

ภาคผนวก ค

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ใบรับรองผลการวิเคราะห์

## คุณภาพอากาศในบรรยากาศ

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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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232077**

Date Received : Apr 28, 2022  
Date Reported : May 05, 2022  
Report Number: 2256633-1

Page 1 of 1

<b>Sample Description</b>	Air Quality
<b>Location</b>	น่าน
<b>Date Analysis Commenced</b>	Apr 29, 2022
<b>Condition of Sample</b>	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)
2232077-1	Apr 19 - Apr 20, 2022	0.043	0.032	758	32
2232077-2	Apr 20 - Apr 21, 2022	0.048	0.037	758	32
2232077-3	Apr 21 - Apr 22, 2022	0.049	0.024	758	32
2232077-4	Apr 22 - Apr 23, 2022	0.036	0.017	758	32
2232077-5	Apr 23 - Apr 24, 2022	0.041	0.020	758	32
2232077-6	Apr 24 - Apr 25, 2022	0.038	0.018	758	32
2232077-7	Apr 25 - Apr 26, 2022	0.031	0.011	758	32
<b>Guideline</b>		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 :** Anurak Tongkhajonsakda

Approved by

*Thanita K.*

Thanita Kulsuriwong  
Scientist (4)

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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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232077**

Date Received : Apr 28, 2022  
Date Reported : May 05, 2022  
Report Number: 2256633-2

Page 1 of 1

<b>Sample Description</b>	Air Quality				
<b>Location</b>	เมืองระยอง				
<b>Date Analysis Commenced</b>	Apr 29, 2022				
<b>Condition of Sample</b>	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)
2232077-8	Apr 19 - Apr 20, 2022	0.080	0.048	758	32
2232077-9	Apr 20 - Apr 21, 2022	0.096	0.051	758	32
2232077-10	Apr 21 - Apr 22, 2022	0.057	0.027	758	32
2232077-11	Apr 22 - Apr 23, 2022	0.050	0.021	758	32
2232077-12	Apr 23 - Apr 24, 2022	0.054	0.024	758	32
2232077-13	Apr 24 - Apr 25, 2022	0.061	0.025	758	32
2232077-14	Apr 25 - Apr 26, 2022	0.039	0.016	758	32
<b>Guideline</b>		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 :** Anurak Tongkhajonsakda

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No.0042

**Client :** THAI MMA Co., Ltd.  
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150  
**P/O :** PMM-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232077**

Date Received : Apr 28, 2022  
Date Reported : May 05, 2022  
Report Number: 2256633-3

Page 1 of 1

<b>Sample Description</b>	Air Quality
<b>Location</b>	บ้านเนินพยอม
<b>Date Analysis Commenced</b>	Apr 29, 2022
<b>Condition of Sample</b>	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)
2232077-15	Apr 19 - Apr 20, 2022	0.090	0.068	758	32
2232077-16	Apr 20 - Apr 21, 2022	0.099	0.069	758	32
2232077-17	Apr 21 - Apr 22, 2022	0.051	0.035	758	32
2232077-18	Apr 22 - Apr 23, 2022	0.039	0.028	758	32
2232077-19	Apr 23 - Apr 24, 2022	0.042	0.029	758	32
2232077-20	Apr 24 - Apr 25, 2022	0.037	0.024	758	32
2232077-21	Apr 25 - Apr 26, 2022	0.028	0.017	758	32
<b>Guideline</b>		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 :** Anurak Tongkhajonsakda

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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-SCGCH-2019-347

**Project Name** : Environmental Monitoring

**Project Location** : CCS

**Lot ID** : 2232031

Date Received : Apr 28, 2022

Date Reported : May 04, 2022

Report Number : 2256608-1

Page 1 of 2

**Sample Number** : 2232031-1 to 7  
**Parameter** : Wind Speed / Wind Direction  
**Location** : บ้านนา  
**Sampling Date** : Apr 19 - Apr 26, 2022  
**Sampling by** : Anurak Tongkhajonsakda

Time	Apr 19 - Apr 20, 2022			Apr 20 - Apr 21, 2022			Apr 21 - Apr 22, 2022			Apr 22 - Apr 23, 2022			Apr 23 - Apr 24, 2022			Apr 24 - Apr 25, 2022			Apr 25 - Apr 26, 2022		
	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)	
10:00 AM - 11:00 AM	1.3	116.0	ESE	1.8	355.0	N	1.0	131.0	SE	1.0	167.0	SSE	2.9	164.0	SSE	4.7	199.0	SSW	3.3	216.0	SW
11:00 AM - 12:00 PM	1.3	76.0	ENE	2.3	121.0	ESE	1.9	155.0	SSE	4.4	124.0	SE	3.6	229.0	SW	6.1	188.0	S	2.5	125.0	SE
12:00 PM - 01:00 PM	0.9	40.0	NE	1.1	155.0	SSE	2.7	153.0	SSE	1.5	161.0	SSE	1.9	103.0	ESE	3.5	183.0	S	1.4	175.0	S
01:00 PM - 02:00 PM	0.4	269.0	W	2.7	139.0	SE	3.7	183.0	S	2.2	253.0	WSW	2.1	174.0	S	3.2	204.0	SSW	2.7	153.0	SSE
02:00 PM - 03:00 PM	1.3	144.0	SE	3.5	217.0	SW	3.4	236.0	SW	0.0	-	-	2.5	200.0	SSW	1.9	177.0	S	2.0	169.0	S
03:00 PM - 04:00 PM	3.5	250.0	WSW	1.0	274.0	W	1.6	152.0	SSE	2.0	85.0	E	2.0	219.0	SW	1.4	184.0	S	2.4	190.0	S
04:00 PM - 05:00 PM	1.4	258.0	WSW	1.2	160.0	SSE	1.5	126.0	SE	1.9	171.0	S	2.9	158.0	SSE	1.3	132.0	SE	0.9	161.0	SSE
05:00 PM - 06:00 PM	0.5	270.0	W	0.7	255.0	WSW	1.1	138.0	SE	2.9	113.0	ESE	2.3	152.0	SSE	1.9	152.0	SSE	4.2	163.0	SSE
06:00 PM - 07:00 PM	0.4	206.0	SSW	0.0	-	-	0.3	135.0	SE	0.0	-	-	1.0	178.0	S	1.4	145.0	SE	1.0	180.0	S
07:00 PM - 08:00 PM	0.2	-	-	0.0	-	-	0.9	122.0	ESE	0.5	125.0	SE	1.3	167.0	SSE	0.5	137.0	SE	0.3	179.0	S
08:00 PM - 09:00 PM	0.7	287.0	WNW	0.0	-	-	0.3	131.0	SE	0.0	-	-	2.2	179.0	S	0.8	149.0	SSE	1.7	174.0	S
09:00 PM - 10:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.4	164.0	SSE	1.3	165.0	SSE	1.2	160.0	SSE
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	0.6	146.0	SE	0.0	-	-	1.3	140.0	SE	0.0	-	-	1.2	175.0	S
11:00 PM - 12:00 AM	0.4	327.0	NNW	0.0	-	-	0.4	123.0	ESE	0.0	-	-	0.8	130.0	SE	0.2	-	-	0.3	173.0	S
12:00 AM - 01:00 AM	0.5	320.0	NW	0.1	-	-	0.8	60.0	ENE	0.0	-	-	0.0	-	-	2.2	149.0	SSE	1.1	127.0	SE
01:00 AM - 02:00 AM	0.6	46.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.3	178.0	S	0.9	226.0	SW
02:00 AM - 03:00 AM	0.0	-	-	0.1	-	-	0.6	51.0	NE	0.0	-	-	0.0	-	-	0.8	184.0	S	0.0	-	-
03:00 AM - 04:00 AM	0.0	-	-	0.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-	2.2	175.0	S	0.7	70.0	ENE
04:00 AM - 05:00 AM	0.5	41.0	NE	0.4	352.0	N	0.0	-	-	1.3	50.0	NE	0.5	59.0	ENE	0.9	171.0	S	0.8	167.0	SSE
05:00 AM - 06:00 AM	0.5	39.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	0.8	28.0	NNE	0.0	-	-	0.6	121.0	ESE
06:00 AM - 07:00 AM	0.7	309.0	NW	0.9	73.0	ENE	0.9	73.0	ENE	0.4	98.0	E	0.7	21.0	NNE	0.1	-	-	2.6	123.0	ESE
07:00 AM - 08:00 AM	1.4	331.0	NNW	1.8	45.0	NE	1.1	12.0	NNE	0.9	229.0	SW	1.0	306.0	NW	2.0	171.0	S	1.9	156.0	SSE
08:00 AM - 09:00 AM	2.3	34.0	NE	2.4	97.0	E	1.4	268.0	W	2.9	163.0	SSE	1.4	217.0	SW	2.2	140.0	SE	2.6	79.0	E
09:00 AM - 10:00 AM	0.6	29.0	NNE	1.1	131.0	SE	0.0	-	-	3.2	142.0	SE	0.3	285.0	WNW	4.5	170.0	S	2.3	180.0	S

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jittrantont  
Assistant General Manager



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**Client** : THAI MMA Co., Ltd.

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

**P/O** : PMM-SCGCH-2019-347

**Project Name** : Environmental Monitoring

**Project Location** : CCS

**Lot ID** : 2232031

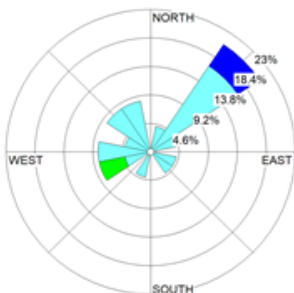
Date Received : Apr 28, 2022

Date Reported : May 04, 2022

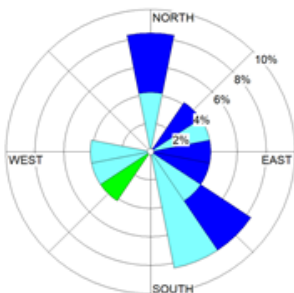
Report Number : 2256608-1

Page 2 of 2

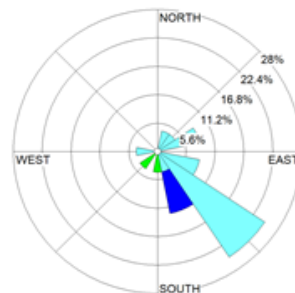
### Wind Rose



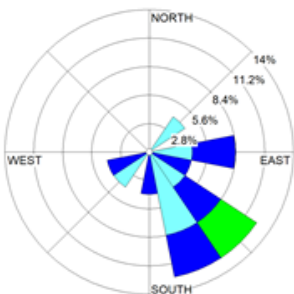
Date : Apr 19-20, 2022



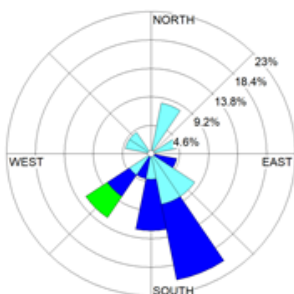
Date : Apr 20-21, 2022



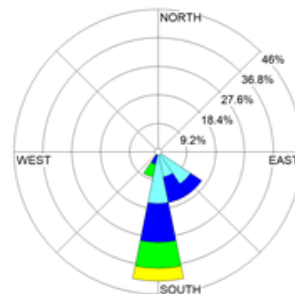
Date : Apr 21-22, 2022



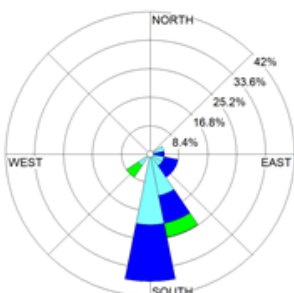
Date : Apr 22-23, 2022



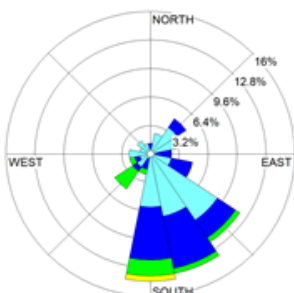
Date : Apr 23-24, 2022



Date : Apr 24-25, 2022



Date : Apr 25-26, 2022



Date : Apr 19-26, 2022

WS(m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.60
3.3-5.5	6.55
1.7-3.3	22.61
0.3-1.7	45.24
Calms	25.00

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Approved by

Sarayuth Jitranont  
Assistant General Manager



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**Client** : THAI MMA Co., Ltd.

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

**P/O** : PMM-SCGCH-2019-347

**Project Name** : Environmental Monitoring

**Project Location** : CCS

**Lot ID** : 2232031

Date Received : Apr 28, 2022

Date Reported : May 04, 2022

Report Number : 2256608-1

Page 1 of 2

**Sample Number** : 2232031-8 to 14  
**Parameter** : Wind Speed / Wind Direction  
**Location** : บ้านนาหวาย  
**Sampling Date** : Apr 19 - Apr 26, 2022  
**Sampling by** : Anurak Tongkhajonsakda

Time	Apr 19 - Apr 20, 2022			Apr 20 - Apr 21, 2022			Apr 21 - Apr 22, 2022			Apr 22 - Apr 23, 2022			Apr 23 - Apr 24, 2022			Apr 24 - Apr 25, 2022			Apr 25 - Apr 26, 2022		
	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	0.8	96.0	E	2.0	160.0	SSE	2.3	216.0	SW	2.2	195.0	SSW	1.3	184.0	S	5.1	129.0	SE	4.7	166.0	SSE
12:00 PM - 01:00 PM	0.4	35.0	NE	1.3	198.0	SSW	4.0	161.0	SSE	2.8	189.0	S	2.1	178.0	S	2.8	142.0	SE	4.1	158.0	SSE
01:00 PM - 02:00 PM	0.4	315.0	NW	2.6	164.0	SSE	1.4	194.0	SSW	0.5	6.0	N	1.6	172.0	S	2.9	176.0	S	2.0	159.0	SSE
02:00 PM - 03:00 PM	2.0	181.0	S	0.9	162.0	SSE	1.1	170.0	S	0.3	329.0	NNW	2.7	178.0	S	1.7	182.0	S	1.4	140.0	SE
03:00 PM - 04:00 PM	0.1	-	-	0.7	181.0	S	4.0	137.0	SE	0.3	329.0	NNW	2.7	169.0	S	0.7	198.0	SSW	0.5	160.0	SSE
04:00 PM - 05:00 PM	1.9	268.0	W	0.8	283.0	WNW	0.4	172.0	S	1.5	146.0	SE	2.8	202.0	SSW	2.0	151.0	SSE	3.1	149.0	SSE
05:00 PM - 06:00 PM	0.4	298.0	WNW	1.2	319.0	NW	0.0	-	-	1.4	159.0	SSE	2.1	158.0	SSE	1.8	142.0	SE	1.8	158.0	SSE
06:00 PM - 07:00 PM	0.0	-	-	0.0	-	-	2.3	160.0	SSE	0.0	-	-	1.6	165.0	SSE	1.0	107.0	ESE	1.0	158.0	SSE
07:00 PM - 08:00 PM	0.0	-	-	0.0	-	-	1.4	81.0	E	1.0	143.0	SE	1.6	146.0	SE	2.5	145.0	SE	1.7	152.0	SSE
08:00 PM - 09:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.1	153.0	SSE	1.1	146.0	SE	1.4	136.0	SE
09:00 PM - 10:00 PM	0.0	-	-	0.0	-	-	1.6	146.0	SE	0.0	-	-	0.0	-	-	1.1	143.0	SE	2.2	140.0	SE
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	1.3	166.0	SSE	0.0	-	-	1.7	100.0	E	0.1	-	-	2.2	146.0	SE
11:00 PM - 12:00 AM	0.0	-	-	0.3	252.0	WSW	0.7	155.0	SSE	0.0	-	-	1.7	153.0	SSE	2.3	150.0	SSE	2.1	157.0	SSE
12:00 AM - 01:00 AM	0.0	-	-	0.0	-	-	1.0	85.0	E	0.0	-	-	0.1	-	-	1.3	155.0	SSE	2.4	155.0	SSE
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.1	186.0	S	2.9	175.0	S	3.4	181.0	S
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.7	154.0	SSE	0.8	161.0	SSE	0.0	-	-	0.0	-	-
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.7	171.0	S	0.0	-	-
04:00 AM - 05:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.8	294.0	WNW	1.9	168.0	SSE	1.2	190.0	S
05:00 AM - 06:00 AM	0.0	-	-	0.9	260.0	W	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-	0.6	168.0	SSE
06:00 AM - 07:00 AM	0.4	288.0	WNW	0.0	-	-	0.0	-	-	0.9	304.0	NW	0.3	297.0	WNW	0.4	196.0	SSW	2.2	146.0	SE
07:00 AM - 08:00 AM	1.4	318.0	NW	0.0	-	-	0.3	53.0	NE	0.5	329.0	NNW	0.5	273.0	W	0.0	-	-	2.7	164.0	SSE
08:00 AM - 09:00 AM	0.6	0.0	N	2.3	85.0	E	2.2	299.0	WNW	3.4	145.0	SE	0.9	279.0	W	1.1	149.0	SSE	3.1	157.0	SSE
09:00 AM - 10:00 AM	2.6	93.0	E	1.3	183.0	S	1.7	195.0	SSW	2.3	152.0	SSE	1.8	306.0	NW	2.8	177.0	S	4.2	184.0	S
10:00 AM - 11:00 AM	1.4	315.0	NW	1.9	153.0	SSE	0.0	-	-	3.2	184.0	S	1.2	197.0	SSW	1.6	163.0	SSE	4.1	189.0	S

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-SCGCH-2019-347

**Project Name** : Environmental Monitoring

**Project Location** : CCS

**Lot ID** : 2232031

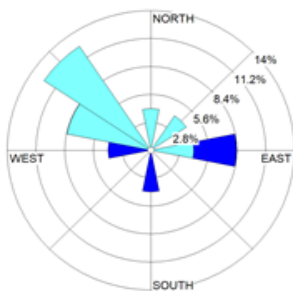
Date Received : Apr 28, 2022

Date Reported : May 04, 2022

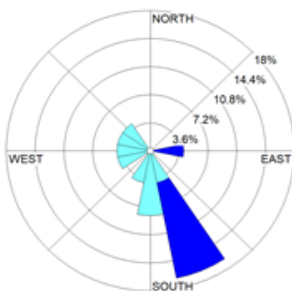
Report Number : 2256608-1

Page 2 of 2

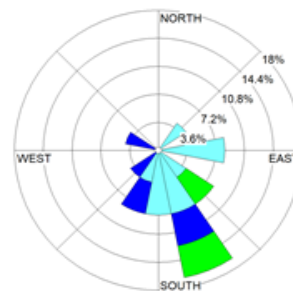
### Wind Rose



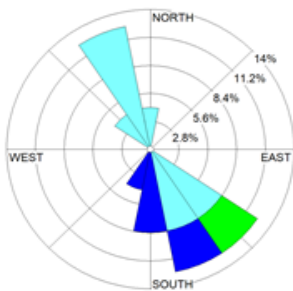
Date : Apr 19-20, 2022



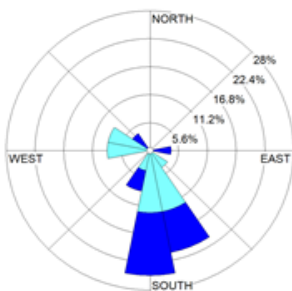
Date : Apr 20-21, 2022



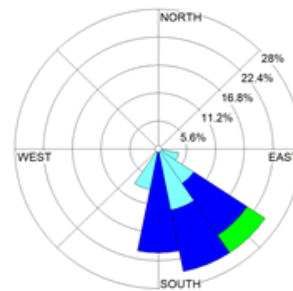
Date : Apr 21-22, 2022



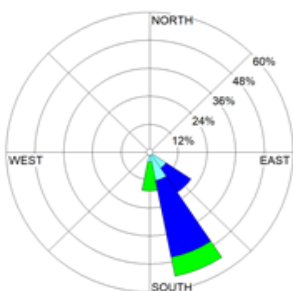
Date : Apr 22-23, 2022



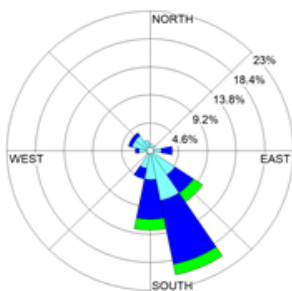
Date : Apr 23-24, 2022



Date : Apr 24-25, 2022



Date : Apr 25-26, 2022



Date : Apr 19-26, 2022

WS(m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	5.36
1.7-3.3	26.79
0.3-1.7	35.71
Calms	32.14

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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

**P/O** : PMM-SCGCH-2019-347

**Project Name** : Environmental Monitoring

**Project Location** : CCS

**Lot ID** : 2232031

Date Received : Apr 28, 2022

Date Reported : May 04, 2022

Report Number : 2256608-1

Page 1 of 2

**Sample Number** : 2232031-15 to 21  
**Parameter** : Wind Speed / Wind Direction  
**Location** : บ้านเนินพยอม  
**Sampling Date** : Apr 19 - Apr 26, 2022  
**Sampling by** : Anurak Tongkhajonsakda

Time	Apr 19 - Apr 20, 2022			Apr 20 - Apr 21, 2022			Apr 21 - Apr 22, 2022			Apr 22 - Apr 23, 2022			Apr 23 - Apr 24, 2022			Apr 24 - Apr 25, 2022			Apr 25 - Apr 26, 2022		
	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)	
09:00 AM - 10:00 AM	1.3	192.0	SSW	0.3	321.0	NW	0.0	-	-	0.3	241.0	WSW	1.5	41.0	NE	0.0	-	-	0.2	-	-
10:00 AM - 11:00 AM	0.5	184.0	S	0.1	-	-	0.0	-	-	4.1	98.0	E	0.2	-	-	2.0	159.0	SSE	1.4	72.0	ENE
11:00 AM - 12:00 PM	0.1	-	-	0.4	257.0	WSW	0.0	-	-	0.3	298.0	WNW	0.2	-	-	1.4	336.0	NNW	1.3	8.0	N
12:00 PM - 01:00 PM	0.5	300.0	WNW	0.1	-	-	0.0	-	-	0.0	-	-	0.4	276.0	W	1.2	72.0	ENE	0.0	-	-
01:00 PM - 02:00 PM	1.9	186.0	S	0.0	-	-	0.0	-	-	0.5	48.0	NE	0.4	91.0	E	1.6	84.0	E	0.3	76.0	ENE
02:00 PM - 03:00 PM	0.5	229.0	SW	0.0	-	-	1.1	253.0	WSW	2.4	47.0	NE	0.0	-	-	0.0	-	-	0.0	-	-
03:00 PM - 04:00 PM	0.3	252.0	WSW	0.0	-	-	0.7	225.0	SW	0.4	7.0	N	0.4	76.0	ENE	0.0	-	-	0.0	-	-
04:00 PM - 05:00 PM	0.2	-	-	0.9	210.0	SSW	1.1	196.0	SSW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
05:00 PM - 06:00 PM	0.9	217.0	SW	0.0	-	-	0.5	236.0	SW	0.7	53.0	NE	0.0	-	-	0.0	-	-	0.1	-	-
06:00 PM - 07:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.1	-	-	1.0	191.0	S
07:00 PM - 08:00 PM	0.2	-	-	1.4	185.0	S	0.0	-	-	0.3	0.0	N	0.0	-	-	0.0	-	-	0.9	192.0	SSW
08:00 PM - 09:00 PM	0.5	260.0	W	0.4	265.0	W	1.2	266.0	W	0.7	338.0	NNW	0.4	68.0	ENE	0.0	-	-	0.2	-	-
09:00 PM - 10:00 PM	0.2	-	-	2.4	189.0	S	0.0	-	-	0.1	-	-	0.0	-	-	0.5	358.0	N	0.5	95.0	E
10:00 PM - 11:00 PM	0.2	-	-	0.0	-	-	0.2	-	-	0.7	339.0	NNW	0.5	56.0	NE	0.2	-	-	1.0	219.0	SW
11:00 PM - 12:00 AM	0.0	-	-	0.0	-	-	1.3	188.0	S	0.5	16.0	NNE	0.2	-	-	0.7	49.0	NE	1.3	181.0	S
12:00 AM - 01:00 AM	0.0	-	-	0.0	-	-	0.1	-	-	0.8	313.0	NW	2.3	38.0	NE	0.9	292.0	WNW	0.0	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.5	201.0	SSW	0.0	-	-	1.5	68.0	ENE	0.1	-	-	0.1	-	-
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.2	-	-	0.0	-	-	0.2	-	-	1.1	339.0	NNW	0.0	-	-
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	1.0	340.0	NNW	0.0	-	-	0.1	-	-	0.0	-	-	0.2	-	-
04:00 AM - 05:00 AM	0.4	337.0	NNW	0.0	-	-	1.3	149.0	SSE	0.1	-	-	0.1	-	-	1.4	44.0	NE	0.3	294.0	WNW
05:00 AM - 06:00 AM	1.7	258.0	WSW	0.0	-	-	0.1	-	-	0.0	-	-	1.0	359.0	N	0.3	248.0	WSW	0.0	-	-
06:00 AM - 07:00 AM	0.9	207.0	SSW	0.6	83.0	E	0.0	-	-	0.2	-	-	0.0	-	-	2.2	60.0	ENE	0.4	298.0	WNW
07:00 AM - 08:00 AM	0.4	248.0	WSW	0.2	-	-	1.0	302.0	WNW	0.0	-	-	0.0	-	-	0.4	359.0	N	1.8	176.0	S
08:00 AM - 09:00 AM	2.1	93.0	E	0.0	-	-	1.3	205.0	SSW	1.5	55.0	NE	0.2	-	-	1.2	333.0	NNW	0.4	182.0	S

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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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-SCGCH-2019-347

**Project Name** : Environmental Monitoring

**Project Location** : CCS

**Lot ID** : 2232031

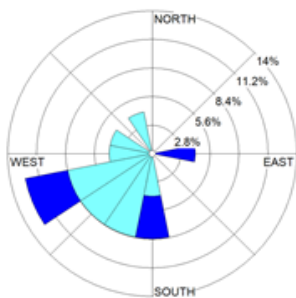
Date Received : Apr 28, 2022

Date Reported : May 04, 2022

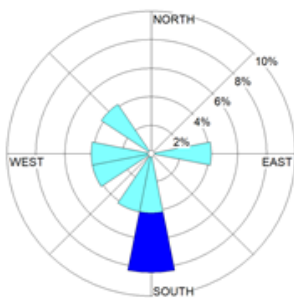
Report Number : 2256608-1

Page 2 of 2

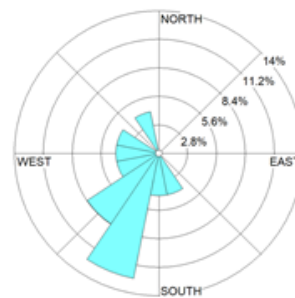
### Wind Rose



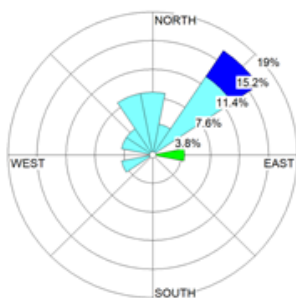
Date : Apr 19-20, 2022



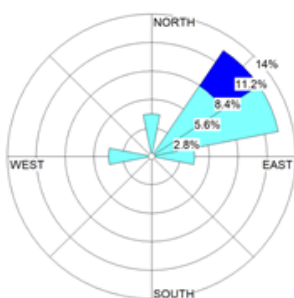
Date : Apr 20-21, 2022



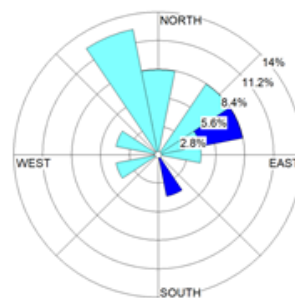
Date : Apr 21-22, 2022



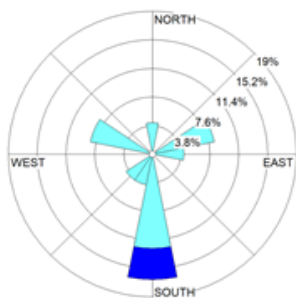
Date : Apr 22-23, 2022



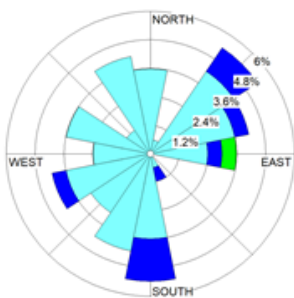
Date : Apr 23-24, 2022



Date : Apr 24-25, 2022



Date : Apr 25-26, 2022



Date : Apr 19-26, 2022

WS(m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	0.60
1.7-3.3	5.35
0.3-1.7	40.48
Calms	53.57

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Approved by

Sarayuth Jitranont  
Assistant General Manager

คุณภาพอากาศจากปล่องระบายอากาศ

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## Analysis / Test Report

TESTING  
No.0009

**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 :** CCS Site 7

**Lot ID: 2263925**

Date Received : Jun 01, 2022

Date Reported : Jun 20, 2022

Report Number: 2324828-1

Page 1 of 2

**Sample Number** 2263925-1  
**Sampled Date** Jun 01, 2022  
**Sample Description** Emission from Stationary Source  
**Location** Main Stack  
**Date Analysis Commenced** Jun 02, 2022  
**Condition of Sample** Extracted into two sorbent tubes, refrigerated

### Stack Description

Ambient Pressure	757	mmHg	Diameter	1.60 x 1.60	m	Oxygen	20.9	%
Ambient Temperature	32.0	°C	Shape	Square		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	27.0	°C	Gas Velocity	4.9	m/s
Type of Fuel	-		Moisture	4.43	%	Flow Rate (Actual O2)	42846	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Testing Location
<b>Air Testing</b>								
Butyl acrylate *	02:30 PM - 02:45 PM	mg/m3	-	1.0	<1.0	39	US EPA, Method 18	Bangkok
Methyl Methacrylate *	02:30 PM - 02:45 PM	mg/m3	-	1.0	10.0	520	US EPA, Method 18	Bangkok

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)  
ทะเบียนเลขที่ ว-204-จ-4717

Approved by

*Kanokkorn Anek*

Kanokkorn Anek  
Senior Manager  
ทะเบียนเลขที่ ว-204-ค-6111

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company



## Analysis / Test Report

TESTING  
No.0009

**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 :** CCS Site 7

**Lot ID: 2263925**

Date Received : Jun 01, 2022

Date Reported : Jun 20, 2022

Report Number: 2324828-1

Page 2 of 2

**Sample Number** 2263925-1  
**Sampled Date** Jun 01, 2022  
**Sample Description** Emission from Stationary Source  
**Location** Main Stack  
**Date Analysis Commenced** Jun 02, 2022  
**Condition of Sample** Extracted into two sorbent tubes, refrigerated

### Stack Description

Ambient Pressure	757	mmHg	Diameter	1.60 x 1.60	m	Oxygen	20.9	%
Ambient Temperature	32.0	°C	Shape	Square		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	27.0	°C	Gas Velocity	4.9	m/s
Type of Fuel	-		Moisture	4.43	%	Flow Rate (Actual O2)	42846	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline Limit	Method	Testing Location
<b>Air Testing</b>								
Butyl acrylate *	02:30 PM - 02:45 PM	g/s	-	-	<0.02	0.13	Calculated	Bangkok
Methyl Methacrylate *	02:30 PM - 02:45 PM	g/s	-	-	0.12	1.73	Calculated	Bangkok

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

**Sampled By :** Saksit Phaisanphisut

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**

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)  
ทะเบียนเลขที่ ว-204-จ-4717

**Approved by**

*Kanokkorn Anek*

Kanokkorn Anek  
Senior Manager  
ทะเบียนเลขที่ ว-204-ค-6111

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16417-21

S:\Reports\Air Stack\_GL.rpt (1:12PM)



## 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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232084**

Date Received : Apr 22, 2022  
Date Reported : Apr 28, 2022  
Report Number: 2256658-1

Page 1 of 2

**Sample Number** 2232084-1  
**Sampled Date** Apr 22, 2022  
**Sample Description** Emission from Stationary Source  
**Location** Turbulence dust collector  
**Date Analysis Commenced** Apr 23, 2022  
**Condition of Sample** Extracted into one filter paper placed in plastic petri dish and one plastic bottle

### Stack Description

Ambient Pressure	757	mmHg	Diameter	0.80	m	Oxygen	20.9	%
Ambient Temperature	31.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	40.0	°C	Gas Velocity	9.4	m/s
Type of Fuel	-		Moisture	2.52	%	Flow Rate (Actual O2)	15664	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Total Suspended Particulate	10:10 AM - 10:52 AM	mg/m3	-	0.5	<0.5	400	60	US 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-9447

Approved by

*D. Chamon.*

Dej Changchon  
Senior Manager  
ทะเบียนเลขที่ ว-323-ค-9442

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ADDRESS 616/10 Moo 5 T. Maenam Khu A. Pluakdaeng Rayong 21140 Thailand | PHONE +66 0 3304 8555 | FAX +66 0 3304 8556  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company



## 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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232084**

Date Received : Apr 22, 2022  
Date Reported : Apr 28, 2022  
Report Number: 2256658-1

Page 2 of 2

**Sample Number** 2232084-1  
**Sampled Date** Apr 22, 2022  
**Sample Description** Emission from Stationary Source  
**Location** Turbulence dust collector  
**Date Analysis Commenced** Apr 23, 2022  
**Condition of Sample** Extracted into one filter paper placed in plastic petri dish and one plastic bottle

### Stack Description

Ambient Pressure	757	mmHg	Diameter	0.80	m	Oxygen	20.9	%
Ambient Temperature	31.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	40.0	°C	Gas Velocity	9.4	m/s
Type of Fuel	-		Moisture	2.52	%	Flow Rate (Actual O2)	15664	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Total Suspended Particulate *	10:10 AM - 10:52 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.

**Sampled By :** Sathapron Thakarw

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.

Technical Management

*Thanita K.*

Thanita Kulsuriwong  
Scientist (4)  
ทะเบียนเลขที่ ว-323-จ-9447

Approved by

*D. Changchon*

Dej Changchon  
Senior Manager  
ทะเบียนเลขที่ ว-323-ค-9442

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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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232094**

Date Received : Apr 22, 2022  
Date Reported : Apr 30, 2022  
Report Number: 2256674-1

Page 1 of 1

**Sample Number** 2232094-1  
**Sampled Date** Apr 22, 2022  
**Sample Description** Emission from Stationary Source  
**Location** ปล่อง Carbon Absorber  
**Date Analysis Commenced** Apr 25, 2022  
**Condition of Sample** Extracted into one 10-L air sampling bag

### Stack Description

Ambient Pressure	757	mmHg	Diameter	0.15	m	Oxygen	20.9	%
Ambient Temperature	31.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	26.0	°C	Gas Velocity	11.1	m/s
Type of Fuel	-		Moisture	8.46	%	Flow Rate (Actual O2)	640	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
<b>Air Testing</b>							
Total VOCs as Propane	11:00 AM - 11:10 AM	ppm	-	1.0	11.2	US EPA, Method 25A	Bangkok

**Sampled By :** Saksit Phaisanphisut

Remark :

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

Approved by

Sararat Mongkonjirawut  
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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**TESTING**  
**No.0042**  
**Lot ID: 21152347**  
Date Received : Jan 07, 2022  
Date Reported : Jan 14, 2022  
Report Number : 2191029-1

Page 1 of 1

**Sample Number** 21152347-1  
**Sampled Date** Jan 07, 2022 1:45 PM  
**Sample Description** Wastewater  
**Location** บ่อสุดท้าย Cesspool  
**Date Analysis Commenced** Jan 07, 2022  
**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
<b>Water Testing</b>							
BOD (5 days at 20 Degree C)	mg/L	-	2	61	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	5	112	≤750	APHA (2017), 5220 D	Rayong
Oil & Grease	mg/L	-	3	4	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.3	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	31.5	≤45	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	266	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤200	APHA (2017), 2540 D	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant  
**Sampled By :** Wanlop Hunchainaow

**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.

**Technical Management**

*N. Banchongkit*

Narumon Banchongkit  
Supervisor  
ทะเบียนเลขที่ ว-323-จ-9445

**Approved by**

*D. Changchon*

Dej Changchon  
Senior Manager  
ทะเบียนเลขที่ ว-323-ค-9442

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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-SCGCH-2019-347

**Project Name :** Environmental Monitoring

**Project Location :** CCS

**Lot ID: 21152347**

Date Received : Jan 07, 2022

Date Reported : Jan 14, 2022

Report Number : 2191029-2

Page 1 of 1

<b>Sample Number</b>	21152347-1						
<b>Sampled Date</b>	Jan 07, 2022 1:45 PM						
<b>Sample Description</b>	Wastewater						
<b>Location</b>	บ่อเสาะน้ำ Cesspool						
<b>Date Analysis Commenced</b>	Jan 10, 2022						
<b>Condition of Sample</b>	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
<b>Water Testing</b>							
Sulfate	mg/L	0.6	2	79.0	No Standard	Based on APHA (2017), 4500-SO4(E)	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

**Sampled By :** Wanlop Hunchainaow

Remark :

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## Analysis / Test Report

TESTING

No.0042

**Lot ID: 21152424**

Date Received : Feb 07, 2022

Date Reported : Feb 14, 2022

Report Number : 2191059-1

**Client :** THAI MMA Co., Ltd.

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

**P/O :** PMM-SCGCH-2019-347

**Project Name :** Environmental Monitoring

**Project Location:** CCS

Page 1 of 1

<b>Sample Number</b>	21152424-1
<b>Sampled Date</b>	Feb 07, 2022 1:47 PM
<b>Sample Description</b>	Wastewater
<b>Location</b>	บ่อสุดท้าย Cesspool
<b>Date Analysis Commenced</b>	Feb 07, 2022
<b>Condition of Sample</b>	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
<b>Water Testing</b>							
BOD (5 days at 20 Degree C)	mg/L	-	2	45	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	5	126	≤750	APHA (2017), 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.0	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	32.2	≤45	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	444	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤200	APHA (2017), 2540 D	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

**Sampled By :** Wanlop Hunchainaow

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.

Technical Management

*N. Banchongkit*

Narumon Banchongkit

Supervisor

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Approved by

*D. Changchon*

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 21152424**

Date Received : Feb 07, 2022

Date Reported : Feb 14, 2022

Report Number : 2191059-2

Page 1 of 1

<b>Sample Number</b>	21152424-1						
<b>Sampled Date</b>	Feb 07, 2022 1:47 PM						
<b>Sample Description</b>	Wastewater						
<b>Location</b>	บ่อเสาะน้ำ Cesspool						
<b>Date Analysis Commenced</b>	Feb 08, 2022						
<b>Condition of Sample</b>	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
<b>Water Testing</b>							
Sulfate	mg/L	0.6	2	134	No Standard	Based on APHA (2017), 4500-SO4(E)	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

**Sampled By :** Wanlop Hunchainaow

Remark :

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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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 222050**  
Date Received : Mar 04, 2022  
Date Reported : Mar 11, 2022  
Report Number : 2236456-1

Page 1 of 1

**Sample Number** 222050-1  
**Sampled Date** Mar 04, 2022 1:46 PM  
**Sample Description** Wastewater  
**Location** บ่อสุดท้าย Cesspool  
**Date Analysis Commenced** Mar 04, 2022  
**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
<b>Water Testing</b>							
BOD (5 days at 20 Degree C)	mg/L	-	2	20	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	5	79	≤750	APHA (2017), 5220 D	Rayong
Oil & Grease	mg/L	-	3	3	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.1	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	34.2	≤45	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	392	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	APHA (2017), 2540 D	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant  
**Sampled By :** Wanlop Hunchainaow

Remark :

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Technical Management

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Approved by

*D. Changchon*

Dej Changchon  
Senior Manager  
ทะเบียนเลขที่ ว-323-ค-9442

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## Analysis / Test Report

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**P/O :** PMM-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2222050**

Date Received : Mar 04, 2022

Date Reported : Mar 11, 2022

Report Number : 2236456-2

Page 1 of 1

**Sample Number** 2222050-1  
**Sampled Date** Mar 04, 2022 1:46 PM  
**Sample Description** Wastewater  
**Location** บ่อเสาะน้ำ Cesspool  
**Date Analysis Commenced** Mar 07, 2022  
**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
<b>Water Testing</b>							
Sulfate	mg/L	0.6	2	109	No Standard	Based on APHA (2017), 4500-SO4(E)	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

**Sampled By :** Wanlop Hunchainaow

Remark :

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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-SCGCH-2019-347

**Project Name :** Environmental Monitoring

**Project Location :** CCS

**Lot ID: 2232100**

Date Received : Apr 21, 2022

Date Reported : Apr 28, 2022

Report Number : 2256692-1

Page 1 of 1

<b>Sample Number</b>	2232100-1
<b>Sampled Date</b>	Apr 21, 2022 1:52 PM
<b>Sample Description</b>	Wastewater
<b>Location</b>	บ่อสุดท้าย Cesspool
<b>Date Analysis Commenced</b>	Apr 21, 2022
<b>Condition of Sample</b>	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
<b>Water Testing</b>							
BOD (5 days at 20 Degree C)	mg/L	-	2	45	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	5	100	≤750	APHA (2017), 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.9	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	35.9	≤45	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	256	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	APHA (2017), 2540 D	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

**Sampled By :** Wanlop Hunchainaow

Remark :

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Technical Management

*N. Banchongkit*

Narumon Banchongkit

Supervisor

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Approved by

*D. Changchon*

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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## Analysis / Test Report

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88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150  
**P/O :** PMM-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232100**

Date Received : Apr 21, 2022

Date Reported : Apr 28, 2022

Report Number : 2256692-2

Page 1 of 1

<b>Sample Number</b>	2232100-1						
<b>Sampled Date</b>	Apr 21, 2022 1:52 PM						
<b>Sample Description</b>	Wastewater						
<b>Location</b>	บ่อเสาะน้ำ Cesspool						
<b>Date Analysis Commenced</b>	Apr 26, 2022						
<b>Condition of Sample</b>	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
<b>Water Testing</b>							
Sulfate	mg/L	0.6	2	157	No Standard	Based on APHA (2017), 4500-SO4(E)	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

**Sampled By :** Wanlop Hunchainaow

Remark :

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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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**TESTING**  
**No.0042**  
**Lot ID: 2250524**  
Date Received : May 09, 2022  
Date Reported : May 16, 2022  
Report Number : 2296343-1

Page 1 of 1

**Sample Number** 2250524-1  
**Sampled Date** May 09, 2022 2:05 PM  
**Sample Description** Wastewater  
**Location** บ่อสุดท้าย Cesspool  
**Date Analysis Commenced** May 09, 2022  
**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
<b>Water Testing</b>							
BOD (5 days at 20 Degree C)	mg/L	-	2	20	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	5	75	≤750	APHA (2017), 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.1	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	35.4	≤45	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	210	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤200	APHA (2017), 2540 D	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant  
**Sampled By :** Wanlop Hunchainaow

**Remark :**

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**Technical Management**

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ทะเบียนเลขที่ จ-323-จ-9445

**Approved by**

*D. Changchon*

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## Analysis / Test Report

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

**P/O :** PMM-SCGCH-2019-347

**Project Name :** Environmental Monitoring

**Project Location :** CCS

**Lot ID: 2250524**

Date Received : May 09, 2022

Date Reported : May 16, 2022

Report Number : 2296343-2

Page 1 of 1

<b>Sample Number</b>	2250524-1						
<b>Sampled Date</b>	May 09, 2022 2:05 PM						
<b>Sample Description</b>	Wastewater						
<b>Location</b>	บ่อสุดท้าย Cesspool						
<b>Date Analysis Commenced</b>	May 11, 2022						
<b>Condition of Sample</b>	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)						
<b>Analyte</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ (LOR)</b>	<b>Result</b>	<b>Guideline / Specification</b>	<b>Method</b>	<b>Testing Location</b>
<b>Water Testing</b>							
Sulfate	mg/L	0.6	2	120	No Standard	Based on APHA (2017), 4500-SO4(E)	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

**Sampled By :** Wanlop Hunchainaow

Remark :

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Narumon Banchongkit  
Supervisor

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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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location:** CCS

**TESTING**  
**No.0042**  
**Lot ID: 2255849**  
Date Received : Jun 16, 2022  
Date Reported : Jun 23, 2022  
Report Number : 2308267-1

Page 1 of 1

**Sample Number** 2255849-1  
**Sampled Date** Jun 16, 2022 2:00 PM  
**Sample Description** Wastewater  
**Location** บ่อสุดท้าย Cesspool  
**Date Analysis Commenced** Jun 16, 2022  
**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
<b>Water Testing</b>							
BOD (5 days at 20 Degree C)	mg/L	-	2	18	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	5	63	≤750	APHA (2017), 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.6	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	35.5	≤45	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	236	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤200	APHA (2017), 2540 D	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

**Sampled By :** Wanlop Hunchainaow

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**

*N. Banchongkit*

Narumon Banchongkit  
Supervisor  
ทะเบียนเลขที่ ว-323-จ-9445

**Approved by**

*D. Changchon*

Dej Changchon  
Senior Manager  
ทะเบียนเลขที่ ว-323-ค-9442

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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-SCGCH-2019-347

**Project Name :** Environmental Monitoring

**Project Location :** CCS

**Lot ID: 2255849**

Date Received : Jun 16, 2022

Date Reported : Jun 23, 2022

Report Number : 2308267-2

Page 1 of 1

**Sample Number** 2255849-1  
**Sampled Date** Jun 16, 2022 2:00 PM  
**Sample Description** Wastewater  
**Location** บ่อเสาะน้ำ Cesspool  
**Date Analysis Commenced** Jun 17, 2022  
**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
<b>Water Testing</b>							
Sulfate	mg/L	0.6	2	198	No Standard	Based on APHA (2017), 4500-SO4(E)	Rayong

**Guideline :** Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

**Sampled By :** Wanlop Hunchainaow

Remark :

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

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Approved by

*N. Banchongkit*

Narumon Banchongkit  
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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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232081**

Date Received : Apr 28, 2022  
Date Reported : May 04, 2022  
Report Number: 2300047-1

Page 1 of 1

**Sample Number** 2232081-1  
**Parameter** Noise (Leq 24 hrs.)  
**Location** บ้านบน  
**Measurement Date** Apr 19 - Apr 20, 2022  
**Measurement by** Anurak Tongkhajonsakda  
**Sound Level meter** Serial No. 233183

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	54.9	72.9	45.5
11:00 AM - 12:00 PM	53.4	73.4	44.0
12:00 PM - 01:00 PM	51.8	80.6	43.9
01:00 PM - 02:00 PM	50.9	74.3	45.2
02:00 PM - 03:00 PM	54.7	82.8	47.4
03:00 PM - 04:00 PM	56.1	84.7	48.3
04:00 PM - 05:00 PM	51.7	71.9	48.4
05:00 PM - 06:00 PM	55.0	74.5	48.9
06:00 PM - 07:00 PM	52.6	73.2	48.9
07:00 PM - 08:00 PM	51.5	74.4	47.0
08:00 PM - 09:00 PM	49.7	71.5	46.7
09:00 PM - 10:00 PM	50.2	76.7	46.2
10:00 PM - 11:00 PM	50.4	74.4	47.3
11:00 PM - 12:00 AM	48.0	69.4	45.8
12:00 AM - 01:00 AM	47.4	64.6	45.5
01:00 AM - 02:00 AM	47.7	66.6	45.4
02:00 AM - 03:00 AM	47.8	68.1	45.3
03:00 AM - 04:00 AM	49.0	68.9	45.6
04:00 AM - 05:00 AM	55.6	72.2	48.6
05:00 AM - 06:00 AM	52.5	79.5	48.3
06:00 AM - 07:00 AM	55.4	77.6	48.0
07:00 AM - 08:00 AM	55.9	77.8	47.3
08:00 AM - 09:00 AM	57.3	84.6	45.5
09:00 AM - 10:00 AM	56.0	85.8	44.0

Leq Average 24 hrs. (dB(A)) 53.3  
Lmax (dB(A)) 85.8  
L90 (dB(A)) 46.2  
Ldn (dB(A)) 58.5  
Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

Technical Management

*Thanita K.*

Thanita Kulsuriwong  
Scientist (4)

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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232081**

Date Received : Apr 28, 2022  
Date Reported : May 04, 2022  
Report Number: 2300048-1

Page 1 of 1

**Sample Number** 2232081-2  
**Parameter** Noise (Leq 24 hrs.)  
**Location** บ้านบน  
**Measurement Date** Apr 20 - Apr 21, 2022  
**Measurement by** Anurak Tongkhajonsakda  
**Sound Level meter** Serial No. 233183

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	53.9	76.5	44.4
11:00 AM - 12:00 PM	55.0	81.1	44.9
12:00 PM - 01:00 PM	52.5	81.1	44.8
01:00 PM - 02:00 PM	55.9	79.8	45.9
02:00 PM - 03:00 PM	56.5	78.6	45.7
03:00 PM - 04:00 PM	61.9	90.1	47.3
04:00 PM - 05:00 PM	51.2	72.9	46.2
05:00 PM - 06:00 PM	60.5	76.7	48.8
06:00 PM - 07:00 PM	51.4	72.4	47.6
07:00 PM - 08:00 PM	50.2	68.4	46.2
08:00 PM - 09:00 PM	48.6	65.1	45.9
09:00 PM - 10:00 PM	50.3	71.8	46.4
10:00 PM - 11:00 PM	50.3	76.6	47.2
11:00 PM - 12:00 AM	51.7	78.6	47.3
12:00 AM - 01:00 AM	51.4	75.1	45.9
01:00 AM - 02:00 AM	47.8	67.3	45.3
02:00 AM - 03:00 AM	46.5	66.2	43.3
03:00 AM - 04:00 AM	49.5	65.4	44.5
04:00 AM - 05:00 AM	59.5	72.1	47.7
05:00 AM - 06:00 AM	53.4	76.3	48.2
06:00 AM - 07:00 AM	53.3	72.5	46.5
07:00 AM - 08:00 AM	55.5	76.4	48.2
08:00 AM - 09:00 AM	52.1	73.5	44.4
09:00 AM - 10:00 AM	54.0	78.3	43.8

Leq Average 24 hrs. (dB(A)) 54.9  
Lmax (dB(A)) 90.1  
L90 (dB(A)) 45.9  
Ldn (dB(A)) 60.1  
Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป  
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Technical Management

*Thanita K.*

Thanita Kulsuriwong  
Scientist (4)

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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232081**

Date Received : Apr 28, 2022  
Date Reported : May 04, 2022  
Report Number: 2300049-1

Page 1 of 1

**Sample Number** 2232081-3  
**Parameter** Noise (Leq 24 hrs.)  
**Location** บ้านบน  
**Measurement Date** Apr 21 - Apr 22, 2022  
**Measurement by** Anurak Tongkhajonsakda  
**Sound Level meter** Serial No. 233183

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	55.3	72.5	48.2
11:00 AM - 12:00 PM	54.3	75.1	45.4
12:00 PM - 01:00 PM	51.9	71.2	46.2
01:00 PM - 02:00 PM	52.9	77.3	44.8
02:00 PM - 03:00 PM	52.9	73.9	45.4
03:00 PM - 04:00 PM	57.0	81.6	48.6
04:00 PM - 05:00 PM	52.4	69.4	47.8
05:00 PM - 06:00 PM	57.7	67.3	50.3
06:00 PM - 07:00 PM	53.3	75.6	49.7
07:00 PM - 08:00 PM	53.0	72.1	49.3
08:00 PM - 09:00 PM	52.9	68.8	48.5
09:00 PM - 10:00 PM	55.1	72.9	49.0
10:00 PM - 11:00 PM	56.0	68.6	48.4
11:00 PM - 12:00 AM	48.7	68.3	45.8
12:00 AM - 01:00 AM	48.3	69.2	44.9
01:00 AM - 02:00 AM	50.3	78.6	45.7
02:00 AM - 03:00 AM	47.6	66.5	45.4
03:00 AM - 04:00 AM	49.0	67.0	45.1
04:00 AM - 05:00 AM	57.3	78.5	47.8
05:00 AM - 06:00 AM	52.4	69.3	47.6
06:00 AM - 07:00 AM	53.4	73.4	45.5
07:00 AM - 08:00 AM	60.3	84.7	46.9
08:00 AM - 09:00 AM	52.7	69.6	47.9
09:00 AM - 10:00 AM	53.7	73.7	45.8

Leq Average 24 hrs. (dB(A)) 54.4  
Lmax (dB(A)) 84.7  
L90 (dB(A)) 46.9  
Ldn (dB(A)) 59.6  
Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

Technical Management

*Thanita K.*

Thanita Kulsuriwong  
Scientist (4)

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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232081**

Date Received : Apr 28, 2022  
Date Reported : May 04, 2022  
Report Number: 2300050-1

Page 1 of 1

**Sample Number** 2232081-4  
**Parameter** Noise (Leq 24 hrs.)  
**Location** บ้านนาบยา  
**Measurement Date** Apr 19 - Apr 20, 2022  
**Measurement by** Anurak Tongkhajonsakda  
**Sound Level meter** Serial No. 900072

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	56.5	79.6	53.5
11:00 AM - 12:00 PM	54.9	75.9	53.2
12:00 PM - 01:00 PM	56.1	79.5	53.7
01:00 PM - 02:00 PM	55.9	68.1	54.2
02:00 PM - 03:00 PM	58.6	80.5	55.3
03:00 PM - 04:00 PM	58.0	71.4	56.0
04:00 PM - 05:00 PM	57.0	73.4	54.8
05:00 PM - 06:00 PM	56.7	70.6	54.6
06:00 PM - 07:00 PM	55.3	67.9	53.7
07:00 PM - 08:00 PM	56.2	71.9	53.9
08:00 PM - 09:00 PM	55.2	70.9	53.7
09:00 PM - 10:00 PM	55.0	68.4	54.1
10:00 PM - 11:00 PM	55.1	71.6	53.9
11:00 PM - 12:00 AM	54.3	67.5	53.6
12:00 AM - 01:00 AM	55.5	76.4	53.9
01:00 AM - 02:00 AM	54.7	72.4	53.8
02:00 AM - 03:00 AM	55.1	71.9	53.7
03:00 AM - 04:00 AM	57.6	74.6	54.0
04:00 AM - 05:00 AM	56.7	72.2	54.7
05:00 AM - 06:00 AM	56.3	67.4	54.4
06:00 AM - 07:00 AM	55.9	70.7	53.5
07:00 AM - 08:00 AM	54.9	76.0	52.2
08:00 AM - 09:00 AM	53.2	69.6	50.5
09:00 AM - 10:00 AM	54.1	70.8	51.1

Leq Average 24 hrs. (dB(A)) 56.0  
Lmax (dB(A)) 80.5  
L90 (dB(A)) 53.8  
Ldn (dB(A)) 62.3  
Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

Technical Management

*Thanita K.*

Thanita Kulsuriwong  
Scientist (4)

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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232081**

Date Received : Apr 28, 2022  
Date Reported : May 04, 2022  
Report Number: 2300051-1

Page 1 of 1

**Sample Number** 2232081-5  
**Parameter** Noise (Leq 24 hrs.)  
**Location** บ้านนาบยา  
**Measurement Date** Apr 20 - Apr 21, 2022  
**Measurement by** Anurak Tongkhajonsakda  
**Sound Level meter** Serial No. 900072

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	56.0	70.4	51.4
11:00 AM - 12:00 PM	53.7	71.3	51.1
12:00 PM - 01:00 PM	55.3	75.5	50.9
01:00 PM - 02:00 PM	55.9	78.8	51.5
02:00 PM - 03:00 PM	55.7	72.1	51.9
03:00 PM - 04:00 PM	55.1	78.3	52.5
04:00 PM - 05:00 PM	55.5	76.9	53.0
05:00 PM - 06:00 PM	55.4	78.7	53.0
06:00 PM - 07:00 PM	54.8	75.2	52.5
07:00 PM - 08:00 PM	55.0	76.8	52.5
08:00 PM - 09:00 PM	55.5	69.5	54.0
09:00 PM - 10:00 PM	54.2	70.3	52.9
10:00 PM - 11:00 PM	53.4	70.0	51.5
11:00 PM - 12:00 AM	52.5	68.6	51.4
12:00 AM - 01:00 AM	52.1	66.9	51.1
01:00 AM - 02:00 AM	51.8	66.3	50.9
02:00 AM - 03:00 AM	53.2	74.8	51.4
03:00 AM - 04:00 AM	55.5	69.5	52.3
04:00 AM - 05:00 AM	56.2	81.1	53.1
05:00 AM - 06:00 AM	55.3	74.1	52.4
06:00 AM - 07:00 AM	53.6	68.2	51.5
07:00 AM - 08:00 AM	54.8	81.9	51.3
08:00 AM - 09:00 AM	53.4	75.9	51.1
09:00 AM - 10:00 AM	53.4	77.4	51.1

Leq Average 24 hrs. (dB(A)) 54.6  
Lmax (dB(A)) 81.9  
L90 (dB(A)) 51.5  
Ldn (dB(A)) 60.6  
Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

Technical Management

*Thanita K.*

Thanita Kulsuriwong  
Scientist (4)

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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2232081**

Date Received : Apr 28, 2022  
Date Reported : May 04, 2022  
Report Number: 2300052-1

Page 1 of 1

**Sample Number** 2232081-6  
**Parameter** Noise (Leq 24 hrs.)  
**Location** บ้านนาบยา  
**Measurement Date** Apr 21 - Apr 22, 2022  
**Measurement by** Anurak Tongkhajonsakda  
**Sound Level meter** Serial No. 900072

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	53.9	71.3	51.6
11:00 AM - 12:00 PM	53.7	73.4	51.3
12:00 PM - 01:00 PM	56.0	78.7	51.8
01:00 PM - 02:00 PM	54.7	76.3	51.4
02:00 PM - 03:00 PM	54.8	72.3	51.7
03:00 PM - 04:00 PM	55.0	69.9	52.2
04:00 PM - 05:00 PM	55.6	79.0	52.9
05:00 PM - 06:00 PM	55.2	74.3	52.8
06:00 PM - 07:00 PM	54.3	66.9	52.3
07:00 PM - 08:00 PM	56.6	74.7	53.0
08:00 PM - 09:00 PM	58.0	80.2	56.0
09:00 PM - 10:00 PM	54.8	70.8	53.3
10:00 PM - 11:00 PM	54.7	71.3	52.4
11:00 PM - 12:00 AM	54.5	68.2	53.7
12:00 AM - 01:00 AM	52.2	67.6	51.3
01:00 AM - 02:00 AM	51.8	65.8	51.0
02:00 AM - 03:00 AM	53.2	67.7	51.2
03:00 AM - 04:00 AM	55.6	75.4	51.8
04:00 AM - 05:00 AM	55.5	68.6	52.5
05:00 AM - 06:00 AM	54.9	74.1	51.7
06:00 AM - 07:00 AM	54.0	74.5	51.0
07:00 AM - 08:00 AM	67.6	77.4	58.1
08:00 AM - 09:00 AM	61.2	71.6	53.3
09:00 AM - 10:00 AM	58.2	82.1	52.8

Leq Average 24 hrs. (dB(A)) 57.7  
Lmax (dB(A)) 82.1  
L90 (dB(A)) 52.2  
Ldn (dB(A)) 61.7  
Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

Technical Management

*Thanita K.*

Thanita Kulsuriwong  
Scientist (4)

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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 21152396**

Date Received : Feb 25, 2022  
Date Reported : Mar 03, 2022  
Report Number : 2191054-1

Page 5 of 5

**Sample Number** 21152396-5  
**Sampled Date** Feb 25, 2022  
**Sample Description** Air Quality  
**Location** Cutter Zone  
**Date Analysis Commenced** Mar 01, 2022  
**Condition of Sample** Drawn into one filter paper placed in plastic cassette  
**Barometric Pressure** 760 mmHg  
**Atmospheric Temperature** 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Total Dust	09:00 AM - 11:00 AM	mg/m3	-	0.15	<0.15	15	Based on NIOSH (1994), 0500	OSHA	Rayong

**Guideline :**

OSHA : Occupational Safety and Health Administration

**Sampled By :** Surasak Sachin

**Remark :**

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

Approved by

*Saranya C.*

Saranya Chalermtamrong  
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-SCGCH-2019-347  
**Project Name** : Environmental Monitoring  
**Project Location** : CCS

**Lot ID: 21152396**

Date Received : Feb 25, 2022  
Date Reported : Mar 03, 2022  
Report Number : 2191054-1

Page 1 of 5

**Sample Number** : 21152396-1  
**Sampled Date** : Feb 25, 2022  
**Sample Description** : Air Quality  
**Location** : ไอร์เซลล์ออกจากถังซีลน้ำ (Water Seal)  
**Date Analysis Commenced** : Feb 28, 2022  
**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
<b>Air Testing</b>									
Total VOC	09:30 AM - 09:50 AM	ppm	-	0.10	0.4	500	Total VOC Analyzer	MOI	Bangkok

**Guideline :**

MOI : ประกาศกระทรวงอุตสาหกรรม เรื่อง กำหนดหลักเกณฑ์ และวิธีการปฏิบัติในการตรวจสอบ และควบคุมการรั่วซึมของสารอินทรีย์ระเหยง่ายจากอุปกรณ์  
ในโรงการอุตสาหกรรม พ.ศ. 2555

**Sampled By** : Surasak Sachin

**Remark :**

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

Approved by

*Saranya C.*

Saranya Chalermtamrong  
Scientist (4)

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## Analysis / Test Report

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88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150  
**P/O :** PMM-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 21152396**

Date Received : Feb 25, 2022  
Date Reported : Mar 03, 2022  
Report Number : 2191054-1

Page 2 of 5

**Sample Number** 21152396-2  
**Sampled Date** Feb 25, 2022  
**Sample Description** Air Quality  
**Location** ไอระเหยที่ออกจากขั้นตอนการนำสารที่ได้จากการทำให้บริสุทธิ์ถ่ายลงถังขนาด 200 ลิตร  
**Date Analysis Commenced** Feb 28, 2022  
**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
<b>Air Testing</b>									
Total VOC	09:30 AM - 09:50 AM	ppm	-	0.10	3.5	500	Total VOC Analyzer	MOI	Bangkok

**Guideline :**

MOI : ประกาศกระทรวงอุตสาหกรรม เรื่อง กำหนดหลักเกณฑ์ และวิธีการปฏิบัติในการตรวจสอบ และควบคุมการรั่วซึมของสารอินทรีย์ระเหยง่ายจากอุปกรณ์  
ในโรงการอุตสาหกรรม พ.ศ. 2555

**Sampled By :** Surasak Sachin

**Remark :**

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

Approved by

*Saranya C.*

Saranya Chalermtamrong  
Scientist (4)

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## Analysis / Test Report

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**P/O :** PMM-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 21152396**

Date Received : Feb 25, 2022  
Date Reported : Mar 03, 2022  
Report Number : 2191054-1

Page 3 of 5

**Sample Number** 21152396-3  
**Sampled Date** Feb 25, 2022  
**Sample Description** Air Quality  
**Location** ไอระเหยจากการถ้ำของเสียที่ไม่สามารถนำกลับมาใช้ได้เกิดจากกระบวนการลงสู่ถังขนาด 200 ลิตร  
**Date Analysis Commenced** Feb 28, 2022  
**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
<b>Air Testing</b>									
Total VOC	09:30 AM - 09:50 AM	ppm	-	0.10	14.8	500	Total VOC Analyzer	MOI	Bangkok

**Guideline :**

MOI : ประกาศกระทรวงอุตสาหกรรม เรื่อง กำหนดหลักเกณฑ์ และวิธีการปฏิบัติในการตรวจสอบ และควบคุมการรั่วซึมของสารอินทรีย์ระเหยง่ายจากอุปกรณ์  
ในโรงการอุตสาหกรรม พ.ศ. 2555

**Sampled By :** Surasak Sachin

**Remark :**

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

Approved by

*Saranya C.*

Saranya Chalermtamrong  
Scientist (4)

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## Analysis / Test Report

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**P/O :** PMM-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 21152396**

Date Received : Feb 25, 2022  
Date Reported : Mar 03, 2022  
Report Number : 2191054-1

Page 4 of 5

**Sample Number** 21152396-4  
**Sampled Date** Feb 25, 2022  
**Sample Description** Air Quality  
**Location** ไธระเหยขาวออกจาก Carbon Absorber  
**Date Analysis Commenced** Feb 28, 2022  
**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
<b>Air Testing</b>									
Total VOC	09:30 AM - 09:50 AM	ppm	-	0.10	9.9	500	Total VOC Analyzer	MOI	Bangkok

**Guideline :**

MOI : ประกาศกระทรวงอุตสาหกรรม เรื่อง กำหนดหลักเกณฑ์ และวิธีการปฏิบัติในการตรวจสอบ และควบคุมการรั่วซึมของสารอินทรีย์ระเหยง่ายจากอุปกรณ์  
ในโรงการอุตสาหกรรม พ.ศ. 2555

**Sampled By :** Surasak Sachin

**Remark :**

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

Approved by

*Saranya C.*

Saranya Chalermtamrong  
Scientist (4)

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## Analysis / Test Report

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**P/O :** PMM-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2250520**

Date Received : May 20, 2022

Date Reported : May 26, 2022

Report Number : 2296336-1

Page 1 of 1

**Sample Number** 2250520-5  
**Sampled Date** May 20, 2022  
**Sample Description** Air Quality  
**Location** Cutter Zone  
**Date Analysis Commenced** May 23, 2022  
**Condition of Sample** Drawn into one filter paper placed in plastic cassette  
**Barometric Pressure** 756 mmHg  
**Atmospheric Temperature** 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Total Dust	09:00 AM - 11:00 AM	mg/m3	-	0.15	<0.15	15	Based on NIOSH (1994), OSHA 0500		Rayong

**Guideline :**

OSHA : Occupational Safety and Health Administration

**Sampled By :** Surasak Sachin

**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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**P/O** : PMM-SCGCH-2019-347  
**Project Name** : Environmental Monitoring  
**Project Location** : CCS

**Lot ID: 2266535**

Date Received : Jun 01, 2022  
Date Reported : Jun 08, 2022  
Report Number : 2328767-1

Page 1 of 4

**Sample Number** : 2266535-1  
**Sampled Date** : Jun 01, 2022  
**Sample Description** : Air Quality  
**Location** : ไธระเหยออกจากถังซีลน้ำ (Water Seal)  
**Date Analysis Commenced** : Jun 06, 2022  
**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
<b>Air Testing</b>									
Total VOC	02:35 PM - 02:55 PM	ppm	-	0.10	22.8	500	Total VOC Analyzer	MOI	Bangkok

**Guideline :**

MOI : ประกาศกระทรวงอุตสาหกรรม เรื่อง กำหนดหลักเกณฑ์ และวิธีการปฏิบัติในการตรวจสอบ และควบคุมการรั่วซึมของสารอินทรีย์ระเหยง่ายจากอุปกรณ์  
ในโรงการอุตสาหกรรม พ.ศ. 2555

**Sampled By** : Surasak Sachin

**Remark :**

- LOD : Limit of Detection
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Approved by

Sararat Mongkonjirawut  
Supervisor

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## Analysis / Test Report

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88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150  
**P/O** : PMM-SCGCH-2019-347  
**Project Name** : Environmental Monitoring  
**Project Location** : CCS

**Lot ID: 2266535**

Date Received : Jun 01, 2022  
Date Reported : Jun 08, 2022  
Report Number : 2328767-1

Page 2 of 4

**Sample Number** : 2266535-2  
**Sampled Date** : Jun 01, 2022  
**Sample Description** : Air Quality  
**Location** : ไอร์เวย์ที่ออกจากขั้นตอนการนำสารที่ได้จากการทำให้บริสุทธิ์ถ่ายลงถังขนาด 200 ลิตร  
**Date Analysis Commenced** : Jun 06, 2022  
**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
<b>Air Testing</b>									
Total VOC	02:35 PM - 02:55 PM	ppm	-	0.10	4.0	500	Total VOC Analyzer	MOI	Bangkok

**Guideline :**

MOI : ประกาศกระทรวงอุตสาหกรรม เรื่อง กำหนดหลักเกณฑ์ และวิธีการปฏิบัติในการตรวจสอบ และควบคุมการรั่วซึมของสารอินทรีย์ระเหยง่ายจากอุปกรณ์  
ในโรงการอุตสาหกรรม พ.ศ. 2555

**Sampled By** : Surasak Sachin

**Remark :**

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Sararat Mongkonjirawut  
Supervisor



## Analysis / Test Report

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88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150  
**P/O** : PMM-SCGCH-2019-347  
**Project Name** : Environmental Monitoring  
**Project Location** : CCS

**Lot ID: 2266535**

Date Received : Jun 01, 2022  
Date Reported : Jun 08, 2022  
Report Number : 2328767-1

Page 3 of 4

**Sample Number** : 2266535-3  
**Sampled Date** : Jun 01, 2022  
**Sample Description** : Air Quality  
**Location** : ไธโรเหยจากการถ่ายของเสียที่ไม่สามารถนำกลับมาใช้ได้เกิดจากกระบวนการลงสู่ถังขนาด 200 ลิตร  
**Date Analysis Commenced** : Jun 06, 2022  
**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
<b>Air Testing</b>									
Total VOC	02:35 PM - 02:55 PM	ppm	-	0.10	4.2	500	Total VOC Analyzer	MOI	Bangkok

**Guideline :**

MOI : ประกาศกระทรวงอุตสาหกรรม เรื่อง กำหนดหลักเกณฑ์ และวิธีการปฏิบัติในการตรวจสอบ และควบคุมการรั่วซึมของสารอินทรีย์ระเหยง่ายจากอุปกรณ์  
ในโรงการอุตสาหกรรม พ.ศ. 2555

**Sampled By** : Surasak Sachin

**Remark :**

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Supervisor



## Analysis / Test Report

**Client** : THAI MMA Co., Ltd.  
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150  
**P/O** : PMM-SCGCH-2019-347  
**Project Name** : Environmental Monitoring  
**Project Location** : CCS

**Lot ID: 2266535**

Date Received : Jun 01, 2022  
Date Reported : Jun 08, 2022  
Report Number : 2328767-1

Page 4 of 4

**Sample Number** : 2266535-4  
**Sampled Date** : Jun 01, 2022  
**Sample Description** : Air Quality  
**Location** : ไธระเหยชาออกจาก Carbon Absorber  
**Date Analysis Commenced** : Jun 06, 2022  
**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
<b>Air Testing</b>									
Total VOC	02:35 PM - 02:55 PM	ppm	-	0.10	41.4	500	Total VOC Analyzer	MOI	Bangkok

**Guideline :**

MOI : ประกาศกระทรวงอุตสาหกรรม เรื่อง กำหนดหลักเกณฑ์ และวิธีการปฏิบัติในการตรวจสอบ และควบคุมการรั่วซึมของสารอินทรีย์ระเหยง่ายจากอุปกรณ์  
ในโรงการอุตสาหกรรม พ.ศ. 2555

**Sampled By** : Surasak Sachin

**Remark :**

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

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Sararat Mongkonjirawut  
Supervisor



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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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2250523**

Date Received : May 20, 2022  
Date Reported : May 26, 2022  
Report Number: 2324571-1

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**Sample Number** 2250523-1  
**Parameter** Noise (Leq 8 hrs.)  
**Location** บริเวณ Process 300  
**Measurement Date** May 20, 2022  
**Measurement by** Surasak Sachin

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:38 AM - 09:38 AM	81.0	88.3	79.3
09:38 AM - 10:38 AM	79.8	86.4	79.1
10:38 AM - 11:38 AM	80.0	85.6	79.1
11:38 AM - 12:38 PM	79.9	93.2	79.0
12:38 PM - 01:38 PM	79.7	83.1	78.9
01:38 PM - 02:38 PM	79.7	85.7	78.7
02:38 PM - 03:38 PM	79.6	85.2	78.7
03:38 PM - 04:38 PM	79.8	82.2	78.8

Leq Average 8 hrs. (dB(A)) 80.0  
Lmax (dB(A)) 93.2  
Standard (dB(A)) 90  
Reference Method : ISO1996-1 and 1996-2  
Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย  
ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

*Thanita K.*

Thanita Kulsuriwong  
Scientist (4)

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-SCGCH-2019-347  
**Project Name :** Environmental Monitoring  
**Project Location :** CCS

**Lot ID: 2250523**

Date Received : May 20, 2022  
Date Reported : May 26, 2022  
Report Number: 2324572-1

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**Sample Number** 2250523-2  
**Parameter** Noise (Leq 8 hrs.)  
**Location** บริเวณ Packing  
**Measurement Date** May 20, 2022  
**Measurement by** Surasak Sachin

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:46 AM - 09:46 AM	70.2	86.0	67.1
09:46 AM - 10:46 AM	68.9	90.8	65.1
10:46 AM - 11:46 AM	70.2	81.7	67.1
11:46 AM - 12:46 PM	67.8	85.8	64.2
12:46 PM - 01:46 PM	69.6	84.5	64.9
01:46 PM - 02:46 PM	68.8	82.9	65.5
02:46 PM - 03:46 PM	70.2	87.8	64.6
03:46 PM - 04:46 PM	68.8	84.9	64.5

Leq Average 8 hrs. (dB(A))

69.4

Lmax (dB(A))

90.8

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย  
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**Technical Management**

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