

ภาคผนวก ค

ใบรับรองผลการวิเคราะห์

ภาคผนวก ค-1

คุณภาพอากาศในบรรยากาศโดยทั่วไป



Analysis / Test Report

TESTING
No.0042

Client : Glow SPP 3 Co., Ltd.
11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150
P/O : GLOW-OM-22-103
Project Name :
Project Location : Glow SPP 3

Lot ID: 2413199

Date Received : Feb 23, 2024
Date Reported : Mar 01, 2024
Report Number: 2901150-1

Page 1 of 1

Sample Description	Air Quality
Location	Thai Tank Farm
Date Analysis Commenced	Feb 28, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
2413199-1	Feb 20 - Feb 21, 2024	0.037	0.016	758	29
2413199-2	Feb 21 - Feb 22, 2024	0.036	0.014	758	29
2413199-3	Feb 22 - Feb 23, 2024	0.031	0.013	758	29
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Anuwet Tema

Remark :

- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Approved by

Wilawan Borirak
Manager

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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Life Sciences

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Analysis / Test Report

TESTING
No.0042

Client : Glow SPP 3 Co., Ltd.
11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150
P/O : GLOW-OM-22-103
Project Name :
Project Location : Glow SPP 3

Lot ID: 2413199

Date Received : Feb 23, 2024
Date Reported : Mar 01, 2024
Report Number: 2901150-2

Page 1 of 1

Sample Description Air Quality
Location Map Ta Phut Port (North of Project)
Date Analysis Commenced Feb 28, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
2413199-4	Feb 20 - Feb 21, 2024	0.038	0.016	758	29
2413199-5	Feb 21 - Feb 22, 2024	0.034	0.015	758	29
2413199-6	Feb 22 - Feb 23, 2024	0.031	0.011	758	29
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B
Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Anuwet Tema

Remark :

- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Analysis / Test Report

Client : Glow SPP 3 Co., Ltd.

11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location : Glow SPP 3

Lot ID: 2413195

Date Received :Feb 23, 2024

Date Reported :Mar 01, 2024

Report Number :2901152-1

Page 1 of 2

Sample Number 2413195-1 to 3
Parameter Wind Speed / Wind Direction
Location Thai Tank Farm
Sampling Date Feb 20 - Feb 23, 2024
Sampling by Anuwet Tema

Time	Feb 20 - Feb 21, 2024			Feb 21 - Feb 22, 2024			Feb 22 - Feb 23, 2024			-			-			-			-		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		-	-		-	-		-	-		-	-	
10:00 AM - 11:00 AM	2.1	216.0	SW	1.5	226.0	SW	3.8	192.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM - 12:00 PM	2.6	220.0	SW	4.4	192.0	SSW	3.6	217.0	SW	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM - 01:00 PM	0.8	245.0	WSW	3.0	202.0	SSW	3.7	220.0	SW	-	-	-	-	-	-	-	-	-	-	-	-
01:00 PM - 02:00 PM	1.1	262.0	W	1.3	264.0	W	1.9	235.0	SW	-	-	-	-	-	-	-	-	-	-	-	-
02:00 PM - 03:00 PM	2.1	314.0	NW	2.3	176.0	S	2.6	188.0	S	-	-	-	-	-	-	-	-	-	-	-	-
03:00 PM - 04:00 PM	1.1	253.0	WSW	3.7	209.0	SSW	1.8	229.0	SW	-	-	-	-	-	-	-	-	-	-	-	-
04:00 PM - 05:00 PM	2.0	238.0	WSW	3.4	194.0	SSW	3.8	189.0	S	-	-	-	-	-	-	-	-	-	-	-	-
05:00 PM - 06:00 PM	3.1	184.0	S	3.3	212.0	SSW	1.4	127.0	SE	-	-	-	-	-	-	-	-	-	-	-	-
06:00 PM - 07:00 PM	2.8	197.0	SSW	3.9	183.0	S	2.8	210.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-
07:00 PM - 08:00 PM	4.3	191.0	S	3.4	177.0	S	1.4	259.0	W	-	-	-	-	-	-	-	-	-	-	-	-
08:00 PM - 09:00 PM	2.6	196.0	SSW	3.2	167.0	SSE	1.2	213.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-
09:00 PM - 10:00 PM	1.3	210.0	SSW	3.1	166.0	SSE	1.3	198.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-
10:00 PM - 11:00 PM	1.4	177.0	S	0.6	200.0	SSW	3.0	194.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM - 12:00 AM	1.1	177.0	S	1.2	199.0	SSW	2.1	215.0	SW	-	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 01:00 AM	3.8	196.0	SSW	1.1	215.0	SW	2.0	197.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-
01:00 AM - 02:00 AM	2.2	175.0	S	2.1	297.0	WNW	1.4	191.0	S	-	-	-	-	-	-	-	-	-	-	-	-
02:00 AM - 03:00 AM	2.8	222.0	SW	2.1	179.0	S	1.8	216.0	SW	-	-	-	-	-	-	-	-	-	-	-	-
03:00 AM - 04:00 AM	0.4	198.0	SSW	1.5	220.0	SW	2.3	161.0	SSE	-	-	-	-	-	-	-	-	-	-	-	-
04:00 AM - 05:00 AM	1.4	269.0	W	3.5	202.0	SSW	2.2	224.0	SW	-	-	-	-	-	-	-	-	-	-	-	-
05:00 AM - 06:00 AM	1.1	253.0	WSW	4.0	198.0	SSW	1.1	252.0	WSW	-	-	-	-	-	-	-	-	-	-	-	-
06:00 AM - 07:00 AM	0.1	-	-	2.4	198.0	SSW	0.8	270.0	W	-	-	-	-	-	-	-	-	-	-	-	-
07:00 AM - 08:00 AM	1.9	241.0	WSW	3.8	206.0	SSW	0.3	267.0	W	-	-	-	-	-	-	-	-	-	-	-	-
08:00 AM - 09:00 AM	3.1	227.0	SW	1.9	198.0	SSW	3.2	211.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-
09:00 AM - 10:00 AM	2.5	221.0	SW	3.2	182.0	S	2.6	224.0	SW	-	-	-	-	-	-	-	-	-	-	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Sarayuth Jittranont
Assistant General Manager



Analysis / Test Report

Client : Glow SPP 3 Co., Ltd.

11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location : Glow SPP 3

Lot ID: 2413195

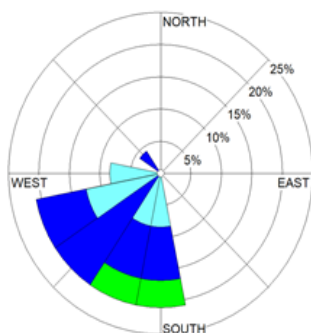
Date Received :Feb 23, 2024

Date Reported :Mar 01, 2024

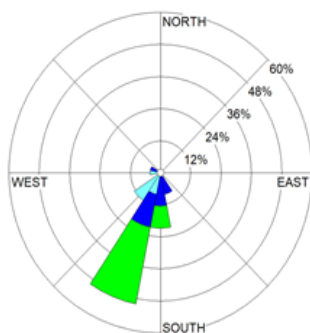
Report Number :2901152-1

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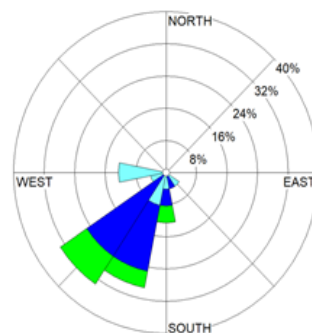
Wind Rose



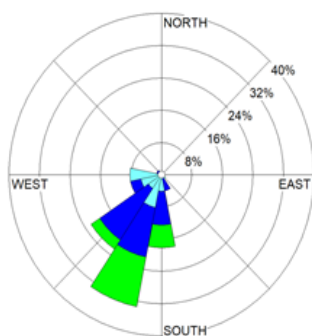
Date : Feb 20-21, 2024



Date : Sep 21-22, 2024



Date : Sep 22-23, 2024



Date : Feb 20-23, 2024

	WS(m/s)	%
	≥ 10.0	0.00
	8.0-10.0	0.00
	5.5-8.0	0.00
	3.3-5.5	20.83
	1.7-3.3	45.83
	0.3-1.7	31.94
	Calms	1.39

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Sarayuth Jittrantont
Assistant General Manager



Analysis / Test Report

Client : Glow SPP 3 Co., Ltd.

11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location : Glow SPP 3

Lot ID: 2413195

Date Received :Feb 23, 2024

Date Reported :Mar 01, 2024

Report Number :2901152-1

Page 1 of 2

Sample Number 2413195-4 to 6
Parameter Wind Speed / Wind Direction
Location Map Ta Phut Port (North of Project)
Sampling Date Feb 20 - Feb 23, 2024
Sampling by Anuwet Tema

Time	Feb 20 - Feb 21, 2024			Feb 21 - Feb 22, 2024			Feb 22 - Feb 23, 2024			-			-			-			-		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		-	-		-	-		-	-		-	-	
10:00 AM - 11:00 AM	1.3	142.0	SE	1.1	131.0	SE	1.2	146.0	SE	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM - 12:00 PM	1.4	159.0	SSE	3.4	148.0	SSE	1.8	145.0	SE	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM - 01:00 PM	1.8	167.0	SSE	1.1	127.0	SE	1.7	186.0	S	-	-	-	-	-	-	-	-	-	-	-	-
01:00 PM - 02:00 PM	0.7	104.0	ESE	2.5	176.0	S	1.2	146.0	SE	-	-	-	-	-	-	-	-	-	-	-	-
02:00 PM - 03:00 PM	0.5	138.0	SE	2.3	221.0	SW	2.9	198.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-
03:00 PM - 04:00 PM	2.9	161.0	SSE	1.8	220.0	SW	0.6	331.0	NNW	-	-	-	-	-	-	-	-	-	-	-	-
04:00 PM - 05:00 PM	2.0	132.0	SE	0.6	124.0	SE	1.6	135.0	SE	-	-	-	-	-	-	-	-	-	-	-	-
05:00 PM - 06:00 PM	1.5	140.0	SE	0.7	136.0	SE	2.6	177.0	S	-	-	-	-	-	-	-	-	-	-	-	-
06:00 PM - 07:00 PM	1.8	157.0	SSE	1.0	126.0	SE	1.8	199.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-
07:00 PM - 08:00 PM	2.3	101.0	E	2.2	191.0	S	2.0	144.0	SE	-	-	-	-	-	-	-	-	-	-	-	-
08:00 PM - 09:00 PM	1.7	150.0	SSE	1.6	137.0	SE	0.9	163.0	SSE	-	-	-	-	-	-	-	-	-	-	-	-
09:00 PM - 10:00 PM	0.5	124.0	SE	0.5	143.0	SE	0.8	195.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-
10:00 PM - 11:00 PM	2.6	155.0	SSE	0.6	110.0	ESE	1.7	169.0	S	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM - 12:00 AM	0.7	161.0	SSE	1.0	128.0	SE	0.8	157.0	SSE	-	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 01:00 AM	1.9	133.0	SE	0.0	-	-	1.6	169.0	S	-	-	-	-	-	-	-	-	-	-	-	-
01:00 AM - 02:00 AM	1.2	140.0	SE	0.8	129.0	SE	0.6	147.0	SSE	-	-	-	-	-	-	-	-	-	-	-	-
02:00 AM - 03:00 AM	1.1	227.0	SW	1.1	142.0	SE	0.9	178.0	S	-	-	-	-	-	-	-	-	-	-	-	-
03:00 AM - 04:00 AM	1.8	159.0	SSE	1.0	170.0	S	1.2	162.0	SSE	-	-	-	-	-	-	-	-	-	-	-	-
04:00 AM - 05:00 AM	1.3	139.0	SE	1.3	152.0	SSE	0.9	138.0	SE	-	-	-	-	-	-	-	-	-	-	-	-
05:00 AM - 06:00 AM	1.8	194.0	SSW	0.5	148.0	SSE	0.9	177.0	S	-	-	-	-	-	-	-	-	-	-	-	-
06:00 AM - 07:00 AM	2.1	183.0	S	2.3	138.0	SE	3.0	186.0	S	-	-	-	-	-	-	-	-	-	-	-	-
07:00 AM - 08:00 AM	0.8	123.0	ESE	2.8	221.0	SW	0.7	236.0	SW	-	-	-	-	-	-	-	-	-	-	-	-
08:00 AM - 09:00 AM	0.6	130.0	SE	0.8	141.0	SE	1.1	97.0	E	-	-	-	-	-	-	-	-	-	-	-	-
09:00 AM - 10:00 AM	3.2	134.0	SE	2.3	144.0	SE	1.3	224.0	SW	-	-	-	-	-	-	-	-	-	-	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jittranont
Assistant General Manager



Analysis / Test Report

Client : Glow SPP 3 Co., Ltd.

11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location : Glow SPP 3

Lot ID: 2413195

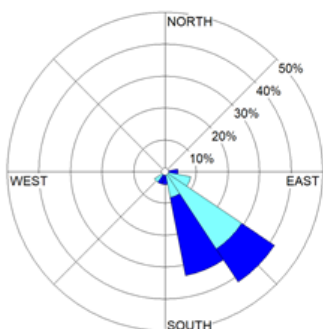
Date Received :Feb 23, 2024

Date Reported :Mar 01, 2024

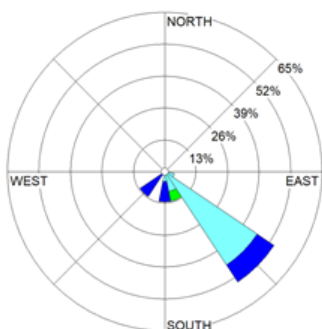
Report Number :2901152-1

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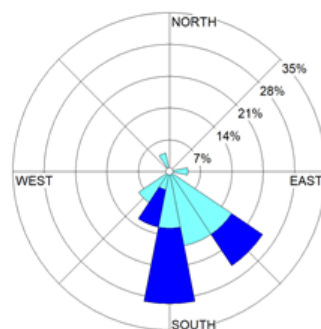
Wind Rose



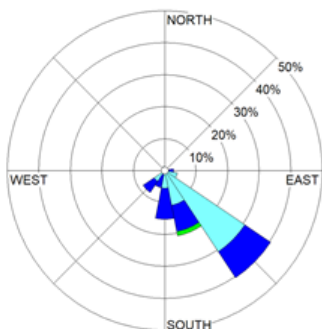
Date : Feb 20-21, 2024



Date : Sep 21-22, 2024



Date : Sep 22-23, 2024



Date : Feb 20-23, 2024

	WS(m/s)	%
	≥ 10.0	0.00
	8.0-10.0	0.00
	5.5-8.0	0.00
	3.3-5.5	1.39
	1.7-3.3	37.50
	0.3-1.7	59.72
	Calms	1.39

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Approved by

Sarayuth Jittrantont
Assistant General Manager

ภาคผนวก ค-2

ระดับเสียงโดยทั่วไป



Analysis / Test Report

TESTING
No.0042

Client : Glow SPP 3 Co., Ltd.
11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150
P/O : GLOW-OM-22-103
Project Name :
Project Location : Glow SPP 3

Lot ID: 2413202

Date Received : Feb 23, 2024
Date Reported : Feb 29, 2024
Report Number: 2922234-1

Page 1 of 1

Sample Number 2413202-1
Parameter Noise (Leq 24 hrs.)
Location Thai Tank Farm
Measurement Date Feb 20 - Feb 21, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 1173609

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	67.8	90.6	60.9
11:00 AM - 12:00 PM	62.4	77.7	60.7
12:00 PM - 01:00 PM	61.5	75.4	60.7
01:00 PM - 02:00 PM	62.0	85.2	60.9
02:00 PM - 03:00 PM	61.7	74.6	60.8
03:00 PM - 04:00 PM	61.4	69.2	60.6
04:00 PM - 05:00 PM	61.7	80.1	60.7
05:00 PM - 06:00 PM	62.1	81.1	61.1
06:00 PM - 07:00 PM	63.0	74.3	61.9
07:00 PM - 08:00 PM	62.5	65.9	61.5
08:00 PM - 09:00 PM	62.5	65.0	61.7
09:00 PM - 10:00 PM	62.3	66.0	61.5
10:00 PM - 11:00 PM	62.0	64.6	61.3
11:00 PM - 12:00 AM	62.0	64.9	61.3
12:00 AM - 01:00 AM	62.2	67.3	61.4
01:00 AM - 02:00 AM	62.2	64.7	61.5
02:00 AM - 03:00 AM	62.0	66.2	61.4
03:00 AM - 04:00 AM	61.9	64.6	61.3
04:00 AM - 05:00 AM	61.8	64.0	61.2
05:00 AM - 06:00 AM	61.8	63.9	61.3
06:00 AM - 07:00 AM	61.7	73.9	61.2
07:00 AM - 08:00 AM	62.1	66.8	61.2
08:00 AM - 09:00 AM	61.2	64.7	60.3
09:00 AM - 10:00 AM	60.5	80.7	60.1

Leq Average 24 hrs. (dB(A)) 62.4
Lmax (dB(A)) 90.6
L90 (dB(A)) 61.2
Ldn (dB(A)) 68.5
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Glow SPP 3 Co., Ltd.
11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150
P/O : GLOW-OM-22-103
Project Name :
Project Location : Glow SPP 3

Lot ID: 2413202

Date Received : Feb 23, 2024
Date Reported : Feb 29, 2024
Report Number: 2922235-1

Page 1 of 1

Sample Number 2413202-2
Parameter Noise (Leq 24 hrs.)
Location Thai Tank Farm
Measurement Date Feb 21 - Feb 22, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 1173609

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	60.7	69.4	60.3
11:00 AM - 12:00 PM	60.5	71.9	60.1
12:00 PM - 01:00 PM	60.6	79.4	60.1
01:00 PM - 02:00 PM	60.4	68.9	60.0
02:00 PM - 03:00 PM	60.8	67.9	60.4
03:00 PM - 04:00 PM	60.7	72.0	60.2
04:00 PM - 05:00 PM	60.7	65.1	60.3
05:00 PM - 06:00 PM	61.1	74.5	60.6
06:00 PM - 07:00 PM	61.0	65.3	60.7
07:00 PM - 08:00 PM	60.9	63.6	60.6
08:00 PM - 09:00 PM	60.8	62.7	60.6
09:00 PM - 10:00 PM	60.7	63.7	60.5
10:00 PM - 11:00 PM	60.8	64.5	60.5
11:00 PM - 12:00 AM	60.7	69.1	60.4
12:00 AM - 01:00 AM	60.7	64.1	60.4
01:00 AM - 02:00 AM	60.7	63.0	60.4
02:00 AM - 03:00 AM	60.7	63.5	60.4
03:00 AM - 04:00 AM	60.8	64.4	60.5
04:00 AM - 05:00 AM	60.8	64.2	60.5
05:00 AM - 06:00 AM	60.8	63.8	60.5
06:00 AM - 07:00 AM	60.8	71.5	60.5
07:00 AM - 08:00 AM	60.9	77.6	60.5
08:00 AM - 09:00 AM	64.4	80.7	60.5
09:00 AM - 10:00 AM	66.2	72.2	64.7

Leq Average 24 hrs. (dB(A)) 61.4
Lmax (dB(A)) 80.7
L90 (dB(A)) 60.5
Ldn (dB(A)) 67.3
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Glow SPP 3 Co., Ltd.
11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150
P/O : GLOW-OM-22-103
Project Name :
Project Location : Glow SPP 3

Lot ID: 2413202

Date Received : Feb 23, 2024
Date Reported : Feb 29, 2024
Report Number: 2922236-1

Page 1 of 1

Sample Number 2413202-3
Parameter Noise (Leq 24 hrs.)
Location Thai Tank Farm
Measurement Date Feb 22 - Feb 23, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 1173609

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	65.0	78.4	64.4
11:00 AM - 12:00 PM	65.1	71.7	64.5
12:00 PM - 01:00 PM	65.0	80.3	64.5
01:00 PM - 02:00 PM	65.0	70.4	64.5
02:00 PM - 03:00 PM	65.1	73.6	64.6
03:00 PM - 04:00 PM	64.9	68.0	64.4
04:00 PM - 05:00 PM	65.1	72.0	64.5
05:00 PM - 06:00 PM	63.4	67.7	63.0
06:00 PM - 07:00 PM	62.2	83.1	60.3
07:00 PM - 08:00 PM	61.5	67.7	60.3
08:00 PM - 09:00 PM	61.7	74.6	60.3
09:00 PM - 10:00 PM	60.5	63.9	60.3
10:00 PM - 11:00 PM	60.5	61.5	60.2
11:00 PM - 12:00 AM	60.5	64.8	60.2
12:00 AM - 01:00 AM	60.4	61.3	60.2
01:00 AM - 02:00 AM	60.5	64.2	60.1
02:00 AM - 03:00 AM	60.5	63.7	59.7
03:00 AM - 04:00 AM	60.4	64.0	60.1
04:00 AM - 05:00 AM	60.4	65.6	60.1
05:00 AM - 06:00 AM	60.3	67.6	60.0
06:00 AM - 07:00 AM	60.4	67.2	60.1
07:00 AM - 08:00 AM	60.4	78.0	60.1
08:00 AM - 09:00 AM	60.2	65.2	59.9
09:00 AM - 10:00 AM	60.2	77.8	59.9

Leq Average 24 hrs. (dB(A)) 62.6
Lmax (dB(A)) 83.1
L90 (dB(A)) 60.2
Ldn (dB(A)) 67.4
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head



Analysis / Test Report



TESTING
No.0042

Client : Glow SPP 3 Co., Ltd.
11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150
P/O : GLOW-OM-22-103
Project Name :
Project Location : Glow SPP 3

Lot ID: 2413202

Date Received : Feb 23, 2024
Date Reported : Feb 29, 2024
Report Number: 2922237-1

Page 1 of 1

Sample Number 2413202-4
Parameter Noise (Leq 24 hrs.)
Location Map Ta Phut Port (North of Project)
Measurement Date Feb 20 - Feb 21, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	56.5	77.3	49.5
11:00 AM - 12:00 PM	57.6	80.2	53.5
12:00 PM - 01:00 PM	55.8	77.7	53.2
01:00 PM - 02:00 PM	55.6	71.3	52.9
02:00 PM - 03:00 PM	55.0	74.9	53.1
03:00 PM - 04:00 PM	55.7	76.3	53.2
04:00 PM - 05:00 PM	55.2	71.7	52.9
05:00 PM - 06:00 PM	55.0	76.2	52.6
06:00 PM - 07:00 PM	55.5	81.3	51.3
07:00 PM - 08:00 PM	54.5	80.6	51.4
08:00 PM - 09:00 PM	52.0	64.6	50.9
09:00 PM - 10:00 PM	51.7	63.4	50.7
10:00 PM - 11:00 PM	51.6	67.5	50.6
11:00 PM - 12:00 AM	51.5	62.9	50.5
12:00 AM - 01:00 AM	51.4	66.0	50.3
01:00 AM - 02:00 AM	51.4	62.9	50.4
02:00 AM - 03:00 AM	52.4	70.5	50.1
03:00 AM - 04:00 AM	51.0	68.5	50.0
04:00 AM - 05:00 AM	51.0	62.6	50.1
05:00 AM - 06:00 AM	52.7	69.6	50.2
06:00 AM - 07:00 AM	57.3	83.2	50.9
07:00 AM - 08:00 AM	55.4	78.5	51.4
08:00 AM - 09:00 AM	57.8	74.7	54.2
09:00 AM - 10:00 AM	55.2	71.7	53.7

Leq Average 24 hrs. (dB(A)) 54.7
Lmax (dB(A)) 83.2
L90 (dB(A)) 50.9
Ldn (dB(A)) 59.7
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Glow SPP 3 Co., Ltd.
11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150
P/O : GLOW-OM-22-103
Project Name :
Project Location : Glow SPP 3

Lot ID: 2413202

Date Received : Feb 23, 2024
Date Reported : Feb 29, 2024
Report Number: 2922238-1

Page 1 of 1

Sample Number 2413202-5
Parameter Noise (Leq 24 hrs.)
Location Map Ta Phut Port (North of Project)
Measurement Date Feb 21 - Feb 22, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	55.8	87.2	53.7
11:00 AM - 12:00 PM	56.0	75.7	53.2
12:00 PM - 01:00 PM	55.4	77.2	53.0
01:00 PM - 02:00 PM	55.1	71.1	52.8
02:00 PM - 03:00 PM	56.8	72.7	52.8
03:00 PM - 04:00 PM	54.5	76.7	53.0
04:00 PM - 05:00 PM	54.7	70.4	52.8
05:00 PM - 06:00 PM	54.3	69.4	52.5
06:00 PM - 07:00 PM	53.5	77.4	50.7
07:00 PM - 08:00 PM	58.0	88.6	50.6
08:00 PM - 09:00 PM	51.0	65.6	49.7
09:00 PM - 10:00 PM	50.6	64.2	49.4
10:00 PM - 11:00 PM	52.5	71.6	49.7
11:00 PM - 12:00 AM	50.2	62.3	48.9
12:00 AM - 01:00 AM	49.8	62.5	48.6
01:00 AM - 02:00 AM	49.7	62.3	48.5
02:00 AM - 03:00 AM	50.6	70.3	48.7
03:00 AM - 04:00 AM	53.9	71.0	48.9
04:00 AM - 05:00 AM	56.2	77.0	49.2
05:00 AM - 06:00 AM	52.9	69.5	49.4
06:00 AM - 07:00 AM	55.4	82.2	50.0
07:00 AM - 08:00 AM	56.5	81.0	50.9
08:00 AM - 09:00 AM	57.1	70.5	54.0
09:00 AM - 10:00 AM	54.3	71.7	52.9

Leq Average 24 hrs. (dB(A)) 54.6
Lmax (dB(A)) 88.6
L90 (dB(A)) 50.6
Ldn (dB(A)) 59.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Glow SPP 3 Co., Ltd.
11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150
P/O : GLOW-OM-22-103
Project Name :
Project Location : Glow SPP 3

Lot ID: 2413202

Date Received : Feb 23, 2024
Date Reported : Feb 29, 2024
Report Number: 2922239-1

Page 1 of 1

Sample Number 2413202-6
Parameter Noise (Leq 24 hrs.)
Location Map Ta Phut Port (North of Project)
Measurement Date Feb 22 - Feb 23, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	54.7	73.8	53.1
11:00 AM - 12:00 PM	54.0	70.2	52.7
12:00 PM - 01:00 PM	54.0	77.1	52.2
01:00 PM - 02:00 PM	54.9	67.6	53.0
02:00 PM - 03:00 PM	56.8	77.5	52.7
03:00 PM - 04:00 PM	54.8	76.0	52.3
04:00 PM - 05:00 PM	55.2	72.8	51.7
05:00 PM - 06:00 PM	53.4	73.0	51.4
06:00 PM - 07:00 PM	54.2	84.8	49.7
07:00 PM - 08:00 PM	51.3	69.2	49.6
08:00 PM - 09:00 PM	50.9	62.5	49.7
09:00 PM - 10:00 PM	50.8	65.3	49.4
10:00 PM - 11:00 PM	50.4	62.2	49.2
11:00 PM - 12:00 AM	50.6	69.7	49.1
12:00 AM - 01:00 AM	50.6	67.2	49.0
01:00 AM - 02:00 AM	49.9	62.4	48.9
02:00 AM - 03:00 AM	51.0	73.4	49.6
03:00 AM - 04:00 AM	50.6	66.5	49.1
04:00 AM - 05:00 AM	52.2	71.3	49.2
05:00 AM - 06:00 AM	52.1	70.9	49.2
06:00 AM - 07:00 AM	54.0	74.6	50.1
07:00 AM - 08:00 AM	55.5	73.8	50.4
08:00 AM - 09:00 AM	55.7	72.5	53.5
09:00 AM - 10:00 AM	54.7	75.9	52.2

Leq Average 24 hrs. (dB(A)) 53.5
Lmax (dB(A)) 84.8
L90 (dB(A)) 49.7
Ldn (dB(A)) 58.4
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

ภาคผนวก ค-3

คุณภาพน้ำทะเล



Analysis / Test Report

TESTING

No.0009

Lot ID: 2414560

Date Received : Feb 14, 2024

Date Reported : Feb 23, 2024

Report Number : 2906261-1

Client : Glow SPP 3 Co., Ltd.
11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location: Glow SPP 3

Page 1 of 12

Sample Number	2414560-1						
Sampled Date	Feb 14, 2024 10:18 AM						
Sample Description	Sea Water						
Location	พื้นที่ทะเลใกล้บริเวณท่าเทียบเรือ กนอ.						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Cadmium *	mg/L	0.0009	0.003	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead *	mg/L	0.001	0.003	Not Detected	≤0.0085	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.000003	0.00005	<0.00005	≤0.0001	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Zinc *	mg/L	0.001	0.003	0.01	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
Fecal Coliform	CFU/100mL	-	-	2	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9222 D	Bangkok
Total Coliform	MPN/100mL	-	-	<1.8	≤1000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong

Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.



Analysis / Test Report

TESTING

No.0009

Lot ID: 2414560

Date Received : Feb 14, 2024

Date Reported : Feb 23, 2024

Report Number : 2906261-1

Client : Glow SPP 3 Co., Ltd.

11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location: Glow SPP 3

Page 2 of 12

Sample Number	2414560-1						
Sampled Date	Feb 14, 2024 10:18 AM						
Sample Description	Sea Water						
Location	พื้นที่ทะเลใกล้บริเวณท่าเทียบเรือ กนอ.						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
COD *	mg/L	-	40	62		Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 C	Rayong
Conductivity at 25 Degree C *	micromhos/cm	-	0.5	48550	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong
Cyanide as CN *	mg/L	0.001	0.005	<0.005	≤0.007	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Depth *	m	-	-	14.9	No Standard	Water Level Meter	Rayong
Dissolved Oxygen *	mg/L	-	0.1	7.3	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	8.1	7.0-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Salinity *	ppt	-	0.1	31.0	Change from lower salinity not more than 10%	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong

Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0009

Lot ID: 2414560

Date Received : Feb 14, 2024

Date Reported : Feb 23, 2024

Report Number : 2906261-1

Client : Glow SPP 3 Co., Ltd.

11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location : Glow SPP 3

Page 3 of 12

Sample Number	2414560-1						
Sampled Date	Feb 14, 2024 10:18 AM						
Sample Description	Sea Water						
Location	พื้นที่ทะเลใกล้บริเวณท่าเทียบเรือ กนอ.						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.01	0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (D)	Rayong
Temperature *	Degree C	-	-	30.7	Change from natural condition not more than 2 degree C	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C *	mg/L	-	5	38050	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Solids Dried at 103-105 degree C *	mg/L	-	5	39600	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	2	4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Transparency *	m	-	-	1.8	>1.0	Visual Method	Rayong
Turbidity *	NTU	-	0.1	1.8	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Rayong

Guideline : Notification of the National Environmental Board, B.E.2564 : Coastal Water Quality Standard (Class 5)

Sampling By : Nattawut Athomprommarat , Pattarapol Sawangjaitam

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0009

Lot ID: 2414560

Date Received : Feb 14, 2024

Date Reported : Feb 23, 2024

Report Number : 2906261-1

Client : Glow SPP 3 Co., Ltd.

11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location: Glow SPP 3

Page 4 of 12

Sample Number	2414560-2						
Sampled Date	Feb 14, 2024 10:45 AM						
Sample Description	Sea Water						
Location	ทะเลใกล้บริเวณ Liquid Tank Farm						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Cadmium *	mg/L	0.0009	0.003	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead *	mg/L	0.001	0.003	Not Detected	≤0.0085	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.000003	0.00005	<0.00005	≤0.0001	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Zinc *	mg/L	0.001	0.003	0.008	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
Fecal Coliform	CFU/100mL	-	-	2	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9222 D	Bangkok
Total Coliform	MPN/100mL	-	-	<1.8	≤1000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong

Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0009

Lot ID: 2414560

Date Received : Feb 14, 2024

Date Reported : Feb 23, 2024

Report Number : 2906261-1

Client : Glow SPP 3 Co., Ltd.

11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location: Glow SPP 3

Page 5 of 12

Sample Number	2414560-2						
Sampled Date	Feb 14, 2024 10:45 AM						
Sample Description	Sea Water						
Location	ทะเลใกล้บริเวณ Liquid Tank Farm						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
COD *	mg/L	-	40	67		Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 C	Rayong
Conductivity at 25 Degree C *	micromhos/cm	-	0.5	48730	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.005	≤0.007	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Depth *	m	-	-	16.0	No Standard	Water Level Meter	Rayong
Dissolved Oxygen *	mg/L	-	0.1	7.2	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	8.1	7.0-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Salinity *	ppt	-	0.1	31.2	Change from lower salinity not more than 10%	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong

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P/O : GLOW-OM-22-103

Project Name :

Project Location : Glow SPP 3

Page 6 of 12

Sample Number	2414560-2						
Sampled Date	Feb 14, 2024 10:45 AM						
Sample Description	Sea Water						
Location	ทะเลใกล้บริเวณ Liquid Tank Farm						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (D)	Rayong
Temperature *	Degree C	-	-	32.4	Change from natural condition not more than 2 degree C	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C *	mg/L	-	5	37650	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Solids Dried at 103-105 degree C *	mg/L	-	5	39250	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	2	4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Transparency *	m	-	-	1.4	>1.3	Visual Method	Rayong
Turbidity *	NTU	-	0.1	2.3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Rayong

Guideline : Notification of the National Environmental Board, B.E.2564 : Coastal Water Quality Standard (Class 5)

Sampling By : Nattawut Athomprommarat , Pattarapol Sawangjaitam

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Supervisor

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Analysis / Test Report

Client : Glow SPP 3 Co., Ltd.
11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150
P/O : GLOW-OM-22-103
Project Name :
Project Location: Glow SPP 3

TESTING
No.0009

Lot ID: 2414560

Date Received : Feb 14, 2024

Date Reported : Feb 23, 2024

Report Number : 2906261-1

Page 7 of 12

Sample Number	2414560-3						
Sampled Date	Feb 14, 2024 11:10 AM						
Sample Description	Sea Water						
Location	Port groove						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Cadmium *	mg/L	0.0009	0.003	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead *	mg/L	0.001	0.003	Not Detected	≤0.0085	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.000003	0.00005	<0.00005	≤0.0001	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Zinc *	mg/L	0.001	0.003	0.02	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
Fecal Coliform	CFU/100mL	-	-	<1	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9222 D	Bangkok
Total Coliform	MPN/100mL	-	-	<1.8	≤1000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong

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Analysis / Test Report

TESTING

No.0009

Lot ID: 2414560

Date Received : Feb 14, 2024

Date Reported : Feb 23, 2024

Report Number : 2906261-1

Client : Glow SPP 3 Co., Ltd.

11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location: Glow SPP 3

Page 8 of 12

Sample Number	2414560-3						
Sampled Date	Feb 14, 2024 11:10 AM						
Sample Description	Sea Water						
Location	Port groove						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
COD *	mg/L	-	40	76		Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 C	Rayong
Conductivity at 25 Degree C *	micromhos/cm	-	0.5	48620	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong
Cyanide as CN *	mg/L	0.001	0.005	<0.005	≤0.007	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Depth *	m	-	-	16.8	No Standard	Water Level Meter	Rayong
Dissolved Oxygen *	mg/L	-	0.1	7.2	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	8.1	7.0-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Salinity *	ppt	-	0.1	31.2	Change from lower salinity not more than 10%	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong

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11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location: Glow SPP 3

Page 9 of 12

Sample Number	2414560-3						
Sampled Date	Feb 14, 2024 11:10 AM						
Sample Description	Sea Water						
Location	Port groove						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (D)	Rayong
Temperature *	Degree C	-	-	30.7	Change from natural condition not more than 2 degree C	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C *	mg/L	-	5	37150	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Solids Dried at 103-105 degree C *	mg/L	-	5	38850	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	2	<2	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Transparency *	m	-	-	2.5	>1.6	Visual Method	Rayong
Turbidity *	NTU	-	0.1	1.4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Rayong

Guideline : Notification of the National Environmental Board, B.E.2564 : Coastal Water Quality Standard (Class 5)

Sampling By : Nattawut Athomprommarat , Pattarapol Sawangjaitam

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Analysis / Test Report

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No.0009

Lot ID: 2414560

Date Received : Feb 14, 2024

Date Reported : Feb 23, 2024

Report Number : 2906261-1

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11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location: Glow SPP 3

Page 10 of 12

Sample Number	2414560-4						
Sampled Date	Feb 14, 2024 11:31 AM						
Sample Description	Sea Water						
Location	พื้นที่ทะเลที่ติดตะวันตกของเกาะเสม็ด						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Cadmium *	mg/L	0.0009	0.003	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead *	mg/L	0.001	0.003	Not Detected	≤0.0085	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.000003	0.00005	<0.00005	≤0.0001	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Zinc *	mg/L	0.001	0.003	0.01	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
Fecal Coliform	CFU/100mL	-	-	<1	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9222 D	Bangkok
Total Coliform	MPN/100mL	-	-	<1.8	≤1000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2.0	<2.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong

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11, I-5 Road, Map Ta Phut, Muang Rayong, Rayong Thailand 21150

P/O : GLOW-OM-22-103

Project Name :

Project Location: Glow SPP 3

Page 11 of 12

Sample Number	2414560-4						
Sampled Date	Feb 14, 2024 11:31 AM						
Sample Description	Sea Water						
Location	พื้นที่ทะเลที่ติดตะวันตกของเกาะเสม็ด						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
COD *	mg/L	-	40	72		Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 C	Rayong
Conductivity at 25 Degree C *	micromhos/cm	-	0.5	48520	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong
Cyanide as CN *	mg/L	0.001	0.005	<0.005	≤0.007	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Depth *	m	-	-	3.00	No Standard	Water Level Meter	Rayong
Dissolved Oxygen *	mg/L	-	0.1	7.5	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	8.1	7.0-8.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong
Salinity *	ppt	-	0.1	31.8	Change from lower salinity not more than 10%	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Rayong

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P/O : GLOW-OM-22-103

Project Name :

Project Location : Glow SPP 3

Page 12 of 12

Sample Number	2414560-4						
Sampled Date	Feb 14, 2024 11:31 AM						
Sample Description	Sea Water						
Location	พื้นที่ทะเลที่ติดตะวันตกของเกาะเสม็ด						
Date Analysis Commenced	Feb 14, 2024						
Condition of Sample	Contained in two glass vials, one BOD bottle, one amber glass bottle and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfide *	mg/L	-	0.01	0.02	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (D)	Rayong
Temperature *	Degree C	-	-	31.2	Change from natural condition not more than 2 degree C	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C *	mg/L	-	5	38100	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Solids Dried at 103-105 degree C *	mg/L	-	5	39650	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 B	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	2	3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong
Transparency *	m	-	-	1.5	>0.9	Visual Method	Rayong
Turbidity *	NTU	-	0.1	2.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2130 B	Rayong

Guideline : Notification of the National Environmental Board, B.E.2564 : Coastal Water Quality Standard (Class 5)

Sampling By : Nattawut Athomprommarat , Pattarapol Sawangjaitam

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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ภาคผนวก ค-4

นิเวศวิทยาทางทะเล



สถานีวิจัยประมงศรีราชา

101/12 หมู่ 9 ต. บางพระ

อ. ศรีราชา จ. ชลบุรี 20110

โทร./โทรสาร. (038) 311379

Client : Glow SPP 3 Co., Ltd.

Address : 11 I-5 Road, Map Ta Phut, Muang Rayong, Rayong, Thailand, 21150

Project Location : Sea dredging

รายงานผลการวิเคราะห์แพลงก์ตอนพืช

ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 กุมภาพันธ์ 2567)

สกุลแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลูกบาศก์เมตร)			
	2414572-1	2414572-2	2414572-3	2414572-4
Division Cyanophyta				
Class Cyanophyceae				
Order Nostocales				
Family Oscillatoriaceae				
1. <i>Oscillatoria</i> sp.	-	-	22,000	-
Family Nostocaceae				
2. <i>Pseudanabaena</i> sp.	-	-	11,000	11,000
Division Chromophyta				
Class Bacillariophyceae				
Order Biddulphiales				
Suborder Coscinodiscineae				
Family Thalassiosiraceae				
3. <i>Cyclotella</i> sp.	56,000	48,000	76,000	53,000
4. <i>Lauderia</i> sp.	-	-	22,000	21,000
5. <i>Skeletonema</i> sp.	-	-	22,000	1,287,000

ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 กุมภาพันธ์ 2567)

(ต่อ)

สกุลแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลูกบาศก์เมตร)			
	2414572-1	2414572-2	2414572-3	2414572-4
6. <i>Thalassiosira</i> sp. Family Melosiraceae	11,000	12,000	33,000	-
7. <i>Paralia</i> sp. Family Coscinodiscaceae	-	12,000	-	-
8. <i>Coscinodiscus</i> sp.	11,000	-	-	-
9. <i>Palmeria</i> sp. Family Asterolampraceae	-	-	22,000	-
10. <i>Asteromphalus</i> sp. Suborder Rhizosoleniineae	-	12,000	22,000	-
Family Rhizosoleniaceae				
11. <i>Dactyliosolen</i> sp.	-	-	11,000	-
12. <i>Guinardia</i> sp.	-	-	120,000	11,000
13. <i>Proboscia</i> sp.	-	-	33,000	-
14. <i>Pseudosolenia</i> sp.	-	-	22,000	11,000
15. <i>Rhizosolenia</i> sp. Suborder Biddulphiineae	-	12,000	65,000	53,000
Family Hemiaulaceae				
16. <i>Cerataulina</i> sp.	-	-	76,000	-
17. <i>Eucampia</i> sp. Family Chaetoceraceae	-	-	11,000	-
18. <i>Bacteriastrum</i> sp.	-	-	229,000	11,000
19. <i>Chaetoceros</i> sp. Family Lithodesmaceae	23,000	12,000	283,000	686,000
20. <i>Ditylum</i> sp.	-	-	11,000	-

ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 กุมภาพันธ์ 2567)

(ต่อ)

สกุลแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลูกบาศก์เมตร)			
	2414572-1	2414572-2	2414572-3	2414572-4
Order Bacillariales				
Suborder Fragilariineae				
Family Fragilariaceae				
21. <i>Fragilaria</i> sp.	23,000	-	11,000	11,000
Family Thalassionemataceae				
22. <i>Thaassiothrix</i> sp.	11,000	-	-	-
23. <i>Thalassionema</i> sp.	11,000	12,000	87,000	127,000
Family Licmophoriaceae				
24. <i>Licmophora</i> sp.	-	-	11,000	-
Suborder Bacillariineae				
Family Naviculaceae				
25. <i>Amphora</i> sp.	11,000	12,000	11,000	42,000
26. <i>Diploneis</i> sp.	-	12,000	-	-
27. <i>Navicula</i> sp.	-	-	11,000	11,000
28. <i>Pinnularia</i> sp.	-	12,000	-	-
29. <i>Pleurosigma</i> sp.	11,000	-	44,000	11,000
Family Bacillariaceae				
30. <i>Bacillaria</i> sp.	-	-	11,000	116,000
31. <i>Cylindrotheca</i> sp.	-	-	44,000	127,000
32. <i>Nitzschia</i> sp.	23,000	12,000	-	11,000
33. <i>Pseudo-nitzschia</i> sp.	-	-	153,000	32,000
Family Rhopalodoaceae				
34. <i>Epithemia</i> sp.	-	-	-	11,000
Family Surirellaceae				
35. <i>Surirella</i> sp.	-	-	11,000	-

ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 กุมภาพันธ์ 2567)


(ต่อ)


สกุลแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลูกบาศก์เมตร)			
	2414572-1	2414572-2	2414572-3	2414572-4
Class Dictyochophyceae				
Order Dictyochales				
Family Dictyochophyceae				
36. <i>Dictyocha</i> sp.	101,000	84,000	98,000	11,000
Class Dinophyceae				
Order Prorocentrales				
Family Prorocentraceae				
37. <i>Prorocentrum</i> sp.	23,000	12,000	11,000	11,000
Order Gymnodiniales				
Family Gymnodiniaceae				
38. <i>Gyrodinium</i> sp.	-	-	11,000	-
Order Gonyaulacales				
Family Ceratiaceae				
39. <i>Ceratium</i> sp.	-	-	22,000	-
Family Gonyaulacaceae				
40. <i>Gonyaulax</i> sp.	23,000	12,000	11,000	-
Order Peridiniales				
Family Peridiniaceae				
41. <i>Peridinium</i> sp.	56,000	-	11,000	11,000
Family Protoperidiniaceae				
42. <i>Protoperidinium</i> sp.	-	12,000	11,000	-
สกุลแพลงก์ตอนพืช	14	15	35	22
ปริมาณแพลงก์ตอนพืช	394,000	288,000	1,660,000	2,676,000
ดัชนีความหลากหลายแพลงก์ตอนพืช	2.3322	2.3794	2.9633	1.7089
ดัชนีความสม่ำเสมอแพลงก์ตอนพืช	0.8837	0.8786	0.8335	0.5529

Sample Location :

1. สถานี 2414572-1 : พื้นที่ทะเลใกล้บริเวณท่าเทียบเรือ กนอ.
2. สถานี 2414572-2 : ทะเลใกล้บริเวณ Liquid Tank Farm
3. สถานี 2414572-3 : Port groove
4. สถานี 2414572-4 : พื้นที่ทะเลทิศตะวันตกของเกาะสะเก็ด

Condition of Sample : contained in one plastic bottle, sample containers comply to pretreatment-preservation standards (APHA, USEPA)


.....
(นางสาวกนกวรรณ ขาวดอน)
ผู้วิเคราะห์


.....
(นายอลงกต อินทรชาติ)
หัวหน้าสถานีวิจัยประมงศรีราชา



สถานีวิจัยประมงศรีราชา
101/12 หมู่ 9 ต. บางพระ
อ. ศรีราชา จ. ชลบุรี 20110
โทร./โทรสาร. (038) 311379

Client : Glow SPP 3 Co., Ltd.

Address : 11 I-5 Road, Map Ta Phut, Muang Rayong, Rayong, Thailand, 21150

Project Location : Sea dredging

รายงานผลการวิเคราะห์แพลงก์ตอนสัตว์

ตาราง ผลการวิเคราะห์แพลงก์ตอนสัตว์ (เก็บตัวอย่างวันที่ 14 กุมภาพันธ์ 2567)

สกุล/กลุ่มแพลงก์ตอนสัตว์	ปริมาณแพลงก์ตอนสัตว์ (หน่วยต่อลูกบาศก์เมตร)			
	2414572-1	2414572-2	2414572-3	2414572-4
Phylum Protozoa				
Subphylum Ciliophora				
Class Ciliata				
Subclass Holotricha				
Order Gymnostomatida				
1. <i>Didinium</i> sp.	-	12,000	-	-
Subclass Spirotricha				
Order Tintinnida				
Family Tintinnididae				
2. <i>Tintinnidium</i> sp.	11,000	-	-	11,000
Family Codonellopsidae				
3. <i>Stenosemella</i> sp.	-	24,000	22,000	11,000
Family Petalotrichidae				
4. <i>Metacylis</i> sp.	-	-	11,000	-

ตาราง ผลการวิเคราะห์แพลงก์ตอนสัตว์ (เก็บตัวอย่างวันที่ 14 กุมภาพันธ์ 2567)

(ต่อ)

สกุล/กลุ่มแพลงก์ตอนสัตว์	ปริมาณแพลงก์ตอนสัตว์ (หน่วยต่อลูกบาศก์เมตร)			
	2414572-1	2414572-2	2414572-3	2414572-4
Phylum Arthropoda				
Class Crustacea				
Subclass Copepoda				
5. Copepod nauplii	23,000	12,000	33,000	21,000
Order Calanoida				
6. Calanoid copepod	-	-	11,000	-
Order Harpacticoida				
Family Ectinosomidae				
7. <i>Microsetella</i> sp.	11,000	-	-	-
สกุล/กลุ่มแพลงก์ตอนสัตว์	3	3	4	3
ปริมาณแพลงก์ตอนสัตว์	45,000	48,000	77,000	43,000
ดัชนีความหลากหลายแพลงก์ตอนสัตว์	1.0318	1.0397	1.2770	1.0475
ดัชนีความสม่ำเสมอแพลงก์ตอนสัตว์	0.9392	0.9464	0.9212	0.9535

Sample Location :

- สถานี 2414572-1 : พื้นที่ทะเลใกล้บริเวณท่าเทียบเรือ กนอ.
- สถานี 2414572-2 : ทะเลใกล้บริเวณ Liquid Tank Farm
- สถานี 2414572-3 : Port groove
- สถานี 2414572-4 : พื้นที่ทะเลทิศตะวันตกของเกาะสะเก็ด

Condition of Sample : contained in one plastic bottle, sample containers comply to pretreatment-preservation standards (APHA, USEPA)



(นางสาวกนกวรรณ ขาวด่อน)

ผู้วิเคราะห์



(นายอลงกต อินทรชาติ)

หัวหน้าสถานีวิจัยประมงศรีราชา



สถานีวิจัยประมงศรีราชา
101/12 หมู่ 9 ต. บางพระ
อ. ศรีราชา จ. ชลบุรี 20110
โทร./โทรสาร. (038) 311379

Client : Glow SPP 3 Co., Ltd.

Address : 11 I-5 Road, Map Ta Phut, Muang Rayong, Rayong, Thailand, 21150

Project Location : Sea dredging

รายงานผลการวิเคราะห์สัตว์หน้าดิน

ตาราง ผลการวิเคราะห์สัตว์หน้าดิน (เก็บตัวอย่างวันที่ 14 กุมภาพันธ์ 2567)

สกุลสัตว์หน้าดิน	ปริมาณสัตว์หน้าดิน (ตัว/ตารางเมตร)			
	2414570-1	2414570-2	2414570-3	2414570-4
Phylum Annelida				
Class Polychaeta				
Order Capitellida				
Family Capitellidae				
<i>Heteromastus</i> sp. (ไส้เดือนทะเล)	-	45	30	-
Family Maldanidae				
<i>Euclymene</i> sp. (ไส้เดือนทะเล)	-	-	15	-
Order Cirratulida				
Family Paraonidae				
<i>Paraonis</i> sp. (ไส้เดือนทะเล)	149	-	-	-
Order Eunicida				
Family Eunicidae				
<i>Marphysa</i> sp. (ไส้เดือนทะเล)	-	-	-	75
Order Orbiniida				
Family Orbiniidae				
<i>Scoloplos</i> sp. (ไส้เดือนทะเล)	30	-	-	-

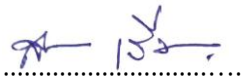
ตาราง ผลการวิเคราะห์สัตว์หน้าดิน (เก็บตัวอย่างวันที่ 14 กุมภาพันธ์ 2567) (ต่อ)

สกุลสัตว์หน้าดิน	ปริมาณสัตว์หน้าดิน (ตัว/ตารางเมตร)			
	2414570-1	2414570-2	2414570-3	2414570-4
Order Phyllodocida				
Family Glyceridae				
<i>Glycera</i> sp. (ไส้เดือนทะเล)	-	-	-	15
Order Spionida				
Family Spionidae				
<i>Prionospio</i> sp. (ไส้เดือนทะเล)	15	-	-	104
Order Terebellida				
Family Cirratulidae				
<i>Monticellina</i> sp. (ไส้เดือนทะเล)	-	119	75	-
Phylum Arthropoda				
Class Malacostraca				
Order Decapoda				
Family Galenidae				
<i>Galene</i> sp. (ปูก้ามขาว)	-	-	15	-
Order Tanaidacea				
Family Leptocheliidae				
<i>Leptochelia</i> sp. (ทากินดาเซียน)	-	30	-	15
Phylum Mollusca				
Class Bivalvia				
Order Cardiida				
Family Tellinidae				
<i>Tellina</i> sp. (หอยสองฝาชนิดหนึ่ง)	45	15	-	15
สกุลสัตว์หน้าดิน	4	4	4	5
ปริมาณสัตว์หน้าดิน	239	209	135	224
ค่าดัชนีความหลากหลายสัตว์หน้าดิน	1.0432	1.1190	1.1491	1.2657

Sample Location :

1. สถานี 2414570-1 : พื้นที่ทะเลใกล้บริเวณท่าเทียบเรือ กนอ.
2. สถานี 2414570-2 : ทะเลใกล้บริเวณ Liquid Tank Farm
3. สถานี 2414570-3 : Port groove
4. สถานี 2414570-4 : พื้นที่ทะเลทิศตะวันตกของเกาะสะเก็ด

Condition of Sample : contained in one plastic zip bag



(นายสาโรจน์ เร่มดำริห์)
ผู้วิเคราะห์



(นายอลงกต อินทรชาติ)
หัวหน้าสถานีวิจัยประมงศรีราชา