

ภาคผนวก ค

ใบรับรองผลการวิเคราะห์

คุณภาพอากาศในบรรยากาศ



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2515907

Date Received : Mar 31, 2025
Date Reported : Apr 04, 2025
Report Number: 3245079-1

Page 1 of 1

Sample Description	Air Quality				
Location	น่าน				
Date Analysis Commenced	Apr 01, 2025				
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)
2515907-1	Mar 24 - Mar 25, 2025	0.087	0.049	756*	30.8*
2515907-2	Mar 25 - Mar 26, 2025	0.063	0.040	756*	31.2*
2515907-3	Mar 26 - Mar 27, 2025	0.066	0.047	756*	30.9*
2515907-4	Mar 27 - Mar 28, 2025	0.061	0.044	756*	30.5*
2515907-5	Mar 28 - Mar 29, 2025	0.060	0.048	756*	31.4*
2515907-6	Mar 29 - Mar 30, 2025	0.059	0.043	756*	32.0*
2515907-7	Mar 30 - Mar 31, 2025	0.048	0.031	756*	30.1*
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : United States Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008
Particulate Matter (PM-10) : United States Environmental Protection Agency 40 CFR, method 50, Appendix J, revised as of July 1, 2008

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

Sampled By : Santi Chaichana

Remark : Result (s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.

-

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2515907
Date Received : Mar 31, 2025
Date Reported : Apr 04, 2025
Report Number: 3245079-2

Page 1 of 1

Sample Description	Air Quality				
Location	เมืองระยอง				
Date Analysis Commenced	Apr 01, 2025				
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)
2515907-8	Mar 24 - Mar 25, 2025	0.094	0.050	756*	30.8*
2515907-9	Mar 25 - Mar 26, 2025	0.093	0.041	756*	31.2*
2515907-10	Mar 26 - Mar 27, 2025	0.093	0.045	756*	30.9*
2515907-11	Mar 27 - Mar 28, 2025	0.080	0.037	756*	30.5*
2515907-12	Mar 28 - Mar 29, 2025	0.077	0.039	756*	31.4*
2515907-13	Mar 29 - Mar 30, 2025	0.082	0.034	756*	32.0*
2515907-14	Mar 30 - Mar 31, 2025	0.054	0.029	756*	30.1*
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : United States Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008
Particulate Matter (PM-10) : United States Environmental Protection Agency 40 CFR, method 50, Appendix J, revised as of July 1, 2008

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

Sampled By : Santi Chaichana

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Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2515907

Date Received : Mar 31, 2025

Date Reported : Apr 04, 2025

Report Number: 3245079-3

Page 1 of 1

Sample Description	Air Quality				
Location	บ้านเนินพยอม				
Date Analysis Commenced	Apr 01, 2025				
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)
2515907-15	Mar 24 - Mar 25, 2025	0.090	0.048	756*	30.8*
2515907-16	Mar 25 - Mar 26, 2025	0.061	0.039	756*	31.2*
2515907-17	Mar 26 - Mar 27, 2025	0.072	0.045	756*	30.9*
2515907-18	Mar 27 - Mar 28, 2025	0.066	0.043	756*	30.5*
2515907-19	Mar 28 - Mar 29, 2025	0.063	0.045	756*	31.4*
2515907-20	Mar 29 - Mar 30, 2025	0.063	0.042	756*	32.0*
2515907-21	Mar 30 - Mar 31, 2025	0.057	0.034	756*	30.1*
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : United States Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008

Particulate Matter (PM-10) : United States Environmental Protection Agency 40 CFR, method 50, Appendix J, revised as of July 1, 2008

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

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RIGHT SOLUTIONS RIGHT PARTNER



Analysis / Test Report

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

Lot ID: 2515908

Date Received :Mar 31, 2025

Date Reported :Apr 07, 2025

Report Number :3239071-1

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number 2515908-1 to 7
Parameter Wind Speed / Wind Direction
Location บ้านหนอง
Sampling Date Mar 24 - Mar 31, 2025
Sampling by Santi Chaichana

Time	Mar 24 - Mar 25, 2025			Mar 25 - Mar 26, 2025			Mar 26 - Mar 27, 2025			Mar 27 - Mar 28, 2025			Mar 28 - Mar 29, 2025			Mar 29 - Mar 30, 2025			Mar 30 - Mar 31, 2025		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
12:00 PM - 01:00 PM	2.2	146.0	SE	1.7	109.0	ESE	1.9	168.0	SSE	3.8	193.0	SSW	4.1	149.0	SSE	3.0	198.0	SSW	1.1	212.0	SSW
01:00 PM - 02:00 PM	1.0	223.0	SW	5.6	152.0	SSE	2.3	79.0	E	3.2	169.0	S	3.9	83.0	E	3.3	161.0	SSE	2.8	163.0	SSE
02:00 PM - 03:00 PM	1.9	189.0	S	1.3	77.0	ENE	1.8	131.0	SE	2.2	172.0	S	3.7	179.0	S	1.1	89.0	E	2.0	194.0	SSW
03:00 PM - 04:00 PM	2.1	259.0	W	2.2	140.0	SE	4.1	182.0	S	2.3	68.0	ENE	1.9	98.0	E	2.1	33.0	NNE	2.4	118.0	ESE
04:00 PM - 05:00 PM	3.2	177.0	S	1.0	81.0	E	1.6	182.0	S	2.1	152.0	SSE	1.7	159.0	SSE	3.0	174.0	S	1.6	155.0	SSE
05:00 PM - 06:00 PM	0.7	229.0	SW	2.5	136.0	SE	2.1	173.0	S	0.9	149.0	SSE	1.5	167.0	SSE	1.3	107.0	ESE	1.4	160.0	SSE
06:00 PM - 07:00 PM	0.3	9.0	N	1.3	127.0	SE	1.7	97.0	E	1.1	157.0	SSE	0.6	110.0	ESE	2.3	158.0	SSE	0.7	77.0	ENE
07:00 PM - 08:00 PM	1.0	89.0	E	1.3	105.0	ESE	1.0	149.0	SSE	0.8	131.0	SE	1.3	119.0	ESE	2.3	136.0	SE	1.3	55.0	NE
08:00 PM - 09:00 PM	0.7	93.0	E	0.8	66.0	ENE	0.6	133.0	SE	0.7	105.0	ESE	0.6	101.0	E	0.7	96.0	E	1.1	28.0	NNE
09:00 PM - 10:00 PM	2.5	182.0	S	1.5	128.0	SE	0.8	134.0	SE	0.6	123.0	ESE	0.1	-	-	0.7	113.0	ESE	0.5	18.0	NNE
10:00 PM - 11:00 PM	0.4	158.0	SSE	2.1	163.0	SSE	0.8	58.0	ENE	0.3	144.0	SE	0.9	163.0	SSE	0.8	140.0	SE	0.0	-	-
11:00 PM - 12:00 AM	0.2	-	-	1.5	61.0	ENE	2.1	153.0	SSE	0.7	121.0	ESE	2.3	150.0	SSE	0.8	160.0	SSE	0.0	-	-
12:00 AM - 01:00 AM	0.4	138.0	SE	0.6	82.0	E	1.0	148.0	SSE	0.5	64.0	ENE	0.1	-	-	2.2	164.0	SSE	0.0	-	-
01:00 AM - 02:00 AM	0.6	109.0	ESE	2.1	148.0	SSE	1.3	163.0	SSE	1.4	103.0	ESE	0.0	-	-	1.3	100.0	E	0.0	-	-
02:00 AM - 03:00 AM	0.3	133.0	SE	1.6	160.0	SSE	1.3	84.0	E	1.3	114.0	ESE	0.0	-	-	0.2	-	-	0.8	87.0	E
03:00 AM - 04:00 AM	1.0	79.0	E	0.7	129.0	SE	2.6	101.0	E	1.5	169.0	S	0.7	131.0	SE	2.1	143.0	SE	0.4	0.0	N
04:00 AM - 05:00 AM	0.0	-	-	0.8	176.0	S	1.7	97.0	E	2.0	37.0	NE	1.6	185.0	S	1.6	157.0	SSE	0.8	23.0	NNE
05:00 AM - 06:00 AM	0.4	4.0	N	0.9	146.0	SE	1.3	144.0	SE	1.5	123.0	ESE	0.5	159.0	SSE	0.7	112.0	ESE	0.6	304.0	NW
06:00 AM - 07:00 AM	0.5	55.0	NE	2.5	158.0	SSE	1.5	91.0	E	0.9	88.0	E	0.5	116.0	ESE	1.3	185.0	S	0.5	359.0	N
07:00 AM - 08:00 AM	1.1	103.0	ESE	2.3	79.0	E	2.7	165.0	SSE	1.7	113.0	ESE	1.5	148.0	SSE	1.1	168.0	SSE	0.8	31.0	NNE
08:00 AM - 09:00 AM	1.0	122.0	ESE	1.5	121.0	ESE	2.1	177.0	S	1.7	161.0	SSE	1.5	177.0	S	1.1	202.0	SSW	0.5	335.0	NNW
09:00 AM - 10:00 AM	2.4	148.0	SSE	2.8	139.0	SE	2.2	145.0	SE	3.0	152.0	SSE	2.5	156.0	SSE	1.0	197.0	SSW	0.1	-	-
10:00 AM - 11:00 AM	2.4	180.0	S	1.5	86.0	E	5.0	167.0	SSE	3.0	172.0	S	1.6	175.0	S	1.5	101.0	E	1.0	166.0	SSE
11:00 AM - 12:00 PM	1.8	104.0	ESE	2.1	166.0	SSE	4.3	138.0	SE	4.6	157.0	SSE	2.6	178.0	S	0.7	246.0	WSW	1.2	150.0	SSE

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 : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2515908

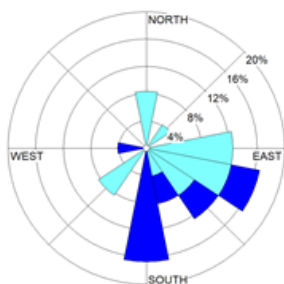
Date Received :Mar 31, 2025

Date Reported :Apr 07, 2025

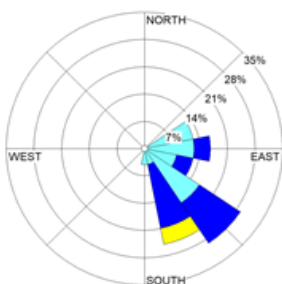
Report Number :3239071-1

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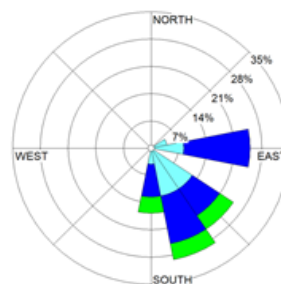
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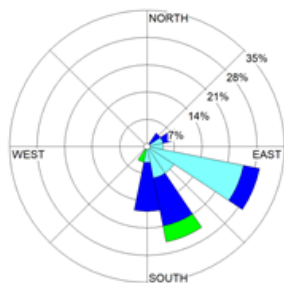
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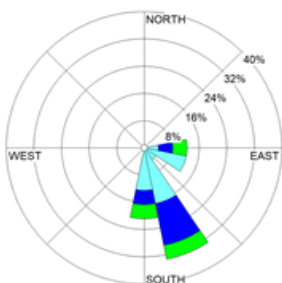
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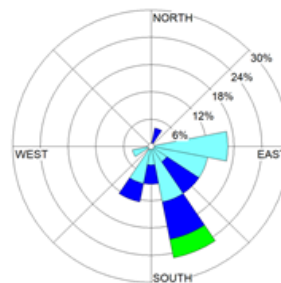
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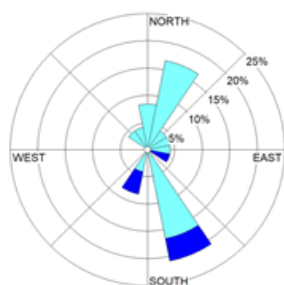
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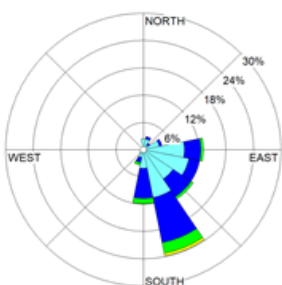
Date : Mar 28-29, 2025



Date : Mar 29-30, 2025



Date : Mar 30-31, 2025



Date : Mar 24-31, 2025

WS (m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.60
3.3-5.5	5.36
1.7-3.3	30.95
0.3-1.7	55.95
Calms	7.14

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 Jitranont
Assistant General Manager



Analysis / Test Report

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

Lot ID: 2515908

Date Received :Mar 31, 2025

Date Reported :Apr 07, 2025

Report Number :3239071-1

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number 2515908-8 to 14
Parameter Wind Speed / Wind Direction
Location บ้านนาบะ
Sampling Date Mar 24 - Mar 31, 2025
Sampling by Santi Chaichana

Time	Mar 24 - Mar 25, 2025			Mar 25 - Mar 26, 2025			Mar 26 - Mar 27, 2025			Mar 27 - Mar 28, 2025			Mar 28 - Mar 29, 2025			Mar 29 - Mar 30, 2025			Mar 30 - Mar 31, 2025		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
11:00 AM - 12:00 PM	3.2	185.0	S	2.3	187.0	S	1.9	168.6	SSE	2.4	110.0	ESE	2.8	197.0	SSW	2.1	229.0	SW	2.8	182.0	S
12:00 PM - 01:00 PM	3.9	234.0	SW	4.0	127.0	SE	1.7	170.6	S	2.4	139.0	SE	2.0	110.0	ESE	2.0	169.0	S	1.8	151.0	SSE
01:00 PM - 02:00 PM	2.3	226.0	SW	3.8	97.0	E	2.1	81.6	E	3.0	161.0	SSE	3.0	183.0	S	1.0	150.0	SSE	2.3	163.0	SSE
02:00 PM - 03:00 PM	1.9	208.0	SSW	3.2	120.0	ESE	1.6	133.6	SE	1.9	171.0	S	2.3	245.0	WSW	3.8	161.0	SSE	4.8	176.0	S
03:00 PM - 04:00 PM	3.3	231.0	SW	2.4	169.0	S	3.9	184.6	S	2.2	168.0	SSE	1.9	171.0	S	2.3	133.0	SE	2.0	131.0	SE
04:00 PM - 05:00 PM	4.2	250.0	WSW	0.3	135.0	SE	1.4	184.6	S	2.7	135.0	SE	1.4	98.0	E	1.4	181.0	S	0.7	243.0	WSW
05:00 PM - 06:00 PM	1.2	254.0	WSW	1.1	151.0	SSE	1.9	175.6	S	0.0	-	-	0.8	132.0	SE	1.2	128.0	SE	0.9	99.0	E
06:00 PM - 07:00 PM	1.2	181.0	S	1.0	191.0	S	1.5	99.6	E	2.2	133.0	SE	1.9	127.0	SE	1.7	177.0	S	0.0	-	-
07:00 PM - 08:00 PM	0.0	-	-	3.1	111.0	ESE	0.8	151.6	SSE	1.0	177.0	S	1.7	111.0	ESE	1.0	98.0	E	1.4	348.0	NNW
08:00 PM - 09:00 PM	0.0	-	-	0.9	126.0	SE	0.4	135.6	SE	0.5	160.0	SSE	0.0	-	-	1.3	114.0	ESE	0.0	-	-
09:00 PM - 10:00 PM	3.4	175.0	S	0.5	183.0	S	0.6	136.6	SE	1.3	130.0	SE	0.7	196.0	SSW	0.3	130.0	SE	0.2	-	-
10:00 PM - 11:00 PM	0.0	-	-	0.6	166.0	SSE	0.6	60.6	ENE	1.0	133.0	SE	0.0	-	-	1.1	164.0	SSE	0.3	336.0	NNW
11:00 PM - 12:00 AM	1.0	168.0	SSE	1.3	63.6	ENE	1.9	155.6	SSE	1.6	178.0	S	0.7	224.0	SW	1.7	169.0	S	0.4	67.0	ENE
12:00 AM - 01:00 AM	1.0	176.0	S	0.4	84.6	E	0.8	150.6	SSE	1.1	135.0	SE	1.6	143.0	SE	2.4	143.0	SE	0.2	-	-
01:00 AM - 02:00 AM	0.0	-	-	1.9	150.6	SSE	1.1	165.6	SSE	1.3	177.0	S	1.4	121.0	ESE	1.5	131.0	SE	0.2	-	-
02:00 AM - 03:00 AM	0.0	-	-	1.4	162.6	SSE	1.1	86.6	E	0.7	159.0	SSE	0.7	118.0	ESE	1.3	138.0	SE	0.1	-	-
03:00 AM - 04:00 AM	0.0	-	-	0.5	131.6	SE	2.4	103.6	ESE	2.1	190.0	S	2.0	146.0	SE	1.3	111.0	ESE	0.0	-	-
04:00 AM - 05:00 AM	0.0	-	-	0.6	178.6	S	1.5	99.6	E	1.6	196.0	SSW	1.6	114.0	ESE	1.1	118.0	ESE	1.0	34.0	NE
05:00 AM - 06:00 AM	0.0	-	-	0.7	148.6	SSE	1.1	146.6	SSE	0.6	142.0	SE	2.1	138.0	SE	1.4	174.0	S	1.4	8.0	N
06:00 AM - 07:00 AM	0.0	-	-	2.3	160.6	SSE	1.3	93.6	E	0.5	183.0	S	1.0	92.0	E	1.1	143.0	SE	2.0	342.0	NNW
07:00 AM - 08:00 AM	0.4	40.0	NE	2.1	81.6	E	2.5	167.6	SSE	1.4	225.0	SW	1.8	193.0	SSW	1.7	125.0	SE	1.9	11.0	N
08:00 AM - 09:00 AM	1.0	157.0	SSE	1.3	123.6	ESE	1.9	179.6	S	3.1	230.0	SW	1.6	143.0	SE	1.9	157.0	SSE	1.4	331.0	NNW
09:00 AM - 10:00 AM	2.0	94.0	E	2.6	141.6	SE	2.0	147.6	SSE	1.8	166.0	SSE	3.8	144.0	SE	1.5	118.0	ESE	1.0	335.0	NNW
10:00 AM - 11:00 AM	1.9	169.0	S	1.3	88.6	E	3.0	169.6	S	2.3	179.0	S	2.7	118.0	ESE	0.0	-	-	2.0	300.0	WNW

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 Jittrantont
Assistant General Manager



Analysis / Test Report

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2515908

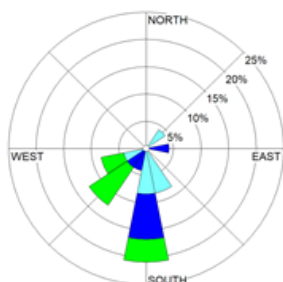
Date Received :Mar 31, 2025

Date Reported :Apr 07, 2025

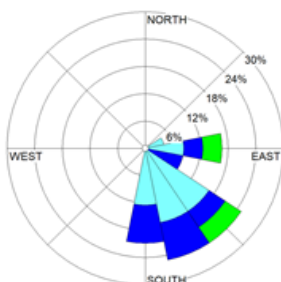
Report Number :3239071-1

Page 2 of 2

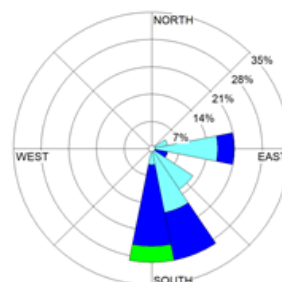
Wind Rose



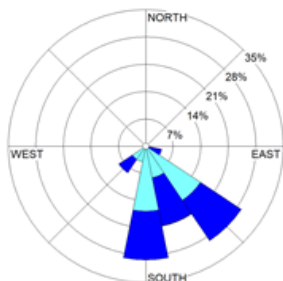
Date : Mar 24-25, 2025



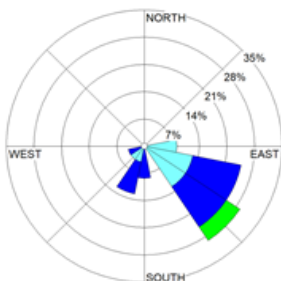
Date : Mar 25-26, 2025



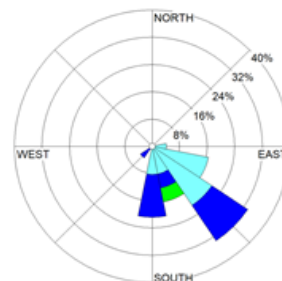
Date : Mar 26-27, 2025



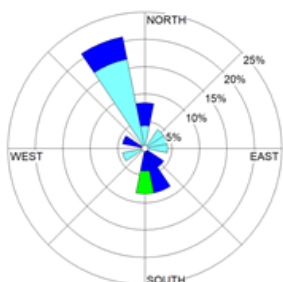
Date : Mar 27-28, 2025



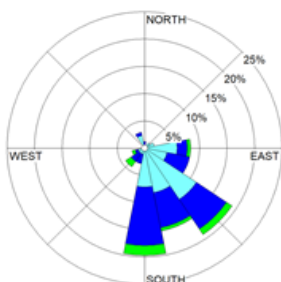
Date : Mar 28-29, 2025



Date : Mar 29-30, 2025



Date : Mar 30-31, 2025



Date : Mar 24-31, 2025

WS (m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	5.95
1.7-3.3	35.71
0.3-1.7	46.43
Calms	11.90

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Approved by

Sarayuth Jitranont
Assistant General Manager



Analysis / Test Report

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

Lot ID: 2515908

Date Received :Mar 31, 2025

Date Reported :Apr 07, 2025

Report Number :3239071-1

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number 2515908-15 to 21
Parameter Wind Speed / Wind Direction
Location บ้านเนินพยอม
Sampling Date Mar 24 - Mar 31, 2025
Sampling by Santi Chaichana

Time	Mar 24 - Mar 25, 2025			Mar 25 - Mar 26, 2025			Mar 26 - Mar 27, 2025			Mar 27 - Mar 28, 2025			Mar 28 - Mar 29, 2025			Mar 29 - Mar 30, 2025			Mar 30 - Mar 31, 2025		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
01:00 PM - 02:00 PM	2.6	187.0	S	2.3	204.0	SSW	1.8	203.0	SSW	4.0	203.0	SSW	2.3	187.0	S	1.5	198.0	SSW	2.0	171.0	S
02:00 PM - 03:00 PM	1.7	287.0	WNW	2.0	214.0	SW	2.3	183.0	S	1.8	166.0	SSE	2.8	194.0	SSW	1.3	179.0	S	1.6	189.0	S
03:00 PM - 04:00 PM	1.2	205.0	SSW	0.5	152.0	SSE	1.5	200.0	SSW	1.3	202.0	SSW	3.2	153.0	SSE	2.2	174.0	S	1.5	182.0	S
04:00 PM - 05:00 PM	1.3	176.0	S	0.7	164.0	SSE	0.6	197.0	SSW	1.4	184.0	S	0.9	214.0	SW	2.1	175.0	S	0.0	-	-
05:00 PM - 06:00 PM	0.8	183.0	S	0.0	-	-	1.2	189.0	S	0.0	-	-	1.0	179.0	S	0.9	156.0	SSE	0.0	-	-
06:00 PM - 07:00 PM	1.1	190.0	S	0.5	172.0	S	0.0	-	-	0.5	182.0	S	0.2	-	-	0.0	-	-	1.5	0.0	N
07:00 PM - 08:00 PM	0.0	-	-	0.0	-	-	0.5	157.0	SSE	0.3	177.0	S	0.7	152.0	SSE	0.5	140.0	SE	0.9	0.0	N
08:00 PM - 09:00 PM	0.3	173.0	S	1.4	161.0	SSE	0.0	-	-	0.5	165.0	SSE	1.0	140.0	SE	0.1	-	-	0.4	21.0	NNE
09:00 PM - 10:00 PM	0.5	187.0	S	1.3	175.0	S	1.2	145.0	SE	0.4	142.0	SE	0.2	-	-	0.5	140.0	SE	0.3	13.0	NNE
10:00 PM - 11:00 PM	0.2	-	-	1.1	190.0	S	0.0	-	-	0.6	159.0	SSE	0.6	146.0	SE	0.2	-	-	0.0	-	-
11:00 PM - 12:00 AM	0.2	-	-	0.5	184.0	S	0.2	-	-	0.0	-	-	0.1	-	-	0.1	-	-	0.2	-	-
12:00 AM - 01:00 AM	0.6	164.0	SSE	1.2	175.0	S	0.6	161.0	SSE	0.8	162.0	SSE	0.3	169.0	S	0.2	-	-	0.1	-	-
01:00 AM - 02:00 AM	0.4	172.0	S	0.0	-	-	0.1	-	-	1.1	190.0	S	0.3	68.0	ENE	0.6	150.0	SSE	0.2	-	-
02:00 AM - 03:00 AM	0.2	-	-	0.5	149.0	SSE	0.8	180.0	S	2.2	172.0	S	0.2	-	-	0.3	168.0	SSE	1.1	28.0	NNE
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-	0.7	148.0	SSE	0.4	200.0	SSW	0.5	18.0	NNE
04:00 AM - 05:00 AM	0.1	-	-	0.5	149.0	SSE	0.3	157.0	SSE	0.4	152.0	SSE	0.0	-	-	0.2	-	-	0.9	18.0	NNE
05:00 AM - 06:00 AM	0.6	28.0	NNE	0.5	165.0	SSE	0.0	-	-	0.1	-	-	0.1	-	-	2.1	186.0	S	0.6	10.0	N
06:00 AM - 07:00 AM	0.0	-	-	1.5	177.0	S	1.7	188.0	S	0.0	-	-	0.5	210.0	SSW	1.0	183.0	S	0.8	24.0	NNE
07:00 AM - 08:00 AM	1.4	171.0	S	2.7	153.0	SSE	1.7	195.0	SSW	1.5	136.0	SE	1.3	191.0	S	0.8	178.0	S	0.8	349.0	N
08:00 AM - 09:00 AM	3.6	195.0	SSW	2.1	183.0	S	0.4	138.0	SE	2.0	140.0	SE	0.0	-	-	2.5	193.0	SSW	1.6	350.0	N
09:00 AM - 10:00 AM	0.4	78.0	ENE	1.0	176.0	S	4.2	180.0	S	2.1	189.0	S	0.7	158.0	SSE	0.0	-	-	1.1	174.0	S
10:00 AM - 11:00 AM	2.6	180.0	S	2.9	162.0	SSE	2.0	160.0	SSE	1.1	155.0	SSE	1.2	161.0	SSE	0.1	-	-	1.0	166.0	SSE
11:00 AM - 12:00 PM	0.1	-	-	1.6	157.0	SSE	4.8	168.0	SSE	2.7	199.0	SSW	1.7	206.0	SSW	1.8	91.0	E	1.3	185.0	S
12:00 PM - 01:00 PM	0.6	149.0	SSE	3.2	162.0	SSE	2.9	202.0	SSW	0.3	110.0	ESE	1.8	159.0	SSE	0.6	32.0	NNE	1.0	149.0	SSE

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 Jittrantont
Assistant General Manager



Analysis / Test Report

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2515908

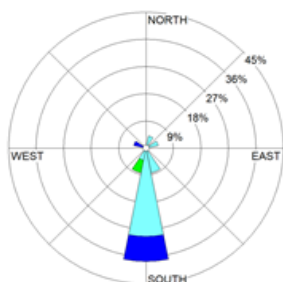
Date Received :Mar 31, 2025

Date Reported :Apr 07, 2025

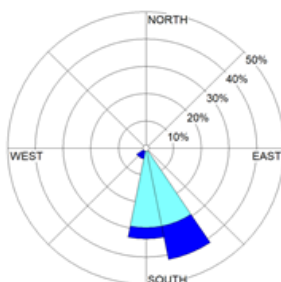
Report Number :3239071-1

Page 2 of 2

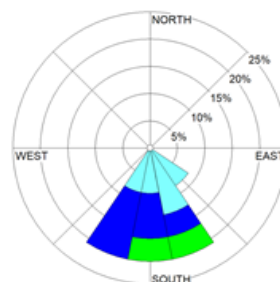
Wind Rose



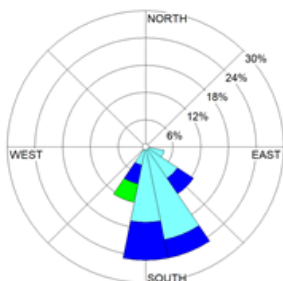
Date : Mar 24-25, 2025



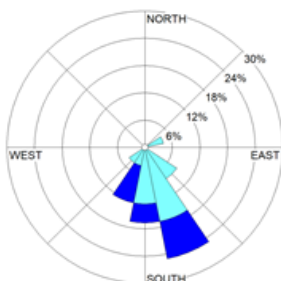
Date : Mar 25-26, 2025



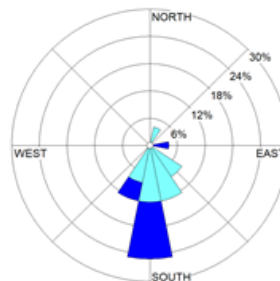
Date : Mar 26-27, 2025



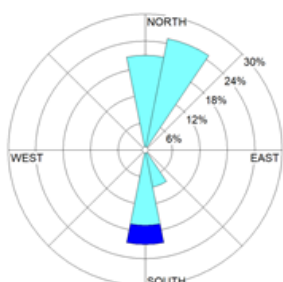
Date : Mar 27-28, 2025



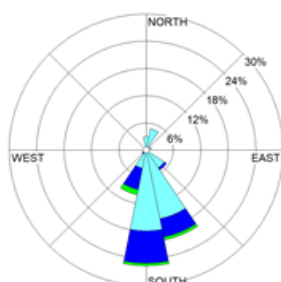
Date : Mar 28-29, 2025



Date : Mar 29-30, 2025



Date : Mar 30-31, 2025



Date : Mar 24-31, 2025

WS (m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	2.38
1.7-3.3	18.45
0.3-1.7	52.38
Calms	26.79

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Approved by

Sarayuth Jitranont
Assistant General Manager

คุณภาพอากาศจากปล่องระบายอากาศ



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518711

Date Received : Mar 25, 2025
Date Reported : Apr 01, 2025
Report Number: 3244054-1

Page 1 of 2

Sample Number 2518711-1
Sampled Date Mar 25, 2025
Sample Description Emission from Stationary Source
Location Turbulence dust collector
Date Analysis Commenced Mar 26, 2025
Condition of Sample Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description

Ambient Pressure	753	mmHg	Diameter	0.80	m	Oxygen	20.9	%
Ambient Temperature	29.5	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	35.0	°C	Gas Velocity	8.9	m/s
Type of Fuel	-		Moisture	2.74	%	Flow Rate (Actual O2)	15090	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Total Suspended Particulate	09:30 AM - 10:12 AM	mg/m3	-	0.5	<0.5	400	60	United States Environmental Protection Agency, EPA Method 5	Rayong

Guideline : Guideline(1) : Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)
Guideline(2) : Environmental Impact Assessment Report of THAI MMA Co., Ltd.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-0029

Approved by

D. Changchon.

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-0001

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.
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Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518711

Date Received : Mar 25, 2025
Date Reported : Apr 01, 2025
Report Number: 3244054-1

Page 2 of 2

Sample Number 2518711-1
Sampled Date Mar 25, 2025
Sample Description Emission from Stationary Source
Location Turbulence dust collector
Date Analysis Commenced Mar 26, 2025
Condition of Sample Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description

Ambient Pressure	753	mmHg	Diameter	0.80	m	Oxygen	20.9	%
Ambient Temperature	29.5	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	35.0	°C	Gas Velocity	8.9	m/s
Type of Fuel	-		Moisture	2.74	%	Flow Rate (Actual O2)	15090	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Total Suspended Particulate *	09:30 AM - 10:12 AM	g/s	-	-	<0.002	-	0.22	Calculated	Rayong

Guideline : Guideline(1) : Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)
Guideline(2) : Environmental Impact Assessment Report of THAI MMA Co., Ltd.

Sampling By : Sathapron Thakarw ทะเบียนเลขที่ ว-323-จ-0036

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.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-0029

Approved by

D. Changchon.

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-0001

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16417-21/ EMAIL

S:\Reports_Air Stack_2GL.rpt (11:10AM)



Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518713

Date Received : Mar 25, 2025

Date Reported : Apr 09, 2025

Report Number: 3244059-1

Page 1 of 2

Sample Number 2518713-1
Sampled Date Mar 25, 2025
Sample Description Emission from Stationary Source
Location Main Stack
Date Analysis Commenced Mar 27, 2025
Condition of Sample Extracted into two sorbent tubes, refrigerated

Stack Description

Ambient Pressure	753	mmHg	Diameter	1.60 x 1.60	m	Oxygen	20.9	%
Ambient Temperature	29.5	°C	Shape	Square		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	30.0	°C	Gas Velocity	3.8	m/s
Type of Fuel	-		Moisture	2.73	%	Flow Rate (Actual O2)	33412	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Testing Location
Air Testing								
Butyl acrylate	09:00 AM - 09:15 AM	ppm	-	0.3	<0.3	No Standard	United States Environmental Protection Agency, EPA Method 18	Bangkok
Butyl acrylate	09:00 AM - 09:15 AM	mg/m3	-	1.0	<1.0	39	United States Environmental Protection Agency, EPA Method 18	Bangkok
Methyl Methacrylate	09:00 AM - 09:15 AM	ppm	-	0.3	10.1	No Standard	United States Environmental Protection Agency, EPA Method 18	Bangkok
Methyl Methacrylate	09:00 AM - 09:15 AM	mg/m3	-	1.0	41.2	520	United States Environmental Protection Agency, EPA Method 18	Bangkok

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.



Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518713

Date Received : Mar 25, 2025

Date Reported : Apr 09, 2025

Report Number: 3244059-1

Page 2 of 2

Sample Number 2518713-1
Sampled Date Mar 25, 2025
Sample Description Emission from Stationary Source
Location Main Stack
Date Analysis Commenced Mar 27, 2025
Condition of Sample Extracted into two sorbent tubes, refrigerated

Stack Description

Ambient Pressure	753	mmHg	Diameter	1.60 x 1.60	m	Oxygen	20.9	%
Ambient Temperature	29.5	°C	Shape	Square		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	30.0	°C	Gas Velocity	3.8	m/s
Type of Fuel	-		Moisture	2.73	%	Flow Rate (Actual O2)	33412	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline Limit	Method	Testing Location
Air Testing								
Butyl acrylate	09:00 AM - 09:15 AM	g/s	-	-	<0.01	0.13	Calculated	Bangkok
Methyl Methacrylate	09:00 AM - 09:15 AM	g/s	-	-	0.38	1.73	Calculated	Bangkok

Guideline : Environmental Impact Assessment Report of THAI MMA Co., Ltd.

Sampling By : Nontachai Uppathamp

Remark :

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

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.



Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518715

Date Received : Mar 25, 2025
Date Reported : Apr 01, 2025
Report Number: 3244068-1

Page 1 of 1

Sample Number 2518715-1
Sampled Date Mar 25, 2025
Sample Description Emission from Stationary Source
Location ปล่อง Carbon Absorber
Date Analysis Commenced Mar 26, 2025
Condition of Sample Extracted into one 10-L air sampling bag

Stack Description

Ambient Pressure	753	mmHg	Diameter	0.15	m	Oxygen	20.9	%
Ambient Temperature	29.5	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	33.0	°C	Gas Velocity	9.0	m/s
Type of Fuel	-		Moisture	2.29	%	Flow Rate (Actual O2)	541	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Total VOCs as Propane	09:50 AM - 10:00 AM	ppm	-	1.0	26.8	United States Environmental Protection Agency, EPA Method 25A	Bangkok

Sampling By : Nontachai Uppathamp

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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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16417-21/ EMAIL

S:\Reports_Air Stack_NGL.rpt (1:18PM)

คุณภาพน้ำ



Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location :

TESTING

No.0042

Lot ID: 24141891

Date Received : Jan 10, 2025

Date Reported : Jan 17, 2025

Report Number : 3195980-1

Page 1 of 1

Sample Number	24141891-1						
Sampled Date	Jan 10, 2025 2:00 PM						
Sample Description	Wastewater						
Location	บ่อบำบัดน้ำเสีย Cesspool						
Date Analysis Commenced	Jan 10, 2025						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	31.7	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	84	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.8	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	400	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-จ-0038

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.

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

ทะเบียนเลขที่ ว-323-จ-0031

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-0001

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location :

Lot ID: 24141891

Date Received : Jan 10, 2025

Date Reported : Jan 17, 2025

Report Number : 3195980-2

Page 1 of 1

Sample Number	24141891-1
Sampled Date	Jan 10, 2025 2:00 PM
Sample Description	Wastewater
Location	บ่อเสาะน้ำ Cesspool
Date Analysis Commenced	Jan 13, 2025
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	66.6	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-SO ₄ (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow

Remark :

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Approved by

Chontichak

Chonticha Subongkoch
Scientist (3)

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Analysis / Test Report

TESTING

No.0042

Lot ID: 253482

Date Received : Feb 14, 2025

Date Reported : Feb 21, 2025

Report Number : 3211486-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Page 1 of 1

Sample Number	253482-1						
Sampled Date	Feb 14, 2025 2:18 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Feb 14, 2025						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	43.3	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	83	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	32.5	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	248	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Suphanat Sakulkittimasak ทะเบียนเลขที่ ว-323-จ-0021

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Technical Management

Photchana S.

Photchana Seeda

Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Changchon.

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Lot ID: 253482

Date Received : Feb 14, 2025

Date Reported : Feb 21, 2025

Report Number : 3211486-2

Page 1 of 1

Sample Number	253482-1
Sampled Date	Feb 14, 2025 2:18 PM
Sample Description	Wastewater
Location	บ่อเสาะน้ำ Cesspool
Date Analysis Commenced	Feb 18, 2025
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	33.6	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-SO4 (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Suphanat Sakulkittimasak

Remark :

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Approved by

Photchana S.

Photchana Seeda
Scientist (4)

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2518722

Date Received : Mar 07, 2025

Date Reported : Mar 14, 2025

Report Number : 3244091-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2518722-1						
Sampled Date	Mar 07, 2025 2:07 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Mar 07, 2025						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	41.2	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	116	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	35.0	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	452	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	15	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-323-จ-0038

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Photchana S.

Photchana Seeda

Scientist (4)

ทะเบียนเลขที่ ๖-323-จ-0028

Approved by

D. Changchon.

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ๖-323-ค-0001

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2518722
Date Received : Mar 07, 2025
Date Reported : Mar 14, 2025
Report Number : 3244091-1

Page 2 of 2

Technical Management

Photchana S.

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Chumson.

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-0001

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2518722

Date Received : Mar 07, 2025

Date Reported : Mar 14, 2025

Report Number : 3244091-2

Page 1 of 1

Sample Number	2518722-1						
Sampled Date	Mar 07, 2025 2:07 PM						
Sample Description	Wastewater						
Location	บ่อเสาะน้ำ Cesspool						
Date Analysis Commenced	Mar 10, 2025						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	75.4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-SO4 (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow

Remark :

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Approved by

Photchana S.

Photchana Seeda
Scientist (4)

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2522295

Date Received : Apr 11, 2025

Date Reported : Apr 22, 2025

Report Number : 3251893-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2522295-1						
Sampled Date	Apr 11, 2025 1:55 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Apr 11, 2025						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	64.5	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	142	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	35.3	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	296	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-จ-0038

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Photchana S.

Photchana Seeda

Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Changchon.

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-0001

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2522295
Date Received : Apr 11, 2025
Date Reported : Apr 22, 2025
Report Number : 3251893-1

Page 2 of 2

Technical Management

Photchana S.

Photchana Seeda
Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Chumson.

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-0001

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2522295

Date Received : Apr 11, 2025

Date Reported : Apr 22, 2025

Report Number : 3251893-2

Page 1 of 1

Sample Number	2522295-1						
Sampled Date	Apr 11, 2025 1:55 PM						
Sample Description	Wastewater						
Location	บ่อเสาะน้ำ Cesspool						
Date Analysis Commenced	Apr 12, 2025						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	59.6	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-SO4 (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow

Remark :

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Approved by

Photchana S.

Photchana Seeda
Scientist (4)

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2537377

Date Received : May 09, 2025

Date Reported : May 17, 2025

Report Number : 3287536-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2537377-1
Sampled Date	May 09, 2025 2:00 PM
Sample Description	Wastewater
Location	บ่อบำบัดน้ำเสีย Cesspool
Date Analysis Commenced	May 09, 2025
Condition of Sample	Contained in one glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	30.4	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	65	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	35.5	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	344	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-323-จ-0038

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Photchana S.

Photchana Seeda

Scientist (4)

ทะเบียนเลขที่ ๖-323-จ-0028

Approved by

D. Changchon.

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ๖-323-ค-0001

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2537377
Date Received : May 09, 2025
Date Reported : May 17, 2025
Report Number : 3287536-1

Page 2 of 2

Technical Management

Photchana S.

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Chumson.

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-0001

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2537377

Date Received : May 09, 2025
Date Reported : May 17, 2025
Report Number : 3287536-2

Page 1 of 1

Sample Number : 2537377-1
Sampled Date : May 09, 2025 2:00 PM
Sample Description : Wastewater
Location : บ่อเสาะน้ำ Cesspool
Date Analysis Commenced : May 10, 2025
Condition of Sample : Contained in one glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	51.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-SO4 (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow

Remark :

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

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Approved by

Photchana S.

Photchana Seeda
Scientist (4)

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2542691

Date Received : Jun 06, 2025

Date Reported : Jun 12, 2025

Report Number : 3299323-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2542691-1
Sampled Date	Jun 06, 2025 1:55 PM
Sample Description	Wastewater
Location	บ่อสุดท้าย Cesspool
Date Analysis Commenced	Jun 06, 2025
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	18.6	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	57	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.9	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	330	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-จ-0038

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.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Photchana S.

Photchana Seeda

Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Changchon.

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-0001

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Client : THAI MMA Co., Ltd.
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P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2542691
Date Received : Jun 06, 2025
Date Reported : Jun 12, 2025
Report Number : 3299323-1

Page 2 of 2

Technical Management

Photchana S.

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Chumson.

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-0001

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P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2542691

Date Received : Jun 06, 2025
Date Reported : Jun 12, 2025
Report Number : 3299323-2

Page 1 of 1

Sample Number	2542691-1
Sampled Date	Jun 06, 2025 1:55 PM
Sample Description	Wastewater
Location	บ่อเสาะน้ำ Cesspool
Date Analysis Commenced	Jun 09, 2025
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	62.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-SO4 (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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ระดับเสียง



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518707

Date Received : Mar 27, 2025
Date Reported : Mar 31, 2025
Report Number: 3271406-1

Page 1 of 1

Sample Number 2518707-1
Parameter Noise (Leq 24 hrs.)
Location บ้านบน
Measurement Date Mar 24 - Mar 25, 2025
Measurement by Santi Chaichana
Sound Level meter Serial No. 1222716

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	59.8	89.2	55.5
01:00 PM - 02:00 PM	56.5	73.6	54.7
02:00 PM - 03:00 PM	56.9	71.4	55.1
03:00 PM - 04:00 PM	57.2	73.0	55.1
04:00 PM - 05:00 PM	57.0	67.8	55.5
05:00 PM - 06:00 PM	57.9	74.2	55.7
06:00 PM - 07:00 PM	57.5	77.3	55.7
07:00 PM - 08:00 PM	57.6	77.4	55.8
08:00 PM - 09:00 PM	57.2	72.9	55.6
09:00 PM - 10:00 PM	52.3	71.0	44.2
10:00 PM - 11:00 PM	51.0	71.1	41.1
11:00 PM - 12:00 AM	49.2	69.7	40.0
12:00 AM - 01:00 AM	49.0	70.1	39.2
01:00 AM - 02:00 AM	48.1	70.4	38.6
02:00 AM - 03:00 AM	49.6	80.6	37.9
03:00 AM - 04:00 AM	48.7	73.5	38.3
04:00 AM - 05:00 AM	47.1	67.4	38.5
05:00 AM - 06:00 AM	50.4	71.2	39.9
06:00 AM - 07:00 AM	53.7	71.1	45.3
07:00 AM - 08:00 AM	58.3	76.2	52.0
08:00 AM - 09:00 AM	57.9	81.1	53.0
09:00 AM - 10:00 AM	56.3	74.3	52.8
10:00 AM - 11:00 AM	57.1	80.2	55.0
11:00 AM - 12:00 PM	57.1	74.9	55.3

Leq Average 24 hrs. (dB(A)) 55.8
Lmax (dB(A)) 89.2
L90 (dB(A)) 52.8
Ldn (dB(A)) 58.6

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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
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TESTING
No.0042

Client : THAI MMA Co., Ltd.
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P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518707

Date Received : Mar 27, 2025
Date Reported : Mar 31, 2025
Report Number: 3271407-1

Page 1 of 1

Sample Number 2518707-2
Parameter Noise (Leq 24 hrs.)
Location บ้านบน
Measurement Date Mar 25 - Mar 26, 2025
Measurement by Santi Chaichana
Sound Level meter Serial No. 1222716

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	57.9	76.3	55.0
01:00 PM - 02:00 PM	56.9	71.8	54.6
02:00 PM - 03:00 PM	56.4	69.9	54.6
03:00 PM - 04:00 PM	56.3	72.1	54.5
04:00 PM - 05:00 PM	57.6	74.7	55.6
05:00 PM - 06:00 PM	58.9	77.1	56.3
06:00 PM - 07:00 PM	58.5	75.2	56.2
07:00 PM - 08:00 PM	58.5	72.4	56.1
08:00 PM - 09:00 PM	57.7	73.8	55.9
09:00 PM - 10:00 PM	53.9	75.0	44.9
10:00 PM - 11:00 PM	54.1	79.2	41.7
11:00 PM - 12:00 AM	50.1	74.1	40.0
12:00 AM - 01:00 AM	50.4	76.7	38.9
01:00 AM - 02:00 AM	47.5	68.2	37.8
02:00 AM - 03:00 AM	44.7	68.8	37.3
03:00 AM - 04:00 AM	46.0	67.3	37.1
04:00 AM - 05:00 AM	47.8	66.8	37.5
05:00 AM - 06:00 AM	47.5	69.0	38.6
06:00 AM - 07:00 AM	52.1	70.8	44.5
07:00 AM - 08:00 AM	56.1	75.0	50.1
08:00 AM - 09:00 AM	56.1	72.3	51.6
09:00 AM - 10:00 AM	55.3	70.5	52.4
10:00 AM - 11:00 AM	55.9	70.8	54.1
11:00 AM - 12:00 PM	55.8	72.3	54.3

Leq Average 24 hrs. (dB(A)) 55.4
Lmax (dB(A)) 79.2
L90 (dB(A)) 51.6
Ldn (dB(A)) 58.3

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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518707

Date Received : Mar 27, 2025
Date Reported : Mar 31, 2025
Report Number: 3271408-1

Page 1 of 1

Sample Number 2518707-3
Parameter Noise (Leq 24 hrs.)
Location บ้านบน
Measurement Date Mar 26 - Mar 27, 2025
Measurement by Santi Chaichana
Sound Level meter Serial No. 1222716

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	57.4	72.9	54.8
01:00 PM - 02:00 PM	56.5	79.6	54.7
02:00 PM - 03:00 PM	56.5	73.0	54.9
03:00 PM - 04:00 PM	55.6	68.8	54.4
04:00 PM - 05:00 PM	56.4	72.1	54.8
05:00 PM - 06:00 PM	59.4	75.1	55.8
06:00 PM - 07:00 PM	57.9	72.2	56.1
07:00 PM - 08:00 PM	58.3	72.9	56.3
08:00 PM - 09:00 PM	57.3	72.5	55.7
09:00 PM - 10:00 PM	53.3	72.1	44.7
10:00 PM - 11:00 PM	51.4	77.6	41.5
11:00 PM - 12:00 AM	51.3	75.2	40.3
12:00 AM - 01:00 AM	48.1	67.7	39.3
01:00 AM - 02:00 AM	48.9	71.8	38.1
02:00 AM - 03:00 AM	47.3	70.7	37.3
03:00 AM - 04:00 AM	46.5	73.2	37.5
04:00 AM - 05:00 AM	46.1	66.2	37.6
05:00 AM - 06:00 AM	49.1	69.0	39.3
06:00 AM - 07:00 AM	51.6	72.8	44.4
07:00 AM - 08:00 AM	55.5	73.7	50.1
08:00 AM - 09:00 AM	55.8	70.6	51.6
09:00 AM - 10:00 AM	56.5	73.3	53.0
10:00 AM - 11:00 AM	55.7	75.5	53.9
11:00 AM - 12:00 PM	56.4	73.3	54.3

Leq Average 24 hrs. (dB(A)) 55.2
Lmax (dB(A)) 79.6
L90 (dB(A)) 51.6
Ldn (dB(A)) 57.9

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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
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Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518707

Date Received : Mar 27, 2025
Date Reported : Mar 31, 2025
Report Number: 3271409-1

Page 1 of 1

Sample Number 2518707-4
Parameter Noise (Leq 24 hrs.)
Location บ้านนาบยา
Measurement Date Mar 24 - Mar 25, 2025
Measurement by Santi Chaichana
Sound Level meter Serial No. 1122607

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	51.7	71.3	45.2
12:00 PM - 01:00 PM	51.7	70.1	45.8
01:00 PM - 02:00 PM	50.5	70.1	46.1
02:00 PM - 03:00 PM	52.5	73.7	46.6
03:00 PM - 04:00 PM	52.5	70.0	46.9
04:00 PM - 05:00 PM	55.7	81.0	48.9
05:00 PM - 06:00 PM	54.4	73.0	50.5
06:00 PM - 07:00 PM	55.5	80.6	49.7
07:00 PM - 08:00 PM	53.2	73.4	48.7
08:00 PM - 09:00 PM	52.3	67.8	48.4
09:00 PM - 10:00 PM	52.7	74.7	46.9
10:00 PM - 11:00 PM	51.0	71.7	44.7
11:00 PM - 12:00 AM	48.7	71.4	44.0
12:00 AM - 01:00 AM	49.8	75.5	43.1
01:00 AM - 02:00 AM	48.2	76.8	41.8
02:00 AM - 03:00 AM	46.9	66.9	42.6
03:00 AM - 04:00 AM	45.3	61.1	42.3
04:00 AM - 05:00 AM	48.6	68.8	43.1
05:00 AM - 06:00 AM	53.0	69.5	45.6
06:00 AM - 07:00 AM	57.1	86.1	49.8
07:00 AM - 08:00 AM	55.3	75.4	48.5
08:00 AM - 09:00 AM	53.1	80.8	45.9
09:00 AM - 10:00 AM	52.5	69.5	45.5
10:00 AM - 11:00 AM	52.7	69.5	46.4

Leq Average 24 hrs. (dB(A)) 52.7
Lmax (dB(A)) 86.1
L90 (dB(A)) 45.9
Ldn (dB(A)) 58.1
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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

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Section Head

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Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518707

Date Received : Mar 27, 2025
Date Reported : Mar 31, 2025
Report Number: 3271410-1

Page 1 of 1

Sample Number 2518707-5
Parameter Noise (Leq 24 hrs.)
Location บ้านนาบยา
Measurement Date Mar 25 - Mar 26, 2025
Measurement by Santi Chaichana
Sound Level meter Serial No. 1122607

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	52.6	71.7	46.2
12:00 PM - 01:00 PM	51.2	74.0	45.9
01:00 PM - 02:00 PM	51.3	73.0	46.0
02:00 PM - 03:00 PM	51.3	69.3	46.3
03:00 PM - 04:00 PM	53.3	70.1	48.0
04:00 PM - 05:00 PM	57.1	84.0	49.6
05:00 PM - 06:00 PM	54.6	79.0	50.2
06:00 PM - 07:00 PM	56.7	82.8	50.6
07:00 PM - 08:00 PM	53.9	73.3	50.1
08:00 PM - 09:00 PM	53.1	69.5	49.1
09:00 PM - 10:00 PM	51.4	76.8	46.9
10:00 PM - 11:00 PM	50.9	74.6	46.3
11:00 PM - 12:00 AM	48.9	66.8	44.9
12:00 AM - 01:00 AM	48.0	64.3	44.4
01:00 AM - 02:00 AM	47.6	67.6	43.9
02:00 AM - 03:00 AM	48.7	69.1	42.8
03:00 AM - 04:00 AM	49.8	75.9	43.0
04:00 AM - 05:00 AM	49.0	68.3	42.5
05:00 AM - 06:00 AM	52.7	69.6	44.1
06:00 AM - 07:00 AM	60.1	91.0	49.3
07:00 AM - 08:00 AM	55.7	74.8	50.8
08:00 AM - 09:00 AM	52.7	69.1	47.8
09:00 AM - 10:00 AM	54.5	72.0	49.8
10:00 AM - 11:00 AM	56.1	79.0	51.9

Leq Average 24 hrs. (dB(A)) 53.7
Lmax (dB(A)) 91.0
L90 (dB(A)) 46.3
Ldn (dB(A)) 59.6
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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2518707

Date Received : Mar 27, 2025
Date Reported : Mar 31, 2025
Report Number: 3271411-1

Page 1 of 1

Sample Number 2518707-6
Parameter Noise (Leq 24 hrs.)
Location บ้านนาบยา
Measurement Date Mar 26 - Mar 27, 2025
Measurement by Santi Chaichana
Sound Level meter Serial No. 1122607

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	54.8	71.1	47.8
12:00 PM - 01:00 PM	53.7	80.4	47.6
01:00 PM - 02:00 PM	52.3	71.5	47.3
02:00 PM - 03:00 PM	53.8	77.7	45.3
03:00 PM - 04:00 PM	52.2	77.2	45.8
04:00 PM - 05:00 PM	55.0	81.5	49.4
05:00 PM - 06:00 PM	54.2	73.9	49.8
06:00 PM - 07:00 PM	53.9	75.9	49.6
07:00 PM - 08:00 PM	54.1	76.5	49.6
08:00 PM - 09:00 PM	53.5	69.5	49.2
09:00 PM - 10:00 PM	51.1	75.0	47.0
10:00 PM - 11:00 PM	50.9	66.7	47.5
11:00 PM - 12:00 AM	49.3	67.7	46.2
12:00 AM - 01:00 AM	48.8	67.4	45.5
01:00 AM - 02:00 AM	47.6	69.1	44.7
02:00 AM - 03:00 AM	49.3	72.2	44.2
03:00 AM - 04:00 AM	47.9	67.6	44.3
04:00 AM - 05:00 AM	49.1	72.1	44.5
05:00 AM - 06:00 AM	52.4	71.3	45.6
06:00 AM - 07:00 AM	60.1	91.4	49.2
07:00 AM - 08:00 AM	55.3	72.7	50.3
08:00 AM - 09:00 AM	55.0	87.1	48.5
09:00 AM - 10:00 AM	54.2	73.4	48.2
10:00 AM - 11:00 AM	52.9	79.7	47.5

Leq Average 24 hrs. (dB(A)) 53.5
Lmax (dB(A)) 91.4
L90 (dB(A)) 47.5
Ldn (dB(A)) 59.5

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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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คุณภาพอากาศภายในสถานประกอบการ



Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 253485

Date Received : Feb 10, 2025
Date Reported : Feb 15, 2025
Report Number : 3211492-1

Page 1 of 5

Sample Number 253485-1
Sampled Date Feb 10, 2025
Sample Description Air Quality
Location ไฉระเหยออกจากถังซีลน้ำ (Water Seal)
Date Analysis Commenced Feb 11, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:40 AM - 10:00 AM	ppm	-	0.10	0.5	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Sirichock Pongprasom

Remark :

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

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.



Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 253485

Date Received : Feb 10, 2025
Date Reported : Feb 15, 2025
Report Number : 3211492-1

Page 2 of 5

Sample Number 253485-2
Sampled Date Feb 10, 2025
Sample Description Air Quality
Location ไธระเหยที่ออกจากขั้นตอนการนำสารที่ได้จากการทำให้บริสุทธิ์ถ่ายลงถังขนาด 200 ลิตร
Date Analysis Commenced Feb 11, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:40 AM - 10:00 AM	ppm	-	0.10	2.9	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Sirichock Pongprasom

Remark :

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

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 253485

Date Received : Feb 10, 2025
Date Reported : Feb 15, 2025
Report Number : 3211492-1

Page 3 of 5

Sample Number 253485-3
Sampled Date Feb 10, 2025
Sample Description Air Quality
Location ไชยระเหยจากการถ่ายของเสียที่ไม่สามารถนำกลับมาใช้ใหม่ได้เกิดจากกระบวนการลงสู่ถังขนาด 200 ลิตร
Date Analysis Commenced Feb 11, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:40 AM - 10:00 AM	ppm	-	0.10	4.1	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Sirichock Pongprasom

Remark :

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

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 253485

Date Received : Feb 10, 2025
Date Reported : Feb 15, 2025
Report Number : 3211492-1

Page 4 of 5

Sample Number 253485-4
Sampled Date Feb 10, 2025
Sample Description Air Quality
Location โรงระเหยขาดอากาศ Carbon Absorber
Date Analysis Commenced Feb 11, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:40 AM - 10:00 AM	ppm	-	0.10	3.0	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Sirichock Pongprasom

Remark :

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

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 253485

Date Received : Feb 10, 2025
Date Reported : Feb 15, 2025
Report Number : 3211492-1

Page 5 of 5

Sample Number 253485-5
Sampled Date Feb 10, 2025
Sample Description Air Quality
Location Cutter Zone
Date Analysis Commenced Feb 13, 2025
Condition of Sample Drawn into one filter paper placed in plastic cassette
Barometric Pressure 761 mmHg
Atmospheric Temperature 29.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total Dust	09:30 AM - 11:30 AM	mg/m3	-	0.15	<0.15	15	In-house method : STM 02-022 based on NIOSH Manual of Analytical Method, 4th ed., NMAM, method 0500, Issue 2, 1994	OSHA	Rayong

Guideline :

OSHA : Occupational Safety and Health Administration

Sampled By : Sirichock Pongprasom

Remark :

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

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2537370

Date Received : May 08, 2025
Date Reported : May 15, 2025
Report Number : 3287526-1

Page 1 of 5

Sample Number 2537370-1
Sampled Date May 08, 2025
Sample Description Air Quality
Location ไส้ระเหยออกจากถังซีลน้ำ (Water Seal)
Date Analysis Commenced May 09, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:00 AM - 09:20 AM	ppm	-	0.10	7.8	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2537370

Date Received : May 08, 2025
Date Reported : May 15, 2025
Report Number : 3287526-1

Page 2 of 5

Sample Number 2537370-2
Sampled Date May 08, 2025
Sample Description Air Quality
Location ไธระเหยที่ออกจากขั้นตอนการนำสารที่ได้จากการทำให้บริสุทธิ์ถ่ายลงถังขนาด 200 ลิตร
Date Analysis Commenced May 09, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:00 AM - 09:20 AM	ppm	-	0.10	0.2	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2537370

Date Received : May 08, 2025
Date Reported : May 15, 2025
Report Number : 3287526-1

Page 3 of 5

Sample Number 2537370-3
Sampled Date May 08, 2025
Sample Description Air Quality
Location ไหระเหยจากการถ่ายของเสียที่ไม่สามารถนำกลับมาใช้ใหม่ได้เกิดจากกระบวนการลงสู่ถังขนาด 200 ลิตร
Date Analysis Commenced May 09, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:00 AM - 09:20 AM	ppm	-	0.10	36.3	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2537370

Date Received : May 08, 2025
Date Reported : May 15, 2025
Report Number : 3287526-1

Page 4 of 5

Sample Number 2537370-4
Sampled Date May 08, 2025
Sample Description Air Quality
Location โรงระเหยขาดอกจาก Carbon Absorber
Date Analysis Commenced May 09, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:00 AM - 09:20 AM	ppm	-	0.10	1.1	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2537370

Date Received : May 08, 2025
Date Reported : May 15, 2025
Report Number : 3287526-1

Page 5 of 5

Sample Number 2537370-5
Sampled Date May 08, 2025
Sample Description Air Quality
Location Cutter Zone
Date Analysis Commenced May 13, 2025
Condition of Sample Drawn into one filter paper placed in plastic cassette
Barometric Pressure 757 mmHg
Atmospheric Temperature 32.4 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total Dust	08:50 AM - 10:50 AM	mg/m3	-	0.15	<0.15	15	In-house method : STM 02-022 based on NIOSH Manual of Analytical Method, 4th ed., NMAM, method 0500, Issue 2, 1994	OSHA	Rayong

Guideline :

OSHA : Occupational Safety and Health Administration

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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ระดับเสียงภายในสถานประกอบการ



Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2537375

Date Received : May 08, 2025
Date Reported : May 14, 2025
Report Number: 3305326-1

Page 1 of 1

Sample Number 2537375-1
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Process 300
Measurement Date May 08, 2025
Measurement by Prasanmit Kueanpet

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:49 AM - 09:49 AM	80.6	86.0	80.3
09:49 AM - 10:49 AM	80.6	82.6	80.4
10:49 AM - 11:49 AM	80.5	82.2	80.3
11:49 AM - 12:49 PM	80.5	82.3	80.3
12:49 PM - 01:49 PM	80.4	82.3	80.3
01:49 PM - 02:49 PM	80.6	88.8	80.3
02:49 PM - 03:49 PM	80.6	86.1	80.3
03:49 PM - 04:49 PM	80.6	85.1	80.4

Leq Average 8 hrs. (dB(A)) 80.6
Lmax (dB(A)) 88.8
Standard (dB(A)) 90
Reference Method : ISO1996-1 and 1996-2
Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ. ๒๕๔๖

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2537375

Date Received : May 08, 2025
Date Reported : May 14, 2025
Report Number: 3305327-1

Page 1 of 1

Sample Number 2537375-2
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Packing
Measurement Date May 08, 2025
Measurement by Prasanmit Kueanpet

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:56 AM - 09:56 AM	71.5	79.7	69.5
09:56 AM - 10:56 AM	72.9	87.8	69.7
10:56 AM - 11:56 AM	72.0	79.1	69.3
11:56 AM - 12:56 PM	72.0	89.4	69.4
12:56 PM - 01:56 PM	71.9	79.2	69.5
01:56 PM - 02:56 PM	72.3	81.4	69.5
02:56 PM - 03:56 PM	70.6	78.4	68.1
03:56 PM - 04:56 PM	70.2	78.0	68.0

Leq Average 8 hrs. (dB(A))

71.8

Lmax (dB(A))

89.4

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ. ๒๕๔๖

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