	<3.0	<0.66	3.0	07/04/2024
Xylenes	7.5	<6.0	<1.7	6.0	07/04/2024
RL = Reporting Limit					

Client ID: SRT-RF-2024-02-004		Matrix:		Passive Monitor	
BV Labs ID: ZPI966		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	0.50	07/04/2024
THCs as n-Hexane	9.9	<30	<6.3	30	07/04/2024
Toluene	9.5	<3.0	<0.66	3.0	07/04/2024
Xylenes	7.5	<6.0	<1.7	6.0	07/04/2024
RL = Reporting Limit					



BV Labs Job #: C4I9350
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	Test Method	Date Analyzed
Gasoline	9.2	<30	<6.8	N/A	30 NIOSH 1550 / 1551	07/04/2024
Benzene	9.7	<0.50	<0.11	<0.034	0.50 NOV SOP-00005	07/04/2024
THCs as n-Hexane	9.9	<30	<6.3	<1.8	30 NIOSH 1550 / 1551	07/04/2024
Toluene	9.5	<3.0	<0.66	<0.17	3.0 NOV SOP-00005	07/04/2024
Xylenes	7.5	<6.0	<1.7	<0.38	6.0 NOV SOP-00005	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	Test Method	Date Analyzed
Gasoline	9.2	<30	<6.8	N/A	30 NIOSH 1550 / 1551	07/04/2024
Benzene	9.7	<0.50	<0.11	<0.034	0.50 NOV SOP-00005	07/04/2024
THCs as n-Hexane	9.9	40	8.4	2.4	30 NIOSH 1550 / 1551	07/04/2024
Toluene	9.5	<3.0	<0.66	<0.17	3.0 NOV SOP-00005	07/04/2024
Xylenes	7.5	<6.0	<1.7	<0.38	6.0 NOV SOP-00005	07/04/2024
RL = Reporting Limit						



BV Labs Job #: C4I9350
Report Date: 07/08/2024

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

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 ZP1968 (SRT-RF-2024-02-BLANK) : Actual value of the client THCs as n-hexane client 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.

