

ภาคผนวก ค

ผลการติดตามตรวจสอบผลกระทบสิ่งแวดล้อม

ภาคผนวก ค-1

คุณภาพอากาศจากแหล่งกำเนิด



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525768

Date Received : Sep 24, 2025

Date Reported : Sep 30, 2025

Report Number : 3261104-1

Page 1 of 1

Sample Number	2525768-1
Sample Description	Emission from Stationary Source
Location	Furnace 1 (GPS 47P 0734130, 1404515)
Measurement Date	Sep 23, 2025

Stack Description					
Ambient Temperature	29.6 °C	Diameter	1.40 m	Oxygen	5.57 %
Ambient Pressure	756.5 mmHg	Shape	Circle	Carbon dioxide	8.98 %
Type of Process	Combustion	Stack Temperature	191 °C	Gas Velocity	7.14 m/s
Type of Fuel	Natural Gas	Moisture	12.52 %	Flow Rate	22116 Nm3/hr

Run No.	Sampling Time	Oxygen (%)	Carbon Dioxide (%)	Oxides of Nitrogen (ppm)	
				at Actual O ₂	At 7% O ₂
1	12:30 PM - 12:50 PM	5.38	9.09	14.18	12.70
2	12:51 PM - 01:11 PM	5.77	8.85	14.61	13.41
3	01:12 PM - 01:32 PM	5.56	8.99	14.63	13.26
Average (ppm)		5.57	8.98	14.47	13.12
Guideline ¹ (ppm)				-	200
Guideline ² (ppm)				-	25
Result (mg/Nm ³)				27.23	24.69
Emission Rate at Actual O ₂ (g/s)				0.1673	
Guideline ² (g/s)				0.3900	
Method				US EPA Method 7E	

Sampled By : Sathaporn Thakarn

Guideline : ¹Notification 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)

²Emission Air Standard according to EIA study of SPE-PE Plant, Approval Letter No. Tor Sor 1009.9/2341 dated March 5, 2014 (B.E.2557)

Technical Management

Wichan Choonharat

Manager

ทะเบียนเลขที่ 7-204-ก-0006

Approved by

Sarayuth Jitranont

Assistant General Manager

ทะเบียนเลขที่ 7-204-ก-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525777

Date Received : Sep 23, 2025

Date Reported : Oct 01, 2025

Report Number: 3261111-1

Page 1 of 1

Sample Number	2525777-1
Sampled Date	Sep 23, 2025
Sample Description	Emission from Stationary Source
Location	Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced	Sep 24, 2025
Condition of Sample	Extracted into one 10-L air sampling bag

Stack Description					
Ambient Pressure	756 mmHg	Diameter	1.40 m	Oxygen	5.6 %
Ambient Temperature	29.6 °C	Shape	Circle	Carbon Dioxide	9.0 %
Type of Process	Combustion	Stack Temperature	191 °C	Gas Velocity	7.1 m/s
Type of Fuel	Natural Gas	Moisture	12.50 %	Flow Rate (Actual O ₂)	22084 Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 % O ₂	Result at 5.6 % O ₂	Method	Testing Location
Air Testing								
Methane as Propane	12:30 PM - 12:40 PM	ppm	-	0.4	<0.4	<0.4	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Non-Methane Hydrocarbon as Propane	12:30 PM - 12:40 PM	ppm	-	0.4	3.4	3.74	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Total Hydrocarbon as Propane	12:30 PM - 12:40 PM	ppm	-	0.4	3.4	3.74	U.S. Environmental Protection Agency, EPA Method 25A	Rayong

Sampling By : Warawut Pubpa

Remark :

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

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.

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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S:\Reports\Air Stack_O2_NoGL.rpt (10:54AM)



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588015

Date Received : Sep 24, 2025

Date Reported : Oct 01, 2025

Report Number: 3409414-2

Page 1 of 1

Sample Number 2588015-1
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Spin Dryer 1 (GPS 47P 0733967, 1404426)
Date Analysis Commenced Sep 25, 2025
Condition of Sample Extracted into two 10-L air sampling bags

Stack Description							
Ambient Pressure	755	mmHg	Diameter	0.63 x 0.63	m	Oxygen	20.9 %
Ambient Temperature	29.6	°C	Shape	Square		Carbon Dioxide	0.0 %
Type of Process	Process		Stack Temperature	43.0	°C	Gas Velocity	6.6 m/s
Type of Fuel	-		Moisture	2.71	%	Flow Rate (Actual O2)	8556 Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Carbon dioxide	11:40 AM - 12:00 PM	ppm	-	1.0	476	U.S. Environmental Protection Agency, EPA Method 3	Rayong
Methane as Propane	11:40 AM - 12:00 PM	ppm	-	0.4	0.8	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Non-Methane Hydrocarbon as Propane	11:40 AM - 12:00 PM	ppm	-	0.4	12.0	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Total Hydrocarbon as Propane	11:40 AM - 12:00 PM	ppm	-	0.4	12.8	U.S. Environmental Protection Agency, EPA Method 25A	Rayong

Sampling By : Sittipan Sanachiw

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588007

Date Received : Sep 24, 2025

Date Reported : Oct 01, 2025

Report Number: 3409412-2

Page 1 of 1

Sample Number 2588007-1
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Hold Up Hopper 1 (GPS 47P 0733995, 1404455)
Date Analysis Commenced Sep 25, 2025
Condition of Sample Extracted into two 10-L air sampling bags

Stack Description							
Ambient Pressure	755	mmHg	Diameter	0.25	m	Oxygen	20.9 %
Ambient Temperature	29.6	°C	Shape	Circle		Carbon Dioxide	0.0 %
Type of Process	Process		Stack Temperature	50.0	°C	Gas Velocity	2.8 m/s
Type of Fuel	-		Moisture	2.27	%	Flow Rate (Actual O2)	442 Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Carbon dioxide	12:20 PM - 12:40 PM	ppm	-	1.0	500	U.S. Environmental Protection Agency, EPA Method 3	Rayong
Methane as Propane	12:20 PM - 12:40 PM	ppm	-	0.4	<0.4	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Non-Methane Hydrocarbon as Propane	12:20 PM - 12:40 PM	ppm	-	0.4	927	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Total Hydrocarbon as Propane	12:20 PM - 12:40 PM	ppm	-	0.4	927	U.S. Environmental Protection Agency, EPA Method 25A	Rayong

Sampling By : Sittipan Sanachiw

Remark :

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

Approved by

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Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588013

Date Received : Sep 23, 2025

Date Reported : Oct 01, 2025

Report Number: 3409413-2

Page 1 of 1

Sample Number 2588013-1
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Blenders 1 (GPS 47P 0733984, 1404492)
Date Analysis Commenced Sep 24, 2025
Condition of Sample Extracted into two 10-L air sampling bags

Stack Description

Ambient Pressure	756	mmHg	Diameter	0.60	m	Oxygen	20.9	%
Ambient Temperature	29.6	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	33.0	°C	Gas Velocity	2.5	m/s
Type of Fuel	-		Moisture	2.27	%	Flow Rate (Actual O2)	2386	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Carbon dioxide	11:50 AM - 12:10 PM	ppm	-	1.0	667	U.S. Environmental Protection Agency, EPA Method 3	Rayong
Methane as Propane	11:50 AM - 12:10 PM	ppm	-	0.4	<0.4	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Non-Methane Hydrocarbon as Propane	11:50 AM - 12:10 PM	ppm	-	0.4	120	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Total Hydrocarbon as Propane	11:50 AM - 12:10 PM	ppm	-	0.4	120	U.S. Environmental Protection Agency, EPA Method 25A	Rayong

Sampling By : Jittakorn Sriwasa

Remark :

- LOD : Limit of Detection
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Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525772

Date Received : Sep 24, 2025

Date Reported : Sep 30, 2025

Report Number :3261107-1

Page 1 of 1

Sample Number 2525772-1
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Measurement Date Sep 24, 2025

Stack Description

Ambient Temperature	29.6	°C	Diameter	1.53	m	Oxygen	5.78	%
Ambient Pressure	755.3	mmHg	Shape	Circle		Carbon dioxide	8.68	%
Type of Process	Combustion		Stack Temperature	198	°C	Gas Velocity	5.85	m/s
Type of Fuel	Natural Gas		Moisture	11.28	%	Flow Rate	21586	Nm3/hr

Run No.	Sampling Time	Oxygen (%)	Carbon Dioxide (%)	Oxides of Nitrogen (ppm)	
				at Actual O ₂	At 7% O ₂
1	11:00 AM - 11:20 AM	5.70	8.71	14.97	13.69
2	11:21 AM - 11:41 AM	5.80	8.68	15.04	13.84
3	11:42 AM - 12:02 PM	5.86	8.64	14.87	13.74
Average (ppm)				14.96	13.76
Guideline ¹ (ppm)				-	200
Guideline ² (ppm)				-	25
Result (mg/Nm ³)				28.15	25.88
Emission Rate at Actual O ₂ (g/s)				0.1688	
Guideline ² (g/s)				0.4290	
Method				US EPA Method 7E	

Sampled By : Sathaporn Thakarn

Guideline : ¹Notification 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)

²Emission Air Standard according to EIA study of SPE-PE Plant, Approval Letter No. Tor Sor 1009.9/2341 dated March 5, 2014 (B.E.2557)

Technical Management

Wichan Ch.

Wichan Choonharat
Manager

ทะเบียนเลขที่ ๖-204-๓-0006

Approved by

Sarayuth Jitranont

Sarayuth Jitranont
Assistant General Manager

ทะเบียนเลขที่ ๖-204-๓-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525779

Date Received : Sep 24, 2025

Date Reported : Oct 01, 2025

Report Number: 3261113-1

Page 1 of 1

Sample Number 2525779-1
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced Sep 25, 2025
Condition of Sample Extracted into one 10-L air sampling bag

Stack Description

Ambient Pressure	755	mmHg	Diameter	1.53	m	Oxygen	5.8	%
Ambient Temperature	29.6	°C	Shape	Circle		Carbon Dioxide	6.7	%
Type of Process	Combustion		Stack Temperature	198	°C	Gas Velocity	5.9	m/s
Type of Fuel	Natural Gas		Moisture	11.26	%	Flow Rate (Actual O2)	21736	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 % O ₂	Result at 5.8 % O ₂	Method	Testing Location
Air Testing								
Methane as Propane	11:20 AM - 11:30 AM	ppm	-	0.4	<0.4	<0.4	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Non-Methane Hydrocarbon as Propane	11:20 AM - 11:30 AM	ppm	-	0.4	0.6	0.65	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Total Hydrocarbon as Propane	11:20 AM - 11:30 AM	ppm	-	0.4	0.6	0.65	U.S. Environmental Protection Agency, EPA Method 25A	Rayong

Sampling By : Warawut Pubpa

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588018

Date Received : Sep 24, 2025

Date Reported : Oct 01, 2025

Report Number: 3409416-2

Page 1 of 1

Sample Number 2588018-1
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Spin Dryer 2 (GPS 47P 0733702, 1404276)
Date Analysis Commenced Sep 25, 2025
Condition of Sample Extracted into two 10-L air sampling bags

Stack Description

Ambient Pressure	755	mmHg	Diameter	0.63 x 0.80	m	Oxygen	20.9	%
Ambient Temperature	29.6	°C	Shape	Rectangular		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	45.0	°C	Gas Velocity	9.5	m/s
Type of Fuel	-		Moisture	3.56	%	Flow Rate (Actual O2)	15545	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Carbon dioxide	12:55 PM - 01:20 PM	ppm	-	1.0	482	U.S. Environmental Protection Agency, EPA Method 3	Rayong
Methane as Propane	12:55 PM - 01:20 PM	ppm	-	0.4	<0.4	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Non-Methane Hydrocarbon as Propane	12:55 PM - 01:20 PM	ppm	-	0.4	46.5	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Total Hydrocarbon as Propane	12:55 PM - 01:20 PM	ppm	-	0.4	46.5	U.S. Environmental Protection Agency, EPA Method 25A	Rayong

Sampling By : Warawut Pubpa

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588023

Date Received : Sep 24, 2025

Date Reported : Oct 01, 2025

Report Number: 3409423-2

Page 1 of 1

Sample Number 2588023-1
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Hold Up Hopper 2 (GPS 47P 0734013, 1404453)
Date Analysis Commenced Sep 25, 2025
Condition of Sample Extracted into two 10-L air sampling bags

Stack Description								
Ambient Pressure	755	mmHg	Diameter	0.20	m	Oxygen	20.9	%
Ambient Temperature	29.6	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	46.0	°C	Gas Velocity	13.0	m/s
Type of Fuel	-		Moisture	3.13	%	Flow Rate (Actual O2)	1321	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Carbon dioxide	12:20 PM - 12:45 PM	ppm	-	1.0	488	U.S. Environmental Protection Agency, EPA Method 3	Rayong
Methane as Propane	12:20 PM - 12:45 PM	ppm	-	0.4	<0.4	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Non-Methane Hydrocarbon as Propane	12:20 PM - 12:45 PM	ppm	-	0.4	401	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Total Hydrocarbon as Propane	12:20 PM - 12:45 PM	ppm	-	0.4	401	U.S. Environmental Protection Agency, EPA Method 25A	Rayong

Sampling By : Warawut Pubpa

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588024

Date Received : Sep 23, 2025

Date Reported : Oct 07, 2025

Report Number: 3409425-2

Page 1 of 1

Sample Number 2588024-1
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Blenders 2 (GPS 47P 0735113, 1405977)
Date Analysis Commenced Sep 24, 2025
Condition of Sample Extracted into two 10-L air sampling bags

Stack Description								
Ambient Pressure	756	mmHg	Diameter	0.30	m	Oxygen	20.9	%
Ambient Temperature	29.6	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	44.0	°C	Gas Velocity	3.7	m/s
Type of Fuel	-		Moisture	2.27	%	Flow Rate (Actual O2)	869	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Carbon dioxide	02:50 PM - 03:10 PM	ppm	-	1.0	686	U.S. Environmental Protection Agency, EPA Method 3	Rayong
Methane as Propane	02:50 PM - 03:10 PM	ppm	-	0.4	<0.4	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Non-Methane Hydrocarbon as Propane	02:50 PM - 03:10 PM	ppm	-	0.4	120	U.S. Environmental Protection Agency, EPA Method 25A	Rayong
Total Hydrocarbon as Propane	02:50 PM - 03:10 PM	ppm	-	0.4	120	U.S. Environmental Protection Agency, EPA Method 25A	Rayong

Sampling By : Jittakorn Sriwasa

Remark :

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

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Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525768
Date Received : Sep 24, 2025
Date Reported : Oct 17, 2025
Report Number : 3261104-1

Page 1 of 3

Sample Number : 2525768-1
Sampled Date : Sep 23, 2025
Sample Description : Emission from Stationary Source
Location : Furnace 1 (GPS 47P 0734130, 1404515)
Parameter : NOx

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual O2		Corrected Value at 7% O2		Difference
		Start	Stop	CEMs (ppm)	RM (ppm)	CEMs (ppm)	RM (ppm)	
1	23 Sep 25	12:30	12:50	14.24	14.18	12.69	12.70	0.01
2	23 Sep 25	12:51	13:11	14.59	14.61	13.13	13.41	0.28
3	23 Sep 25	13:12	13:32	14.89	14.63	13.26	13.26	0.00
4	23 Sep 25	13:33	13:53	14.93	14.64	13.29	13.22	-0.07
5	23 Sep 25	13:54	14:14	14.67	14.55	13.03	13.15	0.12
6	23 Sep 25	14:15	14:35	14.86	14.54	13.33	13.19	-0.14
7*	23 Sep 25	14:36	14:56	14.44	15.57	13.10	14.31	1.21
8	23 Sep 25	14:57	15:17	11.18	11.34	9.50	9.88	0.38
9*	23 Sep 25	15:18	15:38	12.00	11.11	9.33	8.84	-0.48
10	23 Sep 25	15:39	15:59	12.73	11.90	9.54	9.12	-0.43
11*	23 Sep 25	16:00	16:20	13.77	12.87	10.47	9.94	-0.52
12	23 Sep 25	16:21	16:41	13.10	12.30	10.14	9.70	-0.44
Average						11.99	11.96	-0.03
Confidence Coefficient (CC)								0.22
Relative Accuracy (Compared with RM) (%)								2.06
Relative Accuracy Criteria ^{1/} (Compared with RM)								≤ 20%

Reference Method : US EPA Method 7E

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of NOx is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 2 (PS-2)

RA Result is within Criteria

Technical Management 
Wichan Choonharat
Manager
ทะเบียนเลขที่ 7-204-ก-0006

Approved by 
Sarayuth Jitranont
Assistant General Manager
ทะเบียนเลขที่ 7-204-ก-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525768
Date Received : Sep 24, 2025
Date Reported : Oct 17, 2025
Report Number : 3261104-1

Page 2 of 3

Sample Number : 2525768-1
Sampled Date : Sep 23, 2025
Sample Description : Emission from Stationary Source
Location : Furnace 1 (GPS 47P 0734130, 1404515)
Parameter : CO

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual O2		Corrected Value at 7% O2		Difference
		Start	Stop	CEMs (ppm)	RM (ppm)	CEMs (ppm)	RM (ppm)	
1	23 Sep 25	12:30	12:50	9.04	5.63	8.05	5.04	-3.01
2	23 Sep 25	12:51	13:11	9.07	5.75	8.17	5.28	-2.89
3	23 Sep 25	13:12	13:32	9.00	5.68	8.01	5.15	-2.86
4*	23 Sep 25	13:33	13:53	9.21	5.64	8.19	5.09	-3.10
5	23 Sep 25	13:54	14:14	9.07	5.67	8.06	5.13	-2.93
6*	23 Sep 25	14:15	14:35	9.20	5.71	8.25	5.18	-3.07
7*	23 Sep 25	14:36	14:56	18.04	8.15	16.37	7.50	-8.87
8	23 Sep 25	14:57	15:17	11.09	7.77	9.42	6.77	-2.66
9	23 Sep 25	15:18	15:38	7.93	4.25	6.17	3.38	-2.79
10	23 Sep 25	15:39	15:59	7.59	3.90	5.69	2.99	-2.70
11	23 Sep 25	16:00	16:20	7.86	4.03	5.97	3.11	-2.86
12	23 Sep 25	16:21	16:41	7.86	4.20	6.08	3.31	-2.77
Average						7.29	4.46	-2.83
Confidence Coefficient (CC)								0.09
Relative Accuracy (Compared with Emission Standard : 690 ppm) (%)								0.42
Relative Accuracy Criteria ^{1/} (Compared with Emission Standard)								≤ 5%

Reference Method : US EPA Method 10

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of CO is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 4 (PS-4) compared with

Emission Standard 690 ppm at 7%O2

RA Result is within Criteria

Technical Management 
Wichan Choonharat
Manager
ทะเบียนเลขที่ 7-204-ก-0006

Approved by 
Sarayuth Jitranont
Assistant General Manager
ทะเบียนเลขที่ 7-204-ก-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525768
Date Received : Sep 24, 2025
Date Reported : Oct 17, 2025
Report Number : 3261104-1

Page 3 of 3

Sample Number 2525768-1
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Parameter O2

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual		Difference
		Start	Stop	CEMs (%)	RM (%)	
1	23 Sep 25	12:30	12:50	5.30	5.38	0.08
2	23 Sep 25	12:51	13:11	5.46	5.77	0.31
3	23 Sep 25	13:12	13:32	5.29	5.56	0.27
4	23 Sep 25	13:33	13:53	5.28	5.50	0.23
5	23 Sep 25	13:54	14:14	5.25	5.52	0.27
6	23 Sep 25	14:15	14:35	5.40	5.58	0.18
7	23 Sep 25	14:36	14:56	5.58	5.78	0.20
8*	23 Sep 25	14:57	15:17	4.54	4.95	0.41
9*	23 Sep 25	15:18	15:38	3.03	3.44	0.41
10*	23 Sep 25	15:39	15:59	2.36	2.76	0.40
11	23 Sep 25	16:00	16:20	2.61	2.91	0.30
12	23 Sep 25	16:21	16:41	2.94	3.27	0.32
Average				4.79	5.03	0.24
Confidence Coefficient (CC)						-
Relative Accuracy (Compared in Actual) (%)						0.24
Relative Accuracy Criteria ^{1/} (%)						≤ 1%

Reference Method : US EPA Method 3A

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of O2 is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 3 (PS-3)

RA Result is within Criteria

Sampled By : Sathaporn Thakarn

Technical Management
Wichan Choonharat
Manager
ทะเบียนเลขที่ 7-204-ก-0006

Approved by
Sarayuth Jitranont
Assistant General Manager
ทะเบียนเลขที่ 7-204-ก-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525768
Date Received : Sep 24, 2025
Date Reported : Sep 30, 2025
Report Number : 3261104-1

Page 1 of 1

Sample Number 2525768-1
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Measurement Date Sep 23, 2025

Stack Description	
Ambient Temperature 29.6 °C	Diameter 1.40 m
Ambient Pressure 756.5 mmHg	Shape Circle
Type of Process Combustion	Stack Temperature 191 °C
Type of Fuel Natural Gas	Moisture 12.52 %
Oxygen 5.57 %	Carbon dioxide 8.98 %
Gas Velocity 7.14 m/s	Flow Rate 22116 Nm3/hr

Run No.	Sampling Time	Oxygen (%)	Carbon Dioxide (%)	Oxides of Nitrogen (ppm)		Carbon Monoxide (ppm)	
				at Actual O ₂	at 7% O ₂	at Actual O ₂	at 7% O ₂
1	12:30 PM - 12:50 PM	5.38	9.09	14.18	12.70	5.63	5.04
2	12:51 PM - 01:11 PM	5.77	8.85	14.61	13.41	5.75	5.28
3	01:12 PM - 01:32 PM	5.56	8.99	14.63	13.26	5.68	5.15
Average (ppm)		5.57	8.98	14.47	13.12	5.69	5.16
Guideline ^{1/} (ppm)				-	200	-	690
Guideline ^{2/} (ppm)				-	25	-	-
Result (mg/Nm ³)				27.23	24.69	6.51	5.90
Emission Rate at Actual O ₂ (g/s)				0.1673		0.0400	
Method				US EPA Method 7E		US EPA Method 10	

Sampled By : Sathaporn Thakarn

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)
^{2/} Emission Air Standard according to EIA study of SPE-PE Plant, Approval Letter No. Tor Sor 1009.9/2341 dated March 5, 2014 (B.E.2557)

Technical Management

Wichan Choonharat
Manager
ทะเบียนเลขที่ 7-204-ก-0006

Approved by

Sarayuth Jitranont
Assistant General Manager
ทะเบียนเลขที่ 7-204-ก-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525772
Date Received : Sep 24, 2025
Date Reported : Oct 17, 2025
Report Number : 3261107-1

Page 1 of 3

Sample Number : 2525772-1
Sampled Date : Sep 24, 2025
Sample Description : Emission from Stationary Source
Location : Furnace 2 (GPS 47P 0734143, 1404493)
Parameter : NOx

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual O2		Corrected Value at 7% O2		Difference
		Start	Stop	CEMs (ppm)	RM (ppm)	CEMs (ppm)	RM (ppm)	
1	24 Sep 25	11:00	11:20	14.88	14.97	13.87	13.69	-0.18
2	24 Sep 25	11:21	11:41	15.16	15.04	13.98	13.84	-0.14
3*	24 Sep 25	11:42	12:02	15.65	14.87	14.27	13.74	-0.53
4*	24 Sep 25	12:03	12:23	15.47	14.85	14.10	13.72	-0.38
5	24 Sep 25	12:24	12:44	15.36	14.76	13.99	13.63	-0.36
6*	24 Sep 25	12:45	13:05	15.42	14.82	14.06	13.68	-0.38
7	24 Sep 25	13:06	13:26	15.68	15.10	14.30	13.96	-0.34
8	24 Sep 25	13:27	13:47	15.56	15.23	14.15	14.03	-0.12
9	24 Sep 25	13:48	14:08	15.44	14.94	14.04	13.77	-0.27
10	24 Sep 25	14:09	14:29	15.59	15.22	14.24	14.05	-0.19
11	24 Sep 25	14:30	14:50	15.96	15.61	14.57	14.41	-0.17
12	24 Sep 25	14:51	15:11	15.64	15.39	14.26	14.18	-0.08
Average						14.16	13.95	-0.20
Confidence Coefficient (CC)								0.07
Relative Accuracy (Compared with RM) (%)								2.00
Relative Accuracy Criteria ^{1/} (Compared with RM)								≤ 20%

Reference Method : US EPA Method 7E

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of NOx is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 2 (PS-2)

RA Result is within Criteria

Technical Management

Wichan Choonharat
Manager

ทะเบียนเลขที่ 7-204-ก-0006

Approved by

Sarayuth Jittrant
Assistant General Manager

ทะเบียนเลขที่ 7-204-ก-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525772
Date Received : Sep 24, 2025
Date Reported : Oct 17, 2025
Report Number : 3261107-1

Page 2 of 3

Sample Number : 2525772-1
Sampled Date : Sep 24, 2025
Sample Description : Emission from Stationary Source
Location : Furnace 2 (GPS 47P 0734143, 1404493)
Parameter : CO

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual O2		Corrected Value at 7% O2		Difference
		Start	Stop	CEMs (ppm)	RM (ppm)	CEMs (ppm)	RM (ppm)	
1	24 Sep 25	11:00	11:20	18.67	12.91	17.39	11.81	-5.59
2	24 Sep 25	11:21	11:41	18.87	12.93	17.40	11.90	-5.50
3*	24 Sep 25	11:42	12:02	21.25	14.18	19.39	13.10	-6.28
4	24 Sep 25	12:03	12:23	19.37	14.15	17.65	13.07	-4.57
5	24 Sep 25	12:24	12:44	20.57	15.00	18.73	13.85	-4.88
6	24 Sep 25	12:45	13:05	20.86	14.96	19.01	13.81	-5.20
7	24 Sep 25	13:06	13:26	19.91	14.47	18.15	13.37	-4.78
8*	24 Sep 25	13:27	13:47	23.44	14.58	21.32	13.43	-7.88
9*	24 Sep 25	13:48	14:08	23.74	16.66	21.59	15.36	-6.23
10	24 Sep 25	14:09	14:29	21.44	15.77	19.58	14.56	-5.02
11	24 Sep 25	14:30	14:50	18.81	14.01	17.17	12.93	-4.25
12	24 Sep 25	14:51	15:11	19.61	13.24	17.88	12.19	-5.69
Average						18.11	13.06	-5.05
Confidence Coefficient (CC)								0.37
Relative Accuracy (Compared with Emission Standard : 690 ppm) (%)								0.79
Relative Accuracy Criteria ^{1/} (Compared with Emission Standard)								≤ 5%

Reference Method : US EPA Method 10

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of CO is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 4 (PS-4) compared with

Emission Standard 690 ppm at 7%O2

RA Result is within Criteria

Technical Management

Wichan Choonharat
Manager

ทะเบียนเลขที่ 7-204-ก-0006

Approved by

Sarayuth Jittrant
Assistant General Manager

ทะเบียนเลขที่ 7-204-ก-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525772
Date Received : Sep 24, 2025
Date Reported : Oct 17, 2025
Report Number : 3261107-1

Page 3 of 3

Sample Number 2525772-1
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Parameter O2

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual		Difference
		Start	Stop	CEMs (%)	RM (%)	
1*	24 Sep 25	11:00	11:20	5.98	5.70	-0.29
2	24 Sep 25	11:21	11:41	5.82	5.80	-0.02
3	24 Sep 25	11:42	12:02	5.66	5.86	0.19
4*	24 Sep 25	12:03	12:23	5.64	5.85	0.21
5*	24 Sep 25	12:24	12:44	5.63	5.85	0.21
6	24 Sep 25	12:45	13:05	5.65	5.84	0.19
7	24 Sep 25	13:06	13:26	5.66	5.86	0.21
8	24 Sep 25	13:27	13:47	5.62	5.81	0.19
9	24 Sep 25	13:48	14:08	5.62	5.82	0.20
10	24 Sep 25	14:09	14:29	5.68	5.85	0.17
11	24 Sep 25	14:30	14:50	5.68	5.84	0.16
12	24 Sep 25	14:51	15:11	5.66	5.81	0.15
Average				5.67	5.83	0.16
Confidence Coefficient (CC)						-
Relative Accuracy (Compared in Actual) (%)						0.16
Relative Accuracy Criteria ^{1/} (%)						≤ 1%

Reference Method : US EPA Method 3A

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of O2 is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 3 (PS-3)

RA Result is within Criteria

Sampled By : Sathapron Thakarn

Technical Management

Wichan Choonharat
Manager
ทะเบียนเลขที่ 7-204-ก-0006

Approved by

Sarayuth Jitranont
Assistant General Manager
ทะเบียนเลขที่ 7-204-ก-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525772
Date Received : Sep 24, 2025
Date Reported : Sep 30, 2025
Report Number : 3261107-1

Page 1 of 1

Sample Number 2525772-1
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Measurement Date Sep 24, 2025

Stack Description	
Ambient Temperature 29.6 °C	Diameter 1.53 m
Ambient Pressure 755.3 mmHg	Shape Circle
Type of Process Combustion	Stack Temperature 198 °C
Type of Fuel Natural Gas	Moisture 11.28 %
Oxygen 5.78 %	Carbon dioxide 8.68 %
Gas Velocity 5.85 m/s	Flow Rate 21586 Nm3/hr

Run No.	Sampling Time	Oxygen (%)	Carbon Dioxide (%)	Oxides of Nitrogen (ppm)		Carbon Monoxide (ppm)	
				at Actual O ₂	at 7% O ₂	at Actual O ₂	at 7% O ₂
1	11:00 AM - 11:20 AM	5.70	8.71	14.97	13.69	12.91	11.81
2	11:21 AM - 11:41 AM	5.80	8.68	15.04	13.84	12.93	11.90
3	11:42 AM - 12:02 PM	5.86	8.64	14.87	13.74	14.18	13.10
Average (ppm)		5.78	8.68	14.96	13.76	13.34	12.27
Guideline ^{1/} (ppm)				-	200	-	690
Guideline ^{2/} (ppm)				-	25	-	-
Result (mg/Nm ³)				28.15	25.88	15.28	14.05
Emission Rate at Actual O ₂ (g/s)				0.1688		0.0916	
Method				US EPA Method 7E		US EPA Method 10	

Sampled By : Sathapron Thakarn

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)
^{2/} Emission Air Standard according to EIA study of SPE-PE Plant, Approval Letter No. Tor Sor 1009.9/2341 dated March 5, 2014 (B.E.2557)

Technical Management

Wichan Choonharat
Manager
ทะเบียนเลขที่ 7-204-ก-0006

Approved by

Sarayuth Jitranont
Assistant General Manager
ทะเบียนเลขที่ 7-204-ก-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 1 of 12

Sample Number 2525771-1
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	193	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 2 of 12

Sample Number 2525771-2
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	193	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 3 of 12

Sample Number 2525771-3
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	192	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

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

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Saranya Chalermtamrong
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Client : Siam Polyethylene Co., Ltd.

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P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 4 of 12

Sample Number 2525771-4
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	192	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

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

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P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

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Sample Number 2525771-5
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	193	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

Approved by

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P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 6 of 12

Sample Number 2525771-6
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	193	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 7 of 12

Sample Number 2525771-7
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	193	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :
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P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 8 of 12

Sample Number 2525771-8
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	193	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

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

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P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 9 of 12

Sample Number 2525771-9
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	196	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 10 of 12

Sample Number 2525771-10
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	199	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

- LOD : Limit of Detection
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Saranya Chalermtamrong
Scientist (4)

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P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 11 of 12

Sample Number 2525771-11
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	202	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

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Saranya Chalermtamrong
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Analysis / Test Report

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P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261105-1

Page 12 of 12

Sample Number 2525771-12
Sampled Date Sep 23, 2025
Sample Description Emission from Stationary Source
Location Furnace 1 (GPS 47P 0734130, 1404515)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	205	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

Approved by

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Saranya Chalermtamrong
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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
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P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525771
Date Received : Sep 24, 2025
Date Reported : Oct 17, 2025
Report Number : 3261105-2

Page 1 of 1

Sample Number : 2525771-1
Sampled Date : Sep 23, 2025
Sample Description : Emission from Stationary Source
Location : Furnace 1 (GPS 47P 0734130, 1404515)
Parameter : Stack Temperature

Relative Accuracy Test Audit Report

Run No.	Date	Time		Temperature Data		Difference
		Start	Stop	CEMs (°C)	RM (°C)	
1	23 Sep 25	12:30	12:50	192.2	193.0	0.8
2	23 Sep 25	12:51	13:11	192.2	192.8	0.6
3	23 Sep 25	13:12	13:32	191.9	192.3	0.3
4	23 Sep 25	13:33	13:53	191.8	192.0	0.2
5	23 Sep 25	13:54	14:14	191.9	192.6	0.7
6	23 Sep 25	14:15	14:35	191.8	192.7	0.9
7	23 Sep 25	14:36	14:56	193.3	192.6	-0.7
8	23 Sep 25	14:57	15:17	193.7	192.8	-1.0
9	23 Sep 25	15:18	15:38	197.2	196.1	-1.1
10*	23 Sep 25	15:39	15:59	201.0	199.3	-1.7
11*	23 Sep 25	16:00	16:20	204.6	202.3	-2.2
12*	23 Sep 25	16:21	16:41	203.6	204.8	1.2
Average				192.9	193.0	0.1
Confidence Coefficient (CC)						0.6
Relative Accuracy ^{1/} (Compared with RM) (%)						0.4
Relative Accuracy Criteria (Compared with RM)						≤ 20 %

Reference Method : US EPA Method 2

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of Stack Temperature is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 6 (PS-6)

RA Result is within Criteria

Sampled By : Jaradrawee Sriruksa

Technical Management



Wichan Choonharat
Manager

ทะเบียนเลขที่ 7-204-ก-0006

Approved by



Sarayuth Jitranont
Assistant General Manager

ทะเบียนเลขที่ 7-204-ก-0003

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773
Date Received : Sep 24, 2025
Date Reported : Sep 29, 2025
Report Number : 3261109-1

Page 1 of 12

Sample Number : 2525773-1
Sampled Date : Sep 24, 2025
Sample Description : Emission from Stationary Source
Location : Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced : Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	201	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

Approved by



Saranya Chalermthamrong
Scientist (4)

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Analysis / Test Report

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P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261109-1

Page 2 of 12

Sample Number 2525773-2
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	201	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261109-1

Page 3 of 12

Sample Number 2525773-3
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	202	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261109-1

Page 4 of 12

Sample Number 2525773-4
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	200	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

Approved by

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Saranya Chalermtamrong
Scientist (4)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261109-1

Page 5 of 12

Sample Number 2525773-5
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	202	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

Approved by

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Saranya Chalermtamrong
Scientist (4)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261109-1

Page 6 of 12

Sample Number 2525773-6
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	201	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

Approved by

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Saranya Chalermtamrong
Scientist (4)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261109-1

Page 7 of 12

Sample Number 2525773-7
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	201	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

Approved by

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Saranya Chalermtamrong
Scientist (4)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261109-1

Page 8 of 12

Sample Number 2525773-8
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	202	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

Approved by

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Scientist (4)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261109-1

Page 9 of 12

Sample Number 2525773-9
Sampled Date Sep 24, 2025
Sample Description Emission from Stationary Source
Location Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	204	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

Approved by

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773
Date Received : Sep 24, 2025
Date Reported : Sep 29, 2025
Report Number : 3261109-1

Page 10 of 12

Sample Number : 2525773-10
Sampled Date : Sep 24, 2025
Sample Description : Emission from Stationary Source
Location : Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced : Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	203	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

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

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773
Date Received : Sep 24, 2025
Date Reported : Sep 29, 2025
Report Number : 3261109-1

Page 11 of 12

Sample Number : 2525773-11
Sampled Date : Sep 24, 2025
Sample Description : Emission from Stationary Source
Location : Furnace 2 (GPS 47P 0734143, 1404493)
Date Analysis Commenced : Sep 26, 2025
Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	201	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

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

Approved by

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773

Date Received : Sep 24, 2025

Date Reported : Sep 29, 2025

Report Number : 3261109-1

Page 12 of 12

Sample Number 2525773-12

Sampled Date Sep 24, 2025

Sample Description Emission from Stationary Source

Location Furnace 2 (GPS 47P 0734143, 1404493)

Date Analysis Commenced Sep 26, 2025

Condition of Sample

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
Stack Temperature	Degree C	-	-	200	U.S. Environmental Protection Agency, EPA Method 2	Bangkok

Sampling By : Jaradrawee Sriruksa

Remark :

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

Approved by

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Saranya Chalermtamrong
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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2525773

Date Received : Sep 24, 2025

Date Reported : Oct 17, 2025

Report Number : 3261109-2

Page 1 of 1

Sample Number 2525773-1

Sampled Date Sep 24, 2025

Sample Description Emission from Stationary Source

Location Furnace 2 (GPS 47P 0734143, 1404493)

Parameter Stack Temperature

Relative Accuracy Test Audit Report

Run No.	Date	Time		Temperature Data		Difference
		Start	Stop	CEMs (°C)	RM (°C)	
1*	24 Sep 25	11:00	11:20	216.1	201.3	-14.8
2*	24 Sep 25	11:21	11:41	215.6	201.3	-14.2
3	24 Sep 25	11:42	12:02	215.1	201.5	-13.6
4*	24 Sep 25	12:03	12:23	215.3	200.2	-15.1
5	24 Sep 25	12:24	12:44	214.4	201.8	-12.6
6	24 Sep 25	12:45	13:05	213.7	200.7	-13.1
7	24 Sep 25	13:06	13:26	212.7	201.3	-11.4
8	24 Sep 25	13:27	13:47	213.5	202.5	-11.0
9	24 Sep 25	13:48	14:08	215.5	204.0	-11.5
10	24 Sep 25	14:09	14:29	214.6	203.2	-11.5
11	24 Sep 25	14:30	14:50	212.2	200.7	-11.5
12	24 Sep 25	14:51	15:11	213.3	200.0	-13.3
Average				213.9	201.7	-12.2
Confidence Coefficient (CC)						0.7
Relative Accuracy ^{1/} (Compared with RM) (%)						6.4
Relative Accuracy Criteria (Compared with RM)						≤ 20 %

Reference Method : US EPA Method 2

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of Stack Temperature is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 6 (PS-6)

RA Result is within Criteria

Sampled By : Jaradrawee Sriruksa

Technical Management

Wichan Choonharat

Wichan Choonharat
Manager

เบอร์โทรภายใน 2-204-0-0006

Approved by

Sarayuth Jitranont

Sarayuth Jitranont
Assistant General Manager

เบอร์โทรภายใน 2-204-0-0003

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ภาคผนวก ค-2

คุณภาพอากาศในบรรยากาศ



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2587971

Date Received : Sep 29, 2025

Date Reported : Oct 07, 2025

Report Number: 3409354-1C5

Page 1 of 1

Sample Description	Air Quality						
Location	บ้านฉางประจักษ์ (โรงงานผลิตเส้นพลาสติกผ้าม้วน) (GPS 47P 0735531, 1402769)						
Parameter	Nitrogen dioxide (ppm)						
Measurement Date	Sep 22, 2025 - Sep 29, 2025						
Measurement by	Nontachai Uppathamp						
Time	2587971-1 Sep 22, 2025	2587971-2 Sep 23, 2025	2587971-3 Sep 24, 2025	2587971-4 Sep 25, 2025	2587971-5 Sep 26, 2025	2587971-6 Sep 27, 2025	2587971-7 Sep 28, 2025
10:00 AM - 11:00 AM	0.0071	0.0076	0.0067	0.0078	0.0080	0.0088	0.0124
11:00 AM - 12:00 PM	0.0054	0.0090	0.0070	0.0087	0.0080	0.0094	0.0113
12:00 PM - 01:00 PM	0.0071	0.0080	0.0075	0.0075	0.0073	0.0116	0.0105
01:00 PM - 02:00 PM	0.0063	0.0073	0.0069	0.0067	0.0071	0.0273	0.0106
02:00 PM - 03:00 PM	0.0070	0.0072	0.0065	0.0072	0.0068	0.0080	0.0088
03:00 PM - 04:00 PM	0.0073	0.0068	0.0064	0.0063	0.0068	0.0068	0.0098
04:00 PM - 05:00 PM	0.0076	0.0067	0.0064	0.0068	0.0068	0.0077	0.0096
05:00 PM - 06:00 PM	0.0078	0.0067	0.0067	0.0067	0.0067	0.0072	0.0076
06:00 PM - 07:00 PM	0.0086	0.0077	0.0076	0.0084	0.0073	0.0075	0.0074
07:00 PM - 08:00 PM	0.0084	0.0075	0.0067	0.0073	0.0067	0.0077	0.0065
08:00 PM - 09:00 PM	0.0073	0.0070	0.0065	0.0093	0.0066	0.0086	0.0061
09:00 PM - 10:00 PM	0.0076	0.0063	0.0072	0.0067	0.0057	0.0131	0.0062
10:00 PM - 11:00 PM	0.0053	0.0059	0.0100	0.0059	0.0053	0.0074	0.0060
11:00 PM - 12:00 AM	0.0053	0.0053	0.0126	0.0060	0.0052	0.0077	0.0058
12:00 AM - 01:00 AM	0.0054	0.0057	0.0063	0.0058	0.0058	0.0081	0.0057
01:00 AM - 02:00 AM	0.0058	0.0056	0.0065	0.0059	0.0057	0.0074	0.0055
02:00 AM - 03:00 AM	0.0076	0.0058	0.0061	0.0056	0.0059	0.0074	0.0054
03:00 AM - 04:00 AM	0.0067	0.0053	0.0055	0.0056	0.0056	0.0070	0.0055
04:00 AM - 05:00 AM	0.0066	0.0052	0.0054	0.0058	0.0059	0.0066	0.0062
05:00 AM - 06:00 AM	0.0059	0.0055	0.0054	0.0057	0.0072	0.0063	0.0059
06:00 AM - 07:00 AM	0.0058	0.0061	0.0063	0.0064	0.0070	0.0092	0.0061
07:00 AM - 08:00 AM	0.0079	0.0073	0.0083	0.0076	0.0070	0.0100	0.0069
08:00 AM - 09:00 AM	0.0106	0.0084	0.0090	0.0105	0.0076	0.0091	0.0089
09:00 AM - 10:00 AM	0.0085	0.0073	0.0077	0.0102	0.0087	0.0124	0.0074
Average	0.0070	0.0067	0.0071	0.0071	0.0067	0.0093	0.0076
1hr - Maximum	0.0106	0.0090	0.0126	0.0105	0.0087	0.0273	0.0124
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).

Reference Method : U.S. Environmental Protection Agency Method Part 50 App. F (Chemiluminescence)

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.

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2587975

Date Received : Sep 29, 2025

Date Reported : Oct 07, 2025

Report Number: 3409357-1C5

Page 1 of 1

Sample Description	Air Quality						
Location	บ้านฉางประจักษ์ (GPS 47P 0735346, 1406705)						
Parameter	Nitrogen dioxide (ppm)						
Measurement Date	Sep 22, 2025 - Sep 29, 2025						
Measurement by	Nontachai Uppathamp						
Time	2587975-1 Sep 22, 2025	2587975-2 Sep 23, 2025	2587975-3 Sep 24, 2025	2587975-4 Sep 25, 2025	2587975-5 Sep 26, 2025	2587975-6 Sep 27, 2025	2587975-7 Sep 28, 2025
09:00 AM - 10:00 AM	0.0085	0.0061	0.0062	0.0044	0.0087	0.0036	0.0047
10:00 AM - 11:00 AM	0.0055	0.0040	0.0044	0.0043	0.0053	0.0026	0.0031
11:00 AM - 12:00 PM	0.0042	0.0029	0.0031	0.0039	0.0030	0.0025	0.0002
12:00 PM - 01:00 PM	0.0041	0.0035	0.0031	0.0027	0.0027	0.0020	0.0029
01:00 PM - 02:00 PM	0.0039	0.0046	0.0029	0.0031	0.0022	0.0020	0.0024
02:00 PM - 03:00 PM	0.0039	0.0043	0.0026	0.0032	0.0021	0.0017	0.0021
03:00 PM - 04:00 PM	0.0038	0.0034	0.0024	0.0036	0.0019	0.0015	0.0013
04:00 PM - 05:00 PM	0.0040	0.0033	0.0033	0.0033	0.0022	0.0017	0.0015
05:00 PM - 06:00 PM	0.0043	0.0036	0.0050	0.0045	0.0035	0.0045	0.0014
06:00 PM - 07:00 PM	0.0043	0.0033	0.0056	0.0034	0.0047	0.0034	0.0013
07:00 PM - 08:00 PM	0.0049	0.0029	0.0034	0.0042	0.0048	0.0072	0.0016
08:00 PM - 09:00 PM	0.0069	0.0030	0.0042	0.0069	0.0033	0.0059	0.0019
09:00 PM - 10:00 PM	0.0080	0.0041	0.0087	0.0063	0.0026	0.0055	0.0027
10:00 PM - 11:00 PM	0.0041	0.0030	0.0034	0.0037	0.0023	0.0054	0.0079
11:00 PM - 12:00 AM	0.0023	0.0022	0.0029	0.0031	0.0041	0.0030	0.0034
12:00 AM - 01:00 AM	0.0039	0.0020	0.0025	0.0023	0.0023	0.0022	0.0023
01:00 AM - 02:00 AM	0.0023	0.0020	0.0024	0.0040	0.0025	0.0040	0.0010
02:00 AM - 03:00 AM	0.0025	0.0023	0.0024	0.0015	0.0019	0.0055	0.0019
03:00 AM - 04:00 AM	0.0027	0.0018	0.0021	0.0017	0.0069	0.0039	0.0010
04:00 AM - 05:00 AM	0.0049	0.0034	0.0067	0.0013	0.0022	0.0033	0.0007
05:00 AM - 06:00 AM	0.0035	0.0026	0.0047	0.0020	0.0028	0.0023	0.0004
06:00 AM - 07:00 AM	0.0041	0.0051	0.0026	0.0024	0.0036	0.0024	0.0006
07:00 AM - 08:00 AM	0.0092	0.0054	0.0103	0.0036	0.0035	0.0090	0.0032
08:00 AM - 09:00 AM	0.0070	0.0085	0.0113	0.0049	0.0031	0.0076	0.0040
Average	0.0047	0.0036	0.0044	0.0035	0.0034	0.0039	0.0022
1hr - Maximum	0.0092	0.0085	0.0113	0.0069	0.0087	0.0090	0.0079
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).

Reference Method : U.S. Environmental Protection Agency Method Part 50 App. F (Chemiluminescence)

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

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6506-83/EMAIL



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2587994

Date Received : Sep 29, 2025

Date Reported : Oct 03, 2025

Report Number: 3417799-1

Page 1 of 1

Sample Description	Air Quality						
Location	ศูนย์บริการสาธารณสุขวัดโสมนัส (โรงพยาบาลส่งเสริมสุขภาพตำบลสมนาทศ)						
Parameter	Nitrogen dioxide (ppm)						
Measurement Date	Sep 22, 2025 - Sep 29, 2025						
Measurement by	Nontachai Uppathamp						
Time	2587994-1 Sep 22, 2025	2587994-2 Sep 23, 2025	2587994-3 Sep 24, 2025	2587994-4 Sep 25, 2025	2587994-5 Sep 26, 2025	2587994-6 Sep 27, 2025	2587994-7 Sep 28, 2025
09:00 AM - 10:00 AM	0.0012	0.0012	0.0045	0.0024	0.0023	0.0031	0.0025
10:00 AM - 11:00 AM	0.0012	0.0013	0.0044	0.0024	0.0029	0.0029	0.0101
11:00 AM - 12:00 PM	0.0015	0.0014	0.0044	0.0027	0.0034	0.0032	0.0025
12:00 PM - 01:00 PM	0.0015	0.0012	0.0041	0.0034	0.0022	0.0024	0.0023
01:00 PM - 02:00 PM	0.0018	0.0015	0.0039	0.0035	0.0026	0.0018	0.0018
02:00 PM - 03:00 PM	0.0014	0.0016	0.0030	0.0025	0.0022	0.0014	0.0026
03:00 PM - 04:00 PM	0.0017	0.0017	0.0025	0.0024	0.0017	0.0019	0.0031
04:00 PM - 05:00 PM	0.0014	0.0014	0.0018	0.0037	0.0020	0.0022	0.0016
05:00 PM - 06:00 PM	0.0016	0.0018	0.0024	0.0023	0.0019	0.0019	0.0018
06:00 PM - 07:00 PM	0.0013	0.0010	0.0019	0.0020	0.0017	0.0020	0.0019
07:00 PM - 08:00 PM	0.0013	0.0017	0.0019	0.0022	0.0016	0.0011	0.0014
08:00 PM - 09:00 PM	0.0012	0.0014	0.0018	0.0018	0.0018	0.0015	0.0014
09:00 PM - 10:00 PM	0.0011	0.0013	0.0014	0.0018	0.0017	0.0016	0.0014
10:00 PM - 11:00 PM	0.0010	0.0012	0.0015	0.0017	0.0015	0.0018	0.0014
11:00 PM - 12:00 AM	0.0008	0.0011	0.0018	0.0015	0.0023	0.0019	0.0016
12:00 AM - 01:00 AM	0.0013	0.0014	0.0023	0.0018	0.0017	0.0018	0.0012
01:00 AM - 02:00 AM	0.0018	0.0014	0.0035	0.0034	0.0034	0.0024	0.0016
02:00 AM - 03:00 AM	0.0018	0.0017	0.0035	0.0030	0.0035	0.0018	0.0028
03:00 AM - 04:00 AM	0.0013	0.0013	0.0033	0.0025	0.0024	0.0020	0.0021
04:00 AM - 05:00 AM	0.0013	0.0010	0.0029	0.0026	0.0018	0.0025	0.0021
05:00 AM - 06:00 AM	0.0016	0.0035	0.0033	0.0030	0.0017	0.0030	0.0016
06:00 AM - 07:00 AM	0.0010	0.0031	0.0031	0.0023	0.0029	0.0026	0.0012
07:00 AM - 08:00 AM	0.0012	0.0030	0.0027	0.0024	0.0031	0.0023	0.0015
08:00 AM - 09:00 AM	0.0011	0.0039	0.0022	0.0028	0.0025	0.0042	0.0010
Average	0.0014	0.0017	0.0028	0.0025	0.0023	0.0022	0.0022
1hr - Maximum	0.0018	0.0039	0.0045	0.0037	0.0035	0.0042	0.0101
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).

Reference Method : U.S. Environmental Protection Agency Method Part 50 App. F (Chemiluminescence)

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2587994

Date Received : Sep 29, 2025

Date Reported : Oct 03, 2025

Report Number: 3409391-1

Page 1 of 1

Sample Description	Air Quality							
Location	ศูนย์วิจัยฟาร์มไร่ จังหวัดระยอง (GPS 47P 0731794, 1408788)							
Parameter	Nitrogen dioxide (ppm)							
Measurement Date	Sep 22, 2025 - Sep 29, 2025							
Measurement by	Nontachai Uppathamp							
	2587994-8	2587994-9	2587994-10	2587994-11	2587994-12	2587994-13	2587994-14	
Time	Sep 22, 2025	Sep 23, 2025	Sep 24, 2025	Sep 25, 2025	Sep 26, 2025	Sep 27, 2025	Sep 28, 2025	
12:00 PM - 01:00 PM	0.0008	0.0016	0.0039	0.0024	0.0035	0.0033	0.0017	
01:00 PM - 02:00 PM	0.0004	0.0020	0.0025	0.0014	0.0054	0.0022	0.0012	
02:00 PM - 03:00 PM	0.0017	0.0025	0.0021	0.0022	0.0039	0.0016	0.0013	
03:00 PM - 04:00 PM	0.0014	0.0033	0.0020	0.0029	0.0025	0.0014	0.0012	
04:00 PM - 05:00 PM	0.0015	0.0030	0.0020	0.0025	0.0034	0.0017	0.0014	
05:00 PM - 06:00 PM	0.0014	0.0038	0.0025	0.0031	0.0023	0.0023	0.0015	
06:00 PM - 07:00 PM	0.0014	0.0034	0.0031	0.0030	0.0053	0.0037	0.0014	
07:00 PM - 08:00 PM	0.0017	0.0037	0.0038	0.0047	0.0053	0.0066	0.0016	
08:00 PM - 09:00 PM	0.0014	0.0028	0.0078	0.0059	0.0049	0.0031	0.0017	
09:00 PM - 10:00 PM	0.0013	0.0025	0.0046	0.0066	0.0031	0.0061	0.0015	
10:00 PM - 11:00 PM	0.0020	0.0028	0.0044	0.0045	0.0032	0.0045	0.0016	
11:00 PM - 12:00 AM	0.0017	0.0025	0.0037	0.0021	0.0019	0.0018	0.0013	
12:00 AM - 01:00 AM	0.0013	0.0027	0.0035	0.0019	0.0027	0.0015	0.0016	
01:00 AM - 02:00 AM	0.0011	0.0018	0.0022	0.0021	0.0019	0.0019	0.0016	
02:00 AM - 03:00 AM	0.0012	0.0016	0.0024	0.0020	0.0015	0.0015	0.0015	
03:00 AM - 04:00 AM	0.0012	0.0013	0.0026	0.0016	0.0017	0.0019	0.0012	
04:00 AM - 05:00 AM	0.0012	0.0018	0.0013	0.0020	0.0013	0.0017	0.0015	
05:00 AM - 06:00 AM	0.0019	0.0023	0.0018	0.0018	0.0014	0.0010	0.0016	
06:00 AM - 07:00 AM	0.0019	0.0031	0.0037	0.0014	0.0020	0.0014	0.0023	
07:00 AM - 08:00 AM	0.0026	0.0044	0.0062	0.0038	0.0015	0.0025	0.0057	
08:00 AM - 09:00 AM	0.0038	0.0135	0.0145	0.0085	0.0048	0.0054	0.0109	
09:00 AM - 10:00 AM	0.0035	0.0152	0.0166	0.0134	0.0058	0.0099	0.0144	
10:00 AM - 11:00 AM	0.0027	0.0060	0.0043	0.0093	0.0050	0.0065	0.0074	
11:00 AM - 12:00 PM	0.0023	0.0089	0.0024	0.0056	0.0037	0.0021	0.0040	
Average	0.0017	0.0040	0.0043	0.0039	0.0032	0.0032	0.0030	
1hr - Maximum	0.0038	0.0152	0.0166	0.0134	0.0058	0.0099	0.0144	
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170	

Standard : Notification of the National Environment Board No. 33, 2009 (B.E. 2552).

Reference Method : U.S. Environmental Protection Agency Method Part 50 App. F (Chemiluminescence)

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2587984

Date Received : Sep 29, 2025

Date Reported : Oct 03, 2025

Report Number : 3409377-1 C5

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Sample Number : 2587984-1 to 7

Parameter : Wind Speed / Wind Direction

Location : บ้านฉางประจักษ์ (โรงพยาบาลส่งเสริมสุขภาพตำบลตากวน) (GPS 47P 0735531, 1402769)

Sampling Date : Sep 22 - Sep 29, 2025

Sampling by : Nontachai Uppathamp

Time	Sep 22 - Sep 23, 2025		Sep 23 - Sep 24, 2025		Sep 24 - Sep 25, 2025		Sep 25 - Sep 26, 2025		Sep 26 - Sep 27, 2025		Sep 27 - Sep 28, 2025		Sep 28 - Sep 29, 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)
10:00 AM - 11:00 AM	1.2	311.0	NW	0.4	133.0	SE	0.5	175.0	S	1.6	330.0	NNW	1.2	201.0
11:00 AM - 12:00 PM	0.1	-	-	0.0	-	-	1.4	244.0	WSW	2.6	208.0	SSW	0.0	-
12:00 PM - 01:00 PM	0.3	191.0	S	2.6	271.0	W	2.3	301.0	WNW	0.4	287.0	WNW	0.0	-
01:00 PM - 02:00 PM	3.3	304.0	NW	0.4	179.0	S	0.5	184.0	S	0.8	107.0	ESE	0.7	62.0
02:00 PM - 03:00 PM	2.4	161.0	SSE	2.3	233.0	SW	1.5	178.0	S	2.1	206.0	SSW	0.5	179.0
03:00 PM - 04:00 PM	1.5	178.0	S	1.3	160.0	SSE	0.0	-	-	1.5	172.0	S	1.0	177.0
04:00 PM - 05:00 PM	0.4	118.0	ESE	1.0	169.0	S	0.8	120.0	ESE	0.0	-	-	0.0	-
05:00 PM - 06:00 PM	0.6	179.0	S	2.5	223.0	SW	0.3	124.0	SE	1.6	219.0	SW	0.6	175.0
06:00 PM - 07:00 PM	1.1	132.0	SE	0.5	183.0	S	0.0	-	-	0.0	-	-	0.0	-
07:00 PM - 08:00 PM	0.4	150.0	SSE	1.2	210.0	SSW	0.0	-	-	0.0	-	-	0.0	-
08:00 PM - 09:00 PM	0.0	-	-	0.5	198.0	SSW	0.1	-	-	1.3	132.0	SE	0.0	-
09:00 PM - 10:00 PM	0.0	-	-	0.3	306.0	NW	0.3	202.0	SSW	0.8	206.0	SSW	0.0	-
10:00 PM - 11:00 PM	0.0	-	-	0.6	111.0	ESE	0.0	-	-	0.9	222.0	SW	2.2	202.0
11:00 PM - 12:00 AM	2.2	215.0	SW	0.6	245.0	WSW	0.0	-	-	0.6	241.0	WSW	1.0	197.0
12:00 AM - 01:00 AM	0.0	-	-	0.2	-	-	0.0	-	-	2.1	227.0	SW	0.0	-
01:00 AM - 02:00 AM	0.5	292.0	WNW	2.4	220.0	SW	0.0	-	-	0.9	315.0	NW	0.0	-
02:00 AM - 03:00 AM	1.2	303.0	WNW	0.4	178.0	S	0.0	-	-	4.2	258.0	WSW	0.0	-
03:00 AM - 04:00 AM	0.8	326.0	NW	0.0	-	-	1.3	239.0	WSW	0.5	120.0	ESE	0.0	-
04:00 AM - 05:00 AM	0.7	297.0	WNW	0.1	-	-	1.6	203.0	SSW	0.4	241.0	WSW	0.0	-
05:00 AM - 06:00 AM	1.0	142.0	SE	0.3	164.0	SSE	0.8	151.0	SSE	1.2	137.0	SE	0.0	-
06:00 AM - 07:00 AM	0.5	139.0	SE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-
07:00 AM - 08:00 AM	0.7	198.0	SSW	2.1	204.0	SSW	1.1	187.0	S	0.0	-	-	0.0	-
08:00 AM - 09:00 AM	0.7	206.0	SSW	0.0	-	-	0.0	-	-	0.0	-	-	1.2	299.0
09:00 AM - 10:00 AM	1.0	199.0	SSW	1.6	207.0	SSW	1.0	230.0	SW	0.6	221.0	SW	0.0	-

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 Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2587984

Date Received : Sep 29, 2025

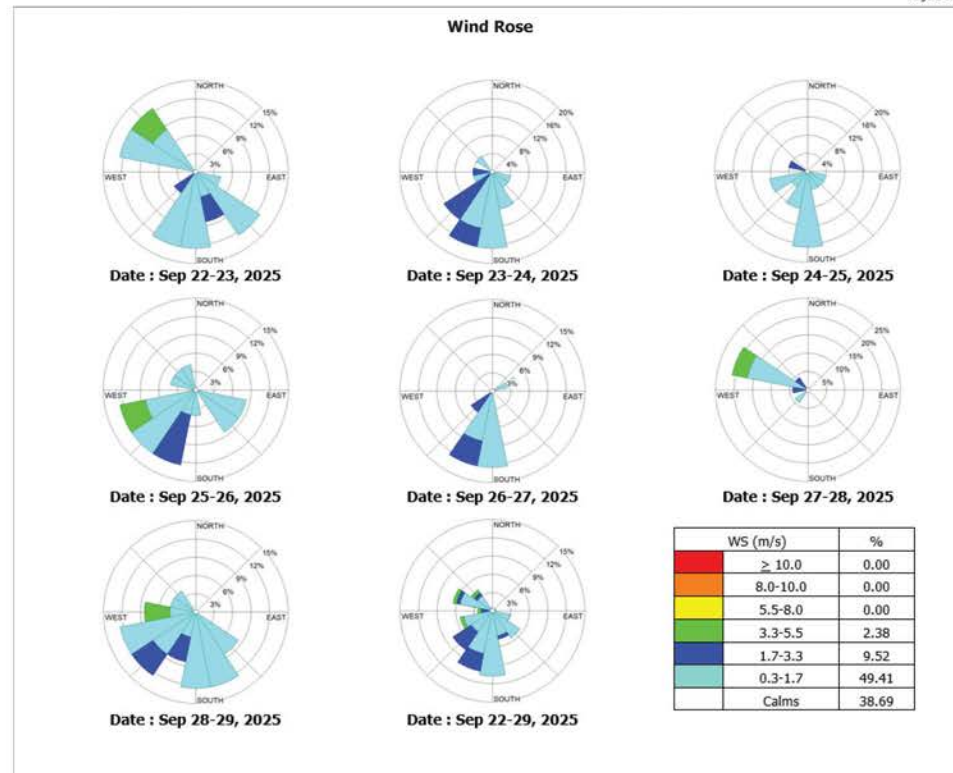
Date Reported : Oct 03, 2025

Report Number : 3409377-1 C5

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)



Location : บ้านฉางประจักษ์ (โรงพยาบาลส่งเสริมสุขภาพตำบลตากวน) (GPS 47P 0735531, 1402769)

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.

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2587988

Date Received : Sep 29, 2025

Date Reported : Oct 03, 2025

Report Number : 3409379-1 CS

Sample Number : 2587988-1 to 7

Parameter : Wind Speed / Wind Direction

Location : บ้านนาหว้า (GPS 47P 0735346, 1406705)

Sampling Date : Sep 22 - Sep 29, 2025

Sampling by : Nontachai Uppathamp

Time	Sep 22 - Sep 23, 2025			Sep 23 - Sep 24, 2025			Sep 24 - Sep 25, 2025			Sep 25 - Sep 26, 2025			Sep 26 - Sep 27, 2025			Sep 27 - Sep 28, 2025			Sep 28 - Sep 29, 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)	
09:00 AM - 10:00 AM	2.9	170.0	S	1.8	121.0	ESE	2.2	170.0	S	2.1	120.0	ESE	2.1	92.0	E	0.6	0.0	N	1.5	63.0	ENE
10:00 AM - 11:00 AM	1.6	134.0	SE	3.3	125.0	SE	0.9	117.0	ESE	2.9	121.0	ESE	2.3	84.0	E	2.2	223.0	SW	0.6	162.0	SSE
11:00 AM - 12:00 PM	3.2	161.0	SSE	3.2	188.0	S	5.0	86.0	E	3.0	137.0	SE	2.4	84.0	E	1.9	134.0	SE	2.6	117.0	ESE
12:00 PM - 01:00 PM	2.3	125.0	SE	1.3	136.0	SE	2.3	120.0	ESE	2.2	111.0	ESE	5.8	129.0	SE	2.3	169.0	S	9.6	53.0	NE
01:00 PM - 02:00 PM	2.8	69.0	ENE	2.6	118.0	ESE	2.3	101.0	E	2.7	123.0	ESE	1.9	127.0	SE	4.8	0.0	N	3.3	93.0	E
02:00 PM - 03:00 PM	2.1	128.0	SE	1.8	133.0	SE	1.8	110.0	ESE	2.0	86.0	E	0.4	100.0	E	2.6	206.0	SSW	1.7	204.0	SSW
03:00 PM - 04:00 PM	2.0	132.0	SE	1.0	120.0	ESE	1.7	85.0	E	2.8	127.0	SE	4.3	143.0	SE	1.3	106.0	ESE	0.0	-	-
04:00 PM - 05:00 PM	0.8	145.0	SE	1.4	93.0	E	1.5	106.0	ESE	1.7	103.0	ESE	2.2	65.0	ENE	0.9	0.0	N	0.6	161.0	SSE
05:00 PM - 06:00 PM	1.1	120.0	ESE	0.6	112.0	ESE	2.4	102.0	ESE	4.8	144.0	SE	1.5	81.0	E	0.4	92.0	E	1.5	128.0	SE
06:00 PM - 07:00 PM	5.3	166.0	SSE	4.4	91.0	E	1.3	134.0	SE	2.1	113.0	ESE	1.6	139.0	SE	0.0	-	-	1.8	72.0	ENE
07:00 PM - 08:00 PM	2.9	126.0	SE	2.0	98.0	E	1.2	128.0	SE	0.6	107.0	ESE	1.2	119.0	ESE	0.8	0.0	N	2.1	86.0	E
08:00 PM - 09:00 PM	1.1	95.0	E	1.0	97.0	E	0.4	137.0	SE	1.3	90.0	E	1.0	98.0	E	2.0	117.0	ESE	1.1	129.0	SE
09:00 PM - 10:00 PM	2.0	126.0	SE	0.0	-	-	0.0	-	-	1.4	103.0	ESE	0.0	-	-	1.9	56.0	NE	2.9	116.0	ESE
10:00 PM - 11:00 PM	4.0	129.0	SE	4.0	128.0	SE	1.2	153.0	SSE	2.8	103.0	ESE	1.5	101.0	E	3.0	0.0	N	1.5	141.0	SE
11:00 PM - 12:00 AM	2.7	109.0	ESE	3.0	101.0	E	4.4	134.0	SE	5.2	134.0	SE	1.8	148.0	SSE	1.1	0.0	N	5.7	138.0	SE
12:00 AM - 01:00 AM	0.8	125.0	SE	5.3	80.0	E	0.4	111.0	ESE	1.3	103.0	ESE	1.8	111.0	ESE	0.0	-	-	0.9	97.0	E
01:00 AM - 02:00 AM	0.9	137.0	SE	2.2	126.0	SE	0.7	153.0	SSE	0.6	91.0	E	1.4	0.0	N	1.2	0.0	N	1.2	115.0	ESE
02:00 AM - 03:00 AM	0.3	118.0	ESE	0.5	161.0	SSE	1.6	137.0	SE	2.4	120.0	ESE	1.3	114.0	ESE	1.4	0.0	N	0.9	122.0	ESE
03:00 AM - 04:00 AM	2.8	96.0	E	1.8	104.0	ESE	0.7	124.0	SE	3.9	77.0	ENE	0.0	-	-	0.0	-	-	1.6	133.0	SE
04:00 AM - 05:00 AM	1.2	133.0	SE	1.0	111.0	ESE	3.8	118.0	ESE	1.9	79.0	E	0.0	-	-	2.3	0.0	N	0.9	108.0	ESE
05:00 AM - 06:00 AM	0.8	120.0	ESE	0.9	107.0	ESE	0.0	-	-	3.9	123.0	ESE	1.5	0.0	N	0.0	-	-	1.3	109.0	ESE
06:00 AM - 07:00 AM	0.0	-	-	1.4	146.0	SE	1.6	90.0	E	1.4	114.0	ESE	3.1	60.0	ENE	1.5	0.0	N	1.3	138.0	SE
07:00 AM - 08:00 AM	1.8	93.0	E	1.0	131.0	SE	1.1	100.0	E	1.2	110.0	ESE	2.0	0.0	N	2.4	0.0	N	1.0	145.0	SE
08:00 AM - 09:00 AM	0.9	122.0	ESE	0.9	86.0	E	0.6	116.0	ESE	1.2	117.0	ESE	0.0	-	-	1.9	0.0	N	1.5	165.0	SSE

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

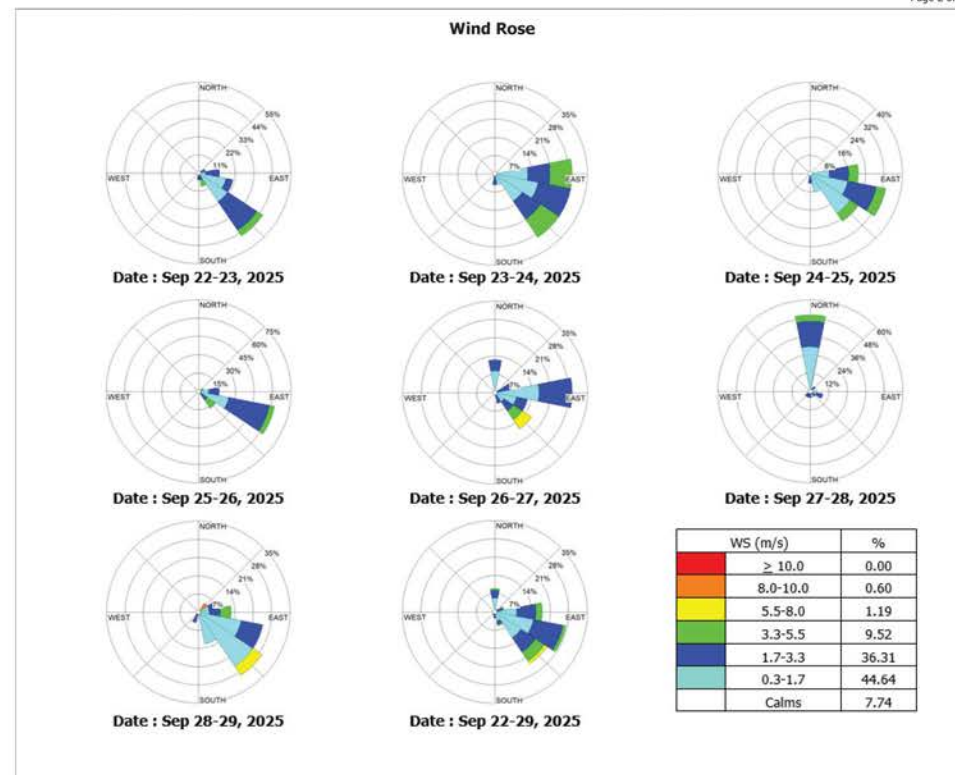
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2587988

Date Received : Sep 29, 2025

Date Reported : Oct 03, 2025

Report Number : 3409379-1 CS



Location : บ้านนาหว้า (GPS 47P 0735346, 1406705)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut, PE (SPE)

Lot ID: 2587998

Date Received : Sep 29, 2025

Date Reported : Oct 03, 2025

Report Number : 3409399-1

Sample Number : 2587998-1 to 7

Parameter : Wind Speed / Wind Direction

Location : ศูนย์บริการสาธารณสุขวัดโสมกัญ (โรงพยาบาลส่งเสริมสุขภาพตำบลบางตาหลวง) (GPS 47P 0735187, 1405873)

Sampling Date : Sep 22 - Sep 29, 2025

Sampling by : Nontachai Uppathamp

Time	Sep 22 - Sep 23, 2025		Sep 23 - Sep 24, 2025		Sep 24 - Sep 25, 2025		Sep 25 - Sep 26, 2025		Sep 26 - Sep 27, 2025		Sep 27 - Sep 28, 2025		Sep 28 - Sep 29, 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)
09:00 AM - 10:00 AM	3.1	201.0	SSW	1.6	193.0	SSW	2.6	253.0	WSW	4.5	260.0	W	3.3	165.0
10:00 AM - 11:00 AM	3.1	216.0	SW	1.0	73.0	ENE	4.8	214.0	SW	3.8	206.0	SSW	2.8	270.0
11:00 AM - 12:00 PM	1.3	167.0	SSE	5.1	174.0	S	3.4	197.0	SSW	3.4	213.0	SSW	2.7	234.0
12:00 PM - 01:00 PM	4.8	222.0	SW	1.8	175.0	S	2.1	118.0	ESE	1.7	185.0	S	0.5	173.0
01:00 PM - 02:00 PM	3.4	204.0	SSW	2.6	198.0	SSW	2.3	195.0	SSW	2.3	273.0	W	1.1	174.0
02:00 PM - 03:00 PM	1.5	239.0	WSW	4.6	209.0	SSW	1.8	189.0	S	1.1	148.0	SSE	1.2	164.0
03:00 PM - 04:00 PM	2.9	161.0	SSE	3.9	227.0	SW	2.6	190.0	S	2.7	181.0	S	1.7	288.0
04:00 PM - 05:00 PM	2.0	202.0	SSW	1.7	172.0	S	1.6	226.0	SW	3.1	272.0	W	2.2	266.0
05:00 PM - 06:00 PM	0.3	153.0	SSE	0.6	118.0	ESE	1.7	242.0	WSW	1.6	265.0	W	4.2	219.0
06:00 PM - 07:00 PM	0.9	168.0	SSE	2.5	162.0	SSE	2.6	143.0	SE	1.7	264.0	W	2.3	183.0
07:00 PM - 08:00 PM	1.2	191.0	S	2.0	235.0	SW	1.7	257.0	WSW	3.2	218.0	SW	1.9	194.0
08:00 PM - 09:00 PM	0.3	151.0	SSE	3.3	220.0	SW	1.5	294.0	WNW	1.7	192.0	SSW	0.6	193.0
09:00 PM - 10:00 PM	0.8	123.0	ESE	1.3	188.0	S	0.8	4.0	N	4.2	193.0	SSW	0.8	151.0
10:00 PM - 11:00 PM	5.1	208.0	SSW	2.6	161.0	SSE	1.2	227.0	SW	1.7	226.0	SW	1.8	256.0
11:00 PM - 12:00 AM	1.6	313.0	NW	3.6	235.0	SW	2.0	233.0	SW	2.9	271.0	W	2.4	213.0
12:00 AM - 01:00 AM	0.5	278.0	W	3.0	217.0	SW	1.3	226.0	SW	3.4	236.0	SW	1.4	220.0
01:00 AM - 02:00 AM	0.9	296.0	WNW	0.9	229.0	SW	1.1	182.0	S	1.2	180.0	S	0.9	337.0
02:00 AM - 03:00 AM	1.5	267.0	W	0.9	268.0	W	1.0	204.0	SSW	2.7	200.0	SSW	1.1	251.0
03:00 AM - 04:00 AM	0.3	299.0	WNW	2.1	207.0	SSW	2.9	275.0	W	5.3	239.0	WSW	0.4	261.0
04:00 AM - 05:00 AM	1.3	178.0	S	0.6	229.0	SW	3.6	223.0	SW	1.3	263.0	W	0.8	346.0
05:00 AM - 06:00 AM	0.7	287.0	WNW	3.4	246.0	WSW	1.0	210.0	SSW	1.8	204.0	SSW	0.5	341.0
06:00 AM - 07:00 AM	1.8	233.0	SW	3.0	265.0	W	0.7	238.0	WSW	0.8	232.0	SW	0.8	7.0
07:00 AM - 08:00 AM	1.8	184.0	S	3.0	252.0	WSW	4.7	213.0	WSW	1.7	188.0	S	0.3	339.0
08:00 AM - 09:00 AM	0.5	248.0	WSW	1.8	219.0	SW	2.9	202.0	SSW	1.3	200.0	SSW	0.3	344.0

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

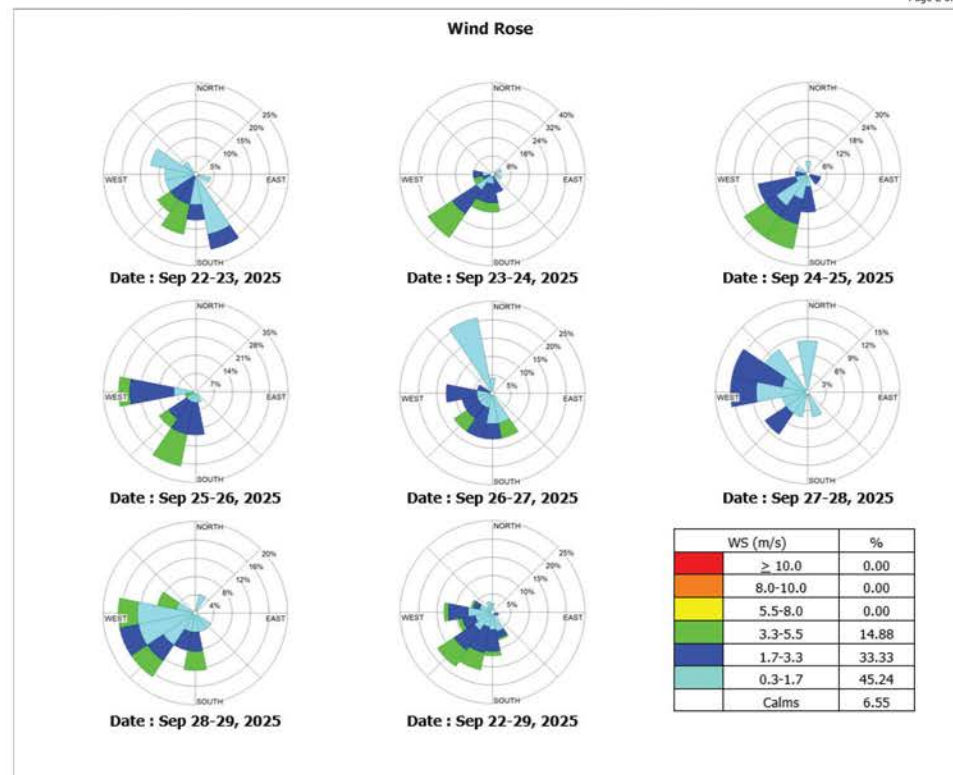
Project Location : Map Ta Phut, PE (SPE)

Lot ID: 2587998

Date Received : Sep 29, 2025

Date Reported : Oct 03, 2025

Report Number : 3409399-1



Location : ศูนย์บริการสาธารณสุขวัดโสมกัญ (โรงพยาบาลส่งเสริมสุขภาพตำบลบางตาหลวง) (GPS 47P 0735187, 1405873)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut, PE (SPE)

Lot ID: 2587998

Date Received : Sep 29, 2025

Date Reported : Oct 03, 2025

Report Number : 3409399-1

Sample Number : 2587998-8 to 14
Parameter : Wind Speed / Wind Direction
Location : ศูนย์วิจัยปิโตรฯ จังหวัดระยอง (GPS 47P 0731794, 1408788)
Sampling Date : Sep 22 - Sep 29, 2025
Sampling by : Nontachai Uppathamp

Time	Sep 22 - Sep 23, 2025			Sep 23 - Sep 24, 2025			Sep 24 - Sep 25, 2025			Sep 25 - Sep 26, 2025			Sep 26 - Sep 27, 2025			Sep 27 - Sep 28, 2025			Sep 28 - Sep 29, 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	0.0	-	-	1.1	99.0	E	1.2	225.0	SW	2.6	245.0	WSW	0.9	178.0	S	2.0	239.0	WSW	2.9	318.0	NW
01:00 PM - 02:00 PM	0.0	-	-	0.7	203.0	SSW	2.1	207.0	SSW	1.1	183.0	S	0.9	202.0	SSW	1.2	254.0	WSW	2.2	246.0	WSW
02:00 PM - 03:00 PM	0.0	-	-	0.5	175.0	S	0.5	144.0	SE	0.7	144.0	SE	0.8	237.0	WSW	1.8	246.0	WSW	1.7	225.0	SW
03:00 PM - 04:00 PM	0.6	156.0	SSE	0.8	208.0	SSW	0.0	-	-	0.2	-	-	0.8	195.0	SSW	1.4	276.0	W	0.9	223.0	SW
04:00 PM - 05:00 PM	0.5	182.0	S	0.2	-	-	1.9	245.0	WSW	0.9	231.0	SW	0.2	-	-	0.0	-	-	0.8	203.0	SSW
05:00 PM - 06:00 PM	0.0	-	-	0.4	185.0	S	0.7	212.0	SSW	0.4	206.0	SSW	0.3	197.0	SSW	0.1	-	-	0.7	228.0	SW
06:00 PM - 07:00 PM	0.0	-	-	0.1	-	-	0.9	232.0	SW	0.2	-	-	0.7	222.0	SW	0.0	-	-	0.7	197.0	SSW
07:00 PM - 08:00 PM	0.0	-	-	1.2	221.0	SW	0.3	239.0	WSW	1.2	233.0	SW	0.4	204.0	SSW	0.8	274.0	W	0.4	195.0	SSW
08:00 PM - 09:00 PM	0.0	-	-	0.0	-	-	0.3	233.0	SW	0.5	178.0	S	1.1	226.0	SW	2.0	273.0	W	0.3	210.0	SSW
09:00 PM - 10:00 PM	0.0	-	-	0.6	196.0	SSW	0.4	228.0	SW	0.6	242.0	WSW	0.6	222.0	SW	2.6	298.0	NNW	0.3	206.0	SSW
10:00 PM - 11:00 PM	0.3	204.0	SSW	1.0	240.0	WSW	0.7	217.0	SW	1.3	186.0	S	0.5	219.0	SW	0.2	-	-	0.8	209.0	SSW
11:00 PM - 12:00 AM	0.0	-	-	0.3	230.0	SW	0.1	-	-	1.5	247.0	WSW	0.4	241.0	WSW	0.0	-	-	1.0	230.0	SW
12:00 AM - 01:00 AM	0.5	221.0	SW	1.2	233.0	SW	0.2	-	-	0.2	-	-	0.5	240.0	WSW	0.0	-	-	1.1	229.0	SW
01:00 AM - 02:00 AM	1.2	240.0	WSW	0.8	239.0	WSW	0.6	199.0	SSW	0.9	235.0	SW	0.0	-	-	0.0	-	-	0.4	232.0	SW
02:00 AM - 03:00 AM	0.0	-	-	1.1	236.0	SW	0.0	-	-	0.2	-	0.3	0.4	251.0	WSW	0.5	35.0	NE	0.0	-	-
03:00 AM - 04:00 AM	0.0	-	-	0.2	-	-	0.0	-	-	1.6	183.0	S	0.0	-	-	2.5	327.0	NNW	0.2	-	-
04:00 AM - 05:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.7	240.0	WSW	1.0	359.0	N	1.2	311.0	NW	1.5	239.0	WSW
05:00 AM - 06:00 AM	0.4	233.0	SW	0.0	-	-	0.0	-	-	0.1	-	-	0.6	333.0	NNW	0.3	239.0	WSW	0.3	238.0	WSW
06:00 AM - 07:00 AM	0.6	230.0	SW	0.4	224.0	SW	0.1	-	-	0.7	223.0	SW	0.8	332.0	NNW	0.2	-	-	0.3	276.0	SW
07:00 AM - 08:00 AM	0.6	237.0	WSW	1.3	194.0	SSW	0.8	213.0	SSW	1.2	169.0	S	0.7	255.0	WSW	1.6	281.0	W	0.8	211.0	W
08:00 AM - 09:00 AM	0.0	-	-	0.2	-	-	1.6	223.0	SW	0.8	198.0	SSW	0.9	306.0	NW	1.3	284.0	WNW	1.1	201.0	SSW
09:00 AM - 10:00 AM	0.0	-	-	1.3	183.0	S	2.3	234.0	SW	1.3	191.0	S	0.4	242.0	WSW	1.6	294.0	WNW	1.4	218.0	SW
10:00 AM - 11:00 AM	0.4	170.0	S	0.9	216.0	SW	1.8	225.0	SW	0.4	213.0	SSW	1.2	227.0	SW	1.6	219.0	SW	2.0	254.0	WSW
11:00 AM - 12:00 PM	0.6	236.0	SW	1.3	188.0	S	0.6	209.0	SSW	0.5	243.0	WSW	1.2	267.0	W	1.6	264.0	W	1.3	256.0	WSW

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

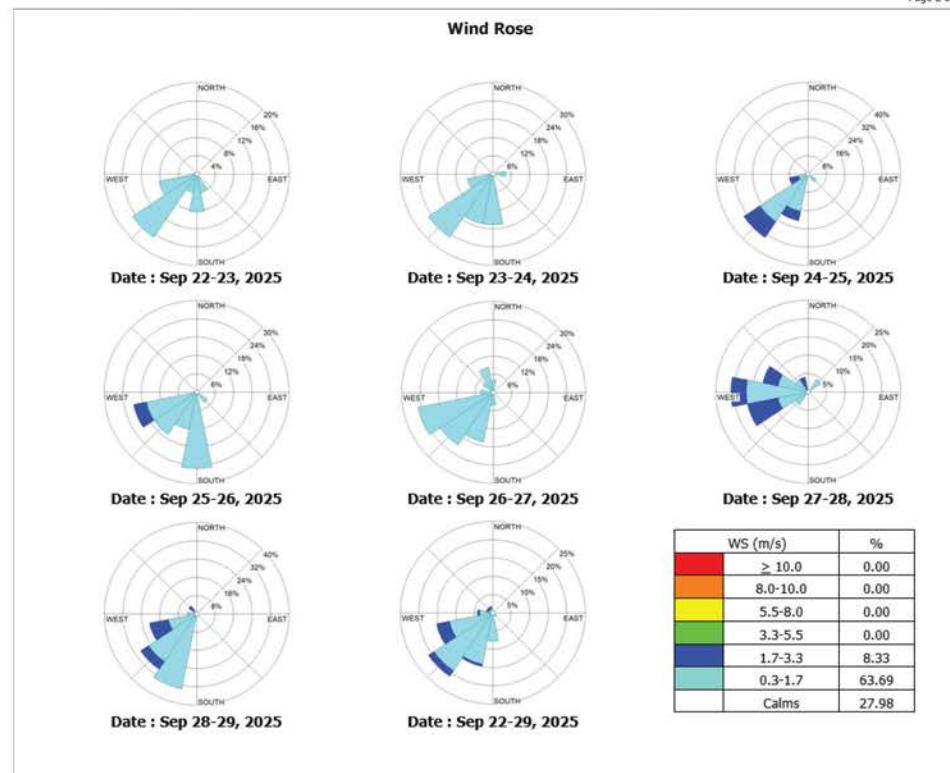
Project Location : Map Ta Phut, PE (SPE)

Lot ID: 2587998

Date Received : Sep 29, 2025

Date Reported : Oct 03, 2025

Report Number : 3409399-1



Location : ศูนย์วิจัยปิโตรฯ จังหวัดระยอง (GPS 47P 0731794, 1408788)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001

Date Received : Sep 29, 2025

Date Reported : Oct 01, 2025

Report Number : 3409401-1C5

Page 1 of 12

Sample Number 2588001-1
Sampled Date Sep 23, 2025
Sample Description Air Quality
Location บ้านฉางประจักษ์ (โรงพยาบาลส่งเสริมสุขภาพตำบลฉางประจักษ์) (GPS 47P 0735520, 1402767)
Date Analysis Commenced Sep 30, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	23/09/25 - 24/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001

Date Received : Sep 29, 2025

Date Reported : Oct 01, 2025

Report Number : 3409401-1C5

Page 2 of 12

Sample Number 2588001-2
Sampled Date Sep 24, 2025
Sample Description Air Quality
Location บ้านฉางประจักษ์ (โรงพยาบาลส่งเสริมสุขภาพตำบลฉางประจักษ์) (GPS 47P 0735520, 1402767)
Date Analysis Commenced Sep 30, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	24/09/25 - 25/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

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 : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001
Date Received : Sep 29, 2025
Date Reported : Oct 01, 2025
Report Number : 3409401-1C5

Page 3 of 12

Sample Number 2588001-3
Sampled Date Sep 25, 2025
Sample Description Air Quality
Location บ้านฉางประจักษ์ (โรงพยาบาลส่งเสริมสุขภาพตำบลฉางประจักษ์) (GPS 47P 0735520, 1402767)
Date Analysis Commenced Sep 30, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	25/09/25 - 26/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

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 : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001
Date Received : Sep 29, 2025
Date Reported : Oct 01, 2025
Report Number : 3409401-1C5

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Sample Number 2588001-4
Sampled Date Sep 23, 2025
Sample Description Air Quality
Location บ้านฉางประจักษ์ (GPS 47P 0735346, 1406705)
Date Analysis Commenced Sep 30, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	23/09/25 - 24/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

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 : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001
Date Received : Sep 29, 2025
Date Reported : Oct 01, 2025
Report Number : 3409401-1C5

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Sample Number : 2588001-5
Sampled Date : Sep 24, 2025
Sample Description : Air Quality
Location : บ้านนาหว้า (GPS 47P 0735346, 1406705)
Date Analysis Commenced : Sep 30, 2025
Condition of Sample : Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	24/09/25 - 25/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

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 : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001
Date Received : Sep 29, 2025
Date Reported : Oct 01, 2025
Report Number : 3409401-1C5

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Sample Number : 2588001-6
Sampled Date : Sep 25, 2025
Sample Description : Air Quality
Location : บ้านนาหว้า (GPS 47P 0735346, 1406705)
Date Analysis Commenced : Sep 30, 2025
Condition of Sample : Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	25/09/25 - 26/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

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 : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001
Date Received : Sep 29, 2025
Date Reported : Oct 01, 2025
Report Number : 3409401-1C5

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Sample Number : 2588001-7
Sampled Date : Sep 23, 2025
Sample Description : Air Quality
Location : ศูนย์บริการสาธารณสุขวัดโสมกัญ (โรงพยาบาลส่งเสริมสุขภาพตำบลฉาบตาทุต)
Date Analysis Commenced : Sep 30, 2025
Condition of Sample : Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	23/09/25 - 24/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

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 : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001
Date Received : Sep 29, 2025
Date Reported : Oct 01, 2025
Report Number : 3409401-1C5

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Sample Number : 2588001-8
Sampled Date : Sep 24, 2025
Sample Description : Air Quality
Location : ศูนย์บริการสาธารณสุขวัดโสมกัญ (โรงพยาบาลส่งเสริมสุขภาพตำบลฉาบตาทุต)
Date Analysis Commenced : Sep 30, 2025
Condition of Sample : Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	24/09/25 - 25/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

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 : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001
Date Received : Sep 29, 2025
Date Reported : Oct 01, 2025
Report Number : 3409401-1C5

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Sample Number 2588001-9
Sampled Date Sep 25, 2025
Sample Description Air Quality
Location ศูนย์บริการสาธารณสุขวัดโสมนัส (โรงพยาบาลส่งเสริมสุขภาพตำบลฉาบตาพุด)
Date Analysis Commenced Sep 30, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	25/09/25 - 26/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001
Date Received : Sep 29, 2025
Date Reported : Oct 01, 2025
Report Number : 3409401-1C5

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Sample Number 2588001-10
Sampled Date Sep 23, 2025
Sample Description Air Quality
Location ศูนย์วิจัยพืชไร่นานาชาติ จ.ระยอง (GPS 47P 0731794, 1408788)
Date Analysis Commenced Sep 30, 2025
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	23/09/25 - 24/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001
Date Received : Sep 29, 2025
Date Reported : Oct 01, 2025
Report Number : 3409401-1C5

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Sample Number : 2588001-11
Sampled Date : Sep 24, 2025
Sample Description : Air Quality
Location : ศูนย์วิจัยไร่ จังหวัดระยอง (GPS 47P 0731794, 1408788)
Date Analysis Commenced : Sep 30, 2025
Condition of Sample : Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	24/09/25 - 25/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

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 : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2588001
Date Received : Sep 29, 2025
Date Reported : Oct 01, 2025
Report Number : 3409401-1C5

Page 12 of 12

Sample Number : 2588001-12
Sampled Date : Sep 25, 2025
Sample Description : Air Quality
Location : ศูนย์วิจัยไร่ จังหวัดระยอง (GPS 47P 0731794, 1408788)
Date Analysis Commenced : Sep 30, 2025
Condition of Sample : Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon as Propane	25/09/25 - 26/09/25	ppm	-	0.4	<0.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Nontachai Uppathamp

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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ภาคผนวก ค-3

ปริมาณสารอินทรีย์ระเหยในบรรยากาศ (VOCs)



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2561553
Date Received : Jul 02, 2025
Date Reported : Jul 15, 2025
Report Number : 3345198-1C5

Page 1 of 3

Sample Number 2561553-1
Sampled Date Jul 01, 2025
Sample Description Air Quality
Location บ้านนาหว้า (GPS 47P 0735350, 1406704)
Date Analysis Commenced Jul 03, 2025
Condition of Sample Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure 759 mmHg
Atmospheric Temperature 32.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/07/25 - 02/07/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/07/25 - 02/07/25	ug/m3	0.05	0.16	3.32	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/07/25 - 02/07/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/07/25 - 02/07/25	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/07/25 - 02/07/25	ug/m3	0.30	0.86	3.48	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/07/25 - 02/07/25	ug/m3	0.60	1.88	9.65	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Map Ta Put Community station has moderate traffic. Normal activity, Clear sky, Nearby school and community

Sampled By : Jakkarin Manwicha

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2561553
Date Received : Jul 02, 2025
Date Reported : Jul 15, 2025
Report Number : 3345198-1C5

Page 2 of 3

Sample Number 2561553-2
Sampled Date Jul 01, 2025
Sample Description Air Quality
Location โรงเรียนบ้านนาหว้า (GPS 47P 0723821, 1403299)
Date Analysis Commenced Jul 03, 2025
Condition of Sample Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure 759 mmHg
Atmospheric Temperature 32.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/07/25 - 02/07/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/07/25 - 02/07/25	ug/m3	0.05	0.16	0.96	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/07/25 - 02/07/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/07/25 - 02/07/25	ug/m3	0.60	1.76	Not Detected	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/07/25 - 02/07/25	ug/m3	0.30	0.86	1.45	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/07/25 - 02/07/25	ug/m3	0.60	1.88	3.39	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Nong Fab School station has moderate traffic. Normal activity, Clear sky, Nearby school, temple and community

Sampled By : Jakkarin Manwicha

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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4989-122/ (PMJL)



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2561553

Date Received : Jul 02, 2025

Date Reported : Jul 15, 2025

Report Number : 3345198-1C5

Page 3 of 3

Sample Number 2561553-3
Sampled Date Jul 01, 2025
Sample Description Air Quality
Location ศูนย์บริการสาธารณสุขวัดโสมนัส (โรงพยาบาลส่งเสริมสุขภาพตำบลบางคาพูด) (GPS 47P 0735207, 1405888)
Date Analysis Commenced Jul 03, 2025
Condition of Sample Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure 759 mmHg
Atmospheric Temperature 32.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/07/25 - 02/07/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/07/25 - 02/07/25	ug/m3	0.05	0.16	3.96	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/07/25 - 02/07/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/07/25 - 02/07/25	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/07/25 - 02/07/25	ug/m3	0.30	0.86	4.30	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/07/25 - 02/07/25	ug/m3	0.60	1.88	8.74	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Wat Sapon Public Health Service Center (Map Ta Phut Public Health Center) station has moderate traffic. Normal activity, Clear sky, Nearby temple, school and community

Sampled By : Jakkarin Manwicha

Remark :

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

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Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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4989-122 / 1944L



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2561566

Date Received : Jul 02, 2025

Date Reported : Jul 07, 2025

Report Number : 3345208-1

Page 1 of 2

Sample Number 2561566-1
Parameter Wind Speed / Wind Direction
Location ศูนย์บริการสาธารณสุขวัดโสมนัส (โรงพยาบาลส่งเสริมสุขภาพตำบลบางคาพูด) (GPS 47P 0735207, 1405888)
Sampling Date Jul 01 - Jul 02, 2025
Sampling by Jakkarin Manwicha

Time	Jul 01 - Jul 02, 2025															
	WS (m/s)	WD (deg)														
09:00 AM - 10:00 AM	1.5	259.0	W	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM - 11:00 AM	1.8	219.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM - 12:00 PM	3.2	204.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM - 01:00 PM	4.6	234.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
01:00 PM - 02:00 PM	3.2	228.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
02:00 PM - 03:00 PM	1.5	174.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00 PM - 04:00 PM	2.1	223.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00 PM - 05:00 PM	1.1	230.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00 PM - 06:00 PM	2.2	320.0	NW	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00 PM - 07:00 PM	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07:00 PM - 08:00 PM	0.8	20.0	NNE	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00 PM - 09:00 PM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09:00 PM - 10:00 PM	0.6	49.0	NE	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 PM - 11:00 PM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM - 12:00 AM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 01:00 AM	1.2	185.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-
01:00 AM - 02:00 AM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02:00 AM - 03:00 AM	0.8	87.0	E	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00 AM - 04:00 AM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00 AM - 05:00 AM	0.9	78.0	ENE	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00 AM - 06:00 AM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00 AM - 07:00 AM	1.3	225.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
07:00 AM - 08:00 AM	0.4	222.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00 AM - 09:00 AM	0.3	220.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuht Jittranont

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

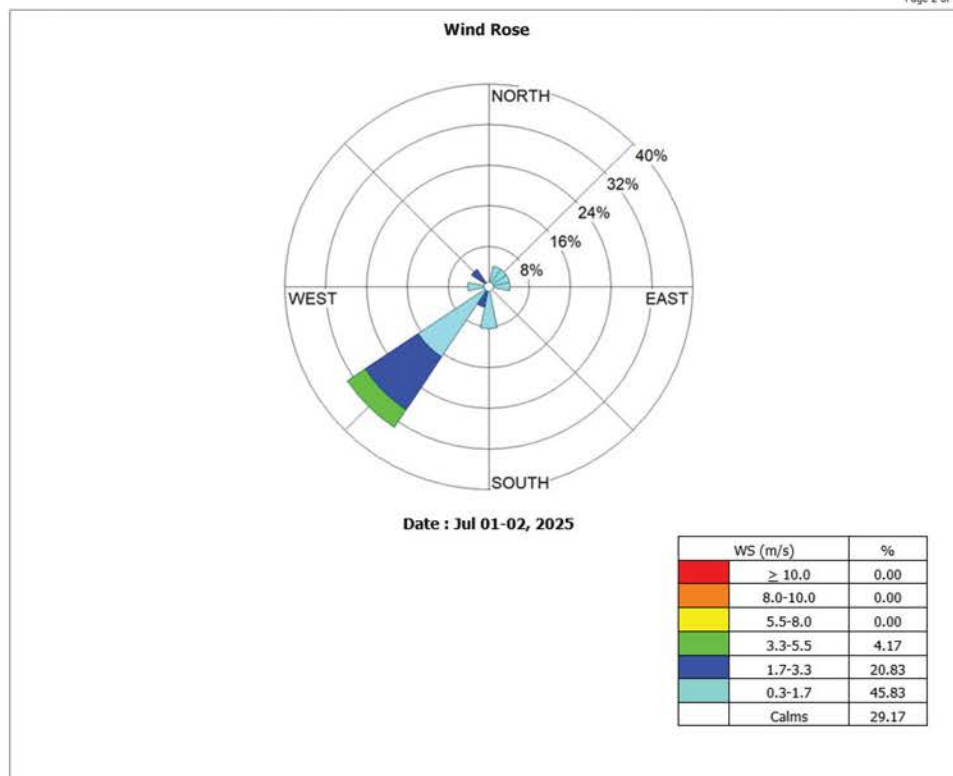
Lot ID: 2561566

Date Received : Jul 02, 2025

Date Reported : Jul 07, 2025

Report Number : 3345208-1

Page 2 of 2



Location : ศูนย์บริการสาธารณสุขวัดโสมกน (โรงพยาบาลส่งเสริมสุขภาพตำบลอานาพุด) (GPS 47P 0735207, 1405888)

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Approved by

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571972

Date Received : Aug 05, 2025

Date Reported : Aug 18, 2025

Report Number : 3370997-1C5

Page 1 of 3

Sample Number : 2571972-1
Sampled Date : Aug 04, 2025
Sample Description : Air Quality
Location : บ้านนาหวาด (GPS 47P 0735350, 1406704)
Date Analysis Commenced : Aug 06, 2025
Condition of Sample : Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure : 756 mmHg
Atmospheric Temperature : 31.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	04/08/25 - 05/08/25	ug/m3	0.20	0.60	<0.60	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	04/08/25 - 05/08/25	ug/m3	0.05	0.16	1.34	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	04/08/25 - 05/08/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	04/08/25 - 05/08/25	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	04/08/25 - 05/08/25	ug/m3	0.30	0.86	2.17	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	04/08/25 - 05/08/25	ug/m3	0.60	1.88	2.56	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Map Ta Phut Community station has moderate traffic. Normal activity, Clear sky, Nearby school and community

Sampled By : Jakkarin Manwicha

Remark :

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

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Approved by

Orawan Rakyong
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4989-122/ (P)A3L



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571972

Date Received : Aug 05, 2025

Date Reported : Aug 18, 2025

Report Number : 3370997-1C5

Page 2 of 3

Sample Number 2571972-2
Sampled Date Aug 04, 2025
Sample Description Air Quality
Location โรงเรือนฟาร์มหนองเพน (GPS 47P 0723821, 1403299)
Date Analysis Commenced Aug 06, 2025
Condition of Sample Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure 756 mmHg
Atmospheric Temperature 31.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	04/08/25 - 05/08/25	ug/m3	0.20	0.60	<0.60	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	04/08/25 - 05/08/25	ug/m3	0.05	0.16	0.38	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	04/08/25 - 05/08/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	04/08/25 - 05/08/25	ug/m3	0.60	1.76	Not Detected	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	04/08/25 - 05/08/25	ug/m3	0.30	0.86	<0.86	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	04/08/25 - 05/08/25	ug/m3	0.60	1.88	<1.88	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Nong Fab School station has moderate traffic. Normal activity, Clear sky, Nearby school, temple and community

Sampled By : Jakkarin Manwicha

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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4989-122/ (P)MIL



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571972

Date Received : Aug 05, 2025

Date Reported : Aug 18, 2025

Report Number : 3370997-1C5

Page 3 of 3

Sample Number 2571972-3
Sampled Date Aug 04, 2025
Sample Description Air Quality
Location ศูนย์บริการสาธารณสุขวัดโลก (โรงพยาบาลส่งเสริมสุขภาพตำบลอามตาด) (GPS 47P 0735207, 1405888)
Date Analysis Commenced Aug 06, 2025
Condition of Sample Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure 756 mmHg
Atmospheric Temperature 31.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	04/08/25 - 05/08/25	ug/m3	0.20	0.60	<0.60	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	04/08/25 - 05/08/25	ug/m3	0.05	0.16	1.41	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	04/08/25 - 05/08/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	04/08/25 - 05/08/25	ug/m3	0.60	1.76	1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	04/08/25 - 05/08/25	ug/m3	0.30	0.86	1.62	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	04/08/25 - 05/08/25	ug/m3	0.60	1.88	2.71	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Wat Sopon Public Health Service Center (Map Ta Phut Public Health Center station) has moderate traffic. Normal activity, Clear sky, Nearby temple, school and community

Sampled By : Jakkarin Manwicha

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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4989-122/ (P)MIL



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut, PE (SPE)

Lot ID: 2571973

Date Received : Aug 05, 2025

Date Reported : Aug 08, 2025

Report Number : 3371003-1

Sample Number : 2571973-1

Parameter : Wind Speed / Wind Direction

Location : ศูนย์บริการสาธารณสุขสุรศักดิ์โสภณ (โรงพยาบาลส่งเสริมสุขภาพตำบลฉนวนตาพุด) (GPS 47P 0735207, 1405888)

Sampling Date : Aug 04 - Aug 05, 2025

Sampling by : Jakkarin Manwicha

Time	Aug 04 - Aug 05, 2025													
	WS (m/s)	WD (deg)												
09:00 AM - 10:00 AM	2.0	346.0	NNW	-	-	-	-	-	-	-	-	-	-	-
10:00 AM - 11:00 AM	1.9	359.0	N	-	-	-	-	-	-	-	-	-	-	-
11:00 AM - 12:00 PM	1.2	236.0	SW	-	-	-	-	-	-	-	-	-	-	-
12:00 PM - 01:00 PM	2.9	339.0	NNW	-	-	-	-	-	-	-	-	-	-	-
01:00 PM - 02:00 PM	2.7	308.0	NW	-	-	-	-	-	-	-	-	-	-	-
02:00 PM - 03:00 PM	1.6	299.0	WNW	-	-	-	-	-	-	-	-	-	-	-
03:00 PM - 04:00 PM	0.9	298.0	WNW	-	-	-	-	-	-	-	-	-	-	-
04:00 PM - 05:00 PM	1.4	259.0	W	-	-	-	-	-	-	-	-	-	-	-
05:00 PM - 06:00 PM	0.6	236.0	SW	-	-	-	-	-	-	-	-	-	-	-
06:00 PM - 07:00 PM	1.3	226.0	SW	-	-	-	-	-	-	-	-	-	-	-
07:00 PM - 08:00 PM	0.9	247.0	WSW	-	-	-	-	-	-	-	-	-	-	-
08:00 PM - 09:00 PM	0.6	243.0	WSW	-	-	-	-	-	-	-	-	-	-	-
09:00 PM - 10:00 PM	0.8	270.0	W	-	-	-	-	-	-	-	-	-	-	-
10:00 PM - 11:00 PM	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM - 12:00 AM	0.7	247.0	WSW	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 01:00 AM	1.8	270.0	W	-	-	-	-	-	-	-	-	-	-	-
01:00 AM - 02:00 AM	1.2	287.0	WNW	-	-	-	-	-	-	-	-	-	-	-
02:00 AM - 03:00 AM	1.7	245.0	WSW	-	-	-	-	-	-	-	-	-	-	-
03:00 AM - 04:00 AM	2.3	313.0	NW	-	-	-	-	-	-	-	-	-	-	-
04:00 AM - 05:00 AM	3.6	322.0	NW	-	-	-	-	-	-	-	-	-	-	-
05:00 AM - 06:00 AM	1.6	353.0	N	-	-	-	-	-	-	-	-	-	-	-
06:00 AM - 07:00 AM	0.8	311.0	NW	-	-	-	-	-	-	-	-	-	-	-
07:00 AM - 08:00 AM	0.7	312.0	NW	-	-	-	-	-	-	-	-	-	-	-
08:00 AM - 09:00 AM	0.7	315.0	NW	-	-	-	-	-	-	-	-	-	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

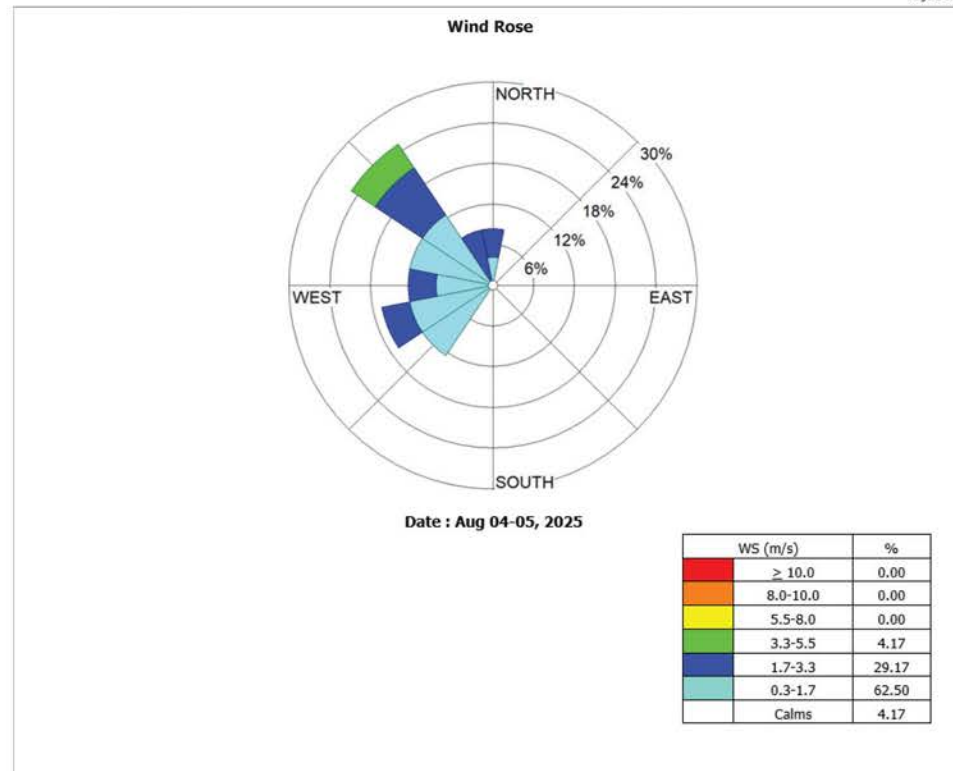
Project Location : Map Ta Phut, PE (SPE)

Lot ID: 2571973

Date Received : Aug 05, 2025

Date Reported : Aug 08, 2025

Report Number : 3371003-1



Location : ศูนย์บริการสาธารณสุขสุรศักดิ์โสภณ (โรงพยาบาลส่งเสริมสุขภาพตำบลฉนวนตาพุด) (GPS 47P 0735207, 1405888)

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Approved by

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2580223
Date Received : Sep 02, 2025
Date Reported : Sep 11, 2025
Report Number : 3390419-1C5

Page 1 of 3

Sample Number 2580223-1
Sampled Date Sep 01, 2025
Sample Description Air Quality
Location บ้านนาหว้า (GPS 47P 0735350, 1406704)
Date Analysis Commenced Sep 03, 2025
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 755 mmHg
Atmospheric Temperature 31.7 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/09/25 - 02/09/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/09/25 - 02/09/25	ug/m3	0.05	0.16	2.97	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/09/25 - 02/09/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/09/25 - 02/09/25	ug/m3	0.60	1.76	3.70	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/09/25 - 02/09/25	ug/m3	0.30	0.86	4.80	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/09/25 - 02/09/25	ug/m3	0.60	1.88	2.83	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Map Ta Put Community station has moderate traffic. Normal activity, Cloudy, Nearby school and community

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

Tanyatorn Mongkonjirawut
Supervisor

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4989-122/ (P)MIL



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2580223
Date Received : Sep 02, 2025
Date Reported : Sep 11, 2025
Report Number : 3390419-1C5

Page 2 of 3

Sample Number 2580223-2
Sampled Date Sep 01, 2025
Sample Description Air Quality
Location โรงเรียนบ้านนาหว้า (GPS 47P 0723821, 1403299)
Date Analysis Commenced Sep 03, 2025
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 755 mmHg
Atmospheric Temperature 31.7 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/09/25 - 02/09/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/09/25 - 02/09/25	ug/m3	0.05	0.16	0.32	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/09/25 - 02/09/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/09/25 - 02/09/25	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/09/25 - 02/09/25	ug/m3	0.30	0.86	<0.86	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/09/25 - 02/09/25	ug/m3	0.60	1.88	<1.88	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Nong Fab School station has moderate traffic. Normal activity, Cloudy, Nearby school, temple and community

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

Tanyatorn Mongkonjirawut
Supervisor

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2580223
Date Received : Sep 02, 2025
Date Reported : Sep 11, 2025
Report Number : 3390419-1C5

Page 3 of 3

Sample Number 2580223-3
Sampled Date Sep 01, 2025
Sample Description Air Quality
Location ศูนย์บริการสาธารณสุขวัดโสมนัส (โรงพยาบาลส่งเสริมสุขภาพตำบลบางตาตุบ) (GPS 47P 0735207, 1405888)
Date Analysis Commenced Sep 03, 2025
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 755 mmHg
Atmospheric Temperature 31.7 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/09/25 - 02/09/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/09/25 - 02/09/25	ug/m3	0.05	0.16	2.30	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/09/25 - 02/09/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/09/25 - 02/09/25	ug/m3	0.60	1.76	3.38	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/09/25 - 02/09/25	ug/m3	0.30	0.86	6.02	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/09/25 - 02/09/25	ug/m3	0.60	1.88	2.86	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Wat Sapon Public Health Service Center (Map Ta Phut Public Health Center station) has moderate traffic. Normal activity, Cloudy, Nearby temple, school and community

Sampled By : Prasanmit Kueanpet

Remark :

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

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Tanyatorn Mongkonjirawut
Supervisor

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2580225
Date Received : Sep 02, 2025
Date Reported : Sep 08, 2025
Report Number : 3390422-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 1 of 2

Sample Number 2580225-1
Parameter Wind Speed / Wind Direction
Location ศูนย์บริการสาธารณสุขวัดโสมนัส (โรงพยาบาลส่งเสริมสุขภาพตำบลบางตาตุบ) (GPS 47P 0735207, 1405888)
Sampling Date Sep 01 - Sep 02, 2025
Sampling by Prasanmit Kueanpet

Time	Sep 01 - Sep 02, 2025															
	WS (m/s)	WD (deg)														
02:00 PM - 03:00 PM	2.4	144.0	SE	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00 PM - 04:00 PM	2.3	138.0	SE	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00 PM - 05:00 PM	1.0	182.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00 PM - 06:00 PM	0.4	169.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00 PM - 07:00 PM	1.3	110.0	ESE	-	-	-	-	-	-	-	-	-	-	-	-	-
07:00 PM - 08:00 PM	1.0	121.0	ESE	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00 PM - 09:00 PM	0.5	146.0	SE	-	-	-	-	-	-	-	-	-	-	-	-	-
09:00 PM - 10:00 PM	1.5	187.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 PM - 11:00 PM	2.0	174.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM - 12:00 AM	1.0	260.0	W	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 01:00 AM	1.9	253.0	WSW	-	-	-	-	-	-	-	-	-	-	-	-	-
01:00 AM - 02:00 AM	1.2	258.0	WSW	-	-	-	-	-	-	-	-	-	-	-	-	-
02:00 AM - 03:00 AM	0.4	236.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00 AM - 04:00 AM	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00 AM - 05:00 AM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00 AM - 06:00 AM	0.4	271.0	W	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00 AM - 07:00 AM	0.9	318.0	NW	-	-	-	-	-	-	-	-	-	-	-	-	-
07:00 AM - 08:00 AM	1.0	204.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00 AM - 09:00 AM	2.5	140.0	SE	-	-	-	-	-	-	-	-	-	-	-	-	-
09:00 AM - 10:00 AM	1.5	189.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM - 11:00 AM	1.3	226.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM - 12:00 PM	1.8	219.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM - 01:00 PM	1.1	238.0	WSW	-	-	-	-	-	-	-	-	-	-	-	-	-
01:00 PM - 02:00 PM	0.9	245.0	WSW	-	-	-	-	-	-	-	-	-	-	-	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

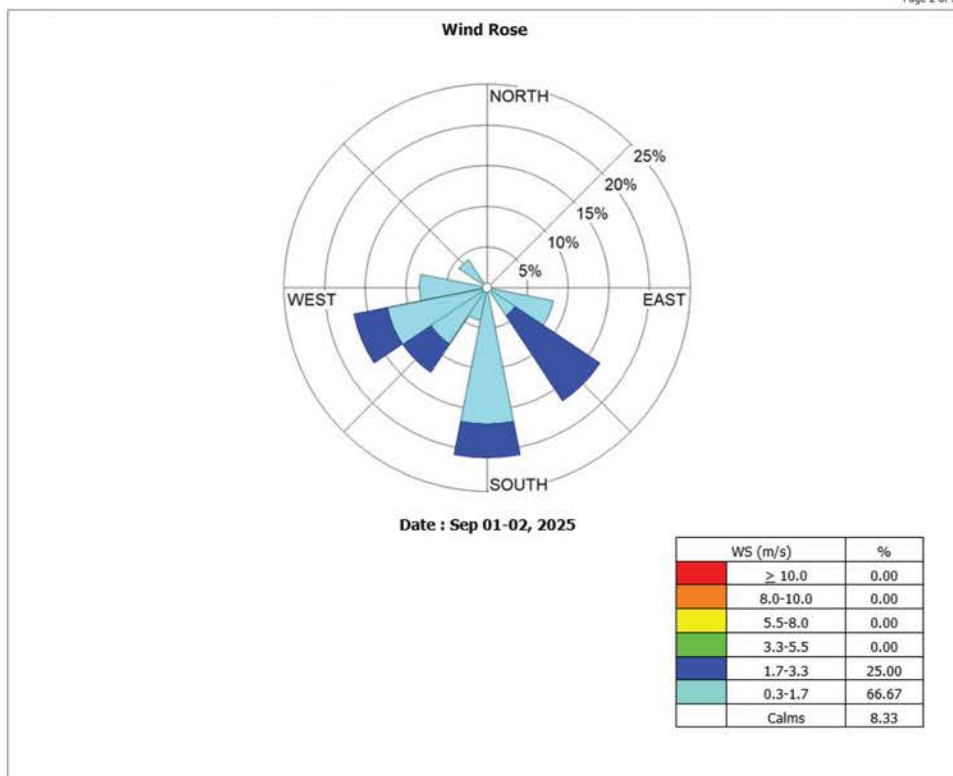
Lot ID: 2580225

Date Received : Sep 02, 2025

Date Reported : Sep 08, 2025

Report Number : 3390422-1

Page 2 of 2



Location : ศูนย์บริการสาธารณสุขวัดโสมกน (โรงพยาบาลส่งเสริมสุขภาพตำบลมณฑาทิพย์) (GPS 47P 0735207, 1405888)

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

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590484

Date Received : Oct 02, 2025

Date Reported : Oct 16, 2025

Report Number : 3414855-2C5

Page 1 of 3

Sample Number : 2590484-1
Sampled Date : Oct 01, 2025
Sample Description : Air Quality
Location : บ้านนาบนาท (GPS 47P 0735350, 1406704)
Date Analysis Commenced : Oct 03, 2025
Condition of Sample : Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure : 752 mmHg
Atmospheric Temperature : 29.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/10/25 - 02/10/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/10/25 - 02/10/25	ug/m3	0.05	0.16	2.24	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/10/25 - 02/10/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/10/25 - 02/10/25	ug/m3	0.60	1.76	2.54	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/10/25 - 02/10/25	ug/m3	0.30	0.86	7.02	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/10/25 - 02/10/25	ug/m3	0.60	1.88	13.87	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Map Ta Phut Community station has moderate traffic. Normal activity, Light rain, Nearby school and community

Sampled By : Nachakorn Hansa

Remark :

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

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Approved by

Chonticha Subongkoch
Scientist (3)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590484
Date Received : Oct 02, 2025
Date Reported : Oct 16, 2025
Report Number : 3414855-2C5

Page 2 of 3

Sample Number 2590484-2
Sampled Date Oct 01, 2025
Sample Description Air Quality
Location โรงเรือนฟาร์มหนองเพน (GPS 47P 0723821, 1403299)
Date Analysis Commenced Oct 03, 2025
Condition of Sample Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure 752 mmHg
Atmospheric Temperature 29.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/10/25 - 02/10/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/10/25 - 02/10/25	ug/m3	0.05	0.16	0.77	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/10/25 - 02/10/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/10/25 - 02/10/25	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/10/25 - 02/10/25	ug/m3	0.30	0.86	1.62	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/10/25 - 02/10/25	ug/m3	0.60	1.88	3.02	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Nong Fab School station has moderate traffic. Normal activity, Light rain, Nearby school, temple and community

Sampled By : Nachakorn Hansa

Remark :

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

Approved by

Chontichak

Chonticha Subongkoch
Scientist (3)

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4989-122/ (PMJL)



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590484
Date Received : Oct 02, 2025
Date Reported : Oct 16, 2025
Report Number : 3414855-2C5

Page 3 of 3

Sample Number 2590484-3
Sampled Date Oct 01, 2025
Sample Description Air Quality
Location ศูนย์บริการสาธารณสุขวัดโสมนัส (โรงพยาบาลส่งเสริมสุขภาพตำบลอามตาคุด) (GPS 47P 0735207, 1405888)
Date Analysis Commenced Oct 03, 2025
Condition of Sample Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure 752 mmHg
Atmospheric Temperature 29.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/10/25 - 02/10/25	ug/m3	0.20	0.60	<0.60	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/10/25 - 02/10/25	ug/m3	0.05	0.16	2.62	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/10/25 - 02/10/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/10/25 - 02/10/25	ug/m3	0.60	1.76	2.68	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/10/25 - 02/10/25	ug/m3	0.30	0.86	9.78	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/10/25 - 02/10/25	ug/m3	0.60	1.88	12.21	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Wat Sopon Public Health Service Center (Map Ta Phut Public Health Center station) has moderate traffic. Normal activity, Light rain, Nearby temple, school and community

Sampled By : Nachakorn Hansa

Remark :

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

Approved by

Chontichak

Chonticha Subongkoch
Scientist (3)

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4989-122/ (PMJL)



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590485

Date Received :Oct 02, 2025

Date Reported :Oct 07, 2025

Report Number :3414857-1

Sample Number : 2590485-1
Parameter : Wind Speed / Wind Direction
Location : ศูนย์บริการสาธารณสุขสุวดีโสภณ (โรงพยาบาลส่งเสริมสุขภาพตำบลฉนวนตาพุด) (GPS 47P 0735207, 1405888)
Sampling Date : Oct 01 - Oct 02, 2025
Sampling by : Nachakorn Hansa

Time	Oct 01 - Oct 02, 2025													
	WS (m/s)	WD (deg)												
12:00 PM - 01:00 PM	0.4	210.0	SSW	-	-	-	-	-	-	-	-	-	-	-
01:00 PM - 02:00 PM	1.4	213.0	SSW	-	-	-	-	-	-	-	-	-	-	-
02:00 PM - 03:00 PM	1.3	239.0	WSW	-	-	-	-	-	-	-	-	-	-	-
03:00 PM - 04:00 PM	0.6	204.0	SSW	-	-	-	-	-	-	-	-	-	-	-
04:00 PM - 05:00 PM	0.9	212.0	SSW	-	-	-	-	-	-	-	-	-	-	-
05:00 PM - 06:00 PM	0.8	267.0	W	-	-	-	-	-	-	-	-	-	-	-
06:00 PM - 07:00 PM	1.1	338.0	NNW	-	-	-	-	-	-	-	-	-	-	-
07:00 PM - 08:00 PM	1.3	130.0	SE	-	-	-	-	-	-	-	-	-	-	-
08:00 PM - 09:00 PM	0.3	111.0	ESE	-	-	-	-	-	-	-	-	-	-	-
09:00 PM - 10:00 PM	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 PM - 11:00 PM	1.4	332.0	NNW	-	-	-	-	-	-	-	-	-	-	-
11:00 PM - 12:00 AM	0.8	225.0	SW	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 01:00 AM	1.3	336.0	NNW	-	-	-	-	-	-	-	-	-	-	-
01:00 AM - 02:00 AM	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
02:00 AM - 03:00 AM	0.8	300.0	WNW	-	-	-	-	-	-	-	-	-	-	-
03:00 AM - 04:00 AM	1.2	100.0	E	-	-	-	-	-	-	-	-	-	-	-
04:00 AM - 05:00 AM	0.5	145.0	SE	-	-	-	-	-	-	-	-	-	-	-
05:00 AM - 06:00 AM	1.5	221.0	SW	-	-	-	-	-	-	-	-	-	-	-
06:00 AM - 07:00 AM	1.5	224.0	SW	-	-	-	-	-	-	-	-	-	-	-
07:00 AM - 08:00 AM	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00 AM - 09:00 AM	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
09:00 AM - 10:00 AM	1.0	156.0	SSE	-	-	-	-	-	-	-	-	-	-	-
10:00 AM - 11:00 AM	1.5	221.0	SW	-	-	-	-	-	-	-	-	-	-	-
11:00 AM - 12:00 PM	0.7	214.0	SW	-	-	-	-	-	-	-	-	-	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

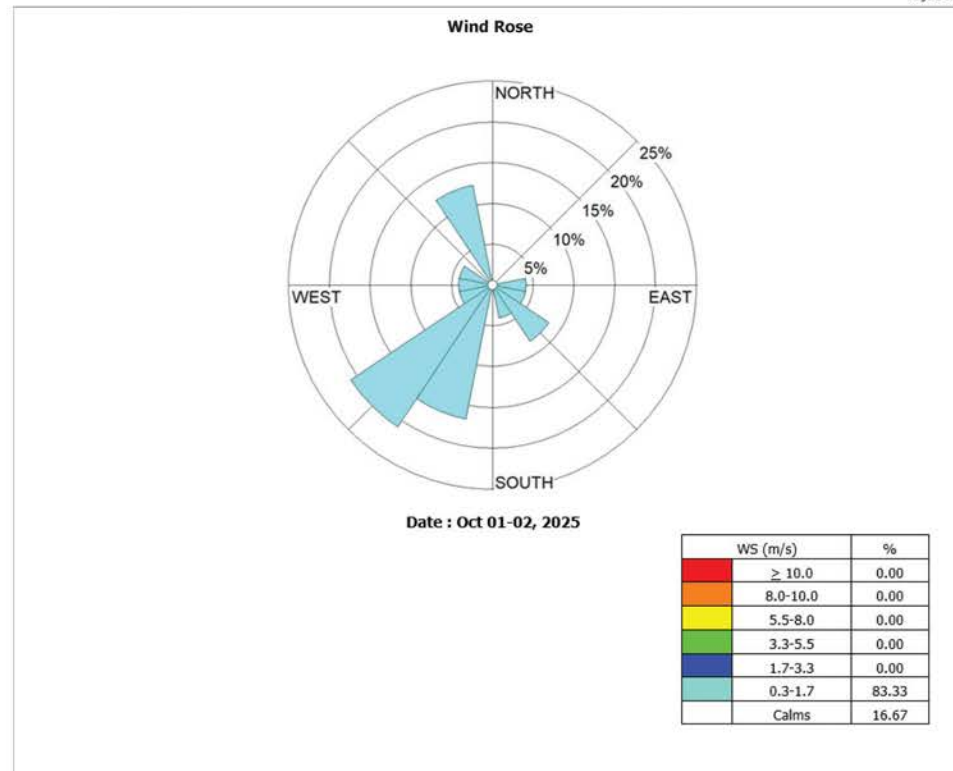
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590485

Date Received :Oct 02, 2025

Date Reported :Oct 07, 2025

Report Number :3414857-1



Location : ศูนย์บริการสาธารณสุขสุวดีโสภณ (โรงพยาบาลส่งเสริมสุขภาพตำบลฉนวนตาพุด) (GPS 47P 0735207, 1405888)

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Approved by

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2599267

Date Received : Nov 04, 2025

Date Reported : Nov 15, 2025

Report Number : 3436018-2C5

Page 1 of 3

Sample Number 2599267-1
Sampled Date Nov 03, 2025
Sample Description Air Quality
Location บ้านนาหว้า (GPS 47P 0735350, 1406704)
Date Analysis Commenced Nov 05, 2025
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 757 mmHg
Atmospheric Temperature 29.5 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	03/11/25 - 04/11/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	03/11/25 - 04/11/25	ug/m3	0.05	0.16	3.77	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	03/11/25 - 04/11/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	03/11/25 - 04/11/25	ug/m3	0.60	1.76	3.38	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	03/11/25 - 04/11/25	ug/m3	0.30	0.86	4.51	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	03/11/25 - 04/11/25	ug/m3	0.60	1.88	17.64	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Map Ta Phut Community station has moderate traffic. Normal activity, Light rain, Nearby school and community

Sampled By : Satcha Phetsawaeng

Remark :

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

Approved by

Chontichak

Chonticha Subongkoch
Scientist (3)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2599267

Date Received : Nov 04, 2025

Date Reported : Nov 15, 2025

Report Number : 3436018-2C5

Page 2 of 3

Sample Number 2599267-2
Sampled Date Nov 03, 2025
Sample Description Air Quality
Location โรงเรือนบ้านนาหว้า (GPS 47P 0723821, 1403299)
Date Analysis Commenced Nov 05, 2025
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 757 mmHg
Atmospheric Temperature 29.5 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	03/11/25 - 04/11/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	03/11/25 - 04/11/25	ug/m3	0.05	0.16	2.36	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	03/11/25 - 04/11/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	03/11/25 - 04/11/25	ug/m3	0.60	1.76	2.47	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	03/11/25 - 04/11/25	ug/m3	0.30	0.86	8.54	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	03/11/25 - 04/11/25	ug/m3	0.60	1.88	5.88	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Nong Fab School station has moderate traffic. Normal activity, Light rain, Nearby school, temple and community

Sampled By : Satcha Phetsawaeng

Remark :

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

Approved by

Chontichak

Chonticha Subongkoch
Scientist (3)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2599267
Date Received : Nov 04, 2025
Date Reported : Nov 15, 2025
Report Number : 3436018-2C5

Page 3 of 3

Sample Number 2599267-3
Sampled Date Nov 03, 2025
Sample Description Air Quality
Location ศูนย์บริการสาธารณสุขวัดโสมนัส (โรงพยาบาลส่งเสริมสุขภาพตำบลฉะบับ) (GPS 47P 0735207, 1405888)
Date Analysis Commenced Nov 05, 2025
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 757 mmHg
Atmospheric Temperature 29.5 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	03/11/25 - 04/11/25	ug/m3	0.20	0.60	<0.60	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	03/11/25 - 04/11/25	ug/m3	0.05	0.16	4.92	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	03/11/25 - 04/11/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	03/11/25 - 04/11/25	ug/m3	0.60	1.76	8.32	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	03/11/25 - 04/11/25	ug/m3	0.30	0.86	12.05	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	03/11/25 - 04/11/25	ug/m3	0.60	1.88	46.13	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Wat Sopon Public Health Service Center (Map Ta Phut Public Health Center station) has moderate traffic. Normal activity, Light rain, Nearby temple, school and community

Sampled By : Satcha Phetsawaeng

Remark :

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

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Approved by

Chontichak

Chonticha Subongkoch
Scientist (3)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2599271
Date Received : Nov 04, 2025
Date Reported : Nov 11, 2025
Report Number : 3436020-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 1 of 2

Sample Number 2599271-1
Parameter Wind Speed / Wind Direction
Location ศูนย์บริการสาธารณสุขวัดโสมนัส (โรงพยาบาลส่งเสริมสุขภาพตำบลฉะบับ) (GPS 47P 0735207, 1405888)
Sampling Date Nov 03 - Nov 04, 2025
Sampling by Satcha Phetsawaeng

Time	Nov 03 - Nov 04, 2025															
	WS (m/s)	WD (deg)														
09:00 AM - 10:00 AM	2.6	158.0	SSE	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM - 11:00 AM	3.2	159.0	SSE	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM - 12:00 PM	2.1	180.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM - 01:00 PM	3.6	233.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-
01:00 PM - 02:00 PM	3.1	163.0	SSE	-	-	-	-	-	-	-	-	-	-	-	-	-
02:00 PM - 03:00 PM	3.5	252.0	WSW	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00 PM - 04:00 PM	3.2	140.0	SE	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00 PM - 05:00 PM	2.2	42.0	NE	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00 PM - 06:00 PM	3.6	338.0	NNW	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00 PM - 07:00 PM	2.3	76.0	ENE	-	-	-	-	-	-	-	-	-	-	-	-	-
07:00 PM - 08:00 PM	1.5	58.0	ENE	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00 PM - 09:00 PM	2.4	30.0	NNE	-	-	-	-	-	-	-	-	-	-	-	-	-
09:00 PM - 10:00 PM	3.1	337.0	NNW	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 PM - 11:00 PM	3.8	18.0	NNE	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM - 12:00 AM	2.4	30.0	NNE	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 01:00 AM	2.2	27.0	NNE	-	-	-	-	-	-	-	-	-	-	-	-	-
01:00 AM - 02:00 AM	2.6	24.0	NNE	-	-	-	-	-	-	-	-	-	-	-	-	-
02:00 AM - 03:00 AM	2.4	342.0	NNW	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00 AM - 04:00 AM	2.3	22.0	NNE	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00 AM - 05:00 AM	2.5	0.0	N	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00 AM - 06:00 AM	2.0	78.0	ENE	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00 AM - 07:00 AM	2.3	359.0	N	-	-	-	-	-	-	-	-	-	-	-	-	-
07:00 AM - 08:00 AM	3.0	31.0	NNE	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00 AM - 09:00 AM	2.6	35.0	NE	-	-	-	-	-	-	-	-	-	-	-	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jitranont

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

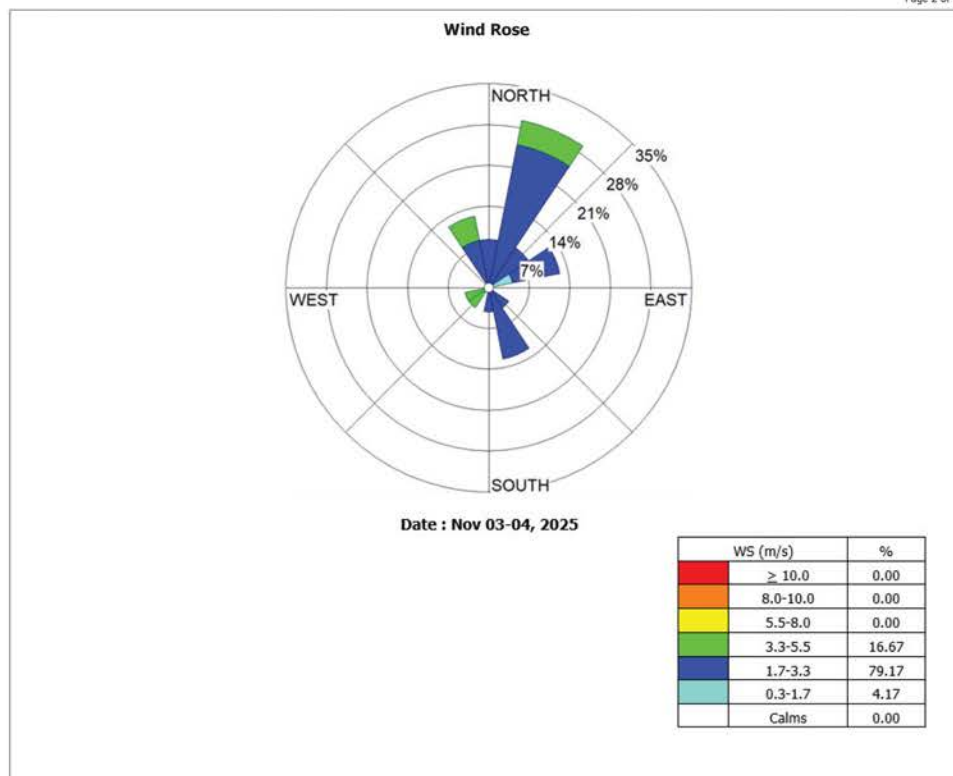
Lot ID: 2599271

Date Received : Nov 04, 2025

Date Reported : Nov 11, 2025

Report Number : 3436020-1

Page 2 of 2



Location : ศูนย์บริการสาธารณสุขวัดโสมกน (โรงพยาบาลส่งเสริมสุขภาพตำบลมณฑาทิพย์) (GPS 47P 0735207, 1405888)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 25108073

Date Received : Dec 02, 2025

Date Reported : Dec 16, 2025

Report Number : 3458697-1C5

Page 1 of 3

Sample Number : 25108073-1
Sampled Date : Dec 01, 2025
Sample Description : Air Quality
Location : บ้านนาหวาด (GPS 47P 0735350, 1406704)
Date Analysis Commenced : Dec 03, 2025
Condition of Sample : Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure : 758 mmHg
Atmospheric Temperature : 30.9 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/12/25 - 02/12/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/12/25 - 02/12/25	ug/m3	0.05	0.16	3.20	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/12/25 - 02/12/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/12/25 - 02/12/25	ug/m3	0.60	1.76	2.54	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/12/25 - 02/12/25	ug/m3	0.30	0.86	3.86	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/12/25 - 02/12/25	ug/m3	0.60	1.88	33.09	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Map Ta Phut Community station has moderate traffic. Normal activity, Clear sky, Nearby school and community

Sampled By : Saknarin Jaraskay

Remark :

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

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Approved by

Chonticha Subongkoch
Scientist (3)

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4989-122/ (PH)



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 25108073

Date Received : Dec 02, 2025

Date Reported : Dec 16, 2025

Report Number : 3458697-1C5

Page 2 of 3

Sample Number 25108073-2
Sampled Date Dec 01, 2025
Sample Description Air Quality
Location โรงเรือนฟาร์มหนองเพน (GPS 47P 0723821, 1403299)
Date Analysis Commenced Dec 03, 2025
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 758 mmHg
Atmospheric Temperature 25.9 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/12/25 - 02/12/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/12/25 - 02/12/25	ug/m3	0.05	0.16	2.11	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/12/25 - 02/12/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/12/25 - 02/12/25	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/12/25 - 02/12/25	ug/m3	0.30	0.86	4.06	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/12/25 - 02/12/25	ug/m3	0.60	1.88	9.80	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Ban Nong Fab School station has moderate traffic. Normal activity, Clear sky, Nearby school, temple and community

Sampled By : Saknarin Jaraskay

Remark :

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

Approved by

Chontichak

Chonticha Subongkoch
Scientist (3)

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4989-122/ (PMJL)



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 25108073

Date Received : Dec 02, 2025

Date Reported : Dec 16, 2025

Report Number : 3458697-1C5

Page 3 of 3

Sample Number 25108073-3
Sampled Date Dec 01, 2025
Sample Description Air Quality
Location ศูนย์บริการสาธารณสุขวัดโลก (โรงพยาบาลส่งเสริมสุขภาพตำบลอามตาดุด) (GPS 47P 0735207, 1405888)
Date Analysis Commenced Dec 03, 2025
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 758 mmHg
Atmospheric Temperature 31.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/12/25 - 02/12/25	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/12/25 - 02/12/25	ug/m3	0.05	0.16	3.32	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Ethylene Glycol	01/12/25 - 02/12/25	ug/m3	0.5	7.0	Not Detected	No Standard	Based on NIOSH, 5523	-	Bangkok
Hexane	01/12/25 - 02/12/25	ug/m3	0.60	1.76	2.61	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propene (Propylene)	01/12/25 - 02/12/25	ug/m3	0.30	0.86	3.99	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Toluene	01/12/25 - 02/12/25	ug/m3	0.60	1.88	30.00	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Wat Sopon Public Health Service Center (Map Ta Phut Public Health Center station) has moderate traffic. Normal activity, Clear sky, Nearby temple, school and community

Sampled By : Saknarin Jaraskay

Remark :

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

Approved by

Chontichak

Chonticha Subongkoch
Scientist (3)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut, PE (SPE)

Lot ID: 25108078

Date Received :Dec 02, 2025

Date Reported :Dec 08, 2025

Report Number :3458716-1

Page 1 of 2

Sample Number 25108078-1

Parameter Wind Speed / Wind Direction

Location ศูนย์บริการสาธารณสุขวัดโสมกัญ (โรงพยาบาลส่งเสริมสุขภาพตำบลบางตาหลวง) (GPS 47P 0735207, 1405888)

Sampling Date Dec 01 - Dec 02, 2025

Sampling by Saknarin Jaraskay

Time	Dec 01 - Dec 02, 2025													
	WS (m/s)	WD (deg)												
09:00 AM - 10:00 AM	1.8	265.0	W	-	-	-	-	-	-	-	-	-	-	-
10:00 AM - 11:00 AM	1.3	235.0	SW	-	-	-	-	-	-	-	-	-	-	-
11:00 AM - 12:00 PM	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM - 01:00 PM	0.5	225.0	SW	-	-	-	-	-	-	-	-	-	-	-
01:00 PM - 02:00 PM	0.9	239.0	WSW	-	-	-	-	-	-	-	-	-	-	-
02:00 PM - 03:00 PM	0.3	257.0	WSW	-	-	-	-	-	-	-	-	-	-	-
03:00 PM - 04:00 PM	0.4	258.0	WSW	-	-	-	-	-	-	-	-	-	-	-
04:00 PM - 05:00 PM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00 PM - 06:00 PM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00 PM - 07:00 PM	1.1	266.0	W	-	-	-	-	-	-	-	-	-	-	-
07:00 PM - 08:00 PM	1.7	234.0	SW	-	-	-	-	-	-	-	-	-	-	-
08:00 PM - 09:00 PM	0.3	324.0	NW	-	-	-	-	-	-	-	-	-	-	-
09:00 PM - 10:00 PM	0.3	319.0	NW	-	-	-	-	-	-	-	-	-	-	-
10:00 PM - 11:00 PM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM - 12:00 AM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 01:00 AM	0.7	311.0	NW	-	-	-	-	-	-	-	-	-	-	-
01:00 AM - 02:00 AM	1.1	290.0	WNW	-	-	-	-	-	-	-	-	-	-	-
02:00 AM - 03:00 AM	0.6	320.0	NW	-	-	-	-	-	-	-	-	-	-	-
03:00 AM - 04:00 AM	0.5	321.0	NW	-	-	-	-	-	-	-	-	-	-	-
04:00 AM - 05:00 AM	0.3	312.0	NW	-	-	-	-	-	-	-	-	-	-	-
05:00 AM - 06:00 AM	1.0	324.0	NW	-	-	-	-	-	-	-	-	-	-	-
06:00 AM - 07:00 AM	0.3	285.0	WNW	-	-	-	-	-	-	-	-	-	-	-
07:00 AM - 08:00 AM	1.3	300.0	WNW	-	-	-	-	-	-	-	-	-	-	-
08:00 AM - 09:00 AM	0.5	275.0	W	-	-	-	-	-	-	-	-	-	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut, PE (SPE)

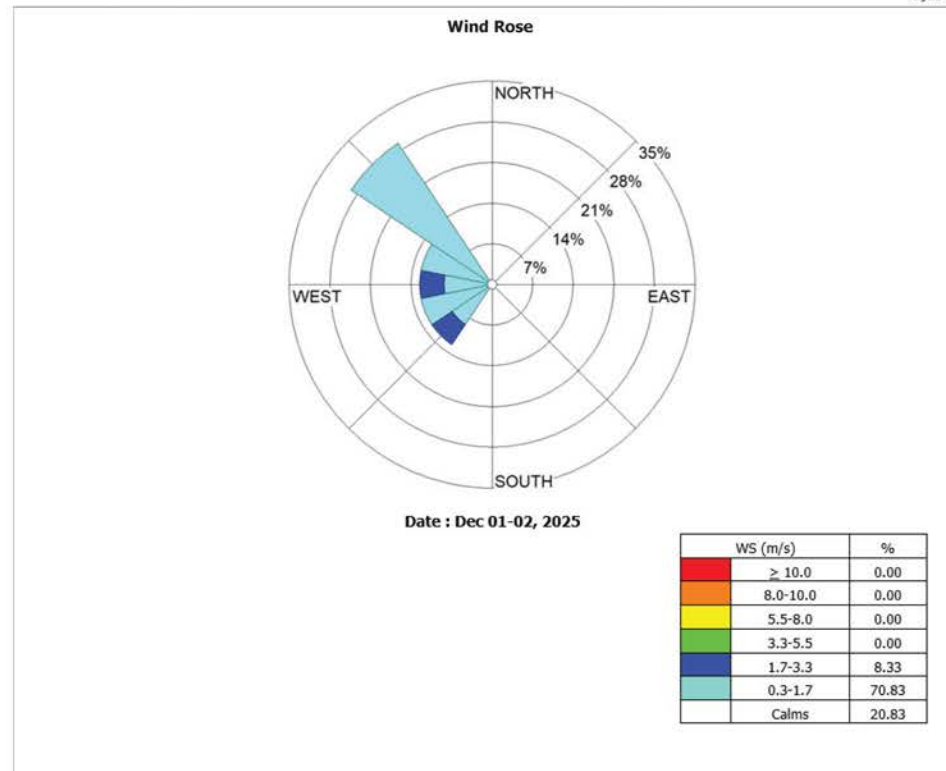
Lot ID: 25108078

Date Received :Dec 02, 2025

Date Reported :Dec 08, 2025

Report Number :3458716-1

Page 2 of 2



Location : ศูนย์บริการสาธารณสุขวัดโสมกัญ (โรงพยาบาลส่งเสริมสุขภาพตำบลบางตาหลวง) (GPS 47P 0735207, 1405888)

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ภาคผนวก ค-4

คุณภาพอากาศในสถานประกอบการ



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571974

Date Received : Aug 22, 2025

Date Reported : Sep 03, 2025

Report Number : 3371005-1

Page 1 of 6

Sample Number 2571974-1
Sampled Date Aug 21, 2025
Sample Description Air Quality
Location Spin Dryer 1
Date Analysis Commenced Aug 26, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 756 mmHg
Atmospheric Temperature 31.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	09:08 AM - 11:08 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Apichart Wilars

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571974

Date Received : Aug 22, 2025

Date Reported : Sep 03, 2025

Report Number : 3371005-1

Page 2 of 6

Sample Number 2571974-2
Sampled Date Aug 21, 2025
Sample Description Air Quality
Location Pelletizer 1
Date Analysis Commenced Aug 26, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 756 mmHg
Atmospheric Temperature 31.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	08:58 AM - 10:58 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Apichart Wilars

Remark :

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571974

Date Received : Aug 22, 2025

Date Reported : Sep 03, 2025

Report Number : 3371005-1

Page 3 of 6

Sample Number 2571974-3
Sampled Date Aug 21, 2025
Sample Description Air Quality
Location Hold Up Hopper 1
Date Analysis Commenced Aug 26, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 756 mmHg
Atmospheric Temperature 31.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	09:04 AM - 11:04 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Apichart Wilars

Remark :

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571974

Date Received : Aug 22, 2025

Date Reported : Sep 03, 2025

Report Number : 3371005-1

Page 4 of 6

Sample Number 2571974-4
Sampled Date Aug 21, 2025
Sample Description Air Quality
Location Spin Dryer 2
Date Analysis Commenced Aug 26, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 756 mmHg
Atmospheric Temperature 31.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	08:52 AM - 10:52 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Apichart Wilars

Remark :

- LOD : Limit of Detection
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Approved by

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Orawan Rakyong
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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571974

Date Received : Aug 22, 2025

Date Reported : Sep 03, 2025

Report Number : 3371005-1

Page 5 of 6

Sample Number 2571974-5
Sampled Date Aug 21, 2025
Sample Description Air Quality
Location Pelletizer 2
Date Analysis Commenced Aug 26, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 756 mmHg
Atmospheric Temperature 31.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	08:45 AM - 10:45 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Apichart Wilars

Remark :

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

Approved by

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Orawan Rakyong
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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571974

Date Received : Aug 22, 2025

Date Reported : Sep 03, 2025

Report Number : 3371005-1

Page 6 of 6

Sample Number 2571974-6
Sampled Date Aug 21, 2025
Sample Description Air Quality
Location Hold Up Hopper 2
Date Analysis Commenced Aug 26, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 756 mmHg
Atmospheric Temperature 31.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	08:48 AM - 10:48 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Apichart Wilars

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590487

Date Received : Nov 07, 2025

Date Reported : Nov 19, 2025

Report Number : 3414859-1

Page 1 of 6

Sample Number 2590487-1
Sampled Date Nov 07, 2025
Sample Description Air Quality
Location Spin Dryer 1
Date Analysis Commenced Nov 10, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 754 mmHg
Atmospheric Temperature 31.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	09:20 AM - 11:20 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Amnat Wongsakhen

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590487

Date Received : Nov 07, 2025

Date Reported : Nov 19, 2025

Report Number : 3414859-1

Page 2 of 6

Sample Number 2590487-2
Sampled Date Nov 07, 2025
Sample Description Air Quality
Location Pelletizer 1
Date Analysis Commenced Nov 10, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 754 mmHg
Atmospheric Temperature 31.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	09:08 AM - 11:08 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Amnat Wongsakhen

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590487

Date Received : Nov 07, 2025

Date Reported : Nov 19, 2025

Report Number : 3414859-1

Page 3 of 6

Sample Number 2590487-3
Sampled Date Nov 07, 2025
Sample Description Air Quality
Location Hold Up Hopper 1
Date Analysis Commenced Nov 10, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 754 mmHg
Atmospheric Temperature 31.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	09:14 AM - 11:14 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Amnat Wongsakhen

Remark :

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

Approved by

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Saranya Chalermthamrong
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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590487

Date Received : Nov 07, 2025

Date Reported : Nov 19, 2025

Report Number : 3414859-1

Page 4 of 6

Sample Number 2590487-4
Sampled Date Nov 07, 2025
Sample Description Air Quality
Location Spin Dryer 2
Date Analysis Commenced Nov 10, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 754 mmHg
Atmospheric Temperature 31.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	08:52 AM - 10:52 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Amnat Wongsakhen

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.

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590487

Date Received : Nov 07, 2025

Date Reported : Nov 19, 2025

Report Number : 3414859-1

Page 5 of 6

Sample Number 2590487-5
Sampled Date Nov 07, 2025
Sample Description Air Quality
Location Pelletizer 2
Date Analysis Commenced Nov 10, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 754 mmHg
Atmospheric Temperature 31.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	09:03 AM - 11:03 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Amnat Wongsakhen

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590487

Date Received : Nov 07, 2025

Date Reported : Nov 19, 2025

Report Number : 3414859-1

Page 6 of 6

Sample Number 2590487-6
Sampled Date Nov 07, 2025
Sample Description Air Quality
Location Hold Up Hopper 2
Date Analysis Commenced Nov 10, 2025
Condition of Sample Drawn into one sorbent tube, refrigerated
Barometric Pressure 754 mmHg
Atmospheric Temperature 31.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
n-Octane	08:45 AM - 10:45 AM	ppm	-	0.10	<0.10	500	NIOSH (2003), 1500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Amnat Wongsakhen

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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ภาคผนวก ค-5

ระดับเสียงโดยทั่วไป และระดับเสียงพื้นฐาน



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571979

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395792-1

Page 1 of 1

Sample Number 2571979-1
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วด้านทิศเหนือของโรงงาน (GPS 47P 0734090, 1404555)
Measurement Date Aug 19 - Aug 20, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	66.8	81.2	66.2
11:00 AM - 12:00 PM	66.8	76.1	66.3
12:00 PM - 01:00 PM	66.9	73.4	66.4
01:00 PM - 02:00 PM	66.9	77.5	66.4
02:00 PM - 03:00 PM	67.0	79.7	66.4
03:00 PM - 04:00 PM	67.0	83.6	66.4
04:00 PM - 05:00 PM	66.9	76.7	66.4
05:00 PM - 06:00 PM	67.3	75.1	66.5
06:00 PM - 07:00 PM	66.8	80.7	66.2
07:00 PM - 08:00 PM	66.8	69.2	66.3
08:00 PM - 09:00 PM	66.6	69.3	66.2
09:00 PM - 10:00 PM	66.4	70.7	66.0
10:00 PM - 11:00 PM	66.5	69.8	66.1
11:00 PM - 12:00 AM	66.4	69.1	66.0
12:00 AM - 01:00 AM	66.5	69.0	66.1
01:00 AM - 02:00 AM	66.8	71.3	66.3
02:00 AM - 03:00 AM	66.7	69.8	66.2
03:00 AM - 04:00 AM	66.7	71.6	66.2
04:00 AM - 05:00 AM	66.7	71.5	66.2
05:00 AM - 06:00 AM	66.6	70.2	66.1
06:00 AM - 07:00 AM	66.9	78.4	66.2
07:00 AM - 08:00 AM	66.9	70.5	66.3
08:00 AM - 09:00 AM	66.8	73.4	66.2
09:00 AM - 10:00 AM	66.7	72.4	66.1

Leq Average 24 hrs. (dB(A))

66.8

Lmax (dB(A))

83.6

L90 (dB(A))

66.2

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise rpt (9:20AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571979

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395793-1

Page 1 of 1

Sample Number 2571979-2
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วด้านทิศเหนือของโรงงาน (GPS 47P 0734090, 1404555)
Measurement Date Aug 20 - Aug 21, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	66.7	73.8	66.2
11:00 AM - 12:00 PM	66.6	69.6	66.1
12:00 PM - 01:00 PM	66.6	74.5	66.0
01:00 PM - 02:00 PM	72.7	98.5	65.7
02:00 PM - 03:00 PM	66.7	73.6	66.0
03:00 PM - 04:00 PM	67.3	73.5	66.4
04:00 PM - 05:00 PM	66.6	73.6	66.0
05:00 PM - 06:00 PM	66.6	70.4	66.1
06:00 PM - 07:00 PM	67.0	71.6	66.4
07:00 PM - 08:00 PM	67.4	73.2	66.7
08:00 PM - 09:00 PM	67.4	71.6	66.9
09:00 PM - 10:00 PM	67.3	78.8	66.4
10:00 PM - 11:00 PM	67.3	79.2	66.4
11:00 PM - 12:00 AM	67.5	71.9	66.5
12:00 AM - 01:00 AM	67.5	72.2	66.6
01:00 AM - 02:00 AM	67.5	72.9	66.6
02:00 AM - 03:00 AM	67.4	72.2	66.5
03:00 AM - 04:00 AM	67.6	71.4	66.6
04:00 AM - 05:00 AM	67.3	71.3	66.4
05:00 AM - 06:00 AM	67.2	70.7	66.3
06:00 AM - 07:00 AM	66.6	71.0	65.9
07:00 AM - 08:00 AM	73.1	99.1	65.8
08:00 AM - 09:00 AM	67.6	73.0	66.5
09:00 AM - 10:00 AM	67.6	73.2	66.6

Leq Average 24 hrs. (dB(A))

68.1

Lmax (dB(A))

99.1

L90 (dB(A))

66.4

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise rpt (9:21AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571979

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395794-1

Page 1 of 1

Sample Number 2571979-3
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วด้านทิศเหนือของโรงงาน (GPS 47P 0734090, 1404555)
Measurement Date Aug 21 - Aug 22, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	67.4	74.0	66.4
11:00 AM - 12:00 PM	67.7	85.2	66.5
12:00 PM - 01:00 PM	67.5	86.4	66.3
01:00 PM - 02:00 PM	66.8	86.5	65.8
02:00 PM - 03:00 PM	66.5	74.1	65.5
03:00 PM - 04:00 PM	66.5	80.2	65.5
04:00 PM - 05:00 PM	65.7	77.2	65.0
05:00 PM - 06:00 PM	66.0	72.2	65.5
06:00 PM - 07:00 PM	66.2	71.2	65.7
07:00 PM - 08:00 PM	66.4	70.5	65.9
08:00 PM - 09:00 PM	67.3	81.2	66.3
09:00 PM - 10:00 PM	67.6	73.6	66.8
10:00 PM - 11:00 PM	67.9	72.5	67.1
11:00 PM - 12:00 AM	68.0	75.9	67.2
12:00 AM - 01:00 AM	68.1	73.2	67.3
01:00 AM - 02:00 AM	68.1	73.4	67.3
02:00 AM - 03:00 AM	70.0	76.1	68.2
03:00 AM - 04:00 AM	69.3	76.2	67.8
04:00 AM - 05:00 AM	70.2	76.5	68.1
05:00 AM - 06:00 AM	67.1	78.5	66.5
06:00 AM - 07:00 AM	66.5	74.4	66.0
07:00 AM - 08:00 AM	66.8	74.1	66.2
08:00 AM - 09:00 AM	67.3	73.2	66.5
09:00 AM - 10:00 AM	67.4	72.7	66.6

Leq Average 24 hrs. (dB(A))

67.6

Lmax (dB(A))

86.5

L90 (dB(A))

66.4

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise rpt (9:22AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571979

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395795-1

Page 1 of 1

Sample Number 2571979-4
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วด้านทิศเหนือของโรงงาน (GPS 47P 0734090, 1404555)
Measurement Date Aug 22 - Aug 23, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	67.1	72.0	66.3
11:00 AM - 12:00 PM	69.9	76.5	67.5
12:00 PM - 01:00 PM	69.6	77.0	67.5
01:00 PM - 02:00 PM	67.6	73.2	66.9
02:00 PM - 03:00 PM	68.1	76.1	67.0
03:00 PM - 04:00 PM	67.3	78.4	66.7
04:00 PM - 05:00 PM	68.4	76.9	67.2
05:00 PM - 06:00 PM	68.0	75.8	67.0
06:00 PM - 07:00 PM	70.3	77.0	68.1
07:00 PM - 08:00 PM	68.5	76.3	67.3
08:00 PM - 09:00 PM	67.7	87.7	66.9
09:00 PM - 10:00 PM	67.5	92.3	66.4
10:00 PM - 11:00 PM	67.2	78.8	66.4
11:00 PM - 12:00 AM	69.5	75.8	67.5
12:00 AM - 01:00 AM	68.4	76.3	66.8
01:00 AM - 02:00 AM	68.7	76.2	66.7
02:00 AM - 03:00 AM	68.5	76.2	66.5
03:00 AM - 04:00 AM	66.7	79.4	66.2
04:00 AM - 05:00 AM	68.7	75.9	66.9
05:00 AM - 06:00 AM	68.1	76.0	66.9
06:00 AM - 07:00 AM	67.1	72.8	66.2
07:00 AM - 08:00 AM	72.7	97.9	66.2
08:00 AM - 09:00 AM	67.1	71.3	66.3
09:00 AM - 10:00 AM	67.5	74.8	66.7

Leq Average 24 hrs. (dB(A))

68.6

Lmax (dB(A))

97.9

L90 (dB(A))

66.8

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise rpt (9:22AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571979

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395796-1

Page 1 of 1

Sample Number 2571979-5
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วด้านทิศเหนือของโรงงาน (GPS 47P 0734090, 1404555)
Measurement Date Aug 23 - Aug 24, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	68.5	77.5	67.2
11:00 AM - 12:00 PM	69.9	76.8	67.8
12:00 PM - 01:00 PM	67.5	78.4	66.7
01:00 PM - 02:00 PM	69.3	76.6	67.4
02:00 PM - 03:00 PM	69.9	77.5	67.9
03:00 PM - 04:00 PM	67.7	78.1	66.8
04:00 PM - 05:00 PM	67.9	77.7	66.9
05:00 PM - 06:00 PM	67.9	74.8	67.0
06:00 PM - 07:00 PM	67.7	73.3	66.7
07:00 PM - 08:00 PM	67.7	73.3	66.7
08:00 PM - 09:00 PM	67.7	76.8	66.7
09:00 PM - 10:00 PM	68.2	76.0	67.0
10:00 PM - 11:00 PM	66.9	74.4	66.3
11:00 PM - 12:00 AM	66.6	71.4	66.2
12:00 AM - 01:00 AM	66.7	74.2	66.2
01:00 AM - 02:00 AM	66.7	70.6	66.2
02:00 AM - 03:00 AM	67.8	79.2	66.9
03:00 AM - 04:00 AM	67.8	72.7	66.8
04:00 AM - 05:00 AM	67.7	73.0	66.8
05:00 AM - 06:00 AM	67.7	74.9	66.8
06:00 AM - 07:00 AM	67.8	76.5	66.9
07:00 AM - 08:00 AM	73.8	100.0	67.0
08:00 AM - 09:00 AM	67.8	73.4	67.0
09:00 AM - 10:00 AM	67.7	76.4	66.9

Leq Average 24 hrs. (dB(A))

68.4

Lmax (dB(A))

100.0

L90 (dB(A))

66.8

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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4989-122/ EMAIL

S:\Reports_Air Noise rpt (9:22AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571979

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395797-1

Page 1 of 1

Sample Number 2571979-6
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วด้านทิศเหนือของโรงงาน (GPS 47P 0734090, 1404555)
Measurement Date Aug 24 - Aug 25, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	67.9	72.8	67.1
11:00 AM - 12:00 PM	67.8	78.4	66.9
12:00 PM - 01:00 PM	67.8	73.2	66.9
01:00 PM - 02:00 PM	67.7	77.3	66.9
02:00 PM - 03:00 PM	67.8	74.7	67.0
03:00 PM - 04:00 PM	67.8	74.0	66.9
04:00 PM - 05:00 PM	67.8	78.7	67.1
05:00 PM - 06:00 PM	68.0	73.4	67.2
06:00 PM - 07:00 PM	67.5	72.0	66.8
07:00 PM - 08:00 PM	67.6	75.0	66.7
08:00 PM - 09:00 PM	67.9	75.9	66.8
09:00 PM - 10:00 PM	70.1	77.7	67.6
10:00 PM - 11:00 PM	69.0	75.9	67.1
11:00 PM - 12:00 AM	68.6	76.2	66.8
12:00 AM - 01:00 AM	67.8	74.2	66.7
01:00 AM - 02:00 AM	68.2	76.2	67.1
02:00 AM - 03:00 AM	70.2	76.6	68.1
03:00 AM - 04:00 AM	69.1	76.4	67.5
04:00 AM - 05:00 AM	69.5	76.7	67.6
05:00 AM - 06:00 AM	68.0	72.9	67.0
06:00 AM - 07:00 AM	68.2	73.3	67.2
07:00 AM - 08:00 AM	73.6	99.8	67.1
08:00 AM - 09:00 AM	67.4	73.6	66.6
09:00 AM - 10:00 AM	67.1	78.7	66.4

Leq Average 24 hrs. (dB(A))

68.7

Lmax (dB(A))

99.8

L90 (dB(A))

67.0

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise rpt (9:23AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571979

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395798-1

Page 1 of 1

Sample Number 2571979-7
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วด้านทิศเหนือของโรงงาน (GPS 47P 0734090, 1404555)
Measurement Date Aug 25 - Aug 26, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	71.5	91.7	66.3
11:00 AM - 12:00 PM	68.8	82.5	67.3
12:00 PM - 01:00 PM	68.4	76.7	67.4
01:00 PM - 02:00 PM	68.5	78.4	67.5
02:00 PM - 03:00 PM	68.3	75.5	67.2
03:00 PM - 04:00 PM	68.1	74.8	67.1
04:00 PM - 05:00 PM	68.4	78.3	67.3
05:00 PM - 06:00 PM	68.3	73.4	67.3
06:00 PM - 07:00 PM	68.3	75.5	67.2
07:00 PM - 08:00 PM	67.2	73.5	66.4
08:00 PM - 09:00 PM	66.7	73.3	66.1
09:00 PM - 10:00 PM	66.9	71.7	66.3
10:00 PM - 11:00 PM	67.0	76.1	66.4
11:00 PM - 12:00 AM	67.0	75.4	66.5
12:00 AM - 01:00 AM	66.9	74.5	66.3
01:00 AM - 02:00 AM	66.8	71.9	66.2
02:00 AM - 03:00 AM	66.8	73.3	66.3
03:00 AM - 04:00 AM	66.8	70.8	66.3
04:00 AM - 05:00 AM	67.0	71.3	66.4
05:00 AM - 06:00 AM	70.3	80.0	67.5
06:00 AM - 07:00 AM	70.0	79.1	67.3
07:00 AM - 08:00 AM	70.0	82.2	67.4
08:00 AM - 09:00 AM	67.0	76.8	66.4
09:00 AM - 10:00 AM	67.0	75.2	66.4

Leq Average 24 hrs. (dB(A))

68.2

Lmax (dB(A))

91.7

L90 (dB(A))

66.4

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise rpt (9:23AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571980

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395876-1

Page 1 of 1

Sample Number 2571980-1
Parameter Noise (Leq 24 hrs.)
Location ถนนวัดโลกวณ (GPS 47P 0735038, 1405843)
Measurement Date Aug 19 - Aug 20, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 873109

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	57.0	80.7	47.9
11:00 AM - 12:00 PM	54.4	80.5	49.8
12:00 PM - 01:00 PM	54.7	80.3	50.3
01:00 PM - 02:00 PM	57.6	84.3	51.2
02:00 PM - 03:00 PM	56.6	77.2	50.4
03:00 PM - 04:00 PM	55.0	70.9	51.2
04:00 PM - 05:00 PM	55.1	75.5	50.7
05:00 PM - 06:00 PM	52.9	67.6	49.9
06:00 PM - 07:00 PM	53.7	77.0	49.8
07:00 PM - 08:00 PM	53.6	80.0	48.5
08:00 PM - 09:00 PM	51.4	76.8	47.0
09:00 PM - 10:00 PM	50.5	68.7	46.5
10:00 PM - 11:00 PM	50.6	76.3	46.6
11:00 PM - 12:00 AM	49.2	68.5	46.5
12:00 AM - 01:00 AM	50.1	68.5	46.4
01:00 AM - 02:00 AM	48.0	61.2	46.0
02:00 AM - 03:00 AM	49.4	69.8	46.5
03:00 AM - 04:00 AM	48.1	61.9	46.0
04:00 AM - 05:00 AM	48.5	59.2	46.7
05:00 AM - 06:00 AM	58.1	94.0	48.4
06:00 AM - 07:00 AM	52.2	74.6	49.8
07:00 AM - 08:00 AM	56.7	77.8	51.9
08:00 AM - 09:00 AM	54.9	76.7	49.4
09:00 AM - 10:00 AM	51.9	70.8	47.0

Leq Average 24 hrs. (dB(A))

54.0

Lmax (dB(A))

94.0

L90 (dB(A))

48.4

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise rpt (9:09AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571980

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395877-1

Page 1 of 1

Sample Number 2571980-2
Parameter Noise (Leq 24 hrs.)
Location ชุมชนวัดโสมกู่ (GPS 47P 0735038, 1405843)
Measurement Date Aug 20 - Aug 21, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 873109

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	51.8	72.9	47.3
11:00 AM - 12:00 PM	53.7	86.4	47.7
12:00 PM - 01:00 PM	53.3	71.3	48.0
01:00 PM - 02:00 PM	53.3	68.1	47.5
02:00 PM - 03:00 PM	48.8	69.6	40.2
03:00 PM - 04:00 PM	49.2	67.2	41.9
04:00 PM - 05:00 PM	50.2	67.1	42.1
05:00 PM - 06:00 PM	50.2	71.3	42.5
06:00 PM - 07:00 PM	50.6	75.8	44.7
07:00 PM - 08:00 PM	58.2	73.4	53.5
08:00 PM - 09:00 PM	48.4	63.1	45.5
09:00 PM - 10:00 PM	50.7	59.4	48.0
10:00 PM - 11:00 PM	48.2	60.7	45.4
11:00 PM - 12:00 AM	49.0	60.0	47.8
12:00 AM - 01:00 AM	48.6	65.3	47.5
01:00 AM - 02:00 AM	49.9	58.5	48.8
02:00 AM - 03:00 AM	52.3	59.1	50.7
03:00 AM - 04:00 AM	53.0	61.7	51.9
04:00 AM - 05:00 AM	50.2	64.1	48.9
05:00 AM - 06:00 AM	48.4	60.9	46.7
06:00 AM - 07:00 AM	51.0	69.0	46.1
07:00 AM - 08:00 AM	50.5	69.5	44.7
08:00 AM - 09:00 AM	49.2	64.9	43.5
09:00 AM - 10:00 AM	48.7	68.4	42.1

Leq Average 24 hrs. (dB(A))

51.5

Lmax (dB(A))

86.4

L90 (dB(A))

46.7

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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Supot Salamteh
Section Head

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S:\Reports_Air Noise rpt (9:10AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571980

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395878-1

Page 1 of 1

Sample Number 2571980-3
Parameter Noise (Leq 24 hrs.)
Location ชุมชนวัดโสมกู่ (GPS 47P 0735038, 1405843)
Measurement Date Aug 21 - Aug 22, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 873109

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	50.0	73.3	41.8
11:00 AM - 12:00 PM	50.7	66.8	44.8
12:00 PM - 01:00 PM	49.9	68.4	44.1
01:00 PM - 02:00 PM	52.9	76.4	46.3
02:00 PM - 03:00 PM	51.4	71.8	49.6
03:00 PM - 04:00 PM	51.5	60.8	49.9
04:00 PM - 05:00 PM	53.2	74.1	50.0
05:00 PM - 06:00 PM	55.4	75.2	50.3
06:00 PM - 07:00 PM	59.3	77.6	55.6
07:00 PM - 08:00 PM	55.1	77.9	50.6
08:00 PM - 09:00 PM	53.9	67.7	50.0
09:00 PM - 10:00 PM	54.8	79.1	49.8
10:00 PM - 11:00 PM	51.3	67.5	47.9
11:00 PM - 12:00 AM	49.7	64.6	47.0
12:00 AM - 01:00 AM	50.6	73.4	47.3
01:00 AM - 02:00 AM	49.2	68.0	46.1
02:00 AM - 03:00 AM	49.5	75.1	44.9
03:00 AM - 04:00 AM	47.2	65.8	44.5
04:00 AM - 05:00 AM	48.3	70.0	44.6
05:00 AM - 06:00 AM	48.5	62.0	45.7
06:00 AM - 07:00 AM	51.3	71.0	47.9
07:00 AM - 08:00 AM	54.3	73.5	50.3
08:00 AM - 09:00 AM	57.8	75.9	51.4
09:00 AM - 10:00 AM	52.6	71.6	48.1

Leq Average 24 hrs. (dB(A))

53.2

Lmax (dB(A))

79.1

L90 (dB(A))

47.9

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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Supot Salamteh
Section Head

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S:\Reports_Air Noise rpt (9:10AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571980

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395879-1

Page 1 of 1

Sample Number 2571980-4
Parameter Noise (Leq 24 hrs.)
Location ชุมชนวัดโสมกู่ (GPS 47P 0735038, 1405843)
Measurement Date Aug 22 - Aug 23, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 873109

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	55.2	77.1	49.3
11:00 AM - 12:00 PM	52.9	78.8	49.7
12:00 PM - 01:00 PM	53.8	76.8	50.7
01:00 PM - 02:00 PM	56.7	81.7	55.1
02:00 PM - 03:00 PM	53.8	75.3	50.6
03:00 PM - 04:00 PM	55.0	78.7	51.2
04:00 PM - 05:00 PM	55.4	79.2	50.4
05:00 PM - 06:00 PM	54.1	72.5	49.9
06:00 PM - 07:00 PM	52.4	68.5	49.0
07:00 PM - 08:00 PM	63.7	89.6	57.4
08:00 PM - 09:00 PM	66.3	95.3	62.5
09:00 PM - 10:00 PM	67.3	95.5	62.2
10:00 PM - 11:00 PM	57.0	87.6	55.1
11:00 PM - 12:00 AM	55.6	77.8	53.9
12:00 AM - 01:00 AM	50.4	63.2	49.4
01:00 AM - 02:00 AM	50.0	69.2	48.2
02:00 AM - 03:00 AM	66.3	94.1	56.8
03:00 AM - 04:00 AM	60.7	96.2	56.9
04:00 AM - 05:00 AM	53.9	70.2	50.4
05:00 AM - 06:00 AM	55.2	70.6	51.6
06:00 AM - 07:00 AM	55.7	73.0	52.0
07:00 AM - 08:00 AM	63.1	75.7	52.3
08:00 AM - 09:00 AM	60.3	81.7	49.0
09:00 AM - 10:00 AM	61.8	88.4	49.0

Leq Average 24 hrs. (dB(A))

60.5

Lmax (dB(A))

96.2

L90 (dB(A))

50.7

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise rpt (9:10AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571980

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395880-1

Page 1 of 1

Sample Number 2571980-5
Parameter Noise (Leq 24 hrs.)
Location ชุมชนวัดโสมกู่ (GPS 47P 0735038, 1405843)
Measurement Date Aug 23 - Aug 24, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 873109

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	60.0	76.0	50.3
11:00 AM - 12:00 PM	58.7	77.4	52.2
12:00 PM - 01:00 PM	61.8	76.2	53.7
01:00 PM - 02:00 PM	61.1	77.6	55.5
02:00 PM - 03:00 PM	61.3	80.1	50.5
03:00 PM - 04:00 PM	55.9	78.0	49.5
04:00 PM - 05:00 PM	56.2	80.8	51.7
05:00 PM - 06:00 PM	54.2	68.9	50.5
06:00 PM - 07:00 PM	53.6	70.3	50.1
07:00 PM - 08:00 PM	52.3	70.8	48.5
08:00 PM - 09:00 PM	51.4	71.3	47.3
09:00 PM - 10:00 PM	51.5	76.1	47.4
10:00 PM - 11:00 PM	55.7	84.3	48.0
11:00 PM - 12:00 AM	53.9	72.8	50.4
12:00 AM - 01:00 AM	54.8	70.1	50.0
01:00 AM - 02:00 AM	53.7	64.2	49.8
02:00 AM - 03:00 AM	48.8	65.2	46.7
03:00 AM - 04:00 AM	50.6	70.8	46.9
04:00 AM - 05:00 AM	50.2	66.1	48.1
05:00 AM - 06:00 AM	51.8	66.4	49.2
06:00 AM - 07:00 AM	53.6	76.1	49.1
07:00 AM - 08:00 AM	52.6	73.7	48.6
08:00 AM - 09:00 AM	52.3	72.9	47.7
09:00 AM - 10:00 AM	51.0	66.6	47.5

Leq Average 24 hrs. (dB(A))

56.2

Lmax (dB(A))

84.3

L90 (dB(A))

49.2

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571980

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395881-1

Page 1 of 1

Sample Number 2571980-6
Parameter Noise (Leq 24 hrs.)
Location ชุมชนวัดโสมกู่ (GPS 47P 0735038, 1405843)
Measurement Date Aug 24 - Aug 25, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 873109

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	52.8	68.6	48.4
11:00 AM - 12:00 PM	54.2	69.5	50.3
12:00 PM - 01:00 PM	55.3	73.5	51.0
01:00 PM - 02:00 PM	54.1	62.9	50.3
02:00 PM - 03:00 PM	55.9	72.8	51.1
03:00 PM - 04:00 PM	55.6	67.8	51.2
04:00 PM - 05:00 PM	55.0	79.3	50.1
05:00 PM - 06:00 PM	53.0	73.0	49.1
06:00 PM - 07:00 PM	53.2	73.5	48.2
07:00 PM - 08:00 PM	52.7	69.1	48.4
08:00 PM - 09:00 PM	52.4	68.6	48.4
09:00 PM - 10:00 PM	52.9	73.4	48.9
10:00 PM - 11:00 PM	49.8	71.8	46.4
11:00 PM - 12:00 AM	49.2	64.9	46.6
12:00 AM - 01:00 AM	49.7	65.9	47.5
01:00 AM - 02:00 AM	49.8	61.9	47.5
02:00 AM - 03:00 AM	50.4	64.5	47.2
03:00 AM - 04:00 AM	50.0	68.5	46.8
04:00 AM - 05:00 AM	49.2	60.4	47.1
05:00 AM - 06:00 AM	53.5	75.5	49.8
06:00 AM - 07:00 AM	55.2	72.4	51.8
07:00 AM - 08:00 AM	53.7	70.1	50.5
08:00 AM - 09:00 AM	53.3	74.0	48.8
09:00 AM - 10:00 AM	53.7	71.5	49.6

Leq Average 24 hrs. (dB(A))

53.2

Lmax (dB(A))

79.3

L90 (dB(A))

48.8

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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 : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571980

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3395882-1

Page 1 of 1

Sample Number 2571980-7
Parameter Noise (Leq 24 hrs.)
Location ชุมชนวัดโสมกู่ (GPS 47P 0735038, 1405843)
Measurement Date Aug 25 - Aug 26, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 873109

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	55.9	72.0	51.0
11:00 AM - 12:00 PM	58.0	68.7	53.5
12:00 PM - 01:00 PM	59.3	83.4	53.7
01:00 PM - 02:00 PM	59.5	78.6	54.4
02:00 PM - 03:00 PM	57.2	70.5	52.8
03:00 PM - 04:00 PM	57.3	77.0	53.4
04:00 PM - 05:00 PM	57.2	73.7	53.4
05:00 PM - 06:00 PM	56.5	72.3	52.3
06:00 PM - 07:00 PM	57.2	76.6	53.0
07:00 PM - 08:00 PM	57.6	69.3	52.9
08:00 PM - 09:00 PM	57.8	72.5	52.2
09:00 PM - 10:00 PM	57.4	74.5	51.1
10:00 PM - 11:00 PM	58.5	69.8	53.2
11:00 PM - 12:00 AM	54.5	71.4	49.6
12:00 AM - 01:00 AM	53.5	76.0	48.4
01:00 AM - 02:00 AM	51.8	65.9	47.6
02:00 AM - 03:00 AM	50.7	61.8	46.5
03:00 AM - 04:00 AM	52.8	65.9	48.3
04:00 AM - 05:00 AM	54.3	62.3	50.0
05:00 AM - 06:00 AM	58.9	72.2	53.8
06:00 AM - 07:00 AM	58.6	70.2	54.2
07:00 AM - 08:00 AM	58.3	78.7	53.3
08:00 AM - 09:00 AM	61.3	85.8	54.1
09:00 AM - 10:00 AM	58.6	70.5	53.5

Leq Average 24 hrs. (dB(A))

57.4

Lmax (dB(A))

85.8

L90 (dB(A))

52.9

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise.rpt (9:11AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571981

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3396647-1

Page 1 of 1

Sample Number 2571981-1
Parameter Noise (Leq 24 hrs.)
Location ชุมชนตากวน-ฉะปะ (GPS 47P 0735578, 1402792)
Measurement Date Aug 19 - Aug 20, 2025
Measurement by Anuwet Tema
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	50.8	68.8	45.1
11:00 AM - 12:00 PM	53.9	88.4	44.2
12:00 PM - 01:00 PM	53.8	75.1	45.3
01:00 PM - 02:00 PM	51.5	70.4	45.1
02:00 PM - 03:00 PM	53.8	72.1	45.1
03:00 PM - 04:00 PM	52.2	71.4	45.5
04:00 PM - 05:00 PM	51.5	74.9	46.6
05:00 PM - 06:00 PM	53.8	75.5	49.5
06:00 PM - 07:00 PM	56.1	80.1	48.7
07:00 PM - 08:00 PM	53.6	72.7	48.3
08:00 PM - 09:00 PM	53.4	74.7	48.8
09:00 PM - 10:00 PM	51.2	78.9	45.2
10:00 PM - 11:00 PM	48.2	61.5	44.6
11:00 PM - 12:00 AM	50.0	69.9	45.3
12:00 AM - 01:00 AM	49.4	71.7	45.0
01:00 AM - 02:00 AM	47.9	69.8	44.7
02:00 AM - 03:00 AM	49.9	63.7	46.7
03:00 AM - 04:00 AM	49.7	69.6	43.6
04:00 AM - 05:00 AM	51.0	76.2	44.7
05:00 AM - 06:00 AM	52.4	69.4	45.0
06:00 AM - 07:00 AM	56.7	69.8	52.4
07:00 AM - 08:00 AM	57.2	70.8	53.4
08:00 AM - 09:00 AM	54.2	86.4	47.4
09:00 AM - 10:00 AM	53.3	71.3	45.3

Leq Average 24 hrs. (dB(A))

53.0

Lmax (dB(A))

88.4

L90 (dB(A))

45.3

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise.rpt (10:44AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571981

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3396648-1

Page 1 of 1

Sample Number 2571981-2
Parameter Noise (Leq 24 hrs.)
Location ชุมชนตากวน-ฉะปะ (GPS 47P 0735578, 1402792)
Measurement Date Aug 20 - Aug 21, 2025
Measurement by Anuwet Tema
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	59.3	80.6	54.6
11:00 AM - 12:00 PM	57.5	81.5	51.3
12:00 PM - 01:00 PM	54.8	78.8	46.3
01:00 PM - 02:00 PM	51.1	65.1	44.6
02:00 PM - 03:00 PM	57.9	92.1	46.5
03:00 PM - 04:00 PM	62.0	96.8	48.7
04:00 PM - 05:00 PM	53.7	76.5	47.4
05:00 PM - 06:00 PM	52.0	67.4	45.5
06:00 PM - 07:00 PM	51.2	66.9	44.7
07:00 PM - 08:00 PM	51.1	66.7	45.1
08:00 PM - 09:00 PM	50.7	76.9	43.6
09:00 PM - 10:00 PM	48.8	66.7	42.4
10:00 PM - 11:00 PM	50.4	72.8	42.6
11:00 PM - 12:00 AM	47.4	65.8	41.1
12:00 AM - 01:00 AM	47.4	72.1	40.9
01:00 AM - 02:00 AM	46.6	62.9	41.3
02:00 AM - 03:00 AM	46.3	59.6	40.3
03:00 AM - 04:00 AM	47.4	63.0	40.9
04:00 AM - 05:00 AM	49.8	63.7	42.4
05:00 AM - 06:00 AM	52.3	71.7	45.7
06:00 AM - 07:00 AM	54.9	75.6	50.3
07:00 AM - 08:00 AM	55.1	71.1	50.0
08:00 AM - 09:00 AM	60.1	87.4	47.7
09:00 AM - 10:00 AM	63.7	92.9	50.5

Leq Average 24 hrs. (dB(A))

56.0

Lmax (dB(A))

96.8

L90 (dB(A))

45.1

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise.rpt (10:45AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571981

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3396649-1

Page 1 of 1

Sample Number 2571981-3
Parameter Noise (Leq 24 hrs.)
Location ชุมชนตากวน-อ่าวประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date Aug 21 - Aug 22, 2025
Measurement by Anuwet Tema
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	56.0	86.9	47.3
11:00 AM - 12:00 PM	53.1	73.1	45.9
12:00 PM - 01:00 PM	51.1	69.7	45.0
01:00 PM - 02:00 PM	50.1	71.1	43.8
02:00 PM - 03:00 PM	50.8	67.1	44.5
03:00 PM - 04:00 PM	51.1	67.7	44.8
04:00 PM - 05:00 PM	57.0	80.3	47.2
05:00 PM - 06:00 PM	61.3	83.8	54.9
06:00 PM - 07:00 PM	53.2	73.2	47.6
07:00 PM - 08:00 PM	53.2	72.3	47.1
08:00 PM - 09:00 PM	53.4	77.5	46.5
09:00 PM - 10:00 PM	52.6	81.2	45.5
10:00 PM - 11:00 PM	52.3	77.3	44.1
11:00 PM - 12:00 AM	49.4	72.7	42.5
12:00 AM - 01:00 AM	46.6	61.7	40.7
01:00 AM - 02:00 AM	48.3	71.0	41.4
02:00 AM - 03:00 AM	46.8	62.7	39.5
03:00 AM - 04:00 AM	50.0	74.4	40.8
04:00 AM - 05:00 AM	50.9	65.7	43.0
05:00 AM - 06:00 AM	52.4	73.1	44.9
06:00 AM - 07:00 AM	56.1	85.5	49.3
07:00 AM - 08:00 AM	54.7	73.4	48.7
08:00 AM - 09:00 AM	53.0	70.2	46.7
09:00 AM - 10:00 AM	53.4	73.7	47.0

Leq Average 24 hrs. (dB(A))

53.7

Lmax (dB(A))

86.9

L90 (dB(A))

45.0

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการ
โรงงาน 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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S:\Reports_Air Noise.rpt (10:45AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571981

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3396650-1

Page 1 of 1

Sample Number 2571981-4
Parameter Noise (Leq 24 hrs.)
Location ชุมชนตากวน-อ่าวประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date Aug 22 - Aug 23, 2025
Measurement by Anuwet Tema
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	52.4	73.1	46.7
11:00 AM - 12:00 PM	51.9	69.0	45.7
12:00 PM - 01:00 PM	51.8	70.5	45.6
01:00 PM - 02:00 PM	51.8	69.2	47.9
02:00 PM - 03:00 PM	57.7	88.2	47.7
03:00 PM - 04:00 PM	52.3	81.2	46.1
04:00 PM - 05:00 PM	52.0	85.0	46.3
05:00 PM - 06:00 PM	51.4	70.1	47.0
06:00 PM - 07:00 PM	51.4	70.4	47.3
07:00 PM - 08:00 PM	65.0	91.7	61.7
08:00 PM - 09:00 PM	64.9	85.9	61.1
09:00 PM - 10:00 PM	66.7	86.6	63.5
10:00 PM - 11:00 PM	51.7	75.2	47.9
11:00 PM - 12:00 AM	52.7	69.0	50.1
12:00 AM - 01:00 AM	50.0	71.4	47.4
01:00 AM - 02:00 AM	51.8	80.4	48.0
02:00 AM - 03:00 AM	58.4	85.5	50.4
03:00 AM - 04:00 AM	58.8	78.1	54.3
04:00 AM - 05:00 AM	55.0	64.0	51.2
05:00 AM - 06:00 AM	54.6	72.6	50.7
06:00 AM - 07:00 AM	57.5	85.6	50.4
07:00 AM - 08:00 AM	58.4	91.9	49.6
08:00 AM - 09:00 AM	56.7	87.8	46.2
09:00 AM - 10:00 AM	50.5	75.2	44.5

Leq Average 24 hrs. (dB(A))

58.6

Lmax (dB(A))

91.9

L90 (dB(A))

47.9

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการ
โรงงาน 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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S:\Reports_Air Noise.rpt (10:45AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571981

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3396651-1

Page 1 of 1

Sample Number 2571981-5
Parameter Noise (Leq 24 hrs.)
Location ชุมชนตากวน-อ่าวประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date Aug 23 - Aug 24, 2025
Measurement by Anuwet Tema
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	48.5	69.4	43.9
11:00 AM - 12:00 PM	48.5	68.1	44.1
12:00 PM - 01:00 PM	49.7	71.6	45.1
01:00 PM - 02:00 PM	50.7	80.4	45.3
02:00 PM - 03:00 PM	48.6	73.1	44.4
03:00 PM - 04:00 PM	51.1	73.8	44.6
04:00 PM - 05:00 PM	51.1	70.6	45.4
05:00 PM - 06:00 PM	51.8	68.6	47.4
06:00 PM - 07:00 PM	51.6	68.8	46.8
07:00 PM - 08:00 PM	51.2	73.7	45.7
08:00 PM - 09:00 PM	50.8	71.5	45.9
09:00 PM - 10:00 PM	50.7	73.8	45.2
10:00 PM - 11:00 PM	51.1	78.5	45.2
11:00 PM - 12:00 AM	50.0	75.7	45.6
12:00 AM - 01:00 AM	50.0	70.5	45.3
01:00 AM - 02:00 AM	49.3	71.5	45.8
02:00 AM - 03:00 AM	51.6	74.5	45.7
03:00 AM - 04:00 AM	48.9	71.6	43.7
04:00 AM - 05:00 AM	48.0	71.4	43.9
05:00 AM - 06:00 AM	49.8	66.6	43.6
06:00 AM - 07:00 AM	52.9	78.9	46.4
07:00 AM - 08:00 AM	51.8	72.5	46.0
08:00 AM - 09:00 AM	50.9	71.1	44.3
09:00 AM - 10:00 AM	49.6	72.7	44.4

Leq Average 24 hrs. (dB(A))

50.5

Lmax (dB(A))

80.4

L90 (dB(A))

45.2

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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S:\Reports_Air Noise.rpt (10:45AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571981

Date Received : Aug 27, 2025

Date Reported : Sep 02, 2025

Report Number: 3396652-1

Page 1 of 1

Sample Number 2571981-6
Parameter Noise (Leq 24 hrs.)
Location ชุมชนตากวน-อ่าวประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date Aug 24 - Aug 25, 2025
Measurement by Anuwet Tema
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	46.9	64.6	43.1
11:00 AM - 12:00 PM	48.8	67.5	44.5
12:00 PM - 01:00 PM	48.8	67.4	44.5
01:00 PM - 02:00 PM	48.7	71.2	44.1
02:00 PM - 03:00 PM	60.6	72.8	47.9
03:00 PM - 04:00 PM	51.4	71.8	45.7
04:00 PM - 05:00 PM	50.6	71.6	45.8
05:00 PM - 06:00 PM	51.5	69.5	46.8
06:00 PM - 07:00 PM	52.3	70.0	47.2
07:00 PM - 08:00 PM	51.4	83.0	44.9
08:00 PM - 09:00 PM	51.7	76.2	46.6
09:00 PM - 10:00 PM	49.8	75.3	44.7
10:00 PM - 11:00 PM	49.6	77.2	43.0
11:00 PM - 12:00 AM	50.4	82.8	42.4
12:00 AM - 01:00 AM	47.8	73.4	41.9
01:00 AM - 02:00 AM	47.4	71.1	42.9
02:00 AM - 03:00 AM	47.9	73.9	43.7
03:00 AM - 04:00 AM	46.7	68.5	43.8
04:00 AM - 05:00 AM	47.5	69.0	44.1
05:00 AM - 06:00 AM	50.6	65.8	44.1
06:00 AM - 07:00 AM	57.3	83.4	48.2
07:00 AM - 08:00 AM	53.0	77.6	48.2
08:00 AM - 09:00 AM	50.6	73.2	45.2
09:00 AM - 10:00 AM	47.9	69.2	43.2

Leq Average 24 hrs. (dB(A))

52.1

Lmax (dB(A))

83.4

L90 (dB(A))

44.5

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

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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Supot Salamteh
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S:\Reports_Air Noise.rpt (10:46AM)



Analysis / Test Report



TESTING
No.0042

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571981
Date Received : Aug 27, 2025
Date Reported : Sep 02, 2025
Report Number: 3396653-1

Page 1 of 1

Sample Number 2571981-7
Parameter Noise (Leq 24 hrs.)
Location ชุมชนตากวน-อำเภอประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date Aug 25 - Aug 26, 2025
Measurement by Anuwet Tema
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	47.7	72.1	43.7
11:00 AM - 12:00 PM	48.2	62.3	44.8
12:00 PM - 01:00 PM	50.1	67.5	46.7
01:00 PM - 02:00 PM	50.1	68.7	47.2
02:00 PM - 03:00 PM	55.9	86.8	46.3
03:00 PM - 04:00 PM	50.9	75.2	46.5
04:00 PM - 05:00 PM	52.0	70.4	47.9
05:00 PM - 06:00 PM	51.1	67.5	47.6
06:00 PM - 07:00 PM	50.8	69.0	47.4
07:00 PM - 08:00 PM	50.5	69.2	46.6
08:00 PM - 09:00 PM	51.3	78.6	46.5
09:00 PM - 10:00 PM	51.9	77.5	46.4
10:00 PM - 11:00 PM	52.0	72.7	47.9
11:00 PM - 12:00 AM	49.8	69.0	46.5
12:00 AM - 01:00 AM	48.5	66.9	45.0
01:00 AM - 02:00 AM	47.4	73.8	43.4
02:00 AM - 03:00 AM	45.6	65.6	42.1
03:00 AM - 04:00 AM	55.9	92.1	41.7
04:00 AM - 05:00 AM	47.6	79.2	42.3
05:00 AM - 06:00 AM	50.1	69.3	45.5
06:00 AM - 07:00 AM	56.6	86.9	48.4
07:00 AM - 08:00 AM	54.2	74.5	49.6
08:00 AM - 09:00 AM	52.0	68.5	47.6
09:00 AM - 10:00 AM	49.5	67.1	45.8

Leq Average 24 hrs. (dB(A)) 51.7
Lmax (dB(A)) 92.1
L90 (dB(A)) 46.5

Standard (dB(A)) 70 115
Reference Method : ISO 1996-1 : 2016
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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Supot Salamteh
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S:\Reports_Air Noise.rpt (10:46AM)



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394196-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 1 of 3

Sample Number 2571982-1
Parameter Noise Level (Leq 5 min)
Location ชุมชนวัดโสมกู่ (GPS 47P 0735038, 1405843)
Measurement Date Aug 19 - Aug 20, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 19, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 19, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 19, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	51.3	48.4	12:40 PM - 12:45 PM	53.2	49.2	03:20 PM - 03:25 PM	54.5	50.3
10:05 AM - 10:10 AM	51.2	48.4	12:45 PM - 12:50 PM	52.8	50.3	03:25 PM - 03:30 PM	55.2	51.7
10:10 AM - 10:15 AM	50.7	48.5	12:50 PM - 12:55 PM	53.4	49.3	03:30 PM - 03:35 PM	55.7	51.4
10:15 AM - 10:20 AM	50.4	47.5	12:55 PM - 01:00 PM	59.1	49.6	03:35 PM - 03:40 PM	53.0	49.9
10:20 AM - 10:25 AM	66.2	48.8	01:00 PM - 01:05 PM	61.3	50.7	03:40 PM - 03:45 PM	55.7	52.1
10:25 AM - 10:30 AM	48.1	46.0	01:05 PM - 01:10 PM	58.9	50.1	03:45 PM - 03:50 PM	55.9	51.2
10:30 AM - 10:35 AM	50.2	46.8	01:10 PM - 01:15 PM	56.1	50.8	03:50 PM - 03:55 PM	55.0	51.9
10:35 AM - 10:40 AM	57.3	47.6	01:15 PM - 01:20 PM	54.0	51.2	03:55 PM - 04:00 PM	53.3	50.1
10:40 AM - 10:45 AM	50.0	46.7	01:20 PM - 01:25 PM	54.9	51.6	04:00 PM - 04:05 PM	52.6	49.3
10:45 AM - 10:50 AM	53.6	48.3	01:25 PM - 01:30 PM	54.9	52.5	04:05 PM - 04:10 PM	53.0	50.4
10:50 AM - 10:55 AM	52.1	49.0	01:30 PM - 01:35 PM	55.9	51.9	04:10 PM - 04:15 PM	56.3	51.8
10:55 AM - 11:00 AM	50.7	47.1	01:35 PM - 01:40 PM	60.0	52.0	04:15 PM - 04:20 PM	54.8	50.5
11:00 AM - 11:05 AM	51.2	48.0	01:40 PM - 01:45 PM	61.5	51.9	04:20 PM - 04:25 PM	54.2	49.1
11:05 AM - 11:10 AM	50.5	48.3	01:45 PM - 01:50 PM	53.5	50.2	04:25 PM - 04:30 PM	54.4	50.8
11:10 AM - 11:15 AM	52.4	47.8	01:50 PM - 01:55 PM	54.9	50.0	04:30 PM - 04:35 PM	56.0	52.8
11:15 AM - 11:20 AM	55.2	47.8	01:55 PM - 02:00 PM	53.6	50.4	04:35 PM - 04:40 PM	60.3	51.2
11:20 AM - 11:25 AM	51.5	48.3	02:00 PM - 02:05 PM	53.7	50.7	04:40 PM - 04:45 PM	54.0	51.2
11:25 AM - 11:30 AM	52.1	48.6	02:05 PM - 02:10 PM	62.5	53.9	04:45 PM - 04:50 PM	53.0	50.5
11:30 AM - 11:35 AM	54.5	50.9	02:10 PM - 02:15 PM	60.6	49.7	04:50 PM - 04:55 PM	52.7	49.9
11:35 AM - 11:40 AM	56.0	51.9	02:15 PM - 02:20 PM	55.9	49.0	04:55 PM - 05:00 PM	52.1	49.6
11:40 AM - 11:45 AM	56.7	51.4	02:20 PM - 02:25 PM	56.7	49.8	05:00 PM - 05:05 PM	52.4	49.2
11:45 AM - 11:50 AM	56.8	49.9	02:25 PM - 02:30 PM	52.0	49.9	05:05 PM - 05:10 PM	54.6	50.7
11:50 AM - 11:55 AM	56.3	50.6	02:30 PM - 02:35 PM	52.7	50.0	05:10 PM - 05:15 PM	53.9	51.7
11:55 AM - 12:00 PM	53.1	51.0	02:35 PM - 02:40 PM	55.3	49.8	05:15 PM - 05:20 PM	54.3	51.0
12:00 PM - 12:05 PM	53.3	50.4	02:40 PM - 02:45 PM	52.4	49.9	05:20 PM - 05:25 PM	54.9	50.6
12:05 PM - 12:10 PM	53.8	50.0	02:45 PM - 02:50 PM	51.6	49.4	05:25 PM - 05:30 PM	51.1	49.1
12:10 PM - 12:15 PM	55.0	50.8	02:50 PM - 02:55 PM	52.5	50.0	05:30 PM - 05:35 PM	52.7	49.3
12:15 PM - 12:20 PM	54.0	50.0	02:55 PM - 03:00 PM	54.0	50.1	05:35 PM - 05:40 PM	52.4	49.8
12:20 PM - 12:25 PM	55.5	52.2	03:00 PM - 03:05 PM	54.1	50.5	05:40 PM - 05:45 PM	51.3	49.0
12:25 PM - 12:30 PM	54.8	50.4	03:05 PM - 03:10 PM	54.4	50.9	05:45 PM - 05:50 PM	51.5	49.5
12:30 PM - 12:35 PM	52.8	50.4	03:10 PM - 03:15 PM	55.1	52.0	05:50 PM - 05:55 PM	51.9	49.1
12:35 PM - 12:40 PM	53.4	49.8	03:15 PM - 03:20 PM	56.5	52.0	05:55 PM - 06:00 PM	51.4	49.0

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

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received :Aug 27, 2025
Date Reported :Aug 29, 2025
Report Number :3394196-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number 2571982-1
Parameter Noise Level (Leq 5 min)
Location ฐานมาตรวัด (GPS 47P 0735038, 1405843)
Measurement Date Aug 19 - Aug 20, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 19, 2025	Leq	L90	Aug 19, 2025	Leq	L90	Aug 19 - Aug 20, 2025	Leq	L90
Time	dB(A)	dB(A)	Time	dB(A)	dB(A)	Time	dB(A)	dB(A)
06:00 PM - 06:05 PM	56.9	50.8	08:40 PM - 08:45 PM	52.0	46.9	11:20 PM - 11:25 PM	48.7	46.5
06:05 PM - 06:10 PM	54.5	50.4	08:45 PM - 08:50 PM	49.3	46.0	11:25 PM - 11:30 PM	47.9	46.2
06:10 PM - 06:15 PM	55.9	51.6	08:50 PM - 08:55 PM	50.7	44.8	11:30 PM - 11:35 PM	48.7	46.7
06:15 PM - 06:20 PM	53.4	49.8	08:55 PM - 09:00 PM	51.1	46.5	11:35 PM - 11:40 PM	48.0	46.9
06:20 PM - 06:25 PM	53.1	49.4	09:00 PM - 09:05 PM	49.2	46.3	11:40 PM - 11:45 PM	48.2	46.4
06:25 PM - 06:30 PM	52.4	49.3	09:05 PM - 09:10 PM	51.5	47.0	11:45 PM - 11:50 PM	48.6	46.9
06:30 PM - 06:35 PM	52.4	49.5	09:10 PM - 09:15 PM	50.8	46.3	11:50 PM - 11:55 PM	47.9	46.4
06:35 PM - 06:40 PM	52.7	49.4	09:15 PM - 09:20 PM	52.0	47.2	11:55 PM - 12:00 AM	47.3	45.9
06:40 PM - 06:45 PM	51.8	49.4	09:20 PM - 09:25 PM	49.2	46.3	12:00 AM - 12:05 AM	51.3	45.9
06:45 PM - 06:50 PM	50.9	48.4	09:25 PM - 09:30 PM	51.7	46.1	12:05 AM - 12:10 AM	49.8	46.9
06:50 PM - 06:55 PM	53.1	48.8	09:30 PM - 09:35 PM	50.7	46.4	12:10 AM - 12:15 AM	49.7	46.6
06:55 PM - 07:00 PM	52.7	49.3	09:35 PM - 09:40 PM	52.2	46.9	12:15 AM - 12:20 AM	54.8	46.3
07:00 PM - 07:05 PM	50.2	48.0	09:40 PM - 09:45 PM	49.3	47.0	12:20 AM - 12:25 AM	48.5	46.3
07:05 PM - 07:10 PM	52.1	49.0	09:45 PM - 09:50 PM	49.4	46.2	12:25 AM - 12:30 AM	49.8	46.5
07:10 PM - 07:15 PM	54.7	50.0	09:50 PM - 09:55 PM	48.2	46.3	12:30 AM - 12:35 AM	50.1	45.9
07:15 PM - 07:20 PM	53.5	49.4	09:55 PM - 10:00 PM	49.8	46.2	12:35 AM - 12:40 AM	49.5	46.9
07:20 PM - 07:25 PM	50.8	48.4	10:00 PM - 10:05 PM	49.5	45.7	12:40 AM - 12:45 AM	48.1	46.5
07:25 PM - 07:30 PM	53.5	48.1	10:05 PM - 10:10 PM	50.9	46.4	12:45 AM - 12:50 AM	48.0	46.0
07:30 PM - 07:35 PM	52.0	47.9	10:10 PM - 10:15 PM	49.2	46.6	12:50 AM - 12:55 AM	48.1	46.6
07:35 PM - 07:40 PM	51.2	48.5	10:15 PM - 10:20 PM	49.2	46.7	12:55 AM - 01:00 AM	47.8	46.2
07:40 PM - 07:45 PM	54.2	48.6	10:20 PM - 10:25 PM	51.2	47.0	01:00 AM - 01:05 AM	48.1	46.2
07:45 PM - 07:50 PM	55.4	48.0	10:25 PM - 10:30 PM	48.5	46.8	01:05 AM - 01:10 AM	48.9	46.3
07:50 PM - 07:55 PM	58.1	48.2	10:30 PM - 10:35 PM	49.0	46.9	01:10 AM - 01:15 AM	47.9	45.6
07:55 PM - 08:00 PM	50.0	47.6	10:35 PM - 10:40 PM	50.9	46.9	01:15 AM - 01:20 AM	47.8	45.8
08:00 PM - 08:05 PM	53.3	47.6	10:40 PM - 10:45 PM	48.1	46.0	01:20 AM - 01:25 AM	48.6	46.0
08:05 PM - 08:10 PM	51.5	47.7	10:45 PM - 10:50 PM	55.1	46.9	01:25 AM - 01:30 AM	48.4	45.5
08:10 PM - 08:15 PM	53.2	48.5	10:50 PM - 10:55 PM	49.2	46.7	01:30 AM - 01:35 AM	46.9	45.1
08:15 PM - 08:20 PM	49.7	47.4	10:55 PM - 11:00 PM	50.7	46.9	01:35 AM - 01:40 AM	47.9	46.4
08:20 PM - 08:25 PM	50.2	47.1	11:00 PM - 11:05 PM	51.8	46.7	01:40 AM - 01:45 AM	47.5	45.8
08:25 PM - 08:30 PM	51.1	46.7	11:05 PM - 11:10 PM	49.3	46.4	01:45 AM - 01:50 AM	48.4	46.9
08:30 PM - 08:35 PM	50.9	47.2	11:10 PM - 11:15 PM	49.1	46.4	01:50 AM - 01:55 AM	48.3	46.7
08:35 PM - 08:40 PM	51.4	46.7	11:15 PM - 11:20 PM	51.6	46.8	01:55 AM - 02:00 AM	47.1	45.5

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Sarayuth Jitranont
Assistant General Manager

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



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received :Aug 27, 2025
Date Reported :Aug 29, 2025
Report Number :3394196-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 3 of 3

Sample Number 2571982-1
Parameter Noise Level (Leq 5 min)
Location ฐานมาตรวัด (GPS 47P 0735038, 1405843)
Measurement Date Aug 19 - Aug 20, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 20, 2025	Leq	L90	Aug 20, 2025	Leq	L90	Aug 20, 2025	Leq	L90
Time	dB(A)	dB(A)	Time	dB(A)	dB(A)	Time	dB(A)	dB(A)
02:00 AM - 02:05 AM	47.5	46.4	04:40 AM - 04:45 AM	48.6	47.3	07:20 AM - 07:25 AM	55.3	52.2
02:05 AM - 02:10 AM	48.3	45.9	04:45 AM - 04:50 AM	47.8	46.6	07:25 AM - 07:30 AM	55.1	52.2
02:10 AM - 02:15 AM	47.1	46.0	04:50 AM - 04:55 AM	48.8	47.1	07:30 AM - 07:35 AM	54.5	51.7
02:15 AM - 02:20 AM	48.3	46.7	04:55 AM - 05:00 AM	50.2	48.0	07:35 AM - 07:40 AM	57.9	52.4
02:20 AM - 02:25 AM	47.7	46.0	05:00 AM - 05:05 AM	49.4	47.8	07:40 AM - 07:45 AM	57.8	52.7
02:25 AM - 02:30 AM	51.8	47.7	05:05 AM - 05:10 AM	49.7	47.9	07:45 AM - 07:50 AM	55.0	51.7
02:30 AM - 02:35 AM	49.6	46.8	05:10 AM - 05:15 AM	48.4	47.4	07:50 AM - 07:55 AM	54.0	50.6
02:35 AM - 02:40 AM	48.4	46.6	05:15 AM - 05:20 AM	49.6	47.9	07:55 AM - 08:00 AM	62.7	50.6
02:40 AM - 02:45 AM	48.9	47.0	05:20 AM - 05:25 AM	50.1	47.9	08:00 AM - 08:05 AM	54.5	50.4
02:45 AM - 02:50 AM	49.0	46.4	05:25 AM - 05:30 AM	52.1	49.3	08:05 AM - 08:10 AM	54.1	49.6
02:50 AM - 02:55 AM	48.7	46.3	05:30 AM - 05:35 AM	68.2	48.1	08:10 AM - 08:15 AM	57.3	50.4
02:55 AM - 03:00 AM	52.9	45.8	05:35 AM - 05:40 AM	51.4	48.2	08:15 AM - 08:20 AM	53.3	49.8
03:00 AM - 03:05 AM	47.6	45.9	05:40 AM - 05:45 AM	50.2	48.3	08:20 AM - 08:25 AM	57.8	50.8
03:05 AM - 03:10 AM	47.9	45.9	05:45 AM - 05:50 AM	50.4	48.9	08:25 AM - 08:30 AM	55.2	50.2
03:10 AM - 03:15 AM	47.4	46.1	05:50 AM - 05:55 AM	50.8	49.4	08:30 AM - 08:35 AM	52.4	49.3
03:15 AM - 03:20 AM	47.7	46.8	05:55 AM - 06:00 AM	50.0	48.6	08:35 AM - 08:40 AM	55.7	49.1
03:20 AM - 03:25 AM	49.2	45.8	06:00 AM - 06:05 AM	50.0	48.2	08:40 AM - 08:45 AM	56.2	48.3
03:25 AM - 03:30 AM	47.5	45.5	06:05 AM - 06:10 AM	50.0	48.6	08:45 AM - 08:50 AM	54.3	47.8
03:30 AM - 03:35 AM	48.3	45.6	06:10 AM - 06:15 AM	51.5	48.6	08:50 AM - 08:55 AM	51.4	47.3
03:35 AM - 03:40 AM	47.7	46.0	06:15 AM - 06:20 AM	51.0	49.0	08:55 AM - 09:00 AM	51.0	47.6
03:40 AM - 03:45 AM	47.6	46.1	06:20 AM - 06:25 AM	51.2	49.4	09:00 AM - 09:05 AM	51.2	47.1
03:45 AM - 03:50 AM	48.1	46.1	06:25 AM - 06:30 AM	51.0	49.2	09:05 AM - 09:10 AM	51.4	47.0
03:50 AM - 03:55 AM	48.3	45.9	06:30 AM - 06:35 AM	52.2	49.2	09:10 AM - 09:15 AM	55.0	46.8
03:55 AM - 04:00 AM	49.1	46.1	06:35 AM - 06:40 AM	52.2	49.9	09:15 AM - 09:20 AM	53.7	47.3
04:00 AM - 04:05 AM	48.1	45.7	06:40 AM - 06:45 AM	53.3	50.5	09:20 AM - 09:25 AM	50.8	47.4
04:05 AM - 04:10 AM	47.5	45.7	06:45 AM - 06:50 AM	53.8	51.2	09:25 AM - 09:30 AM	50.9	47.8
04:10 AM - 04:15 AM	47.6	46.1	06:50 AM - 06:55 AM	54.6	51.5	09:30 AM - 09:35 AM	51.7	46.7
04:15 AM - 04:20 AM	49.6	46.9	06:55 AM - 07:00 AM	53.1	51.0	09:35 AM - 09:40 AM	50.7	46.0
04:20 AM - 04:25 AM	48.3	46.8	07:00 AM - 07:05 AM	53.5	51.2	09:40 AM - 09:45 AM	52.5	46.1
04:25 AM - 04:30 AM	47.7	46.3	07:05 AM - 07:10 AM	53.3	51.5	09:45 AM - 09:50 AM	49.7	46.4
04:30 AM - 04:35 AM	48.6	46.3	07:10 AM - 07:15 AM	54.8	52.5	09:50 AM - 09:55 AM	51.4	47.7
04:35 AM - 04:40 AM	48.6	46.7	07:15 AM - 07:20 AM	55.0	52.3	09:55 AM - 10:00 AM	50.1	47.3

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Sarayuth Jitranont
Assistant General Manager

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



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394197-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 1 of 3

Sample Number : 2571982-2
Parameter : Noise Level (Leq 5 min)
Location : ฐานวัดโกลน (GPS 47P 0735038, 1405843)
Measurement Date : Aug 20 - Aug 21, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 00873109

Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	52.2	47.3	12:40 PM - 12:45 PM	53.5	49.4	03:20 PM - 03:25 PM	47.5	39.4
10:05 AM - 10:10 AM	52.7	47.4	12:45 PM - 12:50 PM	55.0	49.0	03:25 PM - 03:30 PM	46.1	41.0
10:10 AM - 10:15 AM	50.7	46.7	12:50 PM - 12:55 PM	53.2	48.3	03:30 PM - 03:35 PM	47.8	39.3
10:15 AM - 10:20 AM	52.4	47.5	12:55 PM - 01:00 PM	57.1	50.5	03:35 PM - 03:40 PM	48.4	40.2
10:20 AM - 10:25 AM	51.9	48.0	01:00 PM - 01:05 PM	55.7	49.0	03:40 PM - 03:45 PM	47.5	39.6
10:25 AM - 10:30 AM	52.3	47.4	01:05 PM - 01:10 PM	55.9	51.3	03:45 PM - 03:50 PM	49.5	44.9
10:30 AM - 10:35 AM	54.1	46.9	01:10 PM - 01:15 PM	53.7	48.5	03:50 PM - 03:55 PM	54.0	45.1
10:35 AM - 10:40 AM	51.3	47.4	01:15 PM - 01:20 PM	54.4	49.2	03:55 PM - 04:00 PM	49.3	45.6
10:40 AM - 10:45 AM	49.3	46.8	01:20 PM - 01:25 PM	55.1	49.5	04:00 PM - 04:05 PM	49.8	41.3
10:45 AM - 10:50 AM	50.2	47.6	01:25 PM - 01:30 PM	50.4	42.5	04:05 PM - 04:10 PM	48.9	41.8
10:50 AM - 10:55 AM	51.5	47.9	01:30 PM - 01:35 PM	51.7	43.7	04:10 PM - 04:15 PM	47.3	40.9
10:55 AM - 11:00 AM	50.8	46.9	01:35 PM - 01:40 PM	52.4	47.3	04:15 PM - 04:20 PM	47.5	39.4
11:00 AM - 11:05 AM	54.5	48.5	01:40 PM - 01:45 PM	53.0	47.3	04:20 PM - 04:25 PM	48.8	41.9
11:05 AM - 11:10 AM	53.4	47.6	01:45 PM - 01:50 PM	52.5	47.0	04:25 PM - 04:30 PM	49.3	41.7
11:10 AM - 11:15 AM	51.5	47.2	01:50 PM - 01:55 PM	48.3	42.4	04:30 PM - 04:35 PM	51.4	43.1
11:15 AM - 11:20 AM	52.5	47.7	01:55 PM - 02:00 PM	48.7	38.6	04:35 PM - 04:40 PM	51.0	43.0
11:20 AM - 11:25 AM	52.4	48.1	02:00 PM - 02:05 PM	48.2	40.1	04:40 PM - 04:45 PM	49.4	42.9
11:25 AM - 11:30 AM	53.4	47.1	02:05 PM - 02:10 PM	49.7	39.3	04:45 PM - 04:50 PM	49.4	42.8
11:30 AM - 11:35 AM	51.1	47.1	02:10 PM - 02:15 PM	51.3	40.5	04:50 PM - 04:55 PM	51.1	44.3
11:35 AM - 11:40 AM	51.4	48.1	02:15 PM - 02:20 PM	45.7	37.9	04:55 PM - 05:00 PM	54.1	39.7
11:40 AM - 11:45 AM	50.3	47.1	02:20 PM - 02:25 PM	48.9	42.8	05:00 PM - 05:05 PM	52.2	40.8
11:45 AM - 11:50 AM	51.3	48.1	02:25 PM - 02:30 PM	49.8	42.0	05:05 PM - 05:10 PM	51.9	43.3
11:50 AM - 11:55 AM	59.9	48.0	02:30 PM - 02:35 PM	50.1	40.1	05:10 PM - 05:15 PM	50.8	44.6
11:55 AM - 12:00 PM	49.8	47.3	02:35 PM - 02:40 PM	46.6	40.1	05:15 PM - 05:20 PM	48.2	40.9
12:00 PM - 12:05 PM	52.3	47.8	02:40 PM - 02:45 PM	48.4	40.6	05:20 PM - 05:25 PM	48.3	42.6
12:05 PM - 12:10 PM	52.5	47.6	02:45 PM - 02:50 PM	47.2	37.8	05:25 PM - 05:30 PM	49.2	42.2
12:10 PM - 12:15 PM	52.0	48.2	02:50 PM - 02:55 PM	49.2	40.3	05:30 PM - 05:35 PM	48.8	41.4
12:15 PM - 12:20 PM	49.1	42.8	02:55 PM - 03:00 PM	46.8	37.0	05:35 PM - 05:40 PM	46.4	38.8
12:20 PM - 12:25 PM	52.2	46.9	03:00 PM - 03:05 PM	46.9	38.2	05:40 PM - 05:45 PM	49.6	41.8
12:25 PM - 12:30 PM	52.4	46.7	03:05 PM - 03:10 PM	48.4	42.5	05:45 PM - 05:50 PM	50.0	43.9
12:30 PM - 12:35 PM	51.8	46.8	03:10 PM - 03:15 PM	50.3	39.4	05:50 PM - 05:55 PM	50.2	42.8
12:35 PM - 12:40 PM	53.2	48.5	03:15 PM - 03:20 PM	47.8	37.7	05:55 PM - 06:00 PM	52.4	44.2

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394197-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number : 2571982-2
Parameter : Noise Level (Leq 5 min)
Location : ฐานวัดโกลน (GPS 47P 0735038, 1405843)
Measurement Date : Aug 20 - Aug 21, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 00873109

Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 20 - Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	50.6	43.2	08:40 PM - 08:45 PM	50.5	47.7	11:20 PM - 11:25 PM	49.2	48.0
06:05 PM - 06:10 PM	49.8	42.6	08:45 PM - 08:50 PM	50.3	46.7	11:25 PM - 11:30 PM	48.9	47.9
06:10 PM - 06:15 PM	51.3	47.9	08:50 PM - 08:55 PM	50.5	47.7	11:30 PM - 11:35 PM	49.0	48.1
06:15 PM - 06:20 PM	50.8	44.5	08:55 PM - 09:00 PM	51.4	48.3	11:35 PM - 11:40 PM	49.5	48.4
06:20 PM - 06:25 PM	51.7	43.8	09:00 PM - 09:05 PM	50.3	47.6	11:40 PM - 11:45 PM	49.1	48.1
06:25 PM - 06:30 PM	52.0	45.2	09:05 PM - 09:10 PM	49.6	47.1	11:45 PM - 11:50 PM	49.5	48.1
06:30 PM - 06:35 PM	51.6	45.3	09:10 PM - 09:15 PM	51.3	47.6	11:50 PM - 11:55 PM	48.6	47.7
06:35 PM - 06:40 PM	47.1	43.5	09:15 PM - 09:20 PM	51.9	49.0	11:55 PM - 12:00 AM	45.5	41.8
06:40 PM - 06:45 PM	53.2	43.6	09:20 PM - 09:25 PM	51.6	49.0	12:00 AM - 12:05 AM	42.8	41.6
06:45 PM - 06:50 PM	49.4	46.1	09:25 PM - 09:30 PM	51.0	48.9	12:05 AM - 12:10 AM	47.7	44.2
06:50 PM - 06:55 PM	48.8	43.9	09:30 PM - 09:35 PM	50.7	48.6	12:10 AM - 12:15 AM	49.7	47.5
06:55 PM - 07:00 PM	47.0	43.3	09:35 PM - 09:40 PM	51.1	48.1	12:15 AM - 12:20 AM	48.6	47.8
07:00 PM - 07:05 PM	52.5	43.3	09:40 PM - 09:45 PM	50.7	47.6	12:20 AM - 12:25 AM	49.0	48.1
07:05 PM - 07:10 PM	64.7	60.4	09:45 PM - 09:50 PM	50.0	47.6	12:25 AM - 12:30 AM	48.9	48.3
07:10 PM - 07:15 PM	63.3	60.6	09:50 PM - 09:55 PM	49.8	47.5	12:30 AM - 12:35 AM	49.3	48.6
07:15 PM - 07:20 PM	63.1	51.0	09:55 PM - 10:00 PM	49.2	47.2	12:35 AM - 12:40 AM	49.0	48.3
07:20 PM - 07:25 PM	52.1	43.8	10:00 PM - 10:05 PM	49.6	47.0	12:40 AM - 12:45 AM	48.3	47.7
07:25 PM - 07:30 PM	52.1	46.5	10:05 PM - 10:10 PM	49.6	46.7	12:45 AM - 12:50 AM	48.3	47.6
07:30 PM - 07:35 PM	47.7	45.3	10:10 PM - 10:15 PM	46.7	44.9	12:50 AM - 12:55 AM	49.6	47.9
07:35 PM - 07:40 PM	46.9	45.0	10:15 PM - 10:20 PM	47.7	45.1	12:55 AM - 01:00 AM	48.9	48.0
07:40 PM - 07:45 PM	48.0	44.9	10:20 PM - 10:25 PM	46.5	44.9	01:00 AM - 01:05 AM	49.4	48.1
07:45 PM - 07:50 PM	48.8	45.8	10:25 PM - 10:30 PM	49.9	46.8	01:05 AM - 01:10 AM	48.7	48.1
07:50 PM - 07:55 PM	47.0	45.4	10:30 PM - 10:35 PM	48.4	45.1	01:10 AM - 01:15 AM	49.1	48.3
07:55 PM - 08:00 PM	48.3	45.1	10:35 PM - 10:40 PM	48.6	44.6	01:15 AM - 01:20 AM	49.0	48.2
08:00 PM - 08:05 PM	47.1	45.0	10:40 PM - 10:45 PM	46.7	44.1	01:20 AM - 01:25 AM	49.2	48.5
08:05 PM - 08:10 PM	45.6	44.1	10:45 PM - 10:50 PM	47.7	44.0	01:25 AM - 01:30 AM	49.7	49.0
08:10 PM - 08:15 PM	45.1	42.9	10:50 PM - 10:55 PM	46.4	44.1	01:30 AM - 01:35 AM	49.4	48.7
08:15 PM - 08:20 PM	45.3	43.0	10:55 PM - 11:00 PM	48.4	45.5	01:35 AM - 01:40 AM	50.5	49.1
08:20 PM - 08:25 PM	45.2	43.0	11:00 PM - 11:05 PM	49.1	47.8	01:40 AM - 01:45 AM	51.1	49.6
08:25 PM - 08:30 PM	47.3	43.5	11:05 PM - 11:10 PM	49.2	48.1	01:45 AM - 01:50 AM	51.1	49.3
08:30 PM - 08:35 PM	46.4	43.4	11:10 PM - 11:15 PM	50.2	48.4	01:50 AM - 01:55 AM	50.6	49.1
08:35 PM - 08:40 PM	48.7	45.2	11:15 PM - 11:20 PM	49.4	48.0	01:55 AM - 02:00 AM	50.3	49.1

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received :Aug 27, 2025
Date Reported :Aug 29, 2025
Report Number :3394197-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 3 of 3

Sample Number 2571982-2
Parameter Noise Level (Leq 5 min)
Location ฐานตรวจวัดมลพิษ (GPS 47P 0735038, 1405843)
Measurement Date Aug 20 - Aug 21, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	50.7	49.5	04:40 AM - 04:45 AM	49.9	48.5	07:20 AM - 07:25 AM	50.8	44.3
02:05 AM - 02:10 AM	50.5	49.1	04:45 AM - 04:50 AM	49.7	48.7	07:25 AM - 07:30 AM	50.5	43.7
02:10 AM - 02:15 AM	49.7	48.8	04:50 AM - 04:55 AM	50.0	49.2	07:30 AM - 07:35 AM	47.8	44.1
02:15 AM - 02:20 AM	49.9	49.3	04:55 AM - 05:00 AM	50.3	47.1	07:35 AM - 07:40 AM	48.8	44.2
02:20 AM - 02:25 AM	50.8	49.5	05:00 AM - 05:05 AM	48.9	47.3	07:40 AM - 07:45 AM	47.6	43.8
02:25 AM - 02:30 AM	54.4	50.6	05:05 AM - 05:10 AM	48.5	46.9	07:45 AM - 07:50 AM	48.0	43.4
02:30 AM - 02:35 AM	56.0	55.4	05:10 AM - 05:15 AM	47.5	46.7	07:50 AM - 07:55 AM	48.6	43.3
02:35 AM - 02:40 AM	55.1	50.6	05:15 AM - 05:20 AM	49.0	46.7	07:55 AM - 08:00 AM	52.6	46.0
02:40 AM - 02:45 AM	50.8	50.0	05:20 AM - 05:25 AM	48.2	46.9	08:00 AM - 08:05 AM	50.5	44.6
02:45 AM - 02:50 AM	51.1	50.3	05:25 AM - 05:30 AM	48.0	46.7	08:05 AM - 08:10 AM	50.8	44.8
02:50 AM - 02:55 AM	51.5	50.3	05:30 AM - 05:35 AM	47.8	46.8	08:10 AM - 08:15 AM	49.4	44.3
02:55 AM - 03:00 AM	50.9	50.3	05:35 AM - 05:40 AM	47.4	46.6	08:15 AM - 08:20 AM	50.6	45.2
03:00 AM - 03:05 AM	52.0	50.3	05:40 AM - 05:45 AM	47.2	46.1	08:20 AM - 08:25 AM	48.8	44.6
03:05 AM - 03:10 AM	55.2	54.6	05:45 AM - 05:50 AM	47.2	45.8	08:25 AM - 08:30 AM	47.9	43.7
03:10 AM - 03:15 AM	55.4	54.8	05:50 AM - 05:55 AM	48.4	46.0	08:30 AM - 08:35 AM	49.0	44.3
03:15 AM - 03:20 AM	52.4	51.0	05:55 AM - 06:00 AM	50.8	47.4	08:35 AM - 08:40 AM	50.5	42.0
03:20 AM - 03:25 AM	54.1	51.7	06:00 AM - 06:05 AM	49.8	46.8	08:40 AM - 08:45 AM	47.4	39.4
03:25 AM - 03:30 AM	54.7	54.0	06:05 AM - 06:10 AM	49.8	44.5	08:45 AM - 08:50 AM	48.7	40.5
03:30 AM - 03:35 AM	52.4	50.3	06:10 AM - 06:15 AM	49.3	43.3	08:50 AM - 08:55 AM	47.9	43.4
03:35 AM - 03:40 AM	51.0	50.3	06:15 AM - 06:20 AM	50.3	43.5	08:55 AM - 09:00 AM	47.2	41.1
03:40 AM - 03:45 AM	51.5	50.5	06:20 AM - 06:25 AM	50.3	45.9	09:00 AM - 09:05 AM	46.4	39.8
03:45 AM - 03:50 AM	51.5	50.4	06:25 AM - 06:30 AM	50.0	42.6	09:05 AM - 09:10 AM	50.1	39.6
03:50 AM - 03:55 AM	51.3	50.1	06:30 AM - 06:35 AM	50.6	44.7	09:10 AM - 09:15 AM	50.8	40.8
03:55 AM - 04:00 AM	50.6	49.5	06:35 AM - 06:40 AM	53.3	47.6	09:15 AM - 09:20 AM	50.4	42.4
04:00 AM - 04:05 AM	50.7	49.5	06:40 AM - 06:45 AM	51.0	46.7	09:20 AM - 09:25 AM	49.3	43.8
04:05 AM - 04:10 AM	49.9	49.3	06:45 AM - 06:50 AM	52.8	46.8	09:25 AM - 09:30 AM	48.2	43.6
04:10 AM - 04:15 AM	50.4	49.3	06:50 AM - 06:55 AM	51.3	48.4	09:30 AM - 09:35 AM	49.7	44.5
04:15 AM - 04:20 AM	50.1	49.4	06:55 AM - 07:00 AM	51.5	48.1	09:35 AM - 09:40 AM	47.5	43.7
04:20 AM - 04:25 AM	50.7	49.4	07:00 AM - 07:05 AM	48.9	44.2	09:40 AM - 09:45 AM	46.2	41.8
04:25 AM - 04:30 AM	50.9	48.9	07:05 AM - 07:10 AM	48.5	42.1	09:45 AM - 09:50 AM	46.3	40.3
04:30 AM - 04:35 AM	49.2	48.4	07:10 AM - 07:15 AM	54.8	48.5	09:50 AM - 09:55 AM	46.0	39.4
04:35 AM - 04:40 AM	49.8	48.6	07:15 AM - 07:20 AM	51.6	45.1	09:55 AM - 10:00 AM	49.2	40.9

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Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received :Aug 27, 2025
Date Reported :Aug 29, 2025
Report Number :3394198-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

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Sample Number 2571982-3
Parameter Noise Level (Leq 5 min)
Location ฐานตรวจวัดมลพิษ (GPS 47P 0735038, 1405843)
Measurement Date Aug 21 - Aug 22, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	47.5	41.7	12:40 PM - 12:45 PM	48.9	42.2	03:20 PM - 03:25 PM	51.8	49.7
10:05 AM - 10:10 AM	47.9	42.4	12:45 PM - 12:50 PM	48.5	46.1	03:25 PM - 03:30 PM	50.8	49.8
10:10 AM - 10:15 AM	45.2	42.9	12:50 PM - 12:55 PM	51.1	44.4	03:30 PM - 03:35 PM	51.7	50.4
10:15 AM - 10:20 AM	46.8	41.4	12:55 PM - 01:00 PM	49.0	44.5	03:35 PM - 03:40 PM	51.6	49.9
10:20 AM - 10:25 AM	45.1	40.7	01:00 PM - 01:05 PM	50.4	46.0	03:40 PM - 03:45 PM	52.4	50.3
10:25 AM - 10:30 AM	45.3	40.4	01:05 PM - 01:10 PM	50.0	44.9	03:45 PM - 03:50 PM	52.4	50.2
10:30 AM - 10:35 AM	49.4	39.6	01:10 PM - 01:15 PM	51.3	45.8	03:50 PM - 03:55 PM	50.5	49.6
10:35 AM - 10:40 AM	49.6	37.3	01:15 PM - 01:20 PM	49.9	44.2	03:55 PM - 04:00 PM	51.0	49.9
10:40 AM - 10:45 AM	56.1	38.4	01:20 PM - 01:25 PM	49.6	44.0	04:00 PM - 04:05 PM	51.4	50.0
10:45 AM - 10:50 AM	46.2	37.9	01:25 PM - 01:30 PM	48.5	44.7	04:05 PM - 04:10 PM	52.6	50.1
10:50 AM - 10:55 AM	48.5	42.6	01:30 PM - 01:35 PM	52.8	45.1	04:10 PM - 04:15 PM	51.5	50.0
10:55 AM - 11:00 AM	53.6	46.6	01:35 PM - 01:40 PM	50.7	45.2	04:15 PM - 04:20 PM	52.4	50.1
11:00 AM - 11:05 AM	52.9	47.4	01:40 PM - 01:45 PM	47.6	43.7	04:20 PM - 04:25 PM	51.6	50.1
11:05 AM - 11:10 AM	52.6	44.9	01:45 PM - 01:50 PM	49.8	43.6	04:25 PM - 04:30 PM	53.3	50.3
11:10 AM - 11:15 AM	50.0	44.8	01:50 PM - 01:55 PM	56.7	50.8	04:30 PM - 04:35 PM	52.2	50.4
11:15 AM - 11:20 AM	50.9	45.7	01:55 PM - 02:00 PM	59.0	49.7	04:35 PM - 04:40 PM	51.6	50.1
11:20 AM - 11:25 AM	50.3	45.8	02:00 PM - 02:05 PM	51.0	49.2	04:40 PM - 04:45 PM	58.2	50.1
11:25 AM - 11:30 AM	48.4	43.0	02:05 PM - 02:10 PM	51.7	49.2	04:45 PM - 04:50 PM	53.5	49.7
11:30 AM - 11:35 AM	50.2	43.3	02:10 PM - 02:15 PM	51.0	49.5	04:50 PM - 04:55 PM	52.3	49.6
11:35 AM - 11:40 AM	50.1	45.1	02:15 PM - 02:20 PM	51.3	49.8	04:55 PM - 05:00 PM	51.8	49.9
11:40 AM - 11:45 AM	49.9	43.1	02:20 PM - 02:25 PM	53.5	49.9	05:00 PM - 05:05 PM	54.7	49.6
11:45 AM - 11:50 AM	48.5	43.7	02:25 PM - 02:30 PM	51.9	50.2	05:05 PM - 05:10 PM	52.4	49.4
11:50 AM - 11:55 AM	51.5	44.3	02:30 PM - 02:35 PM	51.2	50.0	05:10 PM - 05:15 PM	51.5	49.2
11:55 AM - 12:00 PM	51.0	43.6	02:35 PM - 02:40 PM	51.2	49.7	05:15 PM - 05:20 PM	51.2	48.9
12:00 PM - 12:05 PM	51.9	44.5	02:40 PM - 02:45 PM	51.4	49.8	05:20 PM - 05:25 PM	51.0	48.8
12:05 PM - 12:10 PM	50.9	42.8	02:45 PM - 02:50 PM	50.2	49.3	05:25 PM - 05:30 PM	52.3	49.8
12:10 PM - 12:15 PM	50.2	44.6	02:50 PM - 02:55 PM	51.0	49.3	05:30 PM - 05:35 PM	53.0	50.3
12:15 PM - 12:20 PM	49.7	44.2	02:55 PM - 03:00 PM	50.6	49.3	05:35 PM - 05:40 PM	57.9	50.2
12:20 PM - 12:25 PM	48.4	43.4	03:00 PM - 03:05 PM	50.8	49.4	05:40 PM - 05:45 PM	59.2	49.7
12:25 PM - 12:30 PM	49.8	44.6	03:05 PM - 03:10 PM	51.9	50.1	05:45 PM - 05:50 PM	59.1	53.7
12:30 PM - 12:35 PM	50.1	43.9	03:10 PM - 03:15 PM	51.1	49.8	05:50 PM - 05:55 PM	55.8	51.3
12:35 PM - 12:40 PM	48.9	42.2	03:15 PM - 03:20 PM	51.1	49.9	05:55 PM - 06:00 PM	54.5	50.6

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Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394198-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number : 2571982-3
Parameter : Noise Level (Leq 5 min)
Location : ฐานวัดโหนด (GPS 47P 0735038, 1405843)
Measurement Date : Aug 21 - Aug 22, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 00873109

Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21 - Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	54.6	51.1	08:40 PM - 08:45 PM	57.0	50.5	11:20 PM - 11:25 PM	49.4	46.8
06:05 PM - 06:10 PM	53.8	49.3	08:45 PM - 08:50 PM	54.5	51.0	11:25 PM - 11:30 PM	48.5	46.8
06:10 PM - 06:15 PM	58.2	53.3	08:50 PM - 08:55 PM	54.2	51.4	11:30 PM - 11:35 PM	47.8	46.4
06:15 PM - 06:20 PM	62.1	56.6	08:55 PM - 09:00 PM	53.8	50.7	11:35 PM - 11:40 PM	47.2	45.9
06:20 PM - 06:25 PM	60.7	56.8	09:00 PM - 09:05 PM	56.4	51.4	11:40 PM - 11:45 PM	48.5	46.6
06:25 PM - 06:30 PM	57.1	52.1	09:05 PM - 09:10 PM	56.1	52.2	11:45 PM - 11:50 PM	47.9	46.5
06:30 PM - 06:35 PM	56.2	53.1	09:10 PM - 09:15 PM	55.3	50.7	11:50 PM - 11:55 PM	49.0	47.1
06:35 PM - 06:40 PM	60.0	56.6	09:15 PM - 09:20 PM	51.3	49.3	11:55 PM - 12:00 AM	50.0	47.3
06:40 PM - 06:45 PM	60.6	57.0	09:20 PM - 09:25 PM	51.4	49.3	12:00 AM - 12:05 AM	49.1	47.6
06:45 PM - 06:50 PM	61.2	58.8	09:25 PM - 09:30 PM	53.3	49.2	12:05 AM - 12:10 AM	49.8	48.0
06:50 PM - 06:55 PM	61.8	59.1	09:30 PM - 09:35 PM	57.2	51.1	12:10 AM - 12:15 AM	53.1	47.6
06:55 PM - 07:00 PM	55.1	51.6	09:35 PM - 09:40 PM	50.8	48.8	12:15 AM - 12:20 AM	52.4	48.1
07:00 PM - 07:05 PM	56.7	53.4	09:40 PM - 09:45 PM	58.8	49.4	12:20 AM - 12:25 AM	50.4	47.7
07:05 PM - 07:10 PM	56.5	52.3	09:45 PM - 09:50 PM	53.4	47.9	12:25 AM - 12:30 AM	50.9	47.8
07:10 PM - 07:15 PM	54.2	50.3	09:50 PM - 09:55 PM	52.5	46.8	12:30 AM - 12:35 AM	49.2	46.9
07:15 PM - 07:20 PM	55.3	51.2	09:55 PM - 10:00 PM	51.5	48.4	12:35 AM - 12:40 AM	48.9	46.6
07:20 PM - 07:25 PM	57.4	51.6	10:00 PM - 10:05 PM	52.4	48.9	12:40 AM - 12:45 AM	50.6	47.2
07:25 PM - 07:30 PM	55.8	49.2	10:05 PM - 10:10 PM	50.8	48.9	12:45 AM - 12:50 AM	48.2	46.2
07:30 PM - 07:35 PM	54.5	49.0	10:10 PM - 10:15 PM	49.6	48.1	12:50 AM - 12:55 AM	48.5	46.9
07:35 PM - 07:40 PM	52.9	48.9	10:15 PM - 10:20 PM	51.8	47.7	12:55 AM - 01:00 AM	52.2	46.4
07:40 PM - 07:45 PM	52.8	49.9	10:20 PM - 10:25 PM	52.6	49.0	01:00 AM - 01:05 AM	54.5	48.4
07:45 PM - 07:50 PM	54.1	50.0	10:25 PM - 10:30 PM	49.9	47.1	01:05 AM - 01:10 AM	49.5	47.2
07:50 PM - 07:55 PM	54.8	49.0	10:30 PM - 10:35 PM	49.3	47.3	01:10 AM - 01:15 AM	48.3	46.2
07:55 PM - 08:00 PM	53.5	48.8	10:35 PM - 10:40 PM	53.9	47.9	01:15 AM - 01:20 AM	48.1	46.0
08:00 PM - 08:05 PM	51.3	49.3	10:40 PM - 10:45 PM	49.7	47.4	01:20 AM - 01:25 AM	47.0	45.3
08:05 PM - 08:10 PM	51.6	49.4	10:45 PM - 10:50 PM	49.7	47.4	01:25 AM - 01:30 AM	47.0	45.9
08:10 PM - 08:15 PM	51.5	48.8	10:50 PM - 10:55 PM	52.3	47.5	01:30 AM - 01:35 AM	49.6	47.0
08:15 PM - 08:20 PM	52.3	49.5	10:55 PM - 11:00 PM	50.2	47.6	01:35 AM - 01:40 AM	49.0	45.8
08:20 PM - 08:25 PM	51.4	48.9	11:00 PM - 11:05 PM	50.5	47.6	01:40 AM - 01:45 AM	47.4	45.0
08:25 PM - 08:30 PM	52.5	49.4	11:05 PM - 11:10 PM	50.8	47.3	01:45 AM - 01:50 AM	47.8	45.2
08:30 PM - 08:35 PM	53.8	49.2	11:10 PM - 11:15 PM	50.7	47.6	01:50 AM - 01:55 AM	47.2	44.8
08:35 PM - 08:40 PM	57.1	50.8	11:15 PM - 11:20 PM	52.8	48.1	01:55 AM - 02:00 AM	48.0	44.3

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394198-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 3 of 3

Sample Number : 2571982-3
Parameter : Noise Level (Leq 5 min)
Location : ฐานวัดโหนด (GPS 47P 0735038, 1405843)
Measurement Date : Aug 21 - Aug 22, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 00873109

Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	46.3	44.6	04:40 AM - 04:45 AM	50.0	44.0	07:20 AM - 07:25 AM	55.6	50.3
02:05 AM - 02:10 AM	47.1	45.2	04:45 AM - 04:50 AM	47.1	45.1	07:25 AM - 07:30 AM	54.1	51.7
02:10 AM - 02:15 AM	47.3	44.4	04:50 AM - 04:55 AM	47.2	44.4	07:30 AM - 07:35 AM	57.0	50.8
02:15 AM - 02:20 AM	46.8	44.6	04:55 AM - 05:00 AM	48.6	45.9	07:35 AM - 07:40 AM	53.6	49.7
02:20 AM - 02:25 AM	47.5	45.5	05:00 AM - 05:05 AM	48.4	45.8	07:40 AM - 07:45 AM	51.9	49.5
02:25 AM - 02:30 AM	47.5	44.9	05:05 AM - 05:10 AM	49.3	45.3	07:45 AM - 07:50 AM	52.8	50.1
02:30 AM - 02:35 AM	45.7	44.3	05:10 AM - 05:15 AM	47.4	44.9	07:50 AM - 07:55 AM	54.3	49.9
02:35 AM - 02:40 AM	46.7	45.1	05:15 AM - 05:20 AM	47.8	45.7	07:55 AM - 08:00 AM	56.9	51.5
02:40 AM - 02:45 AM	48.5	44.4	05:20 AM - 05:25 AM	47.8	44.4	08:00 AM - 08:05 AM	60.8	51.7
02:45 AM - 02:50 AM	47.5	45.6	05:25 AM - 05:30 AM	49.3	46.0	08:05 AM - 08:10 AM	55.9	51.3
02:50 AM - 02:55 AM	47.5	44.8	05:30 AM - 05:35 AM	47.8	45.5	08:10 AM - 08:15 AM	55.4	52.0
02:55 AM - 03:00 AM	57.0	45.3	05:35 AM - 05:40 AM	47.0	45.2	08:15 AM - 08:20 AM	57.4	52.1
03:00 AM - 03:05 AM	47.7	44.3	05:40 AM - 05:45 AM	49.4	46.3	08:20 AM - 08:25 AM	58.3	51.7
03:05 AM - 03:10 AM	45.7	44.2	05:45 AM - 05:50 AM	46.3	44.9	08:25 AM - 08:30 AM	60.3	54.3
03:10 AM - 03:15 AM	46.3	43.8	05:50 AM - 05:55 AM	48.6	46.4	08:30 AM - 08:35 AM	56.2	51.7
03:15 AM - 03:20 AM	46.6	44.5	05:55 AM - 06:00 AM	50.6	46.9	08:35 AM - 08:40 AM	54.5	50.0
03:20 AM - 03:25 AM	46.6	44.7	06:00 AM - 06:05 AM	48.8	46.2	08:40 AM - 08:45 AM	59.9	49.5
03:25 AM - 03:30 AM	48.5	45.4	06:05 AM - 06:10 AM	49.9	46.9	08:45 AM - 08:50 AM	59.1	50.9
03:30 AM - 03:35 AM	48.1	43.5	06:10 AM - 06:15 AM	49.8	46.9	08:50 AM - 08:55 AM	55.5	49.6
03:35 AM - 03:40 AM	46.9	44.8	06:15 AM - 06:20 AM	56.4	51.5	08:55 AM - 09:00 AM	52.6	49.5
03:40 AM - 03:45 AM	47.1	44.6	06:20 AM - 06:25 AM	54.0	49.4	09:00 AM - 09:05 AM	53.2	49.2
03:45 AM - 03:50 AM	48.7	44.8	06:25 AM - 06:30 AM	48.6	46.4	09:05 AM - 09:10 AM	52.6	49.3
03:50 AM - 03:55 AM	46.9	45.2	06:30 AM - 06:35 AM	50.0	46.6	09:10 AM - 09:15 AM	53.3	49.1
03:55 AM - 04:00 AM	46.7	44.2	06:35 AM - 06:40 AM	49.7	46.9	09:15 AM - 09:20 AM	50.9	48.2
04:00 AM - 04:05 AM	48.3	44.9	06:40 AM - 06:45 AM	49.5	46.8	09:20 AM - 09:25 AM	51.3	47.4
04:05 AM - 04:10 AM	47.4	43.8	06:45 AM - 06:50 AM	50.7	48.4	09:25 AM - 09:30 AM	50.7	47.7
04:10 AM - 04:15 AM	47.9	44.7	06:50 AM - 06:55 AM	48.8	46.7	09:30 AM - 09:35 AM	53.1	47.7
04:15 AM - 04:20 AM	50.2	44.4	06:55 AM - 07:00 AM	50.6	48.5	09:35 AM - 09:40 AM	53.7	47.8
04:20 AM - 04:25 AM	46.8	44.2	07:00 AM - 07:05 AM	51.3	48.8	09:40 AM - 09:45 AM	53.6	47.8
04:25 AM - 04:30 AM	50.0	45.1	07:05 AM - 07:10 AM	52.2	49.2	09:45 AM - 09:50 AM	51.4	47.4
04:30 AM - 04:35 AM	47.2	44.1	07:10 AM - 07:15 AM	53.3	50.7	09:50 AM - 09:55 AM	51.1	47.2
04:35 AM - 04:40 AM	46.6	44.1	07:15 AM - 07:20 AM	54.0	50.5	09:55 AM - 10:00 AM	54.5	48.0

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Approved by

Sarayuth Jitranont
Assistant General Manager

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



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394199-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 1 of 3

Sample Number : 2571982-4
Parameter : Noise Level (Leq 5 min)
Location : ฐานวัดโกลน (GPS 47P 0735038, 1405843)
Measurement Date : Aug 22 - Aug 23, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 00873109

Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	51.6	48.5	12:40 PM - 12:45 PM	53.7	50.6	03:20 PM - 03:25 PM	55.5	51.5
10:05 AM - 10:10 AM	59.2	49.5	12:45 PM - 12:50 PM	55.3	50.3	03:25 PM - 03:30 PM	55.8	51.7
10:10 AM - 10:15 AM	59.0	49.6	12:50 PM - 12:55 PM	55.4	50.7	03:30 PM - 03:35 PM	54.2	50.9
10:15 AM - 10:20 AM	58.0	48.9	12:55 PM - 01:00 PM	53.9	51.9	03:35 PM - 03:40 PM	54.0	50.9
10:20 AM - 10:25 AM	53.3	49.4	01:00 PM - 01:05 PM	52.3	50.4	03:40 PM - 03:45 PM	53.1	50.4
10:25 AM - 10:30 AM	53.2	48.5	01:05 PM - 01:10 PM	50.8	49.7	03:45 PM - 03:50 PM	54.9	50.4
10:30 AM - 10:35 AM	51.4	49.2	01:10 PM - 01:15 PM	51.5	49.9	03:50 PM - 03:55 PM	55.2	50.9
10:35 AM - 10:40 AM	52.7	49.2	01:15 PM - 01:20 PM	54.1	50.3	03:55 PM - 04:00 PM	55.3	50.7
10:40 AM - 10:45 AM	51.9	48.7	01:20 PM - 01:25 PM	52.5	50.3	04:00 PM - 04:05 PM	54.2	51.4
10:45 AM - 10:50 AM	52.1	49.3	01:25 PM - 01:30 PM	61.4	60.2	04:05 PM - 04:10 PM	52.4	49.7
10:50 AM - 10:55 AM	53.2	50.5	01:30 PM - 01:35 PM	60.3	59.1	04:10 PM - 04:15 PM	52.4	50.2
10:55 AM - 11:00 AM	54.7	49.8	01:35 PM - 01:40 PM	59.6	57.6	04:15 PM - 04:20 PM	61.0	49.2
11:00 AM - 11:05 AM	52.7	50.0	01:40 PM - 01:45 PM	57.1	55.1	04:20 PM - 04:25 PM	53.9	49.9
11:05 AM - 11:10 AM	51.9	50.1	01:45 PM - 01:50 PM	56.4	54.8	04:25 PM - 04:30 PM	53.3	50.6
11:10 AM - 11:15 AM	53.4	50.1	01:50 PM - 01:55 PM	54.4	52.3	04:30 PM - 04:35 PM	54.2	51.0
11:15 AM - 11:20 AM	52.5	49.6	01:55 PM - 02:00 PM	52.9	51.3	04:35 PM - 04:40 PM	56.1	51.0
11:20 AM - 11:25 AM	51.5	49.5	02:00 PM - 02:05 PM	54.5	50.7	04:40 PM - 04:45 PM	55.2	51.0
11:25 AM - 11:30 AM	50.9	49.1	02:05 PM - 02:10 PM	52.6	49.9	04:45 PM - 04:50 PM	53.1	49.9
11:30 AM - 11:35 AM	51.5	49.3	02:10 PM - 02:15 PM	52.4	50.2	04:50 PM - 04:55 PM	53.7	50.6
11:35 AM - 11:40 AM	53.2	49.4	02:15 PM - 02:20 PM	52.6	50.1	04:55 PM - 05:00 PM	55.5	50.2
11:40 AM - 11:45 AM	57.0	49.5	02:20 PM - 02:25 PM	52.6	49.8	05:00 PM - 05:05 PM	53.1	49.6
11:45 AM - 11:50 AM	53.2	50.3	02:25 PM - 02:30 PM	51.7	49.2	05:05 PM - 05:10 PM	54.6	50.3
11:50 AM - 11:55 AM	52.1	49.6	02:30 PM - 02:35 PM	54.0	50.5	05:10 PM - 05:15 PM	52.6	49.7
11:55 AM - 12:00 PM	50.9	49.5	02:35 PM - 02:40 PM	52.2	50.3	05:15 PM - 05:20 PM	54.1	49.3
12:00 PM - 12:05 PM	53.1	50.3	02:40 PM - 02:45 PM	54.6	51.0	05:20 PM - 05:25 PM	53.9	51.0
12:05 PM - 12:10 PM	53.4	49.8	02:45 PM - 02:50 PM	55.0	51.7	05:25 PM - 05:30 PM	53.4	50.2
12:10 PM - 12:15 PM	52.8	50.1	02:50 PM - 02:55 PM	55.3	51.4	05:30 PM - 05:35 PM	53.8	49.9
12:15 PM - 12:20 PM	54.8	50.3	02:55 PM - 03:00 PM	55.7	51.2	05:35 PM - 05:40 PM	53.6	49.9
12:20 PM - 12:25 PM	54.1	51.4	03:00 PM - 03:05 PM	55.3	51.3	05:40 PM - 05:45 PM	55.0	49.2
12:25 PM - 12:30 PM	52.5	51.1	03:05 PM - 03:10 PM	54.3	50.8	05:45 PM - 05:50 PM	53.2	50.1
12:30 PM - 12:35 PM	53.0	51.1	03:10 PM - 03:15 PM	56.6	53.1	05:50 PM - 05:55 PM	56.2	49.2
12:35 PM - 12:40 PM	52.3	50.7	03:15 PM - 03:20 PM	55.3	51.3	05:55 PM - 06:00 PM	54.6	49.6

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394199-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number : 2571982-4
Parameter : Noise Level (Leq 5 min)
Location : ฐานวัดโกลน (GPS 47P 0735038, 1405843)
Measurement Date : Aug 22 - Aug 23, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 00873109

Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22 - Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	51.8	48.8	08:40 PM - 08:45 PM	62.7	61.5	11:20 PM - 11:25 PM	52.9	51.6
06:05 PM - 06:10 PM	52.9	49.4	08:45 PM - 08:50 PM	67.9	66.7	11:25 PM - 11:30 PM	56.5	54.5
06:10 PM - 06:15 PM	50.5	48.5	08:50 PM - 08:55 PM	69.4	63.9	11:30 PM - 11:35 PM	59.5	57.4
06:15 PM - 06:20 PM	52.5	47.6	08:55 PM - 09:00 PM	73.3	68.4	11:35 PM - 11:40 PM	59.2	57.8
06:20 PM - 06:25 PM	51.3	48.4	09:00 PM - 09:05 PM	70.3	66.0	11:40 PM - 11:45 PM	56.2	54.1
06:25 PM - 06:30 PM	53.0	49.4	09:05 PM - 09:10 PM	64.3	63.3	11:45 PM - 11:50 PM	53.2	52.2
06:30 PM - 06:35 PM	53.9	49.9	09:10 PM - 09:15 PM	66.2	61.8	11:50 PM - 11:55 PM	52.8	51.2
06:35 PM - 06:40 PM	54.2	49.8	09:15 PM - 09:20 PM	59.9	58.9	11:55 PM - 12:00 AM	54.7	51.1
06:40 PM - 06:45 PM	53.3	49.5	09:20 PM - 09:25 PM	70.4	62.1	12:00 AM - 12:05 AM	51.8	50.0
06:45 PM - 06:50 PM	52.3	49.5	09:25 PM - 09:30 PM	72.6	60.8	12:05 AM - 12:10 AM	51.0	50.2
06:50 PM - 06:55 PM	50.9	48.3	09:30 PM - 09:35 PM	66.7	61.1	12:10 AM - 12:15 AM	51.0	50.3
06:55 PM - 07:00 PM	50.8	47.8	09:35 PM - 09:40 PM	64.6	63.0	12:15 AM - 12:20 AM	51.3	49.9
07:00 PM - 07:05 PM	54.7	50.5	09:40 PM - 09:45 PM	65.0	63.1	12:20 AM - 12:25 AM	50.7	49.6
07:05 PM - 07:10 PM	52.5	48.8	09:45 PM - 09:50 PM	65.0	62.1	12:25 AM - 12:30 AM	50.5	49.8
07:10 PM - 07:15 PM	50.5	47.6	09:50 PM - 09:55 PM	63.5	59.7	12:30 AM - 12:35 AM	50.1	49.3
07:15 PM - 07:20 PM	53.0	49.3	09:55 PM - 10:00 PM	59.7	58.8	12:35 AM - 12:40 AM	49.7	49.0
07:20 PM - 07:25 PM	52.3	47.5	10:00 PM - 10:05 PM	57.9	56.0	12:40 AM - 12:45 AM	49.7	49.0
07:25 PM - 07:30 PM	51.5	48.2	10:05 PM - 10:10 PM	55.6	55.0	12:45 AM - 12:50 AM	49.4	48.6
07:30 PM - 07:35 PM	55.3	48.7	10:10 PM - 10:15 PM	54.8	54.0	12:50 AM - 12:55 AM	49.0	48.0
07:35 PM - 07:40 PM	53.2	49.9	10:15 PM - 10:20 PM	56.2	53.3	12:55 AM - 01:00 AM	49.2	48.6
07:40 PM - 07:45 PM	56.4	50.0	10:20 PM - 10:25 PM	56.5	52.1	01:00 AM - 01:05 AM	50.1	48.8
07:45 PM - 07:50 PM	70.5	58.1	10:25 PM - 10:30 PM	53.7	51.6	01:05 AM - 01:10 AM	49.9	49.2
07:50 PM - 07:55 PM	70.7	66.4	10:30 PM - 10:35 PM	54.5	51.7	01:10 AM - 01:15 AM	49.4	48.7
07:55 PM - 08:00 PM	64.5	59.4	10:35 PM - 10:40 PM	53.2	52.2	01:15 AM - 01:20 AM	49.5	48.6
08:00 PM - 08:05 PM	56.7	54.8	10:40 PM - 10:45 PM	58.6	54.2	01:20 AM - 01:25 AM	49.5	48.2
08:05 PM - 08:10 PM	54.7	53.5	10:45 PM - 10:50 PM	61.8	60.6	01:25 AM - 01:30 AM	49.7	48.3
08:10 PM - 08:15 PM	59.1	55.8	10:50 PM - 10:55 PM	57.9	56.1	01:30 AM - 01:35 AM	50.0	48.3
08:15 PM - 08:20 PM	56.2	54.9	10:55 PM - 11:00 PM	54.9	53.8	01:35 AM - 01:40 AM	53.0	48.1
08:20 PM - 08:25 PM	54.6	53.0	11:00 PM - 11:05 PM	53.7	52.8	01:40 AM - 01:45 AM	48.7	47.8
08:25 PM - 08:30 PM	64.7	56.5	11:05 PM - 11:10 PM	54.5	52.7	01:45 AM - 01:50 AM	48.4	47.6
08:30 PM - 08:35 PM	67.6	64.8	11:10 PM - 11:15 PM	52.9	52.1	01:50 AM - 01:55 AM	50.1	47.4
08:35 PM - 08:40 PM	63.0	60.3	11:15 PM - 11:20 PM	53.2	51.6	01:55 AM - 02:00 AM	49.6	47.5

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571982

Date Received :Aug 27, 2025

Date Reported :Aug 29, 2025

Report Number :3394199-1

Page 3 of 3

Sample Number 2571982-4
Parameter Noise Level (Leq 5 min)
Location ฐานตรวจวัดเสียง (GPS 47P 0735038, 1405843)
Measurement Date Aug 22 - Aug 23, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	49.3	47.4	04:40 AM - 04:45 AM	51.6	49.9	07:20 AM - 07:25 AM	57.8	48.1
02:05 AM - 02:10 AM	48.2	47.5	04:45 AM - 04:50 AM	53.5	50.1	07:25 AM - 07:30 AM	53.8	49.2
02:10 AM - 02:15 AM	48.5	47.9	04:50 AM - 04:55 AM	52.5	49.8	07:30 AM - 07:35 AM	55.6	49.7
02:15 AM - 02:20 AM	50.2	48.4	04:55 AM - 05:00 AM	52.0	49.6	07:35 AM - 07:40 AM	57.8	48.7
02:20 AM - 02:25 AM	48.7	48.0	05:00 AM - 05:05 AM	53.3	49.9	07:40 AM - 07:45 AM	57.5	48.0
02:25 AM - 02:30 AM	49.4	47.6	05:05 AM - 05:10 AM	56.0	51.0	07:45 AM - 07:50 AM	70.6	50.8
02:30 AM - 02:35 AM	49.0	47.5	05:10 AM - 05:15 AM	55.1	50.4	07:50 AM - 07:55 AM	66.4	53.6
02:35 AM - 02:40 AM	67.0	47.9	05:15 AM - 05:20 AM	55.6	51.0	07:55 AM - 08:00 AM	66.3	59.0
02:40 AM - 02:45 AM	64.8	58.3	05:20 AM - 05:25 AM	55.3	51.9	08:00 AM - 08:05 AM	62.3	53.0
02:45 AM - 02:50 AM	60.0	56.5	05:25 AM - 05:30 AM	53.1	50.8	08:05 AM - 08:10 AM	54.1	48.8
02:50 AM - 02:55 AM	71.9	62.1	05:30 AM - 05:35 AM	54.7	51.8	08:10 AM - 08:15 AM	51.5	47.6
02:55 AM - 03:00 AM	74.2	64.1	05:35 AM - 05:40 AM	55.7	51.8	08:15 AM - 08:20 AM	51.2	47.4
03:00 AM - 03:05 AM	60.1	58.5	05:40 AM - 05:45 AM	57.0	52.8	08:20 AM - 08:25 AM	52.1	47.9
03:05 AM - 03:10 AM	68.4	63.3	05:45 AM - 05:50 AM	54.6	52.1	08:25 AM - 08:30 AM	57.6	47.5
03:10 AM - 03:15 AM	65.2	59.5	05:50 AM - 05:55 AM	56.1	52.5	08:30 AM - 08:35 AM	63.8	50.3
03:15 AM - 03:20 AM	57.9	56.8	05:55 AM - 06:00 AM	54.5	52.6	08:35 AM - 08:40 AM	63.0	48.4
03:20 AM - 03:25 AM	56.5	55.7	06:00 AM - 06:05 AM	56.2	52.4	08:40 AM - 08:45 AM	65.8	47.9
03:25 AM - 03:30 AM	55.4	54.8	06:05 AM - 06:10 AM	54.6	52.1	08:45 AM - 08:50 AM	57.4	48.4
03:30 AM - 03:35 AM	54.5	53.7	06:10 AM - 06:15 AM	55.8	52.2	08:50 AM - 08:55 AM	50.7	47.9
03:35 AM - 03:40 AM	56.4	52.9	06:15 AM - 06:20 AM	55.9	52.2	08:55 AM - 09:00 AM	59.8	49.3
03:40 AM - 03:45 AM	52.6	51.9	06:20 AM - 06:25 AM	56.3	52.1	09:00 AM - 09:05 AM	58.7	48.1
03:45 AM - 03:50 AM	52.1	51.5	06:25 AM - 06:30 AM	54.9	51.4	09:05 AM - 09:10 AM	56.1	48.0
03:50 AM - 03:55 AM	52.6	51.3	06:30 AM - 06:35 AM	54.5	51.9	09:10 AM - 09:15 AM	56.8	48.3
03:55 AM - 04:00 AM	51.7	50.9	06:35 AM - 06:40 AM	55.2	51.9	09:15 AM - 09:20 AM	52.9	48.5
04:00 AM - 04:05 AM	54.9	50.9	06:40 AM - 06:45 AM	55.0	51.9	09:20 AM - 09:25 AM	53.7	49.9
04:05 AM - 04:10 AM	52.0	51.2	06:45 AM - 06:50 AM	56.0	51.1	09:25 AM - 09:30 AM	54.0	50.1
04:10 AM - 04:15 AM	57.3	51.6	06:50 AM - 06:55 AM	56.0	52.5	09:30 AM - 09:35 AM	52.1	48.2
04:15 AM - 04:20 AM	52.1	50.2	06:55 AM - 07:00 AM	57.1	51.9	09:35 AM - 09:40 AM	69.9	49.7
04:20 AM - 04:25 AM	56.9	50.8	07:00 AM - 07:05 AM	55.9	51.9	09:40 AM - 09:45 AM	63.1	48.9
04:25 AM - 04:30 AM	51.2	50.3	07:05 AM - 07:10 AM	56.1	50.7	09:45 AM - 09:50 AM	53.1	48.4
04:30 AM - 04:35 AM	53.7	50.2	07:10 AM - 07:15 AM	55.2	51.2	09:50 AM - 09:55 AM	51.8	48.8
04:35 AM - 04:40 AM	54.0	50.3	07:15 AM - 07:20 AM	57.9	50.6	09:55 AM - 10:00 AM	65.4	49.9

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Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571982

Date Received :Aug 27, 2025

Date Reported :Aug 29, 2025

Report Number :3394200-1

Page 1 of 3

Sample Number 2571982-5
Parameter Noise Level (Leq 5 min)
Location ฐานตรวจวัดเสียง (GPS 47P 0735038, 1405843)
Measurement Date Aug 23 - Aug 24, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	52.2	49.0	12:40 PM - 12:45 PM	66.2	54.3	03:20 PM - 03:25 PM	52.0	49.3
10:05 AM - 10:10 AM	53.2	50.3	12:45 PM - 12:50 PM	57.7	52.3	03:25 PM - 03:30 PM	55.3	48.4
10:10 AM - 10:15 AM	54.1	49.7	12:50 PM - 12:55 PM	56.8	52.0	03:30 PM - 03:35 PM	54.4	49.5
10:15 AM - 10:20 AM	53.5	49.2	12:55 PM - 01:00 PM	65.2	57.8	03:35 PM - 03:40 PM	52.2	48.6
10:20 AM - 10:25 AM	64.9	50.6	01:00 PM - 01:05 PM	58.2	52.0	03:40 PM - 03:45 PM	54.4	48.8
10:25 AM - 10:30 AM	61.8	49.4	01:05 PM - 01:10 PM	60.1	53.8	03:45 PM - 03:50 PM	56.4	50.2
10:30 AM - 10:35 AM	55.6	51.0	01:10 PM - 01:15 PM	64.7	60.6	03:50 PM - 03:55 PM	55.5	50.5
10:35 AM - 10:40 AM	66.2	52.1	01:15 PM - 01:20 PM	64.4	60.0	03:55 PM - 04:00 PM	59.1	52.3
10:40 AM - 10:45 AM	61.3	50.9	01:20 PM - 01:25 PM	59.2	51.9	04:00 PM - 04:05 PM	56.4	52.1
10:45 AM - 10:50 AM	54.9	51.2	01:25 PM - 01:30 PM	60.4	51.9	04:05 PM - 04:10 PM	55.8	51.3
10:50 AM - 10:55 AM	53.0	49.9	01:30 PM - 01:35 PM	60.2	55.4	04:10 PM - 04:15 PM	53.3	50.3
10:55 AM - 11:00 AM	53.8	49.7	01:35 PM - 01:40 PM	60.6	51.3	04:15 PM - 04:20 PM	54.7	51.6
11:00 AM - 11:05 AM	54.6	51.1	01:40 PM - 01:45 PM	59.1	49.7	04:20 PM - 04:25 PM	55.0	50.6
11:05 AM - 11:10 AM	65.8	56.0	01:45 PM - 01:50 PM	62.5	57.9	04:25 PM - 04:30 PM	55.5	51.7
11:10 AM - 11:15 AM	50.2	49.8	01:50 PM - 01:55 PM	59.2	49.8	04:30 PM - 04:35 PM	55.7	52.7
11:15 AM - 11:20 AM	56.9	53.5	01:55 PM - 02:00 PM	56.2	49.6	04:35 PM - 04:40 PM	56.4	52.9
11:20 AM - 11:25 AM	55.3	52.4	02:00 PM - 02:05 PM	61.7	52.6	04:40 PM - 04:45 PM	54.7	51.7
11:25 AM - 11:30 AM	54.5	51.6	02:05 PM - 02:10 PM	61.3	49.6	04:45 PM - 04:50 PM	57.2	52.9
11:30 AM - 11:35 AM	53.6	49.8	02:10 PM - 02:15 PM	63.8	48.9	04:50 PM - 04:55 PM	59.2	51.5
11:35 AM - 11:40 AM	61.1	52.4	02:15 PM - 02:20 PM	61.1	51.3	04:55 PM - 05:00 PM	57.2	50.7
11:40 AM - 11:45 AM	55.3	50.6	02:20 PM - 02:25 PM	57.8	50.4	05:00 PM - 05:05 PM	55.9	50.9
11:45 AM - 11:50 AM	55.9	51.4	02:25 PM - 02:30 PM	61.6	51.3	05:05 PM - 05:10 PM	55.1	51.2
11:50 AM - 11:55 AM	52.7	49.6	02:30 PM - 02:35 PM	62.0	50.9	05:10 PM - 05:15 PM	55.2	51.2
11:55 AM - 12:00 PM	57.2	53.4	02:35 PM - 02:40 PM	63.4	48.8	05:15 PM - 05:20 PM	55.1	51.2
12:00 PM - 12:05 PM	55.1	52.2	02:40 PM - 02:45 PM	65.1	52.9	05:20 PM - 05:25 PM	53.4	50.3
12:05 PM - 12:10 PM	55.2	49.2	02:45 PM - 02:50 PM	51.8	49.0	05:25 PM - 05:30 PM	52.9	50.1
12:10 PM - 12:15 PM	55.2	50.8	02:50 PM - 02:55 PM	52.3	49.0	05:30 PM - 05:35 PM	55.1	49.9
12:15 PM - 12:20 PM	56.1	51.1	02:55 PM - 03:00 PM	53.3	48.5	05:35 PM - 05:40 PM	54.4	51.3
12:20 PM - 12:25 PM	64.7	55.4	03:00 PM - 03:05 PM	52.4	48.8	05:40 PM - 05:45 PM	53.9	50.5
12:25 PM - 12:30 PM	61.4	55.9	03:05 PM - 03:10 PM	53.7	48.5	05:45 PM - 05:50 PM	50.8	49.0
12:30 PM - 12:35 PM	58.5	52.9	03:10 PM - 03:15 PM	60.6	49.7	05:50 PM - 05:55 PM	53.3	49.5
12:35 PM - 12:40 PM	64.8	52.5	03:15 PM - 03:20 PM	54.3	47.9	05:55 PM - 06:00 PM	52.9	50.2

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Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received :Aug 27, 2025
Date Reported :Aug 29, 2025
Report Number :3394200-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number 2571982-5
Parameter Noise Level (Leq 5 min)
Location ฐานวัดใกล้ถนน (GPS 47P 0735038, 1405843)
Measurement Date Aug 23 - Aug 24, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 23, 2025			Aug 23, 2025			Aug 23 - Aug 24, 2025		
Time	Leq dB(A)	L90 dB(A)	Time	Leq dB(A)	L90 dB(A)	Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	52.3	49.6	08:40 PM - 08:45 PM	50.5	47.4	11:20 PM - 11:25 PM	50.8	48.6
06:05 PM - 06:10 PM	53.7	50.1	08:45 PM - 08:50 PM	51.7	47.2	11:25 PM - 11:30 PM	54.2	51.4
06:10 PM - 06:15 PM	53.7	50.7	08:50 PM - 08:55 PM	52.2	47.3	11:30 PM - 11:35 PM	53.3	50.5
06:15 PM - 06:20 PM	53.0	49.2	08:55 PM - 09:00 PM	48.5	46.7	11:35 PM - 11:40 PM	54.7	51.2
06:20 PM - 06:25 PM	51.9	49.2	09:00 PM - 09:05 PM	50.9	46.5	11:40 PM - 11:45 PM	54.2	50.6
06:25 PM - 06:30 PM	55.6	50.2	09:05 PM - 09:10 PM	49.1	47.1	11:45 PM - 11:50 PM	55.4	52.0
06:30 PM - 06:35 PM	53.9	49.9	09:10 PM - 09:15 PM	51.9	47.1	11:50 PM - 11:55 PM	57.8	51.3
06:35 PM - 06:40 PM	53.9	50.5	09:15 PM - 09:20 PM	49.5	47.3	11:55 PM - 12:00 AM	56.2	53.2
06:40 PM - 06:45 PM	54.8	51.5	09:20 PM - 09:25 PM	54.6	47.7	12:00 AM - 12:05 AM	54.7	49.2
06:45 PM - 06:50 PM	53.0	49.0	09:25 PM - 09:30 PM	49.8	47.5	12:05 AM - 12:10 AM	52.9	49.3
06:50 PM - 06:55 PM	52.7	49.8	09:30 PM - 09:35 PM	52.9	47.6	12:10 AM - 12:15 AM	53.6	48.6
06:55 PM - 07:00 PM	52.7	50.4	09:35 PM - 09:40 PM	51.1	47.6	12:15 AM - 12:20 AM	54.2	49.2
07:00 PM - 07:05 PM	51.8	49.2	09:40 PM - 09:45 PM	48.6	47.6	12:20 AM - 12:25 AM	54.0	50.6
07:05 PM - 07:10 PM	54.0	48.3	09:45 PM - 09:50 PM	52.2	47.4	12:25 AM - 12:30 AM	55.4	50.2
07:10 PM - 07:15 PM	53.6	49.7	09:50 PM - 09:55 PM	50.1	47.9	12:30 AM - 12:35 AM	55.1	50.9
07:15 PM - 07:20 PM	50.8	48.8	09:55 PM - 10:00 PM	52.7	47.4	12:35 AM - 12:40 AM	53.9	48.9
07:20 PM - 07:25 PM	52.5	49.3	10:00 PM - 10:05 PM	50.8	47.0	12:40 AM - 12:45 AM	53.4	49.0
07:25 PM - 07:30 PM	53.0	48.0	10:05 PM - 10:10 PM	49.2	47.9	12:45 AM - 12:50 AM	55.8	51.1
07:30 PM - 07:35 PM	52.3	47.9	10:10 PM - 10:15 PM	48.9	47.4	12:50 AM - 12:55 AM	54.7	51.2
07:35 PM - 07:40 PM	50.7	48.2	10:15 PM - 10:20 PM	49.9	47.6	12:55 AM - 01:00 AM	57.9	50.8
07:40 PM - 07:45 PM	52.7	48.0	10:20 PM - 10:25 PM	51.9	48.0	01:00 AM - 01:05 AM	56.5	52.5
07:45 PM - 07:50 PM	50.2	47.8	10:25 PM - 10:30 PM	50.4	48.4	01:05 AM - 01:10 AM	54.3	50.2
07:50 PM - 07:55 PM	50.2	48.2	10:30 PM - 10:35 PM	50.6	48.5	01:10 AM - 01:15 AM	56.0	50.8
07:55 PM - 08:00 PM	53.2	47.8	10:35 PM - 10:40 PM	64.0	48.9	01:15 AM - 01:20 AM	54.0	50.5
08:00 PM - 08:05 PM	51.2	47.9	10:40 PM - 10:45 PM	58.4	48.5	01:20 AM - 01:25 AM	54.1	50.3
08:05 PM - 08:10 PM	49.0	46.7	10:45 PM - 10:50 PM	51.0	47.9	01:25 AM - 01:30 AM	51.4	48.9
08:10 PM - 08:15 PM	53.4	47.7	10:50 PM - 10:55 PM	53.4	47.4	01:30 AM - 01:35 AM	53.9	50.3
08:15 PM - 08:20 PM	49.9	46.7	10:55 PM - 11:00 PM	52.6	48.0	01:35 AM - 01:40 AM	54.9	49.5
08:20 PM - 08:25 PM	54.8	47.3	11:00 PM - 11:05 PM	48.9	47.6	01:40 AM - 01:45 AM	51.5	47.9
08:25 PM - 08:30 PM	50.5	47.2	11:05 PM - 11:10 PM	52.3	48.0	01:45 AM - 01:50 AM	50.8	48.4
08:30 PM - 08:35 PM	51.4	48.1	11:10 PM - 11:15 PM	49.7	47.9	01:50 AM - 01:55 AM	52.2	47.6
08:35 PM - 08:40 PM	49.0	47.1	11:15 PM - 11:20 PM	49.8	47.9	01:55 AM - 02:00 AM	49.2	46.9

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Approved by

Sarayuth Jitranont
Assistant General Manager



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received :Aug 27, 2025
Date Reported :Aug 29, 2025
Report Number :3394200-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 3 of 3

Sample Number 2571982-5
Parameter Noise Level (Leq 5 min)
Location ฐานวัดใกล้ถนน (GPS 47P 0735038, 1405843)
Measurement Date Aug 23 - Aug 24, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 24, 2025			Aug 24, 2025			Aug 24, 2025		
Time	Leq dB(A)	L90 dB(A)	Time	Leq dB(A)	L90 dB(A)	Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	48.5	47.0	04:40 AM - 04:45 AM	50.8	48.4	07:20 AM - 07:25 AM	50.9	47.6
02:05 AM - 02:10 AM	50.2	48.2	04:45 AM - 04:50 AM	51.8	48.2	07:25 AM - 07:30 AM	55.8	47.4
02:10 AM - 02:15 AM	47.4	46.2	04:50 AM - 04:55 AM	50.5	48.4	07:30 AM - 07:35 AM	50.6	47.9
02:15 AM - 02:20 AM	48.8	46.7	04:55 AM - 05:00 AM	51.1	48.0	07:35 AM - 07:40 AM	52.2	49.2
02:20 AM - 02:25 AM	50.2	47.0	05:00 AM - 05:05 AM	50.7	48.7	07:40 AM - 07:45 AM	53.1	49.7
02:25 AM - 02:30 AM	48.6	46.5	05:05 AM - 05:10 AM	50.6	48.9	07:45 AM - 07:50 AM	53.0	49.0
02:30 AM - 02:35 AM	50.4	46.8	05:10 AM - 05:15 AM	51.2	49.1	07:50 AM - 07:55 AM	51.3	48.6
02:35 AM - 02:40 AM	48.1	46.1	05:15 AM - 05:20 AM	51.9	48.5	07:55 AM - 08:00 AM	51.4	46.9
02:40 AM - 02:45 AM	48.2	46.5	05:20 AM - 05:25 AM	52.1	48.7	08:00 AM - 08:05 AM	54.8	48.4
02:45 AM - 02:50 AM	47.9	46.4	05:25 AM - 05:30 AM	51.3	49.4	08:05 AM - 08:10 AM	52.9	48.4
02:50 AM - 02:55 AM	47.8	46.4	05:30 AM - 05:35 AM	51.8	49.5	08:10 AM - 08:15 AM	51.4	47.9
02:55 AM - 03:00 AM	48.5	46.2	05:35 AM - 05:40 AM	51.6	49.7	08:15 AM - 08:20 AM	53.8	48.7
03:00 AM - 03:05 AM	47.8	46.5	05:40 AM - 05:45 AM	53.0	49.8	08:20 AM - 08:25 AM	53.9	47.5
03:05 AM - 03:10 AM	47.0	45.9	05:45 AM - 05:50 AM	52.0	49.6	08:25 AM - 08:30 AM	51.7	46.4
03:10 AM - 03:15 AM	47.2	45.7	05:50 AM - 05:55 AM	52.0	48.8	08:30 AM - 08:35 AM	51.3	48.4
03:15 AM - 03:20 AM	55.9	46.5	05:55 AM - 06:00 AM	52.6	49.3	08:35 AM - 08:40 AM	49.6	46.5
03:20 AM - 03:25 AM	48.0	46.1	06:00 AM - 06:05 AM	52.2	49.6	08:40 AM - 08:45 AM	50.9	46.1
03:25 AM - 03:30 AM	49.2	47.0	06:05 AM - 06:10 AM	52.7	49.8	08:45 AM - 08:50 AM	52.3	48.8
03:30 AM - 03:35 AM	49.7	47.5	06:10 AM - 06:15 AM	54.4	48.4	08:50 AM - 08:55 AM	50.3	47.1
03:35 AM - 03:40 AM	49.0	47.2	06:15 AM - 06:20 AM	54.0	49.0	08:55 AM - 09:00 AM	50.8	46.7
03:40 AM - 03:45 AM	54.5	47.8	06:20 AM - 06:25 AM	52.1	48.3	09:00 AM - 09:05 AM	49.8	46.5
03:45 AM - 03:50 AM	48.7	47.4	06:25 AM - 06:30 AM	54.9	49.0	09:05 AM - 09:10 AM	51.2	47.8
03:50 AM - 03:55 AM	48.6	47.0	06:30 AM - 06:35 AM	52.5	49.7	09:10 AM - 09:15 AM	51.9	47.2
03:55 AM - 04:00 AM	49.4	47.4	06:35 AM - 06:40 AM	54.7	49.6	09:15 AM - 09:20 AM	48.6	45.8
04:00 AM - 04:05 AM	50.7	48.1	06:40 AM - 06:45 AM	55.4	49.8	09:20 AM - 09:25 AM	48.2	45.5
04:05 AM - 04:10 AM	49.1	47.8	06:45 AM - 06:50 AM	52.5	49.3	09:25 AM - 09:30 AM	48.8	46.0
04:10 AM - 04:15 AM	49.5	48.3	06:50 AM - 06:55 AM	53.2	48.4	09:30 AM - 09:35 AM	48.4	45.9
04:15 AM - 04:20 AM	49.2	47.5	06:55 AM - 07:00 AM	52.2	47.8	09:35 AM - 09:40 AM	48.5	46.3
04:20 AM - 04:25 AM	48.6	47.6	07:00 AM - 07:05 AM	53.9	49.9	09:40 AM - 09:45 AM	51.2	46.8
04:25 AM - 04:30 AM	49.8	48.1	07:05 AM - 07:10 AM	52.3	49.0	09:45 AM - 09:50 AM	51.5	48.1
04:30 AM - 04:35 AM	50.1	48.3	07:10 AM - 07:15 AM	51.6	48.4	09:50 AM - 09:55 AM	54.8	50.6
04:35 AM - 04:40 AM	50.1	48.5	07:15 AM - 07:20 AM	52.5	48.0	09:55 AM - 10:00 AM	52.9	49.5

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Approved by

Sarayuth Jitranont
Assistant General Manager



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394201-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 1 of 3

Sample Number : 2571982-6
Parameter : Noise Level (Leq 5 min)
Location : ฐานวัดโกลน (GPS 47P 0735038, 1405843)
Measurement Date : Aug 24 - Aug 25, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 00873109

Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	50.9	47.3	12:40 PM - 12:45 PM	56.4	51.8	03:20 PM - 03:25 PM	56.7	54.0
10:05 AM - 10:10 AM	50.7	46.5	12:45 PM - 12:50 PM	56.1	51.8	03:25 PM - 03:30 PM	56.1	52.4
10:10 AM - 10:15 AM	52.5	47.6	12:50 PM - 12:55 PM	54.9	51.5	03:30 PM - 03:35 PM	55.5	51.4
10:15 AM - 10:20 AM	51.6	47.9	12:55 PM - 01:00 PM	53.8	51.0	03:35 PM - 03:40 PM	51.8	49.2
10:20 AM - 10:25 AM	50.4	46.0	01:00 PM - 01:05 PM	54.5	49.9	03:40 PM - 03:45 PM	53.0	49.6
10:25 AM - 10:30 AM	55.6	48.7	01:05 PM - 01:10 PM	54.6	49.1	03:45 PM - 03:50 PM	53.6	51.1
10:30 AM - 10:35 AM	50.4	47.1	01:10 PM - 01:15 PM	53.8	51.1	03:50 PM - 03:55 PM	53.9	50.6
10:35 AM - 10:40 AM	51.8	48.5	01:15 PM - 01:20 PM	54.4	51.2	03:55 PM - 04:00 PM	54.6	50.0
10:40 AM - 10:45 AM	51.9	47.6	01:20 PM - 01:25 PM	55.6	51.8	04:00 PM - 04:05 PM	53.3	49.1
10:45 AM - 10:50 AM	55.6	52.1	01:25 PM - 01:30 PM	53.2	49.6	04:05 PM - 04:10 PM	54.4	49.5
10:50 AM - 10:55 AM	53.3	48.4	01:30 PM - 01:35 PM	54.9	50.0	04:10 PM - 04:15 PM	55.9	49.2
10:55 AM - 11:00 AM	53.7	49.5	01:35 PM - 01:40 PM	53.7	49.8	04:15 PM - 04:20 PM	52.3	49.6
11:00 AM - 11:05 AM	55.7	52.8	01:40 PM - 01:45 PM	56.2	52.6	04:20 PM - 04:25 PM	54.0	49.7
11:05 AM - 11:10 AM	53.5	49.9	01:45 PM - 01:50 PM	53.3	50.4	04:25 PM - 04:30 PM	53.1	50.1
11:10 AM - 11:15 AM	52.2	50.0	01:50 PM - 01:55 PM	52.2	48.7	04:30 PM - 04:35 PM	53.7	50.8
11:15 AM - 11:20 AM	53.8	49.3	01:55 PM - 02:00 PM	50.4	47.4	04:35 PM - 04:40 PM	56.1	52.5
11:20 AM - 11:25 AM	53.0	49.8	02:00 PM - 02:05 PM	53.2	49.1	04:40 PM - 04:45 PM	54.4	49.3
11:25 AM - 11:30 AM	52.9	49.0	02:05 PM - 02:10 PM	56.2	51.1	04:45 PM - 04:50 PM	55.8	49.9
11:30 AM - 11:35 AM	53.9	50.3	02:10 PM - 02:15 PM	52.3	48.6	04:50 PM - 04:55 PM	57.6	49.2
11:35 AM - 11:40 AM	55.2	49.7	02:15 PM - 02:20 PM	56.2	51.9	04:55 PM - 05:00 PM	56.0	50.4
11:40 AM - 11:45 AM	54.4	50.3	02:20 PM - 02:25 PM	57.8	53.3	05:00 PM - 05:05 PM	53.9	49.9
11:45 AM - 11:50 AM	54.9	50.8	02:25 PM - 02:30 PM	56.4	49.3	05:05 PM - 05:10 PM	53.9	49.7
11:50 AM - 11:55 AM	54.7	48.6	02:30 PM - 02:35 PM	56.3	51.6	05:10 PM - 05:15 PM	53.1	50.3
11:55 AM - 12:00 PM	54.9	51.4	02:35 PM - 02:40 PM	53.5	49.1	05:15 PM - 05:20 PM	54.8	49.2
12:00 PM - 12:05 PM	55.2	51.5	02:40 PM - 02:45 PM	55.4	50.4	05:20 PM - 05:25 PM	54.0	49.8
12:05 PM - 12:10 PM	55.9	51.6	02:45 PM - 02:50 PM	58.2	52.5	05:25 PM - 05:30 PM	52.5	49.6
12:10 PM - 12:15 PM	55.4	50.9	02:50 PM - 02:55 PM	55.5	51.7	05:30 PM - 05:35 PM	52.7	49.6
12:15 PM - 12:20 PM	55.3	50.5	02:55 PM - 03:00 PM	55.7	51.4	05:35 PM - 05:40 PM	50.8	48.0
12:20 PM - 12:25 PM	56.1	52.0	03:00 PM - 03:05 PM	55.4	50.0	05:40 PM - 05:45 PM	52.6	49.2
12:25 PM - 12:30 PM	52.4	47.9	03:05 PM - 03:10 PM	59.2	51.5	05:45 PM - 05:50 PM	52.3	47.8
12:30 PM - 12:35 PM	54.6	49.5	03:10 PM - 03:15 PM	57.2	52.4	05:50 PM - 05:55 PM	51.8	47.9
12:35 PM - 12:40 PM	55.7	50.4	03:15 PM - 03:20 PM	55.4	49.6	05:55 PM - 06:00 PM	51.8	47.5

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394201-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number : 2571982-6
Parameter : Noise Level (Leq 5 min)
Location : ฐานวัดโกลน (GPS 47P 0735038, 1405843)
Measurement Date : Aug 24 - Aug 25, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 00873109

Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 24 - Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	51.5	48.2	08:40 PM - 08:45 PM	53.6	49.5	11:20 PM - 11:25 PM	47.4	46.0
06:05 PM - 06:10 PM	56.5	49.1	08:45 PM - 08:50 PM	53.0	49.8	11:25 PM - 11:30 PM	48.8	46.5
06:10 PM - 06:15 PM	51.5	48.0	08:50 PM - 08:55 PM	50.3	46.8	11:30 PM - 11:35 PM	48.8	46.3
06:15 PM - 06:20 PM	51.9	48.3	08:55 PM - 09:00 PM	52.0	47.4	11:35 PM - 11:40 PM	48.6	46.8
06:20 PM - 06:25 PM	52.8	48.8	09:00 PM - 09:05 PM	53.3	50.8	11:40 PM - 11:45 PM	50.5	47.5
06:25 PM - 06:30 PM	57.5	49.6	09:05 PM - 09:10 PM	54.7	49.9	11:45 PM - 11:50 PM	50.1	47.7
06:30 PM - 06:35 PM	51.9	49.2	09:10 PM - 09:15 PM	53.2	50.4	11:50 PM - 11:55 PM	51.8	47.5
06:35 PM - 06:40 PM	53.1	47.7	09:15 PM - 09:20 PM	52.0	49.1	11:55 PM - 12:00 AM	49.1	47.1
06:40 PM - 06:45 PM	51.9	47.7	09:20 PM - 09:25 PM	51.4	47.4	12:00 AM - 12:05 AM	49.9	47.6
06:45 PM - 06:50 PM	50.4	47.3	09:25 PM - 09:30 PM	51.9	47.5	12:05 AM - 12:10 AM	49.3	47.7
06:50 PM - 06:55 PM	51.7	47.2	09:30 PM - 09:35 PM	55.3	48.0	12:10 AM - 12:15 AM	51.8	48.1
06:55 PM - 07:00 PM	49.4	46.9	09:35 PM - 09:40 PM	52.1	48.2	12:15 AM - 12:20 AM	49.9	47.7
07:00 PM - 07:05 PM	51.2	48.3	09:40 PM - 09:45 PM	52.0	49.3	12:20 AM - 12:25 AM	48.6	47.2
07:05 PM - 07:10 PM	53.5	48.4	09:45 PM - 09:50 PM	54.1	49.3	12:25 AM - 12:30 AM	49.8	47.7
07:10 PM - 07:15 PM	51.4	47.0	09:50 PM - 09:55 PM	51.5	48.1	12:30 AM - 12:35 AM	50.1	46.7
07:15 PM - 07:20 PM	51.8	48.7	09:55 PM - 10:00 PM	49.5	46.9	12:35 AM - 12:40 AM	48.7	47.4
07:20 PM - 07:25 PM	51.8	47.9	10:00 PM - 10:05 PM	49.2	46.9	12:40 AM - 12:45 AM	48.2	46.7
07:25 PM - 07:30 PM	52.2	48.3	10:05 PM - 10:10 PM	48.9	46.7	12:45 AM - 12:50 AM	49.8	47.8
07:30 PM - 07:35 PM	52.0	48.2	10:10 PM - 10:15 PM	50.8	47.6	12:50 AM - 12:55 AM	49.4	47.8
07:35 PM - 07:40 PM	53.1	47.8	10:15 PM - 10:20 PM	51.0	46.4	12:55 AM - 01:00 AM	49.7	47.8
07:40 PM - 07:45 PM	52.3	48.5	10:20 PM - 10:25 PM	51.4	46.3	01:00 AM - 01:05 AM	51.2	48.6
07:45 PM - 07:50 PM	54.3	49.4	10:25 PM - 10:30 PM	48.2	46.5	01:05 AM - 01:10 AM	50.1	48.2
07:50 PM - 07:55 PM	55.0	49.2	10:30 PM - 10:35 PM	48.3	45.9	01:10 AM - 01:15 AM	50.0	47.4
07:55 PM - 08:00 PM	52.0	48.5	10:35 PM - 10:40 PM	51.1	45.5	01:15 AM - 01:20 AM	49.6	48.1
08:00 PM - 08:05 PM	52.7	48.6	10:40 PM - 10:45 PM	48.4	45.7	01:20 AM - 01:25 AM	51.0	48.7
08:05 PM - 08:10 PM	51.7	47.1	10:45 PM - 10:50 PM	49.6	46.3	01:25 AM - 01:30 AM	50.6	48.2
08:10 PM - 08:15 PM	53.0	48.4	10:50 PM - 10:55 PM	50.5	46.1	01:30 AM - 01:35 AM	50.5	47.9
08:15 PM - 08:20 PM	53.2	48.0	10:55 PM - 11:00 PM	47.4	46.1	01:35 AM - 01:40 AM	47.4	46.1
08:20 PM - 08:25 PM	52.4	48.5	11:00 PM - 11:05 PM	50.0	46.2	01:40 AM - 01:45 AM	47.3	45.9
08:25 PM - 08:30 PM	51.4	48.6	11:05 PM - 11:10 PM	47.7	45.9	01:45 AM - 01:50 AM	49.0	46.2
08:30 PM - 08:35 PM	52.5	49.1	11:10 PM - 11:15 PM	46.9	45.6	01:50 AM - 01:55 AM	49.9	46.8
08:35 PM - 08:40 PM	51.5	47.9	11:15 PM - 11:20 PM	47.8	45.4	01:55 AM - 02:00 AM	48.6	46.3

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571982
Date Received :Aug 27, 2025
Date Reported :Aug 29, 2025
Report Number :3394201-1

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Sample Number 2571982-6
Parameter Noise Level (Leq 5 min)
Location ฐานตรวจวัดมลพิษ (GPS 47P 0735038, 1405843)
Measurement Date Aug 24 - Aug 25, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	48.6	46.8	04:40 AM - 04:45 AM	49.0	47.1	07:20 AM - 07:25 AM	53.3	50.1
02:05 AM - 02:10 AM	48.0	46.5	04:45 AM - 04:50 AM	49.5	46.6	07:25 AM - 07:30 AM	54.0	50.4
02:10 AM - 02:15 AM	50.2	46.8	04:50 AM - 04:55 AM	48.6	46.6	07:30 AM - 07:35 AM	54.2	50.1
02:15 AM - 02:20 AM	52.7	49.5	04:55 AM - 05:00 AM	49.3	46.8	07:35 AM - 07:40 AM	53.8	49.6
02:20 AM - 02:25 AM	48.3	46.8	05:00 AM - 05:05 AM	49.9	46.6	07:40 AM - 07:45 AM	52.0	49.1
02:25 AM - 02:30 AM	49.7	46.8	05:05 AM - 05:10 AM	53.1	47.6	07:45 AM - 07:50 AM	51.9	49.9
02:30 AM - 02:35 AM	48.5	46.3	05:10 AM - 05:15 AM	53.3	48.6	07:50 AM - 07:55 AM	52.5	48.9
02:35 AM - 02:40 AM	50.0	46.5	05:15 AM - 05:20 AM	52.8	48.3	07:55 AM - 08:00 AM	54.4	50.4
02:40 AM - 02:45 AM	53.0	48.6	05:20 AM - 05:25 AM	50.6	48.7	08:00 AM - 08:05 AM	52.8	49.5
02:45 AM - 02:50 AM	51.3	46.7	05:25 AM - 05:30 AM	52.4	49.2	08:05 AM - 08:10 AM	54.6	51.3
02:50 AM - 02:55 AM	48.9	46.2	05:30 AM - 05:35 AM	53.3	49.8	08:10 AM - 08:15 AM	53.2	48.8
02:55 AM - 03:00 AM	51.7	47.3	05:35 AM - 05:40 AM	52.7	50.3	08:15 AM - 08:20 AM	57.5	50.7
03:00 AM - 03:05 AM	51.3	45.9	05:40 AM - 05:45 AM	53.5	50.3	08:20 AM - 08:25 AM	54.3	49.2
03:05 AM - 03:10 AM	49.9	46.8	05:45 AM - 05:50 AM	55.5	51.6	08:25 AM - 08:30 AM	53.6	48.2
03:10 AM - 03:15 AM	48.9	46.4	05:50 AM - 05:55 AM	53.8	51.7	08:30 AM - 08:35 AM	50.8	47.4
03:15 AM - 03:20 AM	54.2	47.1	05:55 AM - 06:00 AM	56.8	51.5	08:35 AM - 08:40 AM	50.8	47.8
03:20 AM - 03:25 AM	49.5	47.6	06:00 AM - 06:05 AM	56.1	52.3	08:40 AM - 08:45 AM	49.2	46.6
03:25 AM - 03:30 AM	50.5	48.0	06:05 AM - 06:10 AM	54.8	51.3	08:45 AM - 08:50 AM	53.4	47.8
03:30 AM - 03:35 AM	49.5	47.5	06:10 AM - 06:15 AM	55.6	51.9	08:50 AM - 08:55 AM	49.7	47.7
03:35 AM - 03:40 AM	49.3	47.1	06:15 AM - 06:20 AM	55.2	50.8	08:55 AM - 09:00 AM	52.1	48.2
03:40 AM - 03:45 AM	47.5	46.1	06:20 AM - 06:25 AM	53.9	51.6	09:00 AM - 09:05 AM	51.2	48.4
03:45 AM - 03:50 AM	47.1	45.5	06:25 AM - 06:30 AM	55.5	51.6	09:05 AM - 09:10 AM	56.6	47.4
03:50 AM - 03:55 AM	47.8	46.3	06:30 AM - 06:35 AM	55.2	52.4	09:10 AM - 09:15 AM	53.5	47.9
03:55 AM - 04:00 AM	49.2	46.9	06:35 AM - 06:40 AM	55.1	52.4	09:15 AM - 09:20 AM	54.0	49.3
04:00 AM - 04:05 AM	48.6	46.8	06:40 AM - 06:45 AM	54.5	51.8	09:20 AM - 09:25 AM	51.4	49.0
04:05 AM - 04:10 AM	50.0	47.3	06:45 AM - 06:50 AM	56.4	51.8	09:25 AM - 09:30 AM	53.1	49.6
04:10 AM - 04:15 AM	48.7	47.2	06:50 AM - 06:55 AM	54.8	51.3	09:30 AM - 09:35 AM	53.6	50.0
04:15 AM - 04:20 AM	49.4	47.9	06:55 AM - 07:00 AM	54.7	52.3	09:35 AM - 09:40 AM	54.2	50.9
04:20 AM - 04:25 AM	49.7	47.5	07:00 AM - 07:05 AM	54.3	52.0	09:40 AM - 09:45 AM	52.2	48.9
04:25 AM - 04:30 AM	49.6	47.3	07:05 AM - 07:10 AM	54.4	51.9	09:45 AM - 09:50 AM	54.4	50.4
04:30 AM - 04:35 AM	48.2	47.0	07:10 AM - 07:15 AM	53.5	51.4	09:50 AM - 09:55 AM	53.1	50.3
04:35 AM - 04:40 AM	49.8	46.8	07:15 AM - 07:20 AM	54.8	50.5	09:55 AM - 10:00 AM	54.6	50.9

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Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571982
Date Received :Aug 27, 2025
Date Reported :Aug 29, 2025
Report Number :3394202-1

Page 1 of 3

Sample Number 2571982-7
Parameter Noise Level (Leq 5 min)
Location ฐานตรวจวัดมลพิษ (GPS 47P 0735038, 1405843)
Measurement Date Aug 25 - Aug 26, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 00873109

Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	55.4	50.2	12:40 PM - 12:45 PM	58.9	53.9	03:20 PM - 03:25 PM	58.2	53.3
10:05 AM - 10:10 AM	55.5	51.1	12:45 PM - 12:50 PM	57.5	52.8	03:25 PM - 03:30 PM	56.6	51.2
10:10 AM - 10:15 AM	54.5	51.1	12:50 PM - 12:55 PM	60.5	56.0	03:30 PM - 03:35 PM	56.1	52.7
10:15 AM - 10:20 AM	56.9	50.7	12:55 PM - 01:00 PM	60.5	54.4	03:35 PM - 03:40 PM	56.8	52.7
10:20 AM - 10:25 AM	55.8	51.3	01:00 PM - 01:05 PM	61.3	58.0	03:40 PM - 03:45 PM	55.7	52.6
10:25 AM - 10:30 AM	56.5	52.6	01:05 PM - 01:10 PM	58.0	52.6	03:45 PM - 03:50 PM	57.0	53.2
10:30 AM - 10:35 AM	55.2	51.0	01:10 PM - 01:15 PM	60.2	55.3	03:50 PM - 03:55 PM	56.8	54.1
10:35 AM - 10:40 AM	55.4	50.6	01:15 PM - 01:20 PM	59.9	55.0	03:55 PM - 04:00 PM	59.7	56.4
10:40 AM - 10:45 AM	55.3	51.6	01:20 PM - 01:25 PM	60.5	54.8	04:00 PM - 04:05 PM	58.7	55.6
10:45 AM - 10:50 AM	56.6	50.1	01:25 PM - 01:30 PM	59.1	55.2	04:05 PM - 04:10 PM	57.9	54.3
10:50 AM - 10:55 AM	56.1	50.1	01:30 PM - 01:35 PM	60.2	54.4	04:10 PM - 04:15 PM	56.7	53.3
10:55 AM - 11:00 AM	56.7	50.9	01:35 PM - 01:40 PM	60.7	54.9	04:15 PM - 04:20 PM	57.8	52.8
11:00 AM - 11:05 AM	58.4	53.3	01:40 PM - 01:45 PM	59.0	50.9	04:20 PM - 04:25 PM	57.4	52.3
11:05 AM - 11:10 AM	56.6	52.4	01:45 PM - 01:50 PM	56.2	51.6	04:25 PM - 04:30 PM	55.9	53.2
11:10 AM - 11:15 AM	59.9	55.8	01:50 PM - 01:55 PM	57.1	52.8	04:30 PM - 04:35 PM	58.3	53.9
11:15 AM - 11:20 AM	57.6	52.8	01:55 PM - 02:00 PM	59.3	52.4	04:35 PM - 04:40 PM	57.3	53.2
11:20 AM - 11:25 AM	57.3	53.9	02:00 PM - 02:05 PM	59.2	54.5	04:40 PM - 04:45 PM	56.2	53.0
11:25 AM - 11:30 AM	57.8	53.6	02:05 PM - 02:10 PM	57.1	51.6	04:45 PM - 04:50 PM	56.0	52.3
11:30 AM - 11:35 AM	58.3	53.8	02:10 PM - 02:15 PM	58.4	55.9	04:50 PM - 04:55 PM	56.1	51.7
11:35 AM - 11:40 AM	56.3	52.8	02:15 PM - 02:20 PM	56.5	50.9	04:55 PM - 05:00 PM	57.0	53.3
11:40 AM - 11:45 AM	57.7	53.0	02:20 PM - 02:25 PM	59.1	54.7	05:00 PM - 05:05 PM	56.8	53.0
11:45 AM - 11:50 AM	58.5	53.4	02:25 PM - 02:30 PM	56.7	51.8	05:05 PM - 05:10 PM	57.6	52.9
11:50 AM - 11:55 AM	58.3	51.5	02:30 PM - 02:35 PM	56.6	50.6	05:10 PM - 05:15 PM	57.2	53.7
11:55 AM - 12:00 PM	58.4	54.1	02:35 PM - 02:40 PM	57.4	53.6	05:15 PM - 05:20 PM	56.0	52.7
12:00 PM - 12:05 PM	57.3	52.5	02:40 PM - 02:45 PM	57.4	51.4	05:20 PM - 05:25 PM	54.3	50.3
12:05 PM - 12:10 PM	61.5	52.5	02:45 PM - 02:50 PM	55.4	51.6	05:25 PM - 05:30 PM	54.9	51.4
12:10 PM - 12:15 PM	57.6	53.1	02:50 PM - 02:55 PM	56.3	52.2	05:30 PM - 05:35 PM	56.1	50.8
12:15 PM - 12:20 PM	58.4	52.9	02:55 PM - 03:00 PM	54.1	49.7	05:35 PM - 05:40 PM	56.7	52.5
12:20 PM - 12:25 PM	59.1	53.7	03:00 PM - 03:05 PM	56.5	53.5	05:40 PM - 05:45 PM	57.3	51.9
12:25 PM - 12:30 PM	60.7	52.7	03:05 PM - 03:10 PM	58.8	53.6	05:45 PM - 05:50 PM	55.6	52.5
12:30 PM - 12:35 PM	59.6	55.6	03:10 PM - 03:15 PM	57.7	53.8	05:50 PM - 05:55 PM	56.4	51.8
12:35 PM - 12:40 PM	56.4	52.2	03:15 PM - 03:20 PM	56.0	51.0	05:55 PM - 06:00 PM	57.7	53.0

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Sarayuth Jitranont
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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394202-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut, PE (SPE)

Page 2 of 3

Sample Number : 2571982-7
Parameter : Noise Level (Leq 5 min)
Location : ฐานวัดโหนด (GPS 47P 0735038, 1405843)
Measurement Date : Aug 25 - Aug 26, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 00873109

Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25 - Aug 26, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	56.1	51.8	08:40 PM - 08:45 PM	59.1	53.8	11:20 PM - 11:25 PM	53.9	49.2
06:05 PM - 06:10 PM	59.2	54.9	08:45 PM - 08:50 PM	57.3	52.5	11:25 PM - 11:30 PM	51.2	47.8
06:10 PM - 06:15 PM	54.8	50.8	08:50 PM - 08:55 PM	54.5	50.0	11:30 PM - 11:35 PM	51.8	48.6
06:15 PM - 06:20 PM	54.8	51.6	08:55 PM - 09:00 PM	58.8	53.8	11:35 PM - 11:40 PM	50.9	48.4
06:20 PM - 06:25 PM	58.4	54.3	09:00 PM - 09:05 PM	55.7	50.7	11:40 PM - 11:45 PM	54.2	49.3
06:25 PM - 06:30 PM	56.2	52.5	09:05 PM - 09:10 PM	52.1	48.6	11:45 PM - 11:50 PM	51.0	47.9
06:30 PM - 06:35 PM	58.8	54.8	09:10 PM - 09:15 PM	61.6	54.3	11:50 PM - 11:55 PM	53.9	48.9
06:35 PM - 06:40 PM	58.8	53.6	09:15 PM - 09:20 PM	57.2	51.8	11:55 PM - 12:00 AM	54.1	49.3
06:40 PM - 06:45 PM	55.7	51.8	09:20 PM - 09:25 PM	54.5	49.2	12:00 AM - 12:05 AM	54.1	50.6
06:45 PM - 06:50 PM	57.8	54.0	09:25 PM - 09:30 PM	53.6	48.9	12:05 AM - 12:10 AM	53.8	49.2
06:50 PM - 06:55 PM	55.9	52.3	09:30 PM - 09:35 PM	58.6	50.3	12:10 AM - 12:15 AM	55.9	48.3
06:55 PM - 07:00 PM	56.0	51.1	09:35 PM - 09:40 PM	58.2	51.6	12:15 AM - 12:20 AM	53.5	49.2
07:00 PM - 07:05 PM	57.2	51.8	09:40 PM - 09:45 PM	55.2	50.0	12:20 AM - 12:25 AM	52.3	46.9
07:05 PM - 07:10 PM	56.6	52.7	09:45 PM - 09:50 PM	56.1	51.3	12:25 AM - 12:30 AM	54.1	48.0
07:10 PM - 07:15 PM	56.2	50.8	09:50 PM - 09:55 PM	56.9	49.4	12:30 AM - 12:35 AM	51.4	47.4
07:15 PM - 07:20 PM	57.3	51.6	09:55 PM - 10:00 PM	59.7	52.9	12:35 AM - 12:40 AM	49.7	47.1
07:20 PM - 07:25 PM	56.9	49.9	10:00 PM - 10:05 PM	55.2	50.0	12:40 AM - 12:45 AM	52.6	48.5
07:25 PM - 07:30 PM	55.9	50.1	10:05 PM - 10:10 PM	59.1	52.6	12:45 AM - 12:50 AM	56.5	47.4
07:30 PM - 07:35 PM	55.0	50.7	10:10 PM - 10:15 PM	59.0	53.6	12:50 AM - 12:55 AM	51.1	48.7
07:35 PM - 07:40 PM	56.9	51.7	10:15 PM - 10:20 PM	58.7	53.1	12:55 AM - 01:00 AM	52.5	47.4
07:40 PM - 07:45 PM	57.5	51.2	10:20 PM - 10:25 PM	59.3	51.2	01:00 AM - 01:05 AM	55.2	51.5
07:45 PM - 07:50 PM	58.5	54.8	10:25 PM - 10:30 PM	57.6	51.4	01:05 AM - 01:10 AM	52.7	47.3
07:50 PM - 07:55 PM	59.5	55.2	10:30 PM - 10:35 PM	59.5	55.2	01:10 AM - 01:15 AM	52.5	46.7
07:55 PM - 08:00 PM	60.2	57.1	10:35 PM - 10:40 PM	56.1	51.7	01:15 AM - 01:20 AM	52.6	47.8
08:00 PM - 08:05 PM	57.5	53.1	10:40 PM - 10:45 PM	61.0	56.8	01:20 AM - 01:25 AM	52.2	48.4
08:05 PM - 08:10 PM	60.3	52.4	10:45 PM - 10:50 PM	57.5	50.5	01:25 AM - 01:30 AM	52.6	47.7
08:10 PM - 08:15 PM	54.6	49.7	10:50 PM - 10:55 PM	59.2	54.7	01:30 AM - 01:35 AM	48.8	46.4
08:15 PM - 08:20 PM	53.2	48.9	10:55 PM - 11:00 PM	57.1	52.6	01:35 AM - 01:40 AM	49.3	46.5
08:20 PM - 08:25 PM	58.3	49.9	11:00 PM - 11:05 PM	53.5	50.0	01:40 AM - 01:45 AM	51.9	46.4
08:25 PM - 08:30 PM	57.2	52.2	11:05 PM - 11:10 PM	59.8	53.3	01:45 AM - 01:50 AM	49.3	46.3
08:30 PM - 08:35 PM	58.3	52.4	11:10 PM - 11:15 PM	54.5	50.4	01:50 AM - 01:55 AM	50.7	45.7
08:35 PM - 08:40 PM	59.0	53.9	11:15 PM - 11:20 PM	55.6	49.4	01:55 AM - 02:00 AM	48.8	46.2

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Approved by

Sarayuth Jitranont
Assistant General Manager



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571982
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394202-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut, PE (SPE)

Page 3 of 3

Sample Number : 2571982-7
Parameter : Noise Level (Leq 5 min)
Location : ฐานวัดโหนด (GPS 47P 0735038, 1405843)
Measurement Date : Aug 25 - Aug 26, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 00873109

Aug 26, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 26, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 26, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	48.9	46.0	04:40 AM - 04:45 AM	53.7	48.9	07:20 AM - 07:25 AM	57.1	53.3
02:05 AM - 02:10 AM	51.7	47.3	04:45 AM - 04:50 AM	53.1	49.9	07:25 AM - 07:30 AM	59.8	52.7
02:10 AM - 02:15 AM	50.2	44.9	04:50 AM - 04:55 AM	54.0	50.5	07:30 AM - 07:35 AM	57.3	52.4
02:15 AM - 02:20 AM	48.4	45.5	04:55 AM - 05:00 AM	53.6	48.7	07:35 AM - 07:40 AM	57.3	51.6
02:20 AM - 02:25 AM	49.0	46.2	05:00 AM - 05:05 AM	54.7	51.2	07:40 AM - 07:45 AM	57.6	51.8
02:25 AM - 02:30 AM	51.1	46.3	05:05 AM - 05:10 AM	59.4	53.2	07:45 AM - 07:50 AM	57.0	52.3
02:30 AM - 02:35 AM	52.5	47.8	05:10 AM - 05:15 AM	63.2	58.2	07:50 AM - 07:55 AM	56.0	51.9
02:35 AM - 02:40 AM	48.6	46.3	05:15 AM - 05:20 AM	61.8	51.4	07:55 AM - 08:00 AM	63.0	55.2
02:40 AM - 02:45 AM	49.6	47.0	05:20 AM - 05:25 AM	56.0	52.2	08:00 AM - 08:05 AM	59.0	54.0
02:45 AM - 02:50 AM	52.3	46.7	05:25 AM - 05:30 AM	57.6	53.7	08:05 AM - 08:10 AM	61.9	53.2
02:50 AM - 02:55 AM	49.5	44.6	05:30 AM - 05:35 AM	54.2	51.3	08:10 AM - 08:15 AM	60.4	52.2
02:55 AM - 03:00 AM	52.8	48.1	05:35 AM - 05:40 AM	58.2	52.5	08:15 AM - 08:20 AM	60.5	53.1
03:00 AM - 03:05 AM	51.1	47.1	05:40 AM - 05:45 AM	58.8	53.7	08:20 AM - 08:25 AM	64.6	51.9
03:05 AM - 03:10 AM	50.1	46.3	05:45 AM - 05:50 AM	59.3	54.2	08:25 AM - 08:30 AM	61.5	56.6
03:10 AM - 03:15 AM	49.5	46.7	05:50 AM - 05:55 AM	55.1	52.1	08:30 AM - 08:35 AM	56.1	50.9
03:15 AM - 03:20 AM	53.6	46.4	05:55 AM - 06:00 AM	59.0	55.5	08:35 AM - 08:40 AM	58.3	50.9
03:20 AM - 03:25 AM	52.5	47.3	06:00 AM - 06:05 AM	60.2	55.7	08:40 AM - 08:45 AM	62.9	52.9
03:25 AM - 03:30 AM	51.8	48.1	06:05 AM - 06:10 AM	60.2	55.6	08:45 AM - 08:50 AM	61.8	57.2
03:30 AM - 03:35 AM	51.5	49.0	06:10 AM - 06:15 AM	55.4	51.9	08:50 AM - 08:55 AM	62.3	54.7
03:35 AM - 03:40 AM	52.2	48.6	06:15 AM - 06:20 AM	55.9	52.3	08:55 AM - 09:00 AM	60.9	55.9
03:40 AM - 03:45 AM	53.7	50.7	06:20 AM - 06:25 AM	56.5	53.5	09:00 AM - 09:05 AM	58.8	50.4
03:45 AM - 03:50 AM	53.5	49.0	06:25 AM - 06:30 AM	58.7	54.6	09:05 AM - 09:10 AM	58.1	51.6
03:50 AM - 03:55 AM	56.2	49.4	06:30 AM - 06:35 AM	57.0	53.0	09:10 AM - 09:15 AM	59.6	52.9
03:55 AM - 04:00 AM	53.9	48.1	06:35 AM - 06:40 AM	61.0	55.4	09:15 AM - 09:20 AM	59.8	56.2
04:00 AM - 04:05 AM	54.7	51.5	06:40 AM - 06:45 AM	59.1	54.9	09:20 AM - 09:25 AM	59.2	54.2
04:05 AM - 04:10 AM	56.2	52.7	06:45 AM - 06:50 AM	56.8	53.5	09:25 AM - 09:30 AM	58.5	53.5
04:10 AM - 04:15 AM	55.5	48.9	06:50 AM - 06:55 AM	57.9	54.0	09:30 AM - 09:35 AM	59.4	54.0
04:15 AM - 04:20 AM	53.5	48.7	06:55 AM - 07:00 AM	59.9	54.6	09:35 AM - 09:40 AM	57.1	52.6
04:20 AM - 04:25 AM	54.9	50.5	07:00 AM - 07:05 AM	56.8	54.0	09:40 AM - 09:45 AM	60.3	55.5
04:25 AM - 04:30 AM	53.4	49.6	07:05 AM - 07:10 AM	54.7	52.3	09:45 AM - 09:50 AM	56.0	53.0
04:30 AM - 04:35 AM	54.0	49.3	07:10 AM - 07:15 AM	56.9	54.0	09:50 AM - 09:55 AM	56.6	51.9
04:35 AM - 04:40 AM	53.2	48.1	07:15 AM - 07:20 AM	58.8	55.9	09:55 AM - 10:00 AM	57.0	53.3

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Approved by

Sarayuth Jitranont
Assistant General Manager



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571983

Date Received : Aug 27, 2025

Date Reported : Aug 29, 2025

Report Number : 3394216-1

Page 1 of 3

Sample Number : 2571983-1
Parameter : Noise Level (Leq 5 min)
Location : หนองนาเกลือ-ถาวร (GPS 47P 0735578, 1402792)
Measurement Date : Aug 19 - Aug 20, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 19, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 19, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 19, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	51.2	45.6	12:40 PM - 12:45 PM	58.6	45.3	03:20 PM - 03:25 PM	54.1	44.5
10:05 AM - 10:10 AM	50.4	44.6	12:45 PM - 12:50 PM	50.2	44.6	03:25 PM - 03:30 PM	49.9	45.3
10:10 AM - 10:15 AM	51.9	45.7	12:50 PM - 12:55 PM	49.2	44.8	03:30 PM - 03:35 PM	50.1	45.7
10:15 AM - 10:20 AM	51.5	45.8	12:55 PM - 01:00 PM	53.8	44.1	03:35 PM - 03:40 PM	50.4	45.5
10:20 AM - 10:25 AM	53.1	45.2	01:00 PM - 01:05 PM	50.0	44.4	03:40 PM - 03:45 PM	50.6	45.1
10:25 AM - 10:30 AM	50.3	44.1	01:05 PM - 01:10 PM	49.6	43.6	03:45 PM - 03:50 PM	49.6	45.4
10:30 AM - 10:35 AM	50.6	44.6	01:10 PM - 01:15 PM	49.5	46.4	03:50 PM - 03:55 PM	49.9	45.3
10:35 AM - 10:40 AM	47.8	43.7	01:15 PM - 01:20 PM	50.9	46.1	03:55 PM - 04:00 PM	49.1	44.0
10:40 AM - 10:45 AM	49.7	45.8	01:20 PM - 01:25 PM	49.6	45.1	04:00 PM - 04:05 PM	50.0	45.8
10:45 AM - 10:50 AM	49.9	45.5	01:25 PM - 01:30 PM	50.1	45.1	04:05 PM - 04:10 PM	51.8	47.4
10:50 AM - 10:55 AM	51.0	44.0	01:30 PM - 01:35 PM	53.4	46.3	04:10 PM - 04:15 PM	50.2	46.1
10:55 AM - 11:00 AM	50.5	45.5	01:35 PM - 01:40 PM	50.5	44.9	04:15 PM - 04:20 PM	49.4	45.0
11:00 AM - 11:05 AM	54.3	44.4	01:40 PM - 01:45 PM	52.5	44.6	04:20 PM - 04:25 PM	50.6	47.5
11:05 AM - 11:10 AM	50.4	43.8	01:45 PM - 01:50 PM	50.2	42.0	04:25 PM - 04:30 PM	50.1	45.8
11:10 AM - 11:15 AM	55.4	45.1	01:50 PM - 01:55 PM	48.9	44.9	04:30 PM - 04:35 PM	55.1	46.8
11:15 AM - 11:20 AM	52.8	45.0	01:55 PM - 02:00 PM	56.1	46.3	04:35 PM - 04:40 PM	52.0	45.9
11:20 AM - 11:25 AM	52.9	44.2	02:00 PM - 02:05 PM	53.7	45.6	04:40 PM - 04:45 PM	52.2	46.9
11:25 AM - 11:30 AM	50.5	43.7	02:05 PM - 02:10 PM	52.8	44.1	04:45 PM - 04:50 PM	49.6	46.7
11:30 AM - 11:35 AM	49.8	44.7	02:10 PM - 02:15 PM	56.6	45.5	04:50 PM - 04:55 PM	51.0	46.0
11:35 AM - 11:40 AM	48.6	43.5	02:15 PM - 02:20 PM	55.4	46.2	04:55 PM - 05:00 PM	51.8	48.0
11:40 AM - 11:45 AM	48.3	44.1	02:20 PM - 02:25 PM	52.6	45.1	05:00 PM - 05:05 PM	53.6	48.5
11:45 AM - 11:50 AM	61.0	44.7	02:25 PM - 02:30 PM	51.7	44.1	05:05 PM - 05:10 PM	53.0	50.3
11:50 AM - 11:55 AM	53.1	43.4	02:30 PM - 02:35 PM	48.7	44.2	05:10 PM - 05:15 PM	53.4	50.5
11:55 AM - 12:00 PM	47.3	43.2	02:35 PM - 02:40 PM	50.0	43.8	05:15 PM - 05:20 PM	52.0	49.3
12:00 PM - 12:05 PM	49.4	43.1	02:40 PM - 02:45 PM	53.1	44.1	05:20 PM - 05:25 PM	52.0	49.7
12:05 PM - 12:10 PM	50.3	44.6	02:45 PM - 02:50 PM	49.7	45.5	05:25 PM - 05:30 PM	52.9	50.4
12:10 PM - 12:15 PM	49.2	44.9	02:50 PM - 02:55 PM	57.7	46.4	05:30 PM - 05:35 PM	56.7	52.3
12:15 PM - 12:20 PM	48.1	45.4	02:55 PM - 03:00 PM	53.8	45.6	05:35 PM - 05:40 PM	53.4	47.6
12:20 PM - 12:25 PM	50.3	46.5	03:00 PM - 03:05 PM	53.0	45.3	05:40 PM - 05:45 PM	51.6	48.7
12:25 PM - 12:30 PM	48.4	45.0	03:05 PM - 03:10 PM	52.8	45.1	05:45 PM - 05:50 PM	52.4	48.3
12:30 PM - 12:35 PM	54.3	46.5	03:10 PM - 03:15 PM	54.8	47.0	05:50 PM - 05:55 PM	56.1	48.1
12:35 PM - 12:40 PM	59.7	47.3	03:15 PM - 03:20 PM	55.2	46.6	05:55 PM - 06:00 PM	54.7	48.4

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571983

Date Received : Aug 27, 2025

Date Reported : Aug 29, 2025

Report Number : 3394216-1

Page 2 of 3

Sample Number : 2571983-1
Parameter : Noise Level (Leq 5 min)
Location : หนองนาเกลือ-ถาวร (GPS 47P 0735578, 1402792)
Measurement Date : Aug 19 - Aug 20, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 19, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 19, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 19 - Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	60.0	48.6	08:40 PM - 08:45 PM	49.6	46.7	11:20 PM - 11:25 PM	48.2	45.5
06:05 PM - 06:10 PM	56.8	50.0	08:45 PM - 08:50 PM	50.3	47.0	11:25 PM - 11:30 PM	49.5	46.2
06:10 PM - 06:15 PM	58.7	48.7	08:50 PM - 08:55 PM	49.9	46.0	11:30 PM - 11:35 PM	49.7	46.0
06:15 PM - 06:20 PM	55.7	48.8	08:55 PM - 09:00 PM	49.6	45.9	11:35 PM - 11:40 PM	51.3	46.3
06:20 PM - 06:25 PM	56.7	49.9	09:00 PM - 09:05 PM	51.0	45.7	11:40 PM - 11:45 PM	50.3	44.2
06:25 PM - 06:30 PM	53.4	49.7	09:05 PM - 09:10 PM	47.7	44.1	11:45 PM - 11:50 PM	49.2	45.3
06:30 PM - 06:35 PM	52.1	46.8	09:10 PM - 09:15 PM	51.5	45.5	11:50 PM - 11:55 PM	48.0	45.1
06:35 PM - 06:40 PM	55.3	48.8	09:15 PM - 09:20 PM	57.9	45.1	11:55 PM - 12:00 AM	47.3	45.4
06:40 PM - 06:45 PM	56.6	49.6	09:20 PM - 09:25 PM	49.9	44.6	12:00 AM - 12:05 AM	49.0	45.0
06:45 PM - 06:50 PM	54.7	46.7	09:25 PM - 09:30 PM	48.5	45.9	12:05 AM - 12:10 AM	48.2	45.9
06:50 PM - 06:55 PM	50.6	46.8	09:30 PM - 09:35 PM	47.7	45.5	12:10 AM - 12:15 AM	51.8	45.5
06:55 PM - 07:00 PM	52.8	48.2	09:35 PM - 09:40 PM	47.2	45.4	12:15 AM - 12:20 AM	47.5	44.7
07:00 PM - 07:05 PM	54.7	47.8	09:40 PM - 09:45 PM	47.8	44.9	12:20 AM - 12:25 AM	48.5	45.2
07:05 PM - 07:10 PM	52.6	48.1	09:45 PM - 09:50 PM	50.3	45.3	12:25 AM - 12:30 AM	47.4	43.8
07:10 PM - 07:15 PM	51.4	48.3	09:50 PM - 09:55 PM	48.8	45.2	12:30 AM - 12:35 AM	47.8	45.7
07:15 PM - 07:20 PM	52.2	47.6	09:55 PM - 10:00 PM	50.5	45.2	12:35 AM - 12:40 AM	48.3	45.1
07:20 PM - 07:25 PM	53.8	48.5	10:00 PM - 10:05 PM	48.5	44.6	12:40 AM - 12:45 AM	53.6	45.5
07:25 PM - 07:30 PM	54.6	48.3	10:05 PM - 10:10 PM	48.7	45.0	12:45 AM - 12:50 AM	48.5	44.9
07:30 PM - 07:35 PM	53.3	48.1	10:10 PM - 10:15 PM	47.3	44.4	12:50 AM - 12:55 AM	47.5	44.3
07:35 PM - 07:40 PM	51.9	47.0	10:15 PM - 10:20 PM	47.1	44.2	12:55 AM - 01:00 AM	49.6	44.4
07:40 PM - 07:45 PM	52.1	47.7	10:20 PM - 10:25 PM	48.5	44.9	01:00 AM - 01:05 AM	47.8	43.0
07:45 PM - 07:50 PM	52.4	49.1	10:25 PM - 10:30 PM	48.1	45.0	01:05 AM - 01:10 AM	46.0	41.4
07:50 PM - 07:55 PM	54.9	48.5	10:30 PM - 10:35 PM	47.3	44.3	01:10 AM - 01:15 AM	46.7	42.2
07:55 PM - 08:00 PM	56.6	49.9	10:35 PM - 10:40 PM	47.3	44.3	01:15 AM - 01:20 AM	47.2	44.1
08:00 PM - 08:05 PM	55.9	51.9	10:40 PM - 10:45 PM	48.9	45.7	01:20 AM - 01:25 AM	45.9	43.2
08:05 PM - 08:10 PM	55.9	51.2	10:45 PM - 10:50 PM	49.4	44.5	01:25 AM - 01:30 AM	45.3	42.0
08:10 PM - 08:15 PM	57.0	50.8	10:50 PM - 10:55 PM	47.8	44.7	01:30 AM - 01:35 AM	47.1	43.6
08:15 PM - 08:20 PM	56.2	49.9	10:55 PM - 11:00 PM	48.5	43.8	01:35 AM - 01:40 AM	48.6	45.4
08:20 PM - 08:25 PM	53.4	48.3	11:00 PM - 11:05 PM	52.2	43.6	01:40 AM - 01:45 AM	48.2	46.0
08:25 PM - 08:30 PM	50.6	47.3	11:05 PM - 11:10 PM	47.1	44.2	01:45 AM - 01:50 AM	49.0	46.4
08:30 PM - 08:35 PM	50.8	47.4	11:10 PM - 11:15 PM	51.7	46.0	01:50 AM - 01:55 AM	49.0	46.8
08:35 PM - 08:40 PM	50.7	47.8	11:15 PM - 11:20 PM	51.9	44.4	01:55 AM - 02:00 AM	50.6	46.9

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571983

Date Received :Aug 27, 2025

Date Reported :Aug 29, 2025

Report Number :3394216-1

Page 3 of 3

Sample Number 2571983-1
Parameter Noise Level (Leq 5 min)
Location ฐานตรวจวัด-ด้านโรงรถ (GPS 47P 0735578, 1402792)
Measurement Date Aug 19 - Aug 20, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 01073423

Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	48.9	46.8	04:40 AM - 04:45 AM	53.2	45.1	07:20 AM - 07:25 AM	56.7	52.2
02:05 AM - 02:10 AM	49.4	46.9	04:45 AM - 04:50 AM	53.8	45.4	07:25 AM - 07:30 AM	56.2	51.8
02:10 AM - 02:15 AM	49.8	48.0	04:50 AM - 04:55 AM	50.0	45.6	07:30 AM - 07:35 AM	55.6	52.2
02:15 AM - 02:20 AM	50.4	47.3	04:55 AM - 05:00 AM	49.1	44.6	07:35 AM - 07:40 AM	55.6	52.6
02:20 AM - 02:25 AM	51.5	48.1	05:00 AM - 05:05 AM	50.6	42.8	07:40 AM - 07:45 AM	55.5	51.5
02:25 AM - 02:30 AM	50.4	48.2	05:05 AM - 05:10 AM	50.7	42.4	07:45 AM - 07:50 AM	55.5	51.0
02:30 AM - 02:35 AM	50.1	46.9	05:10 AM - 05:15 AM	50.1	42.2	07:50 AM - 07:55 AM	54.4	48.1
02:35 AM - 02:40 AM	50.8	46.5	05:15 AM - 05:20 AM	51.5	41.8	07:55 AM - 08:00 AM	55.9	50.0
02:40 AM - 02:45 AM	52.5	46.6	05:20 AM - 05:25 AM	51.2	44.0	08:00 AM - 08:05 AM	54.5	49.2
02:45 AM - 02:50 AM	46.7	44.4	05:25 AM - 05:30 AM	52.0	44.0	08:05 AM - 08:10 AM	52.2	46.8
02:50 AM - 02:55 AM	47.1	44.8	05:30 AM - 05:35 AM	52.2	45.5	08:10 AM - 08:15 AM	53.0	46.1
02:55 AM - 03:00 AM	46.8	43.6	05:35 AM - 05:40 AM	51.9	44.4	08:15 AM - 08:20 AM	51.4	46.8
03:00 AM - 03:05 AM	47.6	44.3	05:40 AM - 05:45 AM	51.6	44.6	08:20 AM - 08:25 AM	59.9	47.4
03:05 AM - 03:10 AM	49.4	43.8	05:45 AM - 05:50 AM	53.0	46.3	08:25 AM - 08:30 AM	53.5	50.0
03:10 AM - 03:15 AM	49.3	44.5	05:50 AM - 05:55 AM	53.2	46.0	08:30 AM - 08:35 AM	53.9	48.7
03:15 AM - 03:20 AM	50.0	44.3	05:55 AM - 06:00 AM	56.5	49.2	08:35 AM - 08:40 AM	54.7	48.5
03:20 AM - 03:25 AM	48.0	43.5	06:00 AM - 06:05 AM	56.5	51.4	08:40 AM - 08:45 AM	52.9	46.1
03:25 AM - 03:30 AM	51.4	43.0	06:05 AM - 06:10 AM	56.2	51.7	08:45 AM - 08:50 AM	51.1	44.5
03:30 AM - 03:35 AM	50.4	43.5	06:10 AM - 06:15 AM	56.0	50.2	08:50 AM - 08:55 AM	52.2	45.7
03:35 AM - 03:40 AM	51.7	43.1	06:15 AM - 06:20 AM	56.3	52.0	08:55 AM - 09:00 AM	52.0	45.4
03:40 AM - 03:45 AM	48.4	43.7	06:20 AM - 06:25 AM	57.3	52.0	09:00 AM - 09:05 AM	53.7	45.4
03:45 AM - 03:50 AM	48.1	42.1	06:25 AM - 06:30 AM	58.3	54.0	09:05 AM - 09:10 AM	53.2	46.2
03:50 AM - 03:55 AM	48.6	42.8	06:30 AM - 06:35 AM	57.2	51.4	09:10 AM - 09:15 AM	51.9	46.4
03:55 AM - 04:00 AM	50.6	44.3	06:35 AM - 06:40 AM	56.0	51.6	09:15 AM - 09:20 AM	50.0	42.1
04:00 AM - 04:05 AM	50.8	44.8	06:40 AM - 06:45 AM	57.4	54.4	09:20 AM - 09:25 AM	57.9	45.1
04:05 AM - 04:10 AM	50.8	43.1	06:45 AM - 06:50 AM	57.8	54.6	09:25 AM - 09:30 AM	52.9	46.7
04:10 AM - 04:15 AM	51.8	45.0	06:50 AM - 06:55 AM	55.2	51.9	09:30 AM - 09:35 AM	51.5	44.0
04:15 AM - 04:20 AM	48.1	43.4	06:55 AM - 07:00 AM	55.0	50.2	09:35 AM - 09:40 AM	52.7	44.9
04:20 AM - 04:25 AM	48.9	44.8	07:00 AM - 07:05 AM	59.0	54.3	09:40 AM - 09:45 AM	52.3	45.4
04:25 AM - 04:30 AM	50.2	43.6	07:05 AM - 07:10 AM	59.5	56.4	09:45 AM - 09:50 AM	52.4	43.9
04:30 AM - 04:35 AM	51.0	45.0	07:10 AM - 07:15 AM	59.2	56.4	09:50 AM - 09:55 AM	53.3	45.7
04:35 AM - 04:40 AM	50.8	45.3	07:15 AM - 07:20 AM	59.0	55.7	09:55 AM - 10:00 AM	52.9	45.5

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571983

Date Received :Aug 27, 2025

Date Reported :Aug 29, 2025

Report Number :3394217-1

Page 1 of 3

Sample Number 2571983-2
Parameter Noise Level (Leq 5 min)
Location ฐานตรวจวัด-ด้านโรงรถ (GPS 47P 0735578, 1402792)
Measurement Date Aug 20 - Aug 21, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 01073423

Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	57.1	50.9	12:40 PM - 12:45 PM	51.2	44.7	03:20 PM - 03:25 PM	57.4	48.0
10:05 AM - 10:10 AM	60.6	57.9	12:45 PM - 12:50 PM	53.4	44.6	03:25 PM - 03:30 PM	55.8	48.2
10:10 AM - 10:15 AM	60.2	56.9	12:50 PM - 12:55 PM	62.1	45.7	03:30 PM - 03:35 PM	57.6	48.2
10:15 AM - 10:20 AM	60.2	57.8	12:55 PM - 01:00 PM	53.7	47.0	03:35 PM - 03:40 PM	55.1	47.8
10:20 AM - 10:25 AM	54.9	45.8	01:00 PM - 01:05 PM	48.9	42.5	03:40 PM - 03:45 PM	52.3	46.7
10:25 AM - 10:30 AM	54.5	49.7	01:05 PM - 01:10 PM	51.1	44.5	03:45 PM - 03:50 PM	55.0	47.5
10:30 AM - 10:35 AM	53.8	46.9	01:10 PM - 01:15 PM	49.6	42.5	03:50 PM - 03:55 PM	59.2	52.4
10:35 AM - 10:40 AM	53.4	48.4	01:15 PM - 01:20 PM	52.1	45.9	03:55 PM - 04:00 PM	53.7	48.1
10:40 AM - 10:45 AM	61.3	56.2	01:20 PM - 01:25 PM	50.2	42.5	04:00 PM - 04:05 PM	52.9	47.9
10:45 AM - 10:50 AM	60.5	56.7	01:25 PM - 01:30 PM	51.2	43.2	04:05 PM - 04:10 PM	53.3	48.1
10:50 AM - 10:55 AM	63.5	56.7	01:30 PM - 01:35 PM	51.4	45.8	04:10 PM - 04:15 PM	53.6	47.7
10:55 AM - 11:00 AM	58.2	44.7	01:35 PM - 01:40 PM	51.8	45.0	04:15 PM - 04:20 PM	54.4	47.8
11:00 AM - 11:05 AM	56.7	46.8	01:40 PM - 01:45 PM	51.9	45.9	04:20 PM - 04:25 PM	53.0	45.9
11:05 AM - 11:10 AM	58.2	51.5	01:45 PM - 01:50 PM	50.6	45.2	04:25 PM - 04:30 PM	52.9	47.2
11:10 AM - 11:15 AM	50.8	49.2	01:50 PM - 01:55 PM	50.8	44.6	04:30 PM - 04:35 PM	53.1	46.8
11:15 AM - 11:20 AM	55.9	46.1	01:55 PM - 02:00 PM	52.4	45.1	04:35 PM - 04:40 PM	53.0	48.3
11:20 AM - 11:25 AM	60.7	50.9	02:00 PM - 02:05 PM	51.0	46.4	04:40 PM - 04:45 PM	57.8	45.9
11:25 AM - 11:30 AM	62.7	59.8	02:05 PM - 02:10 PM	51.7	42.9	04:45 PM - 04:50 PM	51.2	46.2
11:30 AM - 11:35 AM	56.0	46.4	02:10 PM - 02:15 PM	65.1	46.8	04:50 PM - 04:55 PM	53.2	48.0
11:35 AM - 11:40 AM	58.1	46.2	02:15 PM - 02:20 PM	59.4	47.4	04:55 PM - 05:00 PM	52.1	48.0
11:40 AM - 11:45 AM	51.9	45.5	02:20 PM - 02:25 PM	52.7	46.5	05:00 PM - 05:05 PM	53.2	45.8
11:45 AM - 11:50 AM	52.5	44.4	02:25 PM - 02:30 PM	55.6	48.1	05:05 PM - 05:10 PM	52.9	46.0
11:50 AM - 11:55 AM	52.9	45.4	02:30 PM - 02:35 PM	56.0	46.7	05:10 PM - 05:15 PM	51.9	46.8
11:55 AM - 12:00 PM	52.1	46.5	02:35 PM - 02:40 PM	54.3	46.3	05:15 PM - 05:20 PM	52.0	45.1
12:00 PM - 12:05 PM	52.7	46.5	02:40 PM - 02:45 PM	53.8	44.6	05:20 PM - 05:25 PM	52.0	45.7
12:05 PM - 12:10 PM	54.6	50.2	02:45 PM - 02:50 PM	60.2	46.7	05:25 PM - 05:30 PM	51.0	44.0
12:10 PM - 12:15 PM	52.4	45.4	02:50 PM - 02:55 PM	53.9	46.5	05:30 PM - 05:35 PM	51.6	45.8
12:15 PM - 12:20 PM	51.5	44.8	02:55 PM - 03:00 PM	53.7	46.6	05:35 PM - 05:40 PM	51.3	46.7
12:20 PM - 12:25 PM	53.2	46.9	03:00 PM - 03:05 PM	59.6	48.3	05:40 PM - 05:45 PM	51.4	44.7
12:25 PM - 12:30 PM	52.5	45.7	03:05 PM - 03:10 PM	66.9	48.0	05:45 PM - 05:50 PM	52.0	46.4
12:30 PM - 12:35 PM	51.2	44.0	03:10 PM - 03:15 PM	68.7	49.0	05:50 PM - 05:55 PM	51.4	43.4
12:35 PM - 12:40 PM	51.4	46.2	03:15 PM - 03:20 PM	63.8	49.2	05:55 PM - 06:00 PM	52.7	44.4

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571983

Date Received :Aug 27, 2025

Date Reported :Aug 29, 2025

Report Number :3394217-1

Page 2 of 3

Sample Number 2571983-2
Parameter Noise Level (Leq 5 min)
Location หนองนาเกลือ-ธาราประทุม (GPS 47P 0735578, 1402792)
Measurement Date Aug 20 - Aug 21, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 01073423

Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 20, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 20 - Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	52.3	44.7	08:40 PM - 08:45 PM	48.3	42.8	11:20 PM - 11:25 PM	47.4	41.3
06:05 PM - 06:10 PM	50.3	42.2	08:45 PM - 08:50 PM	48.7	43.0	11:25 PM - 11:30 PM	47.1	40.8
06:10 PM - 06:15 PM	51.0	43.7	08:50 PM - 08:55 PM	47.7	42.1	11:30 PM - 11:35 PM	48.5	39.6
06:15 PM - 06:20 PM	52.1	45.5	08:55 PM - 09:00 PM	45.6	40.8	11:35 PM - 11:40 PM	45.5	41.2
06:20 PM - 06:25 PM	49.7	43.8	09:00 PM - 09:05 PM	48.3	42.3	11:40 PM - 11:45 PM	47.1	41.7
06:25 PM - 06:30 PM	50.9	44.1	09:05 PM - 09:10 PM	50.6	43.9	11:45 PM - 11:50 PM	46.1	41.2
06:30 PM - 06:35 PM	50.9	43.9	09:10 PM - 09:15 PM	48.7	43.3	11:50 PM - 11:55 PM	47.1	41.4
06:35 PM - 06:40 PM	50.7	43.4	09:15 PM - 09:20 PM	46.5	41.9	11:55 PM - 12:00 AM	46.2	42.1
06:40 PM - 06:45 PM	51.4	45.3	09:20 PM - 09:25 PM	49.3	42.7	12:00 AM - 12:05 AM	46.4	43.1
06:45 PM - 06:50 PM	51.6	45.3	09:25 PM - 09:30 PM	49.9	42.9	12:05 AM - 12:10 AM	46.1	41.8
06:50 PM - 06:55 PM	52.1	46.7	09:30 PM - 09:35 PM	49.2	43.1	12:10 AM - 12:15 AM	46.8	40.0
06:55 PM - 07:00 PM	50.5	45.8	09:35 PM - 09:40 PM	48.2	41.9	12:15 AM - 12:20 AM	45.7	40.5
07:00 PM - 07:05 PM	50.9	43.9	09:40 PM - 09:45 PM	47.7	41.3	12:20 AM - 12:25 AM	45.5	40.2
07:05 PM - 07:10 PM	51.7	44.7	09:45 PM - 09:50 PM	47.1	41.1	12:25 AM - 12:30 AM	47.1	40.5
07:10 PM - 07:15 PM	52.3	45.0	09:50 PM - 09:55 PM	47.6	41.4	12:30 AM - 12:35 AM	52.8	40.5
07:15 PM - 07:20 PM	51.4	44.5	09:55 PM - 10:00 PM	50.4	42.6	12:35 AM - 12:40 AM	45.0	40.3
07:20 PM - 07:25 PM	51.6	45.6	10:00 PM - 10:05 PM	50.7	42.0	12:40 AM - 12:45 AM	46.0	40.7
07:25 PM - 07:30 PM	52.2	46.8	10:05 PM - 10:10 PM	47.7	41.6	12:45 AM - 12:50 AM	46.3	40.6
07:30 PM - 07:35 PM	50.5	45.7	10:10 PM - 10:15 PM	49.3	43.1	12:50 AM - 12:55 AM	46.4	40.7
07:35 PM - 07:40 PM	51.3	44.2	10:15 PM - 10:20 PM	49.6	43.7	12:55 AM - 01:00 AM	47.5	41.3
07:40 PM - 07:45 PM	50.0	44.3	10:20 PM - 10:25 PM	48.9	44.0	01:00 AM - 01:05 AM	46.2	42.0
07:45 PM - 07:50 PM	49.6	44.7	10:25 PM - 10:30 PM	49.1	42.5	01:05 AM - 01:10 AM	47.6	41.5
07:50 PM - 07:55 PM	50.5	46.2	10:30 PM - 10:35 PM	46.2	41.8	01:10 AM - 01:15 AM	43.2	40.0
07:55 PM - 08:00 PM	49.8	44.8	10:35 PM - 10:40 PM	46.9	42.0	01:15 AM - 01:20 AM	45.9	40.7
08:00 PM - 08:05 PM	50.4	43.6	10:40 PM - 10:45 PM	57.2	43.4	01:20 AM - 01:25 AM	45.3	40.3
08:05 PM - 08:10 PM	51.2	45.1	10:45 PM - 10:50 PM	47.6	41.7	01:25 AM - 01:30 AM	42.9	39.1
08:10 PM - 08:15 PM	50.4	44.5	10:50 PM - 10:55 PM	47.7	42.4	01:30 AM - 01:35 AM	48.4	41.0
08:15 PM - 08:20 PM	50.3	44.7	10:55 PM - 11:00 PM	49.4	41.4	01:35 AM - 01:40 AM	44.8	39.8
08:20 PM - 08:25 PM	49.4	43.1	11:00 PM - 11:05 PM	48.3	41.9	01:40 AM - 01:45 AM	46.0	41.2
08:25 PM - 08:30 PM	47.4	41.1	11:05 PM - 11:10 PM	46.4	41.3	01:45 AM - 01:50 AM	48.2	42.7
08:30 PM - 08:35 PM	49.8	43.5	11:10 PM - 11:15 PM	47.1	40.1	01:50 AM - 01:55 AM	46.8	42.6
08:35 PM - 08:40 PM	56.8	45.6	11:15 PM - 11:20 PM	50.0	40.2	01:55 AM - 02:00 AM	49.4	42.7

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571983

Date Received :Aug 27, 2025

Date Reported :Aug 29, 2025

Report Number :3394217-1

Page 3 of 3

Sample Number 2571983-2
Parameter Noise Level (Leq 5 min)
Location หนองนาเกลือ-ธาราประทุม (GPS 47P 0735578, 1402792)
Measurement Date Aug 20 - Aug 21, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 01073423

Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	46.0	39.9	04:40 AM - 04:45 AM	47.7	40.2	07:20 AM - 07:25 AM	54.2	49.2
02:05 AM - 02:10 AM	47.0	41.7	04:45 AM - 04:50 AM	49.7	42.6	07:25 AM - 07:30 AM	55.6	48.4
02:10 AM - 02:15 AM	46.8	41.2	04:50 AM - 04:55 AM	49.6	43.7	07:30 AM - 07:35 AM	54.4	48.8
02:15 AM - 02:20 AM	46.8	40.6	04:55 AM - 05:00 AM	49.0	42.6	07:35 AM - 07:40 AM	54.1	49.8
02:20 AM - 02:25 AM	44.3	39.6	05:00 AM - 05:05 AM	49.3	42.8	07:40 AM - 07:45 AM	55.7	49.8
02:25 AM - 02:30 AM	44.3	39.2	05:05 AM - 05:10 AM	50.6	43.7	07:45 AM - 07:50 AM	53.1	49.2
02:30 AM - 02:35 AM	46.6	40.7	05:10 AM - 05:15 AM	49.6	44.2	07:50 AM - 07:55 AM	53.3	48.8
02:35 AM - 02:40 AM	45.9	40.2	05:15 AM - 05:20 AM	49.5	42.9	07:55 AM - 08:00 AM	54.1	49.6
02:40 AM - 02:45 AM	47.2	39.4	05:20 AM - 05:25 AM	50.3	44.2	08:00 AM - 08:05 AM	53.0	48.0
02:45 AM - 02:50 AM	48.1	39.7	05:25 AM - 05:30 AM	49.0	42.6	08:05 AM - 08:10 AM	51.6	46.8
02:50 AM - 02:55 AM	45.6	39.9	05:30 AM - 05:35 AM	49.4	43.3	08:10 AM - 08:15 AM	52.7	46.7
02:55 AM - 03:00 AM	45.6	40.8	05:35 AM - 05:40 AM	53.3	46.5	08:15 AM - 08:20 AM	54.1	48.1
03:00 AM - 03:05 AM	48.1	41.7	05:40 AM - 05:45 AM	53.1	47.9	08:20 AM - 08:25 AM	52.8	47.3
03:05 AM - 03:10 AM	47.6	41.8	05:45 AM - 05:50 AM	52.1	46.5	08:25 AM - 08:30 AM	51.0	44.5
03:10 AM - 03:15 AM	46.6	42.4	05:50 AM - 05:55 AM	56.5	48.1	08:30 AM - 08:35 AM	53.2	47.0
03:15 AM - 03:20 AM	46.5	42.4	05:55 AM - 06:00 AM	55.8	48.8	08:35 AM - 08:40 AM	50.7	44.3
03:20 AM - 03:25 AM	46.9	41.5	06:00 AM - 06:05 AM	53.2	47.7	08:40 AM - 08:45 AM	62.6	45.8
03:25 AM - 03:30 AM	48.1	39.3	06:05 AM - 06:10 AM	53.4	48.3	08:45 AM - 08:50 AM	64.3	50.8
03:30 AM - 03:35 AM	48.6	39.8	06:10 AM - 06:15 AM	55.1	48.2	08:50 AM - 08:55 AM	60.9	48.5
03:35 AM - 03:40 AM	46.7	39.4	06:15 AM - 06:20 AM	54.1	48.5	08:55 AM - 09:00 AM	67.0	49.6
03:40 AM - 03:45 AM	48.3	40.1	06:20 AM - 06:25 AM	54.0	49.7	09:00 AM - 09:05 AM	60.1	48.7
03:45 AM - 03:50 AM	44.9	39.7	06:25 AM - 06:30 AM	54.3	49.8	09:05 AM - 09:10 AM	67.0	48.0
03:50 AM - 03:55 AM	46.6	40.7	06:30 AM - 06:35 AM	54.5	50.7	09:10 AM - 09:15 AM	67.7	50.2
03:55 AM - 04:00 AM	48.0	40.2	06:35 AM - 06:40 AM	55.2	51.6	09:15 AM - 09:20 AM	61.4	50.9
04:00 AM - 04:05 AM	49.9	42.1	06:40 AM - 06:45 AM	54.8	51.2	09:20 AM - 09:25 AM	64.3	49.5
04:05 AM - 04:10 AM	52.1	44.7	06:45 AM - 06:50 AM	55.7	51.4	09:25 AM - 09:30 AM	62.1	52.1
04:10 AM - 04:15 AM	51.4	42.4	06:50 AM - 06:55 AM	55.9	51.9	09:30 AM - 09:35 AM	62.9	51.0
04:15 AM - 04:20 AM	48.5	40.9	06:55 AM - 07:00 AM	57.3	51.8	09:35 AM - 09:40 AM	57.8	49.9
04:20 AM - 04:25 AM	50.9	42.3	07:00 AM - 07:05 AM	55.8	50.6	09:40 AM - 09:45 AM	66.0	54.1
04:25 AM - 04:30 AM	48.5	39.2	07:05 AM - 07:10 AM	57.8	51.6	09:45 AM - 09:50 AM	62.6	51.7
04:30 AM - 04:35 AM	50.3	43.8	07:10 AM - 07:15 AM	55.7	51.6	09:50 AM - 09:55 AM	62.7	46.5
04:35 AM - 04:40 AM	47.2	41.1	07:15 AM - 07:20 AM	55.3	50.6	09:55 AM - 10:00 AM	57.9	48.5

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



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394218-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 1 of 3

Sample Number : 2571983-3
Parameter : Noise Level (Leq 5 min)
Location : ถนนพหลโยธิน-ด่านประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date : Aug 21 - Aug 22, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	59.8	46.4	12:40 PM - 12:45 PM	49.5	44.5	03:20 PM - 03:25 PM	51.4	44.5
10:05 AM - 10:10 AM	59.9	48.9	12:45 PM - 12:50 PM	52.6	44.4	03:25 PM - 03:30 PM	51.7	46.0
10:10 AM - 10:15 AM	54.8	51.0	12:50 PM - 12:55 PM	50.8	45.6	03:30 PM - 03:35 PM	50.9	43.1
10:15 AM - 10:20 AM	54.0	45.7	12:55 PM - 01:00 PM	50.9	43.4	03:35 PM - 03:40 PM	51.2	42.7
10:20 AM - 10:25 AM	54.6	45.4	01:00 PM - 01:05 PM	48.1	41.7	03:40 PM - 03:45 PM	51.6	45.2
10:25 AM - 10:30 AM	57.0	48.7	01:05 PM - 01:10 PM	48.9	39.4	03:45 PM - 03:50 PM	51.3	45.0
10:30 AM - 10:35 AM	55.0	44.7	01:10 PM - 01:15 PM	49.7	41.6	03:50 PM - 03:55 PM	51.0	45.3
10:35 AM - 10:40 AM	54.2	46.3	01:15 PM - 01:20 PM	49.2	42.1	03:55 PM - 04:00 PM	51.0	45.9
10:40 AM - 10:45 AM	53.3	46.7	01:20 PM - 01:25 PM	49.9	43.5	04:00 PM - 04:05 PM	51.1	45.9
10:45 AM - 10:50 AM	52.7	45.8	01:25 PM - 01:30 PM	49.8	44.1	04:05 PM - 04:10 PM	50.4	46.5
10:50 AM - 10:55 AM	52.9	46.1	01:30 PM - 01:35 PM	50.3	44.6	04:10 PM - 04:15 PM	51.4	46.6
10:55 AM - 11:00 AM	55.3	47.2	01:35 PM - 01:40 PM	50.2	46.0	04:15 PM - 04:20 PM	51.1	46.5
11:00 AM - 11:05 AM	53.2	46.3	01:40 PM - 01:45 PM	50.7	45.9	04:20 PM - 04:25 PM	62.6	49.0
11:05 AM - 11:10 AM	53.7	45.3	01:45 PM - 01:50 PM	50.9	44.6	04:25 PM - 04:30 PM	64.1	48.2
11:10 AM - 11:15 AM	52.9	46.0	01:50 PM - 01:55 PM	50.2	45.1	04:30 PM - 04:35 PM	52.1	47.0
11:15 AM - 11:20 AM	53.2	44.2	01:55 PM - 02:00 PM	52.3	42.3	04:35 PM - 04:40 PM	52.5	47.0
11:20 AM - 11:25 AM	53.5	47.3	02:00 PM - 02:05 PM	51.2	43.4	04:40 PM - 04:45 PM	51.6	47.6
11:25 AM - 11:30 AM	52.4	42.5	02:05 PM - 02:10 PM	50.3	44.5	04:45 PM - 04:50 PM	53.7	47.9
11:30 AM - 11:35 AM	53.9	46.7	02:10 PM - 02:15 PM	49.9	43.7	04:50 PM - 04:55 PM	53.3	47.4
11:35 AM - 11:40 AM	52.5	46.7	02:15 PM - 02:20 PM	52.6	46.2	04:55 PM - 05:00 PM	51.5	46.0
11:40 AM - 11:45 AM	53.9	45.0	02:20 PM - 02:25 PM	51.0	44.2	05:00 PM - 05:05 PM	52.6	49.5
11:45 AM - 11:50 AM	52.1	46.0	02:25 PM - 02:30 PM	51.8	46.0	05:05 PM - 05:10 PM	54.7	51.5
11:50 AM - 11:55 AM	54.4	48.1	02:30 PM - 02:35 PM	50.8	46.2	05:10 PM - 05:15 PM	56.7	51.9
11:55 AM - 12:00 PM	50.0	44.1	02:35 PM - 02:40 PM	49.9	42.8	05:15 PM - 05:20 PM	56.8	51.2
12:00 PM - 12:05 PM	50.3	44.8	02:40 PM - 02:45 PM	48.7	41.3	05:20 PM - 05:25 PM	58.7	49.8
12:05 PM - 12:10 PM	51.1	45.9	02:45 PM - 02:50 PM	49.7	42.8	05:25 PM - 05:30 PM	63.9	55.9
12:10 PM - 12:15 PM	50.0	44.4	02:50 PM - 02:55 PM	51.0	45.0	05:30 PM - 05:35 PM	65.3	59.2
12:15 PM - 12:20 PM	50.3	45.2	02:55 PM - 03:00 PM	51.4	45.3	05:35 PM - 05:40 PM	65.3	58.7
12:20 PM - 12:25 PM	51.6	45.0	03:00 PM - 03:05 PM	50.9	45.0	05:40 PM - 05:45 PM	66.0	59.6
12:25 PM - 12:30 PM	52.2	45.9	03:05 PM - 03:10 PM	49.5	43.7	05:45 PM - 05:50 PM	55.7	49.6
12:30 PM - 12:35 PM	51.4	45.4	03:10 PM - 03:15 PM	50.9	46.0	05:50 PM - 05:55 PM	54.3	49.3
12:35 PM - 12:40 PM	51.6	44.9	03:15 PM - 03:20 PM	51.5	43.8	05:55 PM - 06:00 PM	53.8	48.7

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Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394218-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number : 2571983-3
Parameter : Noise Level (Leq 5 min)
Location : ถนนพหลโยธิน-ด่านประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date : Aug 21 - Aug 22, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 21 - Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	55.4	49.0	08:40 PM - 08:45 PM	58.1	46.2	11:20 PM - 11:25 PM	49.0	42.6
06:05 PM - 06:10 PM	51.6	46.8	08:45 PM - 08:50 PM	52.9	47.7	11:25 PM - 11:30 PM	47.2	41.6
06:10 PM - 06:15 PM	52.3	48.5	08:50 PM - 08:55 PM	52.9	43.5	11:30 PM - 11:35 PM	45.7	40.7
06:15 PM - 06:20 PM	52.3	48.3	08:55 PM - 09:00 PM	51.4	45.4	11:35 PM - 11:40 PM	47.6	42.7
06:20 PM - 06:25 PM	53.3	48.9	09:00 PM - 09:05 PM	49.9	43.7	11:40 PM - 11:45 PM	46.8	41.5
06:25 PM - 06:30 PM	51.7	47.4	09:05 PM - 09:10 PM	50.4	45.5	11:45 PM - 11:50 PM	46.9	41.8
06:30 PM - 06:35 PM	54.2	47.2	09:10 PM - 09:15 PM	50.0	45.2	11:50 PM - 11:55 PM	53.8	40.2
06:35 PM - 06:40 PM	55.1	47.1	09:15 PM - 09:20 PM	49.4	44.6	11:55 PM - 12:00 AM	49.1	41.9
06:40 PM - 06:45 PM	52.6	46.6	09:20 PM - 09:25 PM	51.4	45.1	12:00 AM - 12:05 AM	46.3	41.6
06:45 PM - 06:50 PM	52.8	47.5	09:25 PM - 09:30 PM	54.5	44.6	12:05 AM - 12:10 AM	45.4	40.2
06:50 PM - 06:55 PM	53.1	46.4	09:30 PM - 09:35 PM	57.0	45.7	12:10 AM - 12:15 AM	46.1	40.4
06:55 PM - 07:00 PM	52.4	46.2	09:35 PM - 09:40 PM	53.7	46.5	12:15 AM - 12:20 AM	45.5	40.3
07:00 PM - 07:05 PM	52.7	47.5	09:40 PM - 09:45 PM	52.4	47.0	12:20 AM - 12:25 AM	49.0	42.0
07:05 PM - 07:10 PM	54.0	47.2	09:45 PM - 09:50 PM	51.9	46.4	12:25 AM - 12:30 AM	47.3	41.6
07:10 PM - 07:15 PM	53.3	48.2	09:50 PM - 09:55 PM	51.1	45.2	12:30 AM - 12:35 AM	45.0	39.6
07:15 PM - 07:20 PM	52.6	46.0	09:55 PM - 10:00 PM	51.9	45.8	12:35 AM - 12:40 AM	46.7	40.6
07:20 PM - 07:25 PM	53.4	45.9	10:00 PM - 10:05 PM	54.2	47.6	12:40 AM - 12:45 AM	47.3	41.1
07:25 PM - 07:30 PM	51.7	47.1	10:05 PM - 10:10 PM	53.5	45.3	12:45 AM - 12:50 AM	46.5	40.8
07:30 PM - 07:35 PM	55.6	46.5	10:10 PM - 10:15 PM	57.6	39.8	12:50 AM - 12:55 AM	47.7	40.6
07:35 PM - 07:40 PM	52.6	47.3	10:15 PM - 10:20 PM	48.9	43.1	12:55 AM - 01:00 AM	43.6	37.9
07:40 PM - 07:45 PM	53.3	47.1	10:20 PM - 10:25 PM	54.4	43.8	01:00 AM - 01:05 AM	47.0	38.9
07:45 PM - 07:50 PM	52.4	46.7	10:25 PM - 10:30 PM	49.1	43.7	01:05 AM - 01:10 AM	45.4	39.5
07:50 PM - 07:55 PM	52.3	46.5	10:30 PM - 10:35 PM	50.2	44.8	01:10 AM - 01:15 AM	46.9	43.6
07:55 PM - 08:00 PM	53.5	48.1	10:35 PM - 10:40 PM	51.3	43.6	01:15 AM - 01:20 AM	46.8	42.7
08:00 PM - 08:05 PM	55.1	47.7	10:40 PM - 10:45 PM	49.0	44.9	01:20 AM - 01:25 AM	47.1	42.4
08:05 PM - 08:10 PM	52.1	45.9	10:45 PM - 10:50 PM	49.9	42.6	01:25 AM - 01:30 AM	52.9	43.4
08:10 PM - 08:15 PM	50.9	45.8	10:50 PM - 10:55 PM	49.6	43.7	01:30 AM - 01:35 AM	47.2	42.3
08:15 PM - 08:20 PM	52.3	47.3	10:55 PM - 11:00 PM	46.6	40.6	01:35 AM - 01:40 AM	47.7	41.1
08:20 PM - 08:25 PM	53.7	47.9	11:00 PM - 11:05 PM	50.4	42.8	01:40 AM - 01:45 AM	52.1	40.9
08:25 PM - 08:30 PM	52.2	46.6	11:05 PM - 11:10 PM	49.2	44.8	01:45 AM - 01:50 AM	45.0	39.0
08:30 PM - 08:35 PM	51.3	46.0	11:10 PM - 11:15 PM	51.0	43.0	01:50 AM - 01:55 AM	46.0	39.0
08:35 PM - 08:40 PM	50.5	45.8	11:15 PM - 11:20 PM	49.0	44.0	01:55 AM - 02:00 AM	45.4	39.3

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571983

Date Received :Aug 27, 2025

Date Reported :Aug 29, 2025

Report Number :3394218-1

Page 3 of 3

Sample Number 2571983-3
Parameter Noise Level (Leq 5 min)
Location ฐานตรวจวัด-ด้านโรงรถ (GPS 47P 0735578, 1402792)
Measurement Date Aug 21 - Aug 22, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 01073423

Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	46.9	38.1	04:40 AM - 04:45 AM	49.5	41.6	07:20 AM - 07:25 AM	57.8	48.8
02:05 AM - 02:10 AM	45.8	37.6	04:45 AM - 04:50 AM	51.6	45.3	07:25 AM - 07:30 AM	54.8	49.3
02:10 AM - 02:15 AM	49.2	43.1	04:50 AM - 04:55 AM	51.8	44.6	07:30 AM - 07:35 AM	54.5	47.2
02:15 AM - 02:20 AM	46.6	39.0	04:55 AM - 05:00 AM	51.4	43.2	07:35 AM - 07:40 AM	54.3	47.4
02:20 AM - 02:25 AM	47.3	39.4	05:00 AM - 05:05 AM	49.5	41.4	07:40 AM - 07:45 AM	55.8	49.3
02:25 AM - 02:30 AM	46.7	38.6	05:05 AM - 05:10 AM	49.8	42.0	07:45 AM - 07:50 AM	53.6	48.9
02:30 AM - 02:35 AM	43.6	38.0	05:10 AM - 05:15 AM	50.3	43.9	07:50 AM - 07:55 AM	51.9	47.3
02:35 AM - 02:40 AM	47.6	39.5	05:15 AM - 05:20 AM	52.0	43.5	07:55 AM - 08:00 AM	53.2	46.9
02:40 AM - 02:45 AM	43.3	37.8	05:20 AM - 05:25 AM	53.2	46.5	08:00 AM - 08:05 AM	52.6	46.5
02:45 AM - 02:50 AM	44.1	37.1	05:25 AM - 05:30 AM	51.9	45.9	08:05 AM - 08:10 AM	53.2	47.0
02:50 AM - 02:55 AM	47.8	40.5	05:30 AM - 05:35 AM	51.2	44.3	08:10 AM - 08:15 AM	51.7	46.2
02:55 AM - 03:00 AM	48.3	41.3	05:35 AM - 05:40 AM	52.8	42.3	08:15 AM - 08:20 AM	53.1	46.5
03:00 AM - 03:05 AM	50.7	41.4	05:40 AM - 05:45 AM	53.4	46.6	08:20 AM - 08:25 AM	53.2	46.6
03:05 AM - 03:10 AM	47.6	39.8	05:45 AM - 05:50 AM	53.5	46.5	08:25 AM - 08:30 AM	53.6	48.4
03:10 AM - 03:15 AM	47.8	39.6	05:50 AM - 05:55 AM	53.9	46.0	08:30 AM - 08:35 AM	51.4	45.4
03:15 AM - 03:20 AM	49.8	42.0	05:55 AM - 06:00 AM	54.2	45.6	08:35 AM - 08:40 AM	52.1	46.2
03:20 AM - 03:25 AM	51.2	40.1	06:00 AM - 06:05 AM	52.2	48.0	08:40 AM - 08:45 AM	53.9	47.1
03:25 AM - 03:30 AM	50.7	39.4	06:05 AM - 06:10 AM	55.0	48.0	08:45 AM - 08:50 AM	53.4	46.6
03:30 AM - 03:35 AM	50.8	41.2	06:10 AM - 06:15 AM	55.7	47.9	08:50 AM - 08:55 AM	53.7	46.4
03:35 AM - 03:40 AM	52.8	39.7	06:15 AM - 06:20 AM	53.3	48.3	08:55 AM - 09:00 AM	53.3	46.7
03:40 AM - 03:45 AM	47.3	38.9	06:20 AM - 06:25 AM	54.2	49.4	09:00 AM - 09:05 AM	53.1	46.9
03:45 AM - 03:50 AM	47.5	41.3	06:25 AM - 06:30 AM	55.3	48.9	09:05 AM - 09:10 AM	53.9	46.8
03:50 AM - 03:55 AM	48.2	41.9	06:30 AM - 06:35 AM	55.7	49.5	09:10 AM - 09:15 AM	53.5	46.3
03:55 AM - 04:00 AM	50.8	42.8	06:35 AM - 06:40 AM	55.7	49.8	09:15 AM - 09:20 AM	52.8	45.9
04:00 AM - 04:05 AM	48.2	43.2	06:40 AM - 06:45 AM	54.0	49.3	09:20 AM - 09:25 AM	53.9	47.8
04:05 AM - 04:10 AM	51.0	42.4	06:45 AM - 06:50 AM	61.6	51.6	09:25 AM - 09:30 AM	53.3	47.1
04:10 AM - 04:15 AM	50.9	43.1	06:50 AM - 06:55 AM	56.0	50.4	09:30 AM - 09:35 AM	53.3	47.6
04:15 AM - 04:20 AM	49.3	42.7	06:55 AM - 07:00 AM	55.2	48.5	09:35 AM - 09:40 AM	53.3	47.8
04:20 AM - 04:25 AM	48.5	37.0	07:00 AM - 07:05 AM	54.4	50.3	09:40 AM - 09:45 AM	51.6	46.7
04:25 AM - 04:30 AM	53.0	41.5	07:05 AM - 07:10 AM	54.8	49.3	09:45 AM - 09:50 AM	54.2	46.4
04:30 AM - 04:35 AM	52.7	45.0	07:10 AM - 07:15 AM	54.0	49.5	09:50 AM - 09:55 AM	53.6	47.0
04:35 AM - 04:40 AM	49.2	40.9	07:15 AM - 07:20 AM	55.1	49.1	09:55 AM - 10:00 AM	54.2	47.5

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571983

Date Received :Aug 27, 2025

Date Reported :Aug 29, 2025

Report Number :3394219-1

Page 1 of 3

Sample Number 2571983-4
Parameter Noise Level (Leq 5 min)
Location ฐานตรวจวัด-ด้านโรงรถ (GPS 47P 0735578, 1402792)
Measurement Date Aug 22 - Aug 23, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 01073423

Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	53.9	47.9	12:40 PM - 12:45 PM	50.0	43.6	03:20 PM - 03:25 PM	52.3	46.7
10:05 AM - 10:10 AM	53.3	46.8	12:45 PM - 12:50 PM	52.2	45.4	03:25 PM - 03:30 PM	56.6	48.4
10:10 AM - 10:15 AM	52.2	45.3	12:50 PM - 12:55 PM	51.8	44.8	03:30 PM - 03:35 PM	55.3	46.7
10:15 AM - 10:20 AM	51.9	46.4	12:55 PM - 01:00 PM	51.6	46.8	03:35 PM - 03:40 PM	49.3	45.9
10:20 AM - 10:25 AM	51.2	45.1	01:00 PM - 01:05 PM	50.3	44.8	03:40 PM - 03:45 PM	50.7	44.8
10:25 AM - 10:30 AM	52.4	47.2	01:05 PM - 01:10 PM	50.4	44.1	03:45 PM - 03:50 PM	49.8	45.5
10:30 AM - 10:35 AM	51.9	46.6	01:10 PM - 01:15 PM	49.4	43.8	03:50 PM - 03:55 PM	49.1	45.3
10:35 AM - 10:40 AM	52.8	47.3	01:15 PM - 01:20 PM	50.8	45.1	03:55 PM - 04:00 PM	50.1	46.6
10:40 AM - 10:45 AM	52.2	46.6	01:20 PM - 01:25 PM	50.7	45.3	04:00 PM - 04:05 PM	49.4	45.9
10:45 AM - 10:50 AM	52.2	46.6	01:25 PM - 01:30 PM	51.7	45.5	04:05 PM - 04:10 PM	51.0	46.2
10:50 AM - 10:55 AM	51.9	46.6	01:30 PM - 01:35 PM	51.7	46.3	04:10 PM - 04:15 PM	52.3	46.7
10:55 AM - 11:00 AM	52.7	47.6	01:35 PM - 01:40 PM	52.2	47.2	04:15 PM - 04:20 PM	51.2	47.2
11:00 AM - 11:05 AM	51.4	46.0	01:40 PM - 01:45 PM	51.4	46.4	04:20 PM - 04:25 PM	52.9	46.2
11:05 AM - 11:10 AM	51.4	44.6	01:45 PM - 01:50 PM	55.2	51.7	04:25 PM - 04:30 PM	52.3	46.5
11:10 AM - 11:15 AM	52.7	47.9	01:50 PM - 01:55 PM	52.7	51.7	04:30 PM - 04:35 PM	53.0	46.3
11:15 AM - 11:20 AM	52.4	46.9	01:55 PM - 02:00 PM	52.4	50.9	04:35 PM - 04:40 PM	49.4	45.5
11:20 AM - 11:25 AM	51.3	44.8	02:00 PM - 02:05 PM	51.9	49.9	04:40 PM - 04:45 PM	51.7	47.0
11:25 AM - 11:30 AM	52.1	47.3	02:05 PM - 02:10 PM	50.4	48.4	04:45 PM - 04:50 PM	52.7	45.8
11:30 AM - 11:35 AM	51.6	44.2	02:10 PM - 02:15 PM	50.8	47.3	04:50 PM - 04:55 PM	51.3	46.8
11:35 AM - 11:40 AM	52.8	43.7	02:15 PM - 02:20 PM	54.0	49.4	04:55 PM - 05:00 PM	54.3	45.5
11:40 AM - 11:45 AM	50.6	44.9	02:20 PM - 02:25 PM	50.9	48.1	05:00 PM - 05:05 PM	51.1	47.6
11:45 AM - 11:50 AM	52.4	46.7	02:25 PM - 02:30 PM	63.8	47.3	05:05 PM - 05:10 PM	52.4	48.1
11:50 AM - 11:55 AM	51.8	44.7	02:30 PM - 02:35 PM	62.7	47.4	05:10 PM - 05:15 PM	52.4	47.8
11:55 AM - 12:00 PM	51.9	44.8	02:35 PM - 02:40 PM	54.4	47.2	05:15 PM - 05:20 PM	51.7	47.1
12:00 PM - 12:05 PM	53.5	46.2	02:40 PM - 02:45 PM	53.4	46.4	05:20 PM - 05:25 PM	49.3	45.8
12:05 PM - 12:10 PM	51.3	43.9	02:45 PM - 02:50 PM	49.6	46.2	05:25 PM - 05:30 PM	51.6	47.3
12:10 PM - 12:15 PM	52.6	47.1	02:50 PM - 02:55 PM	60.8	47.1	05:30 PM - 05:35 PM	51.3	46.2
12:15 PM - 12:20 PM	50.9	43.6	02:55 PM - 03:00 PM	54.9	45.7	05:35 PM - 05:40 PM	51.6	47.2
12:20 PM - 12:25 PM	52.1	46.2	03:00 PM - 03:05 PM	51.1	45.7	05:40 PM - 05:45 PM	50.0	46.0
12:25 PM - 12:30 PM	50.9	45.6	03:05 PM - 03:10 PM	49.5	45.0	05:45 PM - 05:50 PM	50.7	46.9
12:30 PM - 12:35 PM	51.5	46.4	03:10 PM - 03:15 PM	52.9	46.5	05:50 PM - 05:55 PM	52.6	46.7
12:35 PM - 12:40 PM	52.6	46.1	03:15 PM - 03:20 PM	52.2	45.0	05:55 PM - 06:00 PM	51.5	47.1

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Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394219-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number : 2571983-4
Parameter : Noise Level (Leq 5 min)
Location : ถนนสายอุตสาหกรรม-ด่านประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date : Aug 22 - Aug 23, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 22 - Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	51.0	47.9	08:40 PM - 08:45 PM	67.3	65.2	11:20 PM - 11:25 PM	51.4	48.8
06:05 PM - 06:10 PM	53.0	46.7	08:45 PM - 08:50 PM	67.9	65.2	11:25 PM - 11:30 PM	52.8	48.9
06:10 PM - 06:15 PM	51.0	47.1	08:50 PM - 08:55 PM	71.1	65.6	11:30 PM - 11:35 PM	51.0	48.3
06:15 PM - 06:20 PM	52.1	47.4	08:55 PM - 09:00 PM	68.9	65.9	11:35 PM - 11:40 PM	49.9	48.5
06:20 PM - 06:25 PM	52.3	48.6	09:00 PM - 09:05 PM	70.8	67.2	11:40 PM - 11:45 PM	50.1	48.1
06:25 PM - 06:30 PM	52.1	48.8	09:05 PM - 09:10 PM	69.9	67.2	11:45 PM - 11:50 PM	50.2	47.6
06:30 PM - 06:35 PM	51.7	48.2	09:10 PM - 09:15 PM	69.7	65.7	11:50 PM - 11:55 PM	51.5	50.1
06:35 PM - 06:40 PM	50.1	46.3	09:15 PM - 09:20 PM	63.8	47.3	11:55 PM - 12:00 AM	51.9	49.9
06:40 PM - 06:45 PM	50.7	46.4	09:20 PM - 09:25 PM	68.6	65.0	12:00 AM - 12:05 AM	50.5	48.0
06:45 PM - 06:50 PM	49.7	45.8	09:25 PM - 09:30 PM	66.2	64.8	12:05 AM - 12:10 AM	50.8	48.5
06:50 PM - 06:55 PM	50.7	46.2	09:30 PM - 09:35 PM	66.6	65.0	12:10 AM - 12:15 AM	50.5	48.6
06:55 PM - 07:00 PM	51.0	46.5	09:35 PM - 09:40 PM	66.5	64.9	12:15 AM - 12:20 AM	52.2	48.1
07:00 PM - 07:05 PM	49.9	45.2	09:40 PM - 09:45 PM	61.7	46.8	12:20 AM - 12:25 AM	51.3	48.7
07:05 PM - 07:10 PM	51.6	46.1	09:45 PM - 09:50 PM	51.6	46.1	12:25 AM - 12:30 AM	50.2	47.2
07:10 PM - 07:15 PM	54.3	46.4	09:50 PM - 09:55 PM	50.3	46.8	12:30 AM - 12:35 AM	49.5	46.3
07:15 PM - 07:20 PM	50.8	46.0	09:55 PM - 10:00 PM	49.9	47.0	12:35 AM - 12:40 AM	49.4	46.9
07:20 PM - 07:25 PM	50.2	45.9	10:00 PM - 10:05 PM	54.4	47.4	12:40 AM - 12:45 AM	48.2	46.7
07:25 PM - 07:30 PM	49.9	45.5	10:05 PM - 10:10 PM	51.4	48.1	12:45 AM - 12:50 AM	48.1	46.4
07:30 PM - 07:35 PM	52.4	44.4	10:10 PM - 10:15 PM	50.5	47.7	12:50 AM - 12:55 AM	49.6	46.3
07:35 PM - 07:40 PM	66.5	65.4	10:15 PM - 10:20 PM	50.3	47.0	12:55 AM - 01:00 AM	47.7	46.5
07:40 PM - 07:45 PM	72.3	65.4	10:20 PM - 10:25 PM	50.3	47.3	01:00 AM - 01:05 AM	51.5	46.9
07:45 PM - 07:50 PM	67.6	65.5	10:25 PM - 10:30 PM	53.0	47.8	01:05 AM - 01:10 AM	51.0	47.0
07:50 PM - 07:55 PM	67.3	65.4	10:30 PM - 10:35 PM	50.8	48.0	01:10 AM - 01:15 AM	49.9	48.0
07:55 PM - 08:00 PM	66.8	65.5	10:35 PM - 10:40 PM	49.7	47.7	01:15 AM - 01:20 AM	51.1	47.4
08:00 PM - 08:05 PM	47.6	43.7	10:40 PM - 10:45 PM	52.2	48.8	01:20 AM - 01:25 AM	49.4	48.1
08:05 PM - 08:10 PM	48.2	44.1	10:45 PM - 10:50 PM	54.2	48.5	01:25 AM - 01:30 AM	52.8	49.5
08:10 PM - 08:15 PM	51.0	46.2	10:50 PM - 10:55 PM	49.0	47.6	01:30 AM - 01:35 AM	51.3	49.0
08:15 PM - 08:20 PM	53.1	47.1	10:55 PM - 11:00 PM	50.2	48.1	01:35 AM - 01:40 AM	52.3	50.9
08:20 PM - 08:25 PM	60.5	52.4	11:00 PM - 11:05 PM	54.0	48.1	01:40 AM - 01:45 AM	52.1	49.2
08:25 PM - 08:30 PM	63.2	58.1	11:05 PM - 11:10 PM	57.4	55.0	01:45 AM - 01:50 AM	51.4	45.1
08:30 PM - 08:35 PM	58.9	54.4	11:10 PM - 11:15 PM	53.7	51.8	01:50 AM - 01:55 AM	51.1	45.3
08:35 PM - 08:40 PM	58.9	52.3	11:15 PM - 11:20 PM	52.0	49.8	01:55 AM - 02:00 AM	55.1	45.9

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394219-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 3 of 3

Sample Number : 2571983-4
Parameter : Noise Level (Leq 5 min)
Location : ถนนสายอุตสาหกรรม-ด่านประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date : Aug 22 - Aug 23, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	48.2	44.4	04:40 AM - 04:45 AM	53.7	51.9	07:20 AM - 07:25 AM	58.4	49.2
02:05 AM - 02:10 AM	50.5	45.2	04:45 AM - 04:50 AM	53.9	51.8	07:25 AM - 07:30 AM	56.9	49.4
02:10 AM - 02:15 AM	51.6	49.0	04:50 AM - 04:55 AM	54.8	51.6	07:30 AM - 07:35 AM	56.3	51.0
02:15 AM - 02:20 AM	52.3	50.0	04:55 AM - 05:00 AM	56.1	51.6	07:35 AM - 07:40 AM	53.1	49.5
02:20 AM - 02:25 AM	55.0	50.6	05:00 AM - 05:05 AM	55.2	51.1	07:40 AM - 07:45 AM	54.6	49.6
02:25 AM - 02:30 AM	51.4	49.1	05:05 AM - 05:10 AM	54.7	50.8	07:45 AM - 07:50 AM	52.0	48.1
02:30 AM - 02:35 AM	51.7	48.8	05:10 AM - 05:15 AM	56.1	51.9	07:50 AM - 07:55 AM	57.1	48.8
02:35 AM - 02:40 AM	52.3	49.3	05:15 AM - 05:20 AM	56.1	52.1	07:55 AM - 08:00 AM	52.6	47.5
02:40 AM - 02:45 AM	51.9	46.2	05:20 AM - 05:25 AM	55.3	50.6	08:00 AM - 08:05 AM	59.8	47.9
02:45 AM - 02:50 AM	53.9	49.9	05:25 AM - 05:30 AM	53.6	49.8	08:05 AM - 08:10 AM	65.3	47.0
02:50 AM - 02:55 AM	67.9	57.0	05:30 AM - 05:35 AM	52.2	50.0	08:10 AM - 08:15 AM	53.3	48.2
02:55 AM - 03:00 AM	56.2	49.0	05:35 AM - 05:40 AM	53.5	50.3	08:15 AM - 08:20 AM	51.3	47.1
03:00 AM - 03:05 AM	68.3	63.6	05:40 AM - 05:45 AM	53.9	50.9	08:20 AM - 08:25 AM	53.9	46.1
03:05 AM - 03:10 AM	50.7	49.4	05:45 AM - 05:50 AM	53.7	50.1	08:25 AM - 08:30 AM	49.8	45.6
03:10 AM - 03:15 AM	54.3	49.8	05:50 AM - 05:55 AM	55.1	49.9	08:30 AM - 08:35 AM	49.2	45.2
03:15 AM - 03:20 AM	51.4	48.9	05:55 AM - 06:00 AM	54.2	49.4	08:35 AM - 08:40 AM	48.7	45.0
03:20 AM - 03:25 AM	51.1	47.6	06:00 AM - 06:05 AM	61.2	49.9	08:40 AM - 08:45 AM	50.4	44.0
03:25 AM - 03:30 AM	52.3	49.1	06:05 AM - 06:10 AM	57.4	50.8	08:45 AM - 08:50 AM	48.5	44.6
03:30 AM - 03:35 AM	51.8	48.7	06:10 AM - 06:15 AM	58.4	50.8	08:50 AM - 08:55 AM	51.6	46.5
03:35 AM - 03:40 AM	54.5	48.7	06:15 AM - 06:20 AM	56.9	50.0	08:55 AM - 09:00 AM	52.1	45.4
03:40 AM - 03:45 AM	53.1	50.3	06:20 AM - 06:25 AM	57.6	49.9	09:00 AM - 09:05 AM	50.2	44.3
03:45 AM - 03:50 AM	53.3	48.8	06:25 AM - 06:30 AM	58.0	48.9	09:05 AM - 09:10 AM	53.5	44.6
03:50 AM - 03:55 AM	53.6	49.6	06:30 AM - 06:35 AM	57.0	50.8	09:10 AM - 09:15 AM	50.5	44.6
03:55 AM - 04:00 AM	55.7	51.5	06:35 AM - 06:40 AM	56.4	50.3	09:15 AM - 09:20 AM	52.3	46.4
04:00 AM - 04:05 AM	54.5	50.6	06:40 AM - 06:45 AM	56.2	50.7	09:20 AM - 09:25 AM	52.9	44.7
04:05 AM - 04:10 AM	53.3	50.6	06:45 AM - 06:50 AM	58.1	50.5	09:25 AM - 09:30 AM	48.1	43.1
04:10 AM - 04:15 AM	55.3	50.7	06:50 AM - 06:55 AM	53.6	50.6	09:30 AM - 09:35 AM	50.0	45.0
04:15 AM - 04:20 AM	56.1	50.8	06:55 AM - 07:00 AM	54.3	50.7	09:35 AM - 09:40 AM	48.1	43.7
04:20 AM - 04:25 AM	55.9	51.4	07:00 AM - 07:05 AM	55.8	51.0	09:40 AM - 09:45 AM	49.3	44.4
04:25 AM - 04:30 AM	55.4	51.5	07:05 AM - 07:10 AM	53.2	50.1	09:45 AM - 09:50 AM	49.6	44.4
04:30 AM - 04:35 AM	55.3	50.4	07:10 AM - 07:15 AM	66.5	49.4	09:50 AM - 09:55 AM	47.8	43.7
04:35 AM - 04:40 AM	54.2	51.1	07:15 AM - 07:20 AM	54.9	50.3	09:55 AM - 10:00 AM	48.0	43.8

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394220-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 1 of 3

Sample Number : 2571983-5
Parameter : Noise Level (Leq 5 min)
Location : ถนนพหลโยธิน-ด่านประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date : Aug 23 - Aug 24, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	47.6	44.5	12:40 PM - 12:45 PM	47.8	45.0	03:20 PM - 03:25 PM	48.1	43.6
10:05 AM - 10:10 AM	51.3	43.9	12:45 PM - 12:50 PM	47.4	44.6	03:25 PM - 03:30 PM	49.0	44.7
10:10 AM - 10:15 AM	50.1	45.4	12:50 PM - 12:55 PM	48.6	44.1	03:30 PM - 03:35 PM	48.3	44.8
10:15 AM - 10:20 AM	47.4	43.5	12:55 PM - 01:00 PM	50.0	44.8	03:35 PM - 03:40 PM	54.5	45.2
10:20 AM - 10:25 AM	47.6	43.7	01:00 PM - 01:05 PM	49.2	45.4	03:40 PM - 03:45 PM	54.8	45.3
10:25 AM - 10:30 AM	49.6	44.0	01:05 PM - 01:10 PM	49.6	44.7	03:45 PM - 03:50 PM	53.9	46.0
10:30 AM - 10:35 AM	46.5	43.0	01:10 PM - 01:15 PM	49.6	45.2	03:50 PM - 03:55 PM	50.9	44.7
10:35 AM - 10:40 AM	48.6	43.2	01:15 PM - 01:20 PM	50.1	44.7	03:55 PM - 04:00 PM	49.3	45.0
10:40 AM - 10:45 AM	46.2	43.3	01:20 PM - 01:25 PM	51.4	45.1	04:00 PM - 04:05 PM	49.3	44.0
10:45 AM - 10:50 AM	49.1	44.3	01:25 PM - 01:30 PM	51.1	45.3	04:05 PM - 04:10 PM	50.0	44.5
10:50 AM - 10:55 AM	47.0	43.4	01:30 PM - 01:35 PM	55.1	45.9	04:10 PM - 04:15 PM	52.1	44.6
10:55 AM - 11:00 AM	47.5	43.6	01:35 PM - 01:40 PM	48.2	44.4	04:15 PM - 04:20 PM	50.3	44.0
11:00 AM - 11:05 AM	48.7	43.9	01:40 PM - 01:45 PM	49.8	45.3	04:20 PM - 04:25 PM	53.4	45.2
11:05 AM - 11:10 AM	47.6	42.1	01:45 PM - 01:50 PM	48.7	45.3	04:25 PM - 04:30 PM	50.9	45.5
11:10 AM - 11:15 AM	50.6	45.5	01:50 PM - 01:55 PM	48.9	45.8	04:30 PM - 04:35 PM	49.5	44.9
11:15 AM - 11:20 AM	47.4	42.0	01:55 PM - 02:00 PM	51.3	46.0	04:35 PM - 04:40 PM	51.4	45.4
11:20 AM - 11:25 AM	46.2	43.2	02:00 PM - 02:05 PM	48.3	45.4	04:40 PM - 04:45 PM	52.4	47.3
11:25 AM - 11:30 AM	48.2	44.4	02:05 PM - 02:10 PM	49.0	45.2	04:45 PM - 04:50 PM	51.8	46.7
11:30 AM - 11:35 AM	47.7	44.5	02:10 PM - 02:15 PM	47.0	44.4	04:50 PM - 04:55 PM	50.2	45.7
11:35 AM - 11:40 AM	46.5	43.2	02:15 PM - 02:20 PM	48.4	45.5	04:55 PM - 05:00 PM	50.4	46.0
11:40 AM - 11:45 AM	49.3	44.6	02:20 PM - 02:25 PM	46.2	43.8	05:00 PM - 05:05 PM	52.0	46.3
11:45 AM - 11:50 AM	48.7	44.8	02:25 PM - 02:30 PM	47.0	43.5	05:05 PM - 05:10 PM	51.7	47.4
11:50 AM - 11:55 AM	49.8	44.3	02:30 PM - 02:35 PM	50.8	44.7	05:10 PM - 05:15 PM	51.9	47.8
11:55 AM - 12:00 PM	49.5	45.4	02:35 PM - 02:40 PM	51.3	44.3	05:15 PM - 05:20 PM	51.8	47.4
12:00 PM - 12:05 PM	52.3	44.9	02:40 PM - 02:45 PM	48.7	43.9	05:20 PM - 05:25 PM	50.3	47.3
12:05 PM - 12:10 PM	50.3	45.9	02:45 PM - 02:50 PM	47.5	43.7	05:25 PM - 05:30 PM	51.2	47.5
12:10 PM - 12:15 PM	49.2	45.4	02:50 PM - 02:55 PM	47.8	42.9	05:30 PM - 05:35 PM	53.1	48.4
12:15 PM - 12:20 PM	48.8	45.2	02:55 PM - 03:00 PM	47.8	44.3	05:35 PM - 05:40 PM	51.7	47.3
12:20 PM - 12:25 PM	48.1	44.9	03:00 PM - 03:05 PM	47.5	43.5	05:40 PM - 05:45 PM	51.4	47.4
12:25 PM - 12:30 PM	52.3	44.6	03:05 PM - 03:10 PM	48.3	43.9	05:45 PM - 05:50 PM	51.0	47.3
12:30 PM - 12:35 PM	48.4	45.0	03:10 PM - 03:15 PM	50.0	44.2	05:50 PM - 05:55 PM	51.4	46.8
12:35 PM - 12:40 PM	49.9	46.3	03:15 PM - 03:20 PM	48.7	43.5	05:55 PM - 06:00 PM	53.0	47.6

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394220-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number : 2571983-5
Parameter : Noise Level (Leq 5 min)
Location : ถนนพหลโยธิน-ด่านประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date : Aug 23 - Aug 24, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 23, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 23 - Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	53.7	46.4	08:40 PM - 08:45 PM	50.6	45.9	11:20 PM - 11:25 PM	50.3	45.8
06:05 PM - 06:10 PM	54.9	47.4	08:45 PM - 08:50 PM	48.9	46.4	11:25 PM - 11:30 PM	50.5	45.4
06:10 PM - 06:15 PM	51.3	46.7	08:50 PM - 08:55 PM	52.1	47.3	11:30 PM - 11:35 PM	51.9	46.1
06:15 PM - 06:20 PM	52.1	47.6	08:55 PM - 09:00 PM	52.5	46.1	11:35 PM - 11:40 PM	48.6	46.0
06:20 PM - 06:25 PM	50.7	47.2	09:00 PM - 09:05 PM	50.9	45.3	11:40 PM - 11:45 PM	50.9	45.6
06:25 PM - 06:30 PM	50.8	47.0	09:05 PM - 09:10 PM	47.7	44.6	11:45 PM - 11:50 PM	49.4	45.6
06:30 PM - 06:35 PM	51.1	48.2	09:10 PM - 09:15 PM	54.2	45.2	11:50 PM - 11:55 PM	47.4	45.4
06:35 PM - 06:40 PM	50.7	46.9	09:15 PM - 09:20 PM	49.3	45.0	11:55 PM - 12:00 AM	51.5	45.6
06:40 PM - 06:45 PM	50.6	46.1	09:20 PM - 09:25 PM	50.5	45.5	12:00 AM - 12:05 AM	50.3	44.2
06:45 PM - 06:50 PM	50.1	46.1	09:25 PM - 09:30 PM	50.3	45.3	12:05 AM - 12:10 AM	49.8	45.2
06:50 PM - 06:55 PM	49.9	46.0	09:30 PM - 09:35 PM	53.3	46.2	12:10 AM - 12:15 AM	50.9	46.2
06:55 PM - 07:00 PM	49.3	45.5	09:35 PM - 09:40 PM	49.0	45.9	12:15 AM - 12:20 AM	48.8	44.6
07:00 PM - 07:05 PM	51.0	45.8	09:40 PM - 09:45 PM	50.5	45.5	12:20 AM - 12:25 AM	49.9	44.2
07:05 PM - 07:10 PM	51.4	46.4	09:45 PM - 09:50 PM	51.0	45.4	12:25 AM - 12:30 AM	49.6	46.2
07:10 PM - 07:15 PM	50.6	47.1	09:50 PM - 09:55 PM	48.6	44.3	12:30 AM - 12:35 AM	49.6	44.5
07:15 PM - 07:20 PM	52.1	45.2	09:55 PM - 10:00 PM	47.3	44.2	12:35 AM - 12:40 AM	51.0	45.5
07:20 PM - 07:25 PM	52.0	45.4	10:00 PM - 10:05 PM	50.6	45.5	12:40 AM - 12:45 AM	48.2	45.0
07:25 PM - 07:30 PM	50.5	45.5	10:05 PM - 10:10 PM	51.4	45.2	12:45 AM - 12:50 AM	50.2	45.5
07:30 PM - 07:35 PM	51.0	46.2	10:10 PM - 10:15 PM	52.5	46.0	12:50 AM - 12:55 AM	51.5	45.3
07:35 PM - 07:40 PM	51.3	46.2	10:15 PM - 10:20 PM	50.6	44.8	12:55 AM - 01:00 AM	48.7	46.0
07:40 PM - 07:45 PM	51.2	45.8	10:20 PM - 10:25 PM	52.0	44.7	01:00 AM - 01:05 AM	49.3	45.6
07:45 PM - 07:50 PM	50.3	44.7	10:25 PM - 10:30 PM	50.8	44.6	01:05 AM - 01:10 AM	48.9	45.6
07:50 PM - 07:55 PM	53.4	44.7	10:30 PM - 10:35 PM	54.6	45.0	01:10 AM - 01:15 AM	50.6	45.9
07:55 PM - 08:00 PM	47.7	43.9	10:35 PM - 10:40 PM	48.3	45.6	01:15 AM - 01:20 AM	48.0	45.1
08:00 PM - 08:05 PM	49.3	45.6	10:40 PM - 10:45 PM	48.9	44.9	01:20 AM - 01:25 AM	49.0	44.9
08:05 PM - 08:10 PM	50.0	45.7	10:45 PM - 10:50 PM	51.9	45.6	01:25 AM - 01:30 AM	51.0	45.7
08:10 PM - 08:15 PM	52.4	46.8	10:50 PM - 10:55 PM	48.6	45.2	01:30 AM - 01:35 AM	48.0	45.6
08:15 PM - 08:20 PM	49.8	44.6	10:55 PM - 11:00 PM	47.2	44.9	01:35 AM - 01:40 AM	49.6	47.2
08:20 PM - 08:25 PM	52.3	46.1	11:00 PM - 11:05 PM	50.3	45.5	01:40 AM - 01:45 AM	48.5	45.9
08:25 PM - 08:30 PM	50.2	45.4	11:05 PM - 11:10 PM	49.4	46.1	01:45 AM - 01:50 AM	50.8	46.5
08:30 PM - 08:35 PM	51.1	44.5	11:10 PM - 11:15 PM	49.4	45.7	01:50 AM - 01:55 AM	48.0	45.5
08:35 PM - 08:40 PM	49.3	45.1	11:15 PM - 11:20 PM	47.5	44.6	01:55 AM - 02:00 AM	48.4	45.4

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571983

Date Received :Aug 27, 2025

Date Reported :Aug 29, 2025

Report Number :3394220-1

Page 3 of 3

Sample Number 2571983-5
Parameter Noise Level (Leq 5 min)
Location ฃบบดบดบดบดบดบดบด (GPS 47P 0735578, 1402792)
Measurement Date Aug 23 - Aug 24, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 01073423

Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	53.7	47.1	04:40 AM - 04:45 AM	49.1	44.7	07:20 AM - 07:25 AM	52.0	46.0
02:05 AM - 02:10 AM	50.8	45.5	04:45 AM - 04:50 AM	48.6	43.9	07:25 AM - 07:30 AM	51.8	46.3
02:10 AM - 02:15 AM	48.5	46.2	04:50 AM - 04:55 AM	46.8	43.3	07:30 AM - 07:35 AM	50.4	46.3
02:15 AM - 02:20 AM	54.1	46.0	04:55 AM - 05:00 AM	50.4	43.6	07:35 AM - 07:40 AM	49.8	45.2
02:20 AM - 02:25 AM	54.7	47.9	05:00 AM - 05:05 AM	50.0	43.0	07:40 AM - 07:45 AM	50.0	45.9
02:25 AM - 02:30 AM	49.2	45.6	05:05 AM - 05:10 AM	47.6	42.5	07:45 AM - 07:50 AM	51.4	45.8
02:30 AM - 02:35 AM	51.6	45.4	05:10 AM - 05:15 AM	48.0	42.8	07:50 AM - 07:55 AM	51.1	45.6
02:35 AM - 02:40 AM	47.1	44.8	05:15 AM - 05:20 AM	50.5	43.7	07:55 AM - 08:00 AM	54.0	46.3
02:40 AM - 02:45 AM	49.7	44.5	05:20 AM - 05:25 AM	50.3	43.2	08:00 AM - 08:05 AM	49.4	44.5
02:45 AM - 02:50 AM	47.8	44.9	05:25 AM - 05:30 AM	49.7	43.4	08:05 AM - 08:10 AM	50.2	44.6
02:50 AM - 02:55 AM	51.4	44.3	05:30 AM - 05:35 AM	47.7	43.4	08:10 AM - 08:15 AM	48.2	43.9
02:55 AM - 03:00 AM	52.9	44.3	05:35 AM - 05:40 AM	50.8	43.8	08:15 AM - 08:20 AM	49.3	44.7
03:00 AM - 03:05 AM	49.4	44.1	05:40 AM - 05:45 AM	52.1	44.5	08:20 AM - 08:25 AM	48.7	44.6
03:05 AM - 03:10 AM	48.2	44.4	05:45 AM - 05:50 AM	49.6	44.1	08:25 AM - 08:30 AM	51.4	45.6
03:10 AM - 03:15 AM	49.7	44.4	05:50 AM - 05:55 AM	49.3	44.1	08:30 AM - 08:35 AM	55.6	44.9
03:15 AM - 03:20 AM	48.9	43.6	05:55 AM - 06:00 AM	49.7	44.6	08:35 AM - 08:40 AM	49.3	43.0
03:20 AM - 03:25 AM	47.6	43.8	06:00 AM - 06:05 AM	51.7	45.5	08:40 AM - 08:45 AM	50.4	42.6
03:25 AM - 03:30 AM	49.5	43.5	06:05 AM - 06:10 AM	51.7	45.9	08:45 AM - 08:50 AM	49.0	43.9
03:30 AM - 03:35 AM	48.7	43.4	06:10 AM - 06:15 AM	52.8	46.5	08:50 AM - 08:55 AM	47.0	43.3
03:35 AM - 03:40 AM	47.7	43.2	06:15 AM - 06:20 AM	52.9	46.9	08:55 AM - 09:00 AM	53.4	44.6
03:40 AM - 03:45 AM	49.5	43.3	06:20 AM - 06:25 AM	53.3	46.5	09:00 AM - 09:05 AM	49.8	43.3
03:45 AM - 03:50 AM	50.3	43.6	06:25 AM - 06:30 AM	54.2	46.0	09:05 AM - 09:10 AM	48.2	44.2
03:50 AM - 03:55 AM	44.7	43.0	06:30 AM - 06:35 AM	53.0	47.1	09:10 AM - 09:15 AM	51.4	45.0
03:55 AM - 04:00 AM	50.0	43.5	06:35 AM - 06:40 AM	56.1	46.4	09:15 AM - 09:20 AM	51.6	45.5
04:00 AM - 04:05 AM	44.6	43.1	06:40 AM - 06:45 AM	51.8	46.9	09:20 AM - 09:25 AM	51.4	44.3
04:05 AM - 04:10 AM	45.8	43.1	06:45 AM - 06:50 AM	52.0	47.0	09:25 AM - 09:30 AM	48.4	45.5
04:10 AM - 04:15 AM	46.7	43.6	06:50 AM - 06:55 AM	51.2	46.1	09:30 AM - 09:35 AM	51.1	45.5
04:15 AM - 04:20 AM	49.4	44.5	06:55 AM - 07:00 AM	51.8	46.1	09:35 AM - 09:40 AM	47.7	44.2
04:20 AM - 04:25 AM	50.7	44.5	07:00 AM - 07:05 AM	53.9	46.9	09:40 AM - 09:45 AM	48.2	43.8
04:25 AM - 04:30 AM	46.0	44.0	07:05 AM - 07:10 AM	52.9	46.5	09:45 AM - 09:50 AM	47.9	42.9
04:30 AM - 04:35 AM	46.6	44.0	07:10 AM - 07:15 AM	51.2	45.9	09:50 AM - 09:55 AM	48.9	43.8
04:35 AM - 04:40 AM	46.9	44.2	07:15 AM - 07:20 AM	49.6	45.3	09:55 AM - 10:00 AM	47.2	43.3

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Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571983

Date Received :Aug 27, 2025

Date Reported :Aug 29, 2025

Report Number :3394221-1

Page 1 of 3

Sample Number 2571983-6
Parameter Noise Level (Leq 5 min)
Location ฃบบดบดบดบดบดบดบด (GPS 47P 0735578, 1402792)
Measurement Date Aug 24 - Aug 25, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 01073423

Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	45.8	42.0	12:40 PM - 12:45 PM	48.4	44.6	03:20 PM - 03:25 PM	51.1	45.9
10:05 AM - 10:10 AM	48.0	43.1	12:45 PM - 12:50 PM	49.2	45.3	03:25 PM - 03:30 PM	51.6	46.6
10:10 AM - 10:15 AM	47.8	44.1	12:50 PM - 12:55 PM	48.9	44.3	03:30 PM - 03:35 PM	53.1	47.0
10:15 AM - 10:20 AM	46.3	42.0	12:55 PM - 01:00 PM	49.5	45.5	03:35 PM - 03:40 PM	49.7	45.7
10:20 AM - 10:25 AM	46.4	42.8	01:00 PM - 01:05 PM	48.5	45.2	03:40 PM - 03:45 PM	51.1	46.4
10:25 AM - 10:30 AM	46.9	43.3	01:05 PM - 01:10 PM	51.2	44.4	03:45 PM - 03:50 PM	49.9	45.7
10:30 AM - 10:35 AM	46.3	42.5	01:10 PM - 01:15 PM	47.3	43.4	03:50 PM - 03:55 PM	51.3	44.9
10:35 AM - 10:40 AM	46.0	42.3	01:15 PM - 01:20 PM	52.1	43.6	03:55 PM - 04:00 PM	48.1	44.8
10:40 AM - 10:45 AM	46.8	42.4	01:20 PM - 01:25 PM	48.2	44.5	04:00 PM - 04:05 PM	51.0	45.8
10:45 AM - 10:50 AM	46.6	43.3	01:25 PM - 01:30 PM	46.7	44.1	04:05 PM - 04:10 PM	53.1	46.2
10:50 AM - 10:55 AM	46.9	43.8	01:30 PM - 01:35 PM	47.6	44.2	04:10 PM - 04:15 PM	50.6	45.8
10:55 AM - 11:00 AM	48.4	44.8	01:35 PM - 01:40 PM	47.1	43.9	04:15 PM - 04:20 PM	49.7	45.2
11:00 AM - 11:05 AM	49.0	44.1	01:40 PM - 01:45 PM	48.2	44.0	04:20 PM - 04:25 PM	52.8	47.7
11:05 AM - 11:10 AM	46.9	43.8	01:45 PM - 01:50 PM	48.3	42.9	04:25 PM - 04:30 PM	50.4	44.9
11:10 AM - 11:15 AM	44.1	44.1	01:50 PM - 01:55 PM	47.1	44.1	04:30 PM - 04:35 PM	50.3	45.0
11:15 AM - 11:20 AM	48.2	42.7	01:55 PM - 02:00 PM	47.7	44.5	04:35 PM - 04:40 PM	49.1	45.7
11:20 AM - 11:25 AM	48.9	44.9	02:00 PM - 02:05 PM	58.3	45.4	04:40 PM - 04:45 PM	50.3	46.5
11:25 AM - 11:30 AM	47.6	44.0	02:05 PM - 02:10 PM	61.3	51.0	04:45 PM - 04:50 PM	49.5	45.8
11:30 AM - 11:35 AM	47.7	44.7	02:10 PM - 02:15 PM	64.5	49.0	04:50 PM - 04:55 PM	50.1	45.6
11:35 AM - 11:40 AM	47.6	43.5	02:15 PM - 02:20 PM	62.3	51.6	04:55 PM - 05:00 PM	48.0	44.5
11:40 AM - 11:45 AM	48.7	45.2	02:20 PM - 02:25 PM	51.4	46.7	05:00 PM - 05:05 PM	48.7	44.8
11:45 AM - 11:50 AM	49.6	45.3	02:25 PM - 02:30 PM	48.4	45.1	05:05 PM - 05:10 PM	50.8	45.5
11:50 AM - 11:55 AM	51.5	45.8	02:30 PM - 02:35 PM	62.0	43.9	05:10 PM - 05:15 PM	50.7	46.7
11:55 AM - 12:00 PM	49.5	45.1	02:35 PM - 02:40 PM	60.5	46.8	05:15 PM - 05:20 PM	50.6	46.2
12:00 PM - 12:05 PM	47.5	44.5	02:40 PM - 02:45 PM	58.3	44.8	05:20 PM - 05:25 PM	52.8	47.6
12:05 PM - 12:10 PM	48.0	44.6	02:45 PM - 02:50 PM	61.9	47.0	05:25 PM - 05:30 PM	51.5	47.4
12:10 PM - 12:15 PM	48.5	44.6	02:50 PM - 02:55 PM	61.7	49.4	05:30 PM - 05:35 PM	52.6	46.8
12:15 PM - 12:20 PM	50.1	43.6	02:55 PM - 03:00 PM	58.5	45.8	05:35 PM - 05:40 PM	52.2	47.3
12:20 PM - 12:25 PM	50.7	44.3	03:00 PM - 03:05 PM	49.8	44.2	05:40 PM - 05:45 PM	51.1	46.5
12:25 PM - 12:30 PM	48.5	44.8	03:05 PM - 03:10 PM	52.8	45.2	05:45 PM - 05:50 PM	51.9	46.6
12:30 PM - 12:35 PM	48.6	44.5	03:10 PM - 03:15 PM	51.7	45.7	05:50 PM - 05:55 PM	50.9	46.3
12:35 PM - 12:40 PM	46.7	43.2	03:15 PM - 03:20 PM	53.5	46.0	05:55 PM - 06:00 PM	52.5	48.8

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Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394221-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number : 2571983-6
Parameter : Noise Level (Leq 5 min)
Location : ถนนสายอุตสาหกรรม-ด่านประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date : Aug 24 - Aug 25, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 24, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 24 - Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	52.0	47.9	08:40 PM - 08:45 PM	51.0	47.2	11:20 PM - 11:25 PM	49.4	43.1
06:05 PM - 06:10 PM	51.2	47.9	08:45 PM - 08:50 PM	54.7	45.7	11:25 PM - 11:30 PM	46.2	41.2
06:10 PM - 06:15 PM	54.5	49.1	08:50 PM - 08:55 PM	51.3	46.7	11:30 PM - 11:35 PM	45.9	42.1
06:15 PM - 06:20 PM	52.2	47.5	08:55 PM - 09:00 PM	51.5	47.0	11:35 PM - 11:40 PM	57.7	43.2
06:20 PM - 06:25 PM	51.3	47.7	09:00 PM - 09:05 PM	51.0	46.6	11:40 PM - 11:45 PM	49.5	43.6
06:25 PM - 06:30 PM	52.3	47.0	09:05 PM - 09:10 PM	51.3	45.4	11:45 PM - 11:50 PM	45.4	41.6
06:30 PM - 06:35 PM	51.4	47.5	09:10 PM - 09:15 PM	51.7	45.5	11:50 PM - 11:55 PM	52.5	43.2
06:35 PM - 06:40 PM	50.5	47.1	09:15 PM - 09:20 PM	49.1	44.4	11:55 PM - 12:00 AM	45.6	41.5
06:40 PM - 06:45 PM	52.4	45.2	09:20 PM - 09:25 PM	48.7	45.1	12:00 AM - 12:05 AM	44.6	41.6
06:45 PM - 06:50 PM	52.8	46.1	09:25 PM - 09:30 PM	49.3	45.0	12:05 AM - 12:10 AM	47.3	42.6
06:50 PM - 06:55 PM	53.9	46.2	09:30 PM - 09:35 PM	50.0	44.6	12:10 AM - 12:15 AM	48.3	42.0
06:55 PM - 07:00 PM	51.2	45.3	09:35 PM - 09:40 PM	49.1	44.4	12:15 AM - 12:20 AM	48.0	42.1
07:00 PM - 07:05 PM	48.1	44.0	09:40 PM - 09:45 PM	50.1	44.1	12:20 AM - 12:25 AM	47.0	41.5
07:05 PM - 07:10 PM	51.9	45.8	09:45 PM - 09:50 PM	47.1	43.5	12:25 AM - 12:30 AM	50.3	42.0
07:10 PM - 07:15 PM	52.7	46.4	09:50 PM - 09:55 PM	49.7	43.1	12:30 AM - 12:35 AM	46.4	41.4
07:15 PM - 07:20 PM	56.5	45.1	09:55 PM - 10:00 PM	48.5	43.4	12:35 AM - 12:40 AM	47.8	42.1
07:20 PM - 07:25 PM	50.9	44.7	10:00 PM - 10:05 PM	49.4	43.9	12:40 AM - 12:45 AM	44.8	40.9
07:25 PM - 07:30 PM	50.0	45.2	10:05 PM - 10:10 PM	50.7	43.9	12:45 AM - 12:50 AM	48.5	42.0
07:30 PM - 07:35 PM	51.5	43.9	10:10 PM - 10:15 PM	48.3	43.2	12:50 AM - 12:55 AM	48.4	42.3
07:35 PM - 07:40 PM	49.0	43.8	10:15 PM - 10:20 PM	50.1	43.0	12:55 AM - 01:00 AM	48.5	42.1
07:40 PM - 07:45 PM	49.8	43.5	10:20 PM - 10:25 PM	48.7	43.3	01:00 AM - 01:05 AM	46.3	42.8
07:45 PM - 07:50 PM	48.6	44.7	10:25 PM - 10:30 PM	47.2	42.7	01:05 AM - 01:10 AM	48.5	42.8
07:50 PM - 07:55 PM	49.1	45.2	10:30 PM - 10:35 PM	52.9	42.7	01:10 AM - 01:15 AM	48.3	42.0
07:55 PM - 08:00 PM	49.9	45.1	10:35 PM - 10:40 PM	49.1	42.9	01:15 AM - 01:20 AM	46.9	42.5
08:00 PM - 08:05 PM	48.6	44.2	10:40 PM - 10:45 PM	46.5	42.0	01:20 AM - 01:25 AM	45.9	42.8
08:05 PM - 08:10 PM	49.7	46.1	10:45 PM - 10:50 PM	52.1	42.5	01:25 AM - 01:30 AM	45.4	43.0
08:10 PM - 08:15 PM	50.9	46.7	10:50 PM - 10:55 PM	48.1	43.0	01:30 AM - 01:35 AM	44.8	43.1
08:15 PM - 08:20 PM	51.7	47.7	10:55 PM - 11:00 PM	45.8	42.8	01:35 AM - 01:40 AM	48.8	42.8
08:20 PM - 08:25 PM	51.0	47.5	11:00 PM - 11:05 PM	45.7	41.7	01:40 AM - 01:45 AM	44.7	42.6
08:25 PM - 08:30 PM	51.2	47.1	11:05 PM - 11:10 PM	50.0	42.4	01:45 AM - 01:50 AM	49.8	43.8
08:30 PM - 08:35 PM	53.4	46.1	11:10 PM - 11:15 PM	47.3	41.7	01:50 AM - 01:55 AM	49.7	42.9
08:35 PM - 08:40 PM	51.6	46.3	11:15 PM - 11:20 PM	45.4	42.1	01:55 AM - 02:00 AM	45.3	43.5

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Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394221-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 3 of 3

Sample Number : 2571983-6
Parameter : Noise Level (Leq 5 min)
Location : ถนนสายอุตสาหกรรม-ด่านประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date : Aug 24 - Aug 25, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)
02:00 AM - 02:05 AM	44.9	43.6	04:40 AM - 04:45 AM	46.4	43.4	07:20 AM - 07:25 AM	54.3	48.9
02:05 AM - 02:10 AM	49.7	43.8	04:45 AM - 04:50 AM	46.9	42.8	07:25 AM - 07:30 AM	53.8	49.2
02:10 AM - 02:15 AM	46.0	43.7	04:50 AM - 04:55 AM	49.1	43.5	07:30 AM - 07:35 AM	51.0	47.2
02:15 AM - 02:20 AM	48.6	43.6	04:55 AM - 05:00 AM	48.7	44.8	07:35 AM - 07:40 AM	53.7	48.1
02:20 AM - 02:25 AM	46.4	43.3	05:00 AM - 05:05 AM	46.2	43.2	07:40 AM - 07:45 AM	52.3	48.4
02:25 AM - 02:30 AM	49.2	44.2	05:05 AM - 05:10 AM	51.5	43.1	07:45 AM - 07:50 AM	52.5	47.3
02:30 AM - 02:35 AM	47.0	43.6	05:10 AM - 05:15 AM	51.3	43.2	07:50 AM - 07:55 AM	51.4	47.2
02:35 AM - 02:40 AM	46.1	44.0	05:15 AM - 05:20 AM	45.6	42.5	07:55 AM - 08:00 AM	52.3	47.0
02:40 AM - 02:45 AM	45.9	42.9	05:20 AM - 05:25 AM	47.0	43.5	08:00 AM - 08:05 AM	52.2	47.2
02:45 AM - 02:50 AM	47.5	43.6	05:25 AM - 05:30 AM	49.0	44.0	08:05 AM - 08:10 AM	50.7	46.7
02:50 AM - 02:55 AM	51.7	44.3	05:30 AM - 05:35 AM	50.6	44.7	08:10 AM - 08:15 AM	53.5	46.5
02:55 AM - 03:00 AM	46.5	44.0	05:35 AM - 05:40 AM	52.8	44.7	08:15 AM - 08:20 AM	50.0	45.9
03:00 AM - 03:05 AM	45.0	43.0	05:40 AM - 05:45 AM	51.8	44.3	08:20 AM - 08:25 AM	53.8	45.1
03:05 AM - 03:10 AM	47.6	43.9	05:45 AM - 05:50 AM	51.6	44.4	08:25 AM - 08:30 AM	50.6	44.8
03:10 AM - 03:15 AM	48.1	43.7	05:50 AM - 05:55 AM	51.9	45.0	08:30 AM - 08:35 AM	48.7	44.3
03:15 AM - 03:20 AM	45.9	43.5	05:55 AM - 06:00 AM	51.8	45.6	08:35 AM - 08:40 AM	49.4	44.9
03:20 AM - 03:25 AM	45.3	42.8	06:00 AM - 06:05 AM	51.8	47.2	08:40 AM - 08:45 AM	48.6	45.1
03:25 AM - 03:30 AM	47.9	43.3	06:05 AM - 06:10 AM	53.7	47.1	08:45 AM - 08:50 AM	46.8	43.2
03:30 AM - 03:35 AM	46.3	43.6	06:10 AM - 06:15 AM	59.7	47.3	08:50 AM - 08:55 AM	48.4	43.6
03:35 AM - 03:40 AM	46.7	44.0	06:15 AM - 06:20 AM	57.4	47.8	08:55 AM - 09:00 AM	47.7	43.1
03:40 AM - 03:45 AM	45.5	43.4	06:20 AM - 06:25 AM	64.0	48.6	09:00 AM - 09:05 AM	50.4	43.1
03:45 AM - 03:50 AM	46.6	43.7	06:25 AM - 06:30 AM	52.5	48.6	09:05 AM - 09:10 AM	47.2	43.0
03:50 AM - 03:55 AM	47.4	44.9	06:30 AM - 06:35 AM	56.2	49.0	09:10 AM - 09:15 AM	47.2	42.9
03:55 AM - 04:00 AM	47.1	45.0	06:35 AM - 06:40 AM	51.4	47.4	09:15 AM - 09:20 AM	47.0	43.3
04:00 AM - 04:05 AM	47.9	45.1	06:40 AM - 06:45 AM	51.9	48.1	09:20 AM - 09:25 AM	47.7	43.8
04:05 AM - 04:10 AM	49.8	45.7	06:45 AM - 06:50 AM	58.9	48.5	09:25 AM - 09:30 AM	49.7	43.4
04:10 AM - 04:15 AM	46.4	44.4	06:50 AM - 06:55 AM	55.0	48.7	09:30 AM - 09:35 AM	46.4	43.0
04:15 AM - 04:20 AM	47.9	44.3	06:55 AM - 07:00 AM	51.6	49.1	09:35 AM - 09:40 AM	47.7	43.4
04:20 AM - 04:25 AM	44.9	43.2	07:00 AM - 07:05 AM	52.0	48.3	09:40 AM - 09:45 AM	47.7	43.9
04:25 AM - 04:30 AM	47.0	43.4	07:05 AM - 07:10 AM	52.9	48.4	09:45 AM - 09:50 AM	48.6	43.3
04:30 AM - 04:35 AM	46.2	43.6	07:10 AM - 07:15 AM	55.6	49.2	09:50 AM - 09:55 AM	47.2	42.5
04:35 AM - 04:40 AM	46.1	43.7	07:15 AM - 07:20 AM	51.9	48.2	09:55 AM - 10:00 AM	45.8	42.6

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Approved by

Sarayuth Jitranont
Assistant General Manager

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



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394222-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 1 of 3

Sample Number : 2571983-7
Parameter : Noise Level (Leq 5 min)
Location : ถนนสายอุตสาหกรรม-ด่านประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date : Aug 25 - Aug 26, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)
10:00 AM - 10:05 AM	47.8	43.3	12:40 PM - 12:45 PM	49.1	47.1	03:20 PM - 03:25 PM	52.0	45.6
10:05 AM - 10:10 AM	46.1	43.5	12:45 PM - 12:50 PM	49.1	46.8	03:25 PM - 03:30 PM	48.9	45.1
10:10 AM - 10:15 AM	46.3	43.0	12:50 PM - 12:55 PM	50.6	47.1	03:30 PM - 03:35 PM	49.6	45.3
10:15 AM - 10:20 AM	46.9	43.1	12:55 PM - 01:00 PM	50.3	47.7	03:35 PM - 03:40 PM	50.2	46.1
10:20 AM - 10:25 AM	47.1	43.2	01:00 PM - 01:05 PM	50.0	46.8	03:40 PM - 03:45 PM	48.7	45.9
10:25 AM - 10:30 AM	47.0	43.6	01:05 PM - 01:10 PM	51.2	48.2	03:45 PM - 03:50 PM	49.3	46.4
10:30 AM - 10:35 AM	46.6	43.1	01:10 PM - 01:15 PM	51.1	48.3	03:50 PM - 03:55 PM	50.2	45.3
10:35 AM - 10:40 AM	49.0	43.8	01:15 PM - 01:20 PM	48.7	46.3	03:55 PM - 04:00 PM	51.7	46.3
10:40 AM - 10:45 AM	50.4	44.7	01:20 PM - 01:25 PM	49.3	46.9	04:00 PM - 04:05 PM	50.2	45.9
10:45 AM - 10:50 AM	48.1	44.3	01:25 PM - 01:30 PM	51.1	47.1	04:05 PM - 04:10 PM	50.9	47.1
10:50 AM - 10:55 AM	48.2	44.0	01:30 PM - 01:35 PM	49.9	47.3	04:10 PM - 04:15 PM	50.9	46.5
10:55 AM - 11:00 AM	47.3	44.4	01:35 PM - 01:40 PM	49.8	46.5	04:15 PM - 04:20 PM	52.1	46.4
11:00 AM - 11:05 AM	48.2	44.3	01:40 PM - 01:45 PM	49.4	46.9	04:20 PM - 04:25 PM	50.3	46.7
11:05 AM - 11:10 AM	47.5	44.4	01:45 PM - 01:50 PM	51.5	47.6	04:25 PM - 04:30 PM	52.3	46.8
11:10 AM - 11:15 AM	48.2	44.8	01:50 PM - 01:55 PM	49.2	46.8	04:30 PM - 04:35 PM	51.4	47.7
11:15 AM - 11:20 AM	46.9	43.6	01:55 PM - 02:00 PM	49.2	46.9	04:35 PM - 04:40 PM	53.0	49.6
11:20 AM - 11:25 AM	47.9	43.7	02:00 PM - 02:05 PM	50.5	45.9	04:40 PM - 04:45 PM	54.0	49.6
11:25 AM - 11:30 AM	46.3	43.8	02:05 PM - 02:10 PM	50.3	46.8	04:45 PM - 04:50 PM	53.3	49.5
11:30 AM - 11:35 AM	48.5	45.1	02:10 PM - 02:15 PM	50.4	47.3	04:50 PM - 04:55 PM	52.8	49.2
11:35 AM - 11:40 AM	48.6	44.8	02:15 PM - 02:20 PM	50.5	45.1	04:55 PM - 05:00 PM	50.9	46.9
11:40 AM - 11:45 AM	49.0	45.3	02:20 PM - 02:25 PM	47.9	44.6	05:00 PM - 05:05 PM	51.2	48.0
11:45 AM - 11:50 AM	48.9	45.7	02:25 PM - 02:30 PM	47.8	45.1	05:05 PM - 05:10 PM	53.2	49.3
11:50 AM - 11:55 AM	48.6	45.6	02:30 PM - 02:35 PM	47.1	44.9	05:10 PM - 05:15 PM	53.3	48.9
11:55 AM - 12:00 PM	48.7	45.6	02:35 PM - 02:40 PM	50.9	47.9	05:15 PM - 05:20 PM	51.6	48.2
12:00 PM - 12:05 PM	49.3	45.4	02:40 PM - 02:45 PM	54.7	47.9	05:20 PM - 05:25 PM	50.3	47.4
12:05 PM - 12:10 PM	49.5	46.2	02:45 PM - 02:50 PM	65.3	45.6	05:25 PM - 05:30 PM	51.1	48.0
12:10 PM - 12:15 PM	50.7	46.7	02:50 PM - 02:55 PM	51.8	46.7	05:30 PM - 05:35 PM	50.4	46.9
12:15 PM - 12:20 PM	50.5	46.5	02:55 PM - 03:00 PM	48.6	45.6	05:35 PM - 05:40 PM	49.7	47.4
12:20 PM - 12:25 PM	46.9	43.7	03:00 PM - 03:05 PM	49.2	46.4	05:40 PM - 05:45 PM	51.4	47.1
12:25 PM - 12:30 PM	51.2	47.7	03:05 PM - 03:10 PM	49.1	45.6	05:45 PM - 05:50 PM	49.0	45.9
12:30 PM - 12:35 PM	49.8	47.3	03:10 PM - 03:15 PM	52.9	45.4	05:50 PM - 05:55 PM	50.0	46.4
12:35 PM - 12:40 PM	52.4	46.9	03:15 PM - 03:20 PM	54.2	50.9	05:55 PM - 06:00 PM	49.8	46.3

Approved by



Sarayuth Jitranont
Assistant General Manager

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

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394222-1

P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Page 2 of 3

Sample Number : 2571983-7
Parameter : Noise Level (Leq 5 min)
Location : ถนนสายอุตสาหกรรม-ด่านประจักษ์ (GPS 47P 0735578, 1402792)
Measurement Date : Aug 25 - Aug 26, 2025
Measurement by : Apichart Wilars
Sound Level meter : Serial No. 01073423

Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25, 2025 Time	Leq dB(A)	L90 dB(A)	Aug 25 - Aug 26, 2025 Time	Leq dB(A)	L90 dB(A)
06:00 PM - 06:05 PM	50.9	46.1	08:40 PM - 08:45 PM	48.3	44.9	11:20 PM - 11:25 PM	49.3	46.1
06:05 PM - 06:10 PM	49.9	46.6	08:45 PM - 08:50 PM	50.5	45.3	11:25 PM - 11:30 PM	50.1	45.9
06:10 PM - 06:15 PM	51.1	47.3	08:50 PM - 08:55 PM	50.6	46.0	11:30 PM - 11:35 PM	48.5	45.3
06:15 PM - 06:20 PM	51.4	48.4	08:55 PM - 09:00 PM	52.4	47.1	11:35 PM - 11:40 PM	48.6	46.8
06:20 PM - 06:25 PM	51.1	47.9	09:00 PM - 09:05 PM	49.9	47.0	11:40 PM - 11:45 PM	50.1	47.2
06:25 PM - 06:30 PM	50.3	48.2	09:05 PM - 09:10 PM	49.6	46.0	11:45 PM - 11:50 PM	49.5	46.4
06:30 PM - 06:35 PM	51.1	48.4	09:10 PM - 09:15 PM	50.9	47.4	11:50 PM - 11:55 PM	48.4	45.3
06:35 PM - 06:40 PM	52.1	46.5	09:15 PM - 09:20 PM	50.8	46.4	11:55 PM - 12:00 AM	48.8	45.1
06:40 PM - 06:45 PM	51.3	47.6	09:20 PM - 09:25 PM	50.5	46.4	12:00 AM - 12:05 AM	48.8	45.5
06:45 PM - 06:50 PM	49.1	45.6	09:25 PM - 09:30 PM	50.1	45.4	12:05 AM - 12:10 AM	48.5	45.7
06:50 PM - 06:55 PM	50.2	47.2	09:30 PM - 09:35 PM	53.4	45.6	12:10 AM - 12:15 AM	49.4	45.4
06:55 PM - 07:00 PM	50.7	47.4	09:35 PM - 09:40 PM	50.6	47.5	12:15 AM - 12:20 AM	49.7	44.5
07:00 PM - 07:05 PM	50.3	47.0	09:40 PM - 09:45 PM	56.2	45.5	12:20 AM - 12:25 AM	48.9	46.0
07:05 PM - 07:10 PM	50.8	47.5	09:45 PM - 09:50 PM	50.0	46.6	12:25 AM - 12:30 AM	48.8	45.3
07:10 PM - 07:15 PM	51.8	47.9	09:50 PM - 09:55 PM	50.4	45.7	12:30 AM - 12:35 AM	47.7	45.0
07:15 PM - 07:20 PM	50.3	46.2	09:55 PM - 10:00 PM	53.9	46.5	12:35 AM - 12:40 AM	46.5	44.1
07:20 PM - 07:25 PM	51.2	46.5	10:00 PM - 10:05 PM	51.5	48.6	12:40 AM - 12:45 AM	47.8	44.9
07:25 PM - 07:30 PM	49.7	46.8	10:05 PM - 10:10 PM	51.6	47.5	12:45 AM - 12:50 AM	46.6	44.0
07:30 PM - 07:35 PM	51.0	45.4	10:10 PM - 10:15 PM	52.0	47.8	12:50 AM - 12:55 AM	49.9	44.1
07:35 PM - 07:40 PM	49.6	46.0	10:15 PM - 10:20 PM	50.2	47.2	12:55 AM - 01:00 AM	48.5	44.9
07:40 PM - 07:45 PM	49.8	45.7	10:20 PM - 10:25 PM	51.2	48.3	01:00 AM - 01:05 AM	47.4	44.8
07:45 PM - 07:50 PM	51.0	47.0	10:25 PM - 10:30 PM	53.2	48.0	01:05 AM - 01:10 AM	47.3	44.6
07:50 PM - 07:55 PM	49.4	46.5	10:30 PM - 10:35 PM	55.4	50.3	01:10 AM - 01:15 AM	45.9	43.3
07:55 PM - 08:00 PM	50.2	46.3	10:35 PM - 10:40 PM	52.1	48.4	01:15 AM - 01:20 AM	45.4	42.8
08:00 PM - 08:05 PM	51.1	47.8	10:40 PM - 10:45 PM	50.8	47.7	01:20 AM - 01:25 AM	46.6	42.6
08:05 PM - 08:10 PM	51.6	47.4	10:45 PM - 10:50 PM	51.5	47.0	01:25 AM - 01:30 AM	44.9	42.7
08:10 PM - 08:15 PM	50.6	46.1	10:50 PM - 10:55 PM	49.7	45.5	01:30 AM - 01:35 AM	45.4	42.6
08:15 PM - 08:20 PM	51.2	46.1	10:55 PM - 11:00 PM	51.1	46.0	01:35 AM - 01:40 AM	49.1	43.7
08:20 PM - 08:25 PM	50.2	46.9	11:00 PM - 11:05 PM	51.3	48.3	01:40 AM - 01:45 AM	48.1	43.0
08:25 PM - 08:30 PM	50.3	46.0	11:05 PM - 11:10 PM	50.7	47.1	01:45 AM - 01:50 AM	50.0	43.1
08:30 PM - 08:35 PM	54.3	46.3	11:10 PM - 11:15 PM	49.7	46.9	01:50 AM - 01:55 AM	46.9	43.6
08:35 PM - 08:40 PM	52.0	47.6	11:15 PM - 11:20 PM	51.5	46.0	01:55 AM - 02:00 AM	48.5	43.4

Approved by



Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

Lot ID: 2571983
Date Received : Aug 27, 2025
Date Reported : Aug 29, 2025
Report Number : 3394222-1

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Page 3 of 3

Sample Number 2571983-7
Parameter Noise Level (Leq 5 min)
Location ถนนสายอุตสาหกรรม-ถาวร (GPS 47P 0735578, 1402792)
Measurement Date Aug 25 - Aug 26, 2025
Measurement by Apichart Wilars
Sound Level meter Serial No. 01073423

Aug 26, 2025	Leq	L90	Aug 26, 2025	Leq	L90	Aug 26, 2025	Leq	L90
Time	dB(A)	dB(A)	Time	dB(A)	dB(A)	Time	dB(A)	dB(A)
02:00 AM - 02:05 AM	46.8	43.4	04:40 AM - 04:45 AM	49.1	42.4	07:20 AM - 07:25 AM	53.1	49.8
02:05 AM - 02:10 AM	49.7	43.1	04:45 AM - 04:50 AM	50.0	43.5	07:25 AM - 07:30 AM	53.2	49.7
02:10 AM - 02:15 AM	44.6	41.9	04:50 AM - 04:55 AM	48.7	43.1	07:30 AM - 07:35 AM	54.6	50.5
02:15 AM - 02:20 AM	44.4	42.2	04:55 AM - 05:00 AM	48.5	42.9	07:35 AM - 07:40 AM	53.1	49.5
02:20 AM - 02:25 AM	45.4	42.2	05:00 AM - 05:05 AM	48.3	42.7	07:40 AM - 07:45 AM	52.9	49.3
02:25 AM - 02:30 AM	43.9	41.2	05:05 AM - 05:10 AM	46.8	43.4	07:45 AM - 07:50 AM	53.2	49.0
02:30 AM - 02:35 AM	43.9	41.6	05:10 AM - 05:15 AM	46.6	43.3	07:50 AM - 07:55 AM	54.0	48.3
02:35 AM - 02:40 AM	44.9	42.2	05:15 AM - 05:20 AM	51.6	43.9	07:55 AM - 08:00 AM	54.9	49.4
02:40 AM - 02:45 AM	44.3	40.6	05:20 AM - 05:25 AM	49.6	45.2	08:00 AM - 08:05 AM	52.6	48.2
02:45 AM - 02:50 AM	45.1	42.4	05:25 AM - 05:30 AM	49.6	46.1	08:05 AM - 08:10 AM	51.3	47.4
02:50 AM - 02:55 AM	46.3	42.1	05:30 AM - 05:35 AM	47.6	45.0	08:10 AM - 08:15 AM	52.6	47.8
02:55 AM - 03:00 AM	44.2	41.8	05:35 AM - 05:40 AM	50.2	45.6	08:15 AM - 08:20 AM	53.0	48.2
03:00 AM - 03:05 AM	47.9	41.5	05:40 AM - 05:45 AM	50.7	46.7	08:20 AM - 08:25 AM	53.2	48.9
03:05 AM - 03:10 AM	45.6	41.9	05:45 AM - 05:50 AM	50.6	46.3	08:25 AM - 08:30 AM	52.9	48.1
03:10 AM - 03:15 AM	46.3	41.9	05:50 AM - 05:55 AM	52.3	47.4	08:30 AM - 08:35 AM	51.1	47.5
03:15 AM - 03:20 AM	51.2	41.5	05:55 AM - 06:00 AM	52.3	47.0	08:35 AM - 08:40 AM	51.2	47.1
03:20 AM - 03:25 AM	43.2	40.8	06:00 AM - 06:05 AM	54.2	47.5	08:40 AM - 08:45 AM	51.4	47.7
03:25 AM - 03:30 AM	43.8	42.0	06:05 AM - 06:10 AM	52.6	47.6	08:45 AM - 08:50 AM	51.3	46.2
03:30 AM - 03:35 AM	46.7	41.7	06:10 AM - 06:15 AM	62.3	49.1	08:50 AM - 08:55 AM	51.1	46.2
03:35 AM - 03:40 AM	62.8	41.8	06:15 AM - 06:20 AM	53.1	48.3	08:55 AM - 09:00 AM	50.9	46.9
03:40 AM - 03:45 AM	52.4	41.6	06:20 AM - 06:25 AM	55.7	49.0	09:00 AM - 09:05 AM	50.3	46.0
03:45 AM - 03:50 AM	63.4	42.3	06:25 AM - 06:30 AM	54.3	47.8	09:05 AM - 09:10 AM	49.4	45.4
03:50 AM - 03:55 AM	44.1	42.0	06:30 AM - 06:35 AM	57.1	49.0	09:10 AM - 09:15 AM	50.1	46.6
03:55 AM - 04:00 AM	44.4	41.1	06:35 AM - 06:40 AM	59.9	48.6	09:15 AM - 09:20 AM	50.2	46.0
04:00 AM - 04:05 AM	43.5	41.8	06:40 AM - 06:45 AM	54.7	48.3	09:20 AM - 09:25 AM	47.9	45.5
04:05 AM - 04:10 AM	45.6	41.8	06:45 AM - 06:50 AM	51.9	48.4	09:25 AM - 09:30 AM	49.8	45.3
04:10 AM - 04:15 AM	51.6	41.7	06:50 AM - 06:55 AM	51.3	47.9	09:30 AM - 09:35 AM	49.1	45.6
04:15 AM - 04:20 AM	43.6	40.9	06:55 AM - 07:00 AM	56.2	49.0	09:35 AM - 09:40 AM	49.3	45.7
04:20 AM - 04:25 AM	44.1	41.2	07:00 AM - 07:05 AM	53.9	49.4	09:40 AM - 09:45 AM	49.3	45.5
04:25 AM - 04:30 AM	45.0	42.0	07:05 AM - 07:10 AM	56.8	50.3	09:45 AM - 09:50 AM	48.4	45.9
04:30 AM - 04:35 AM	44.3	42.4	07:10 AM - 07:15 AM	54.5	49.2	09:50 AM - 09:55 AM	51.3	46.6
04:35 AM - 04:40 AM	47.2	42.8	07:15 AM - 07:20 AM	54.0	50.8	09:55 AM - 10:00 AM	48.1	45.4

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

ภาคผนวก ค-6

ระดับเสียงในสถานประกอบการ



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571975

Date Received : Aug 22, 2025

Date Reported : Aug 28, 2025

Report Number: 3393201-1

Page 1 of 1

Sample Number 2571975-1
Parameter Noise (Leq 8 hrs.)
Location Solvent Recovery Unit 1
Measurement Date Aug 21, 2025
Measurement by Apichart Wilars

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:45 AM - 09:45 AM	88.1	92.2	87.0
09:45 AM - 10:45 AM	87.5	90.5	86.1
10:45 AM - 11:45 AM	86.7	89.7	85.4
11:45 AM - 12:45 PM	86.7	89.7	84.6
12:45 PM - 01:45 PM	90.2	93.5	88.4
01:45 PM - 02:45 PM	90.6	93.3	89.2
02:45 PM - 03:45 PM	89.3	92.2	87.5
03:45 PM - 04:45 PM	89.2	93.0	87.3

Leq Average 8 hrs. (dB(A))

88.8

Lmax (dB(A))

93.5

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย

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Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supot Salamteh
Section Head

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S:\Reports_Air Noise.rpt (11:24AM)



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571975

Date Received : Aug 22, 2025

Date Reported : Aug 28, 2025

Report Number: 3393202-1

Page 1 of 1

Sample Number 2571975-2
Parameter Noise (Leq 8 hrs.)
Location Solvent Recovery Unit 2
Measurement Date Aug 21, 2025
Measurement by Apichart Wilars

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:51 AM - 09:51 AM	82.5	83.6	81.8
09:51 AM - 10:51 AM	82.4	83.4	82.0
10:51 AM - 11:51 AM	82.8	84.0	82.3
11:51 AM - 12:51 PM	82.8	84.3	82.1
12:51 PM - 01:51 PM	83.6	85.8	83.0
01:51 PM - 02:51 PM	83.8	84.6	83.4
02:51 PM - 03:51 PM	83.2	85.6	82.7
03:51 PM - 04:51 PM	82.9	85.2	82.5

Leq Average 8 hrs. (dB(A))

83.0

Lmax (dB(A))

85.8

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย

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Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supot Salamteh
Section Head

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590488

Date Received : Nov 07, 2025

Date Reported : Nov 13, 2025

Report Number: 3449809-1

Page 1 of 1

Sample Number 2590488-1
Parameter Noise (Leq 8 hrs.)
Location Solvent Recovery Unit 1
Measurement Date Nov 07, 2025
Measurement by Amnat Wongsakhen

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:34 AM - 09:34 AM	81.7	85.8	80.9
09:34 AM - 10:34 AM	82.8	85.1	81.9
10:34 AM - 11:34 AM	82.6	84.8	81.8
11:34 AM - 12:34 PM	83.6	86.0	82.7
12:34 PM - 01:34 PM	85.9	92.0	84.5
01:34 PM - 02:34 PM	84.8	87.8	83.8
02:34 PM - 03:34 PM	84.8	87.3	83.9
03:34 PM - 04:34 PM	84.4	86.6	83.6

Leq Average 8 hrs. (dB(A))

84.0

Lmax (dB(A))

92.0

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย
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Technical Management

Chontichak

Chonticha Subongkoch
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Approved by

Supot S

Supot Salamteh
Section Head

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590488

Date Received : Nov 07, 2025

Date Reported : Nov 13, 2025

Report Number: 3449810-1

Page 1 of 1

Sample Number 2590488-2
Parameter Noise (Leq 8 hrs.)
Location Solvent Recovery Unit 2
Measurement Date Nov 07, 2025
Measurement by Amnat Wongsakhen

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:38 AM - 09:38 AM	89.2	109.5	88.2
09:38 AM - 10:38 AM	88.5	90.2	88.0
10:38 AM - 11:38 AM	88.5	90.9	88.0
11:38 AM - 12:38 PM	88.4	90.0	87.9
12:38 PM - 01:38 PM	88.5	90.6	88.0
01:38 PM - 02:38 PM	88.6	90.4	88.2
02:38 PM - 03:38 PM	88.6	90.6	88.1
03:38 PM - 04:38 PM	88.8	90.9	88.3

Leq Average 8 hrs. (dB(A))

88.6

Lmax (dB(A))

109.5

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย
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Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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ภาคผนวก ค-7

ระดับเสียงแยกความถี่ (Octave Bands)



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571978
Date Received : Aug 22, 2025
Date Reported : Aug 29, 2025
Report Number : 3391415-1

Page 1 of 1

Sample Number 2571978-1
Parameter Noise (Octave band)
Location Solvent Recovery Unit 1
Measurement Date Aug 21, 2025
Measurement By Apichart Wilars

Time	Result (dB(A))											
	Leq	16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz
08:45 AM - 09:45 AM	88.1	22.7	46.6	53.9	63.5	68.4	86.2	79.5	80.8	71.8	62.1	50.3
09:45 AM - 10:45 AM	87.5	22.8	46.5	53.8	63.5	68.3	85.0	79.8	81.2	71.9	62.0	50.1
10:45 AM - 11:45 AM	86.7	23.1	46.5	53.8	63.5	68.2	83.8	79.3	80.8	72.0	62.1	50.1
11:45 AM - 12:45 PM	86.7	22.5	46.8	53.9	63.7	68.3	84.1	79.4	80.0	71.9	62.1	50.3
12:45 PM - 01:45 PM	90.2	23.1	47.8	54.7	64.6	68.4	89.3	79.0	79.5	72.1	61.4	49.7
01:45 PM - 02:45 PM	90.6	22.7	46.9	54.2	64.2	68.4	89.8	78.4	79.5	71.9	60.7	48.9
02:45 PM - 03:45 PM	89.3	22.1	45.7	53.5	63.8	68.2	88.4	78.0	78.7	71.8	61.2	49.5
03:45 PM - 04:45 PM	89.2	22.2	46.2	53.9	63.3	68.0	87.9	78.4	80.8	71.7	61.4	49.7
Average	88.8	22.7	46.7	54.0	63.8	68.3	87.3	79.0	80.2	71.9	61.7	49.8

Reference Method : ANSI Standard S1.6-1984

Technical Management

Orawan R.
Orawan Rakyong
Scientist (3)

Approved by

Supot S.
Supot Salamteh
Section Head

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O : 4516885247
Project Name : Environmental Quality Monitoring
Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2571978
Date Received : Aug 22, 2025
Date Reported : Aug 29, 2025
Report Number : 3391416-1

Page 1 of 1

Sample Number 2571978-2
Parameter Noise (Octave band)
Location Solvent Recovery Unit 2
Measurement Date Aug 21, 2025
Measurement By Apichart Wilars

Time	Result (dB(A))											
	Leq	16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz
08:51 AM - 09:51 AM	82.5	26.7	44.7	52.8	63.9	69.3	76.0	77.8	76.9	71.7	63.1	50.4
09:51 AM - 10:51 AM	82.4	26.9	44.7	52.8	63.9	69.2	75.8	77.7	76.9	71.6	62.9	50.3
10:51 AM - 11:51 AM	82.8	26.1	44.7	52.8	63.9	69.2	76.0	78.2	77.4	71.9	63.0	50.3
11:51 AM - 12:51 PM	82.8	27.1	44.9	53.0	64.1	69.3	76.0	77.9	77.8	72.5	63.1	50.6
12:51 PM - 01:51 PM	83.6	27.2	45.4	53.3	64.5	69.2	75.7	78.1	79.6	73.7	61.7	49.3
01:51 PM - 02:51 PM	83.8	27.2	45.4	53.3	64.4	69.2	75.8	78.7	79.5	74.2	60.5	47.3
02:51 PM - 03:51 PM	83.2	27.1	45.2	53.2	64.4	69.0	75.6	78.2	78.5	73.3	61.4	48.5
03:51 PM - 04:51 PM	82.9	27.0	45.0	53.2	64.3	69.1	75.7	78.1	77.9	72.9	61.8	49.1
Average	83.0	26.9	45.0	53.1	64.2	69.2	75.8	78.1	78.2	72.8	62.3	49.6

Reference Method : ANSI Standard S1.6-1984

Technical Management

Orawan R.
Orawan Rakyong
Scientist (3)

Approved by

Supot S.
Supot Salamteh
Section Head

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590489

Date Received : Nov 07, 2025

Date Reported : Nov 15, 2025

Report Number : 3451418-1

Page 1 of 1

Sample Number 2590489-1
Parameter Noise (Octave band)
Location Solvent Recovery Unit 1
Measurement Date Nov 07, 2025
Measurement By Amnat Wongsakhen

Time	Result (dB(A))											
	Leq	16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz
08:34 AM - 09:34 AM	81.7	19.8	44.4	52.3	63.2	67.2	77.2	76.2	75.5	69.7	58.0	48.0
09:34 AM - 10:34 AM	82.8	20.0	44.5	52.5	63.0	67.5	79.7	76.5	75.3	69.6	57.8	48.0
10:34 AM - 11:34 AM	82.6	20.3	44.6	52.8	62.9	67.7	79.7	75.5	75.6	69.4	57.7	47.9
11:34 AM - 12:34 PM	83.6	20.5	44.9	52.9	62.6	67.7	81.1	75.4	76.6	69.3	57.6	47.8
12:34 PM - 01:34 PM	85.9	20.8	45.4	53.4	62.7	67.8	84.4	76.1	77.5	69.8	58.0	47.8
01:34 PM - 02:34 PM	84.8	21.8	45.5	53.7	63.0	67.9	82.6	76.2	77.6	69.7	57.7	47.9
02:34 PM - 03:34 PM	84.8	21.6	45.7	53.8	63.0	67.9	82.8	75.7	77.7	69.5	57.7	47.9
03:34 PM - 04:34 PM	84.4	22.1	46.4	54.6	64.7	69.5	81.5	77.3	77.4	71.2	59.5	49.7
Average	84.0	20.9	45.2	53.3	63.2	68.0	81.6	76.2	76.8	69.8	58.0	48.2

Reference Method : ANSI Standard S1.6-1984

Technical Management

Orawan R.
Orawan Rakyong
Scientist (3)

Approved by

Supot S.
Supot Salamteh
Section Head

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O : 4516885247

Project Name : Environmental Quality Monitoring

Project Location : Map Ta Phut_PE (SPE)

Lot ID: 2590489

Date Received : Nov 07, 2025

Date Reported : Nov 15, 2025

Report Number : 3451419-1

Page 1 of 1

Sample Number 2590489-2
Parameter Noise (Octave band)
Location Solvent Recovery Unit 2
Measurement Date Nov 07, 2025
Measurement By Amnat Wongsakhen

Time	Result (dB(A))											
	Leq	16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz
08:38 AM - 09:38 AM	89.2	27.2	45.1	52.6	64.5	69.8	76.5	79.8	80.6	74.6	65.6	48.8
09:38 AM - 10:38 AM	88.5	26.1	44.9	52.9	64.2	69.5	75.9	78.4	77.0	72.5	65.5	48.8
10:38 AM - 11:38 AM	88.5	26.0	44.8	52.6	64.1	69.5	75.9	78.5	77.3	72.3	65.3	48.7
11:38 AM - 12:38 PM	88.4	25.2	44.8	52.4	64.1	69.4	75.8	78.4	78.3	72.8	65.3	48.7
12:38 PM - 01:38 PM	88.5	26.6	44.9	52.6	64.1	69.3	75.7	78.2	78.6	73.0	65.4	48.7
01:38 PM - 02:38 PM	88.6	26.8	45.0	52.8	64.1	69.5	75.7	78.4	78.3	73.2	65.5	48.8
02:38 PM - 03:38 PM	88.6	26.4	44.9	52.8	64.1	69.6	75.8	78.6	77.9	72.9	65.6	48.8
03:38 PM - 04:38 PM	88.8	26.9	45.2	52.9	64.4	69.6	76.0	78.5	78.9	73.3	65.7	49.0
Average	88.6	26.4	45.0	52.7	64.2	69.5	75.9	78.6	78.5	73.1	65.5	48.8

Reference Method : ANSI Standard S1.6-1984

Technical Management

Orawan R.
Orawan Rakyong
Scientist (3)

Approved by

Supot S.
Supot Salamteh
Section Head

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ภาคผนวก ค-8

ระดับเสียงสะสมที่ตัวบุคคล (Noise Dose)

แบบรายงานผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงาน
เกี่ยวกับความเสี่ยง แสงสว่าง และเสียงภายในสถานประกอบการ
ตามข้อ ๑๕ แห่งกฎกระทรวงกำหนดมาตรฐานในการบริหาร จัดการ และดำเนินการด้านความปลอดภัย
อาชีวอนามัย และสภาพแวดล้อมในการทำงานเกี่ยวกับความเสี่ยง แสงสว่าง และเสียง พ.ศ. ๒๕๕๙

๑. ชื่อผู้จ้าง (นาย/นาง/นางสาว) นายจ้างผู้มีอำนาจกระทำการแทน

๒. ชื่อสถานประกอบการ บริษัท สยามวิทย์เพคเกจจิง จำกัด เลขทะเบียนนิติบุคคล 0105538145319

ประเภทกิจการ นักการตลาดดิจิทัล

ตั้งอยู่ที่ 8/1 หมู่ที่ - ตระกวดน้อย - ถนน 19-กิโลเมตรสายเกษตรกรรมทางทิศ

ด้านถนน มานาคู อำเภอหนอง เมืองระยอง จังหวัด ระยอง รหัสไปรษณีย์ 21150

โทรศัพท์ 0-3867-3000 โทรสาร 0-3868-3991 โทรศัพท์มือถือ -

๓. การดำเนินการตรวจวัดและวิเคราะห์ผลการปฏิบัติงาน

☒ บุคคลที่รับผิดชอบเจ้าหน้าที่ความปลอดภัยในการปฏิบัติงานระดับวิชาชีพ หรือบุคคลผู้เข้าการศึกษา
ไม่ต่ำกว่าปริญญาตรีสาขาวิชาชีพอาชีวอนามัยหรือเทียบเท่าที่รับผิดชอบเจ้าหน้าที่ความปลอดภัยในการปฏิบัติงาน
ของสถานประกอบการ เป็นผู้ดำเนินการเอง (แนบสำเนาเอกสารการขึ้นทะเบียน และสำเนาวุฒิการศึกษา
หรือเทียบเท่าความถูกต้อง)

ชื่อ-นามสกุลผู้ดำเนินการ ตรวจวัดและวิเคราะห์ผลการปฏิบัติงาน	ประเภท ของเจ้าหน้าที่ความปลอดภัยในการปฏิบัติงาน	เลขทะเบียน เจ้าหน้าที่ความปลอดภัยในการปฏิบัติงาน
	เจ้าหน้าที่ความปลอดภัย ระดับวิชาชีพ	05-221-2566-000906

- รายการผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงาน
- ☐ แผนรายงานผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงานเกี่ยวกับความเสี่ยง (แนบ รสค. ๑)
- ☐ แผนรายงานผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงานเกี่ยวกับแสงสว่าง (แนบ รสค. ๒)
- ☒ แผนรายงานผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงานเกี่ยวกับเสียง (แนบ รสค. ๓)

☐ บุคคลที่ได้รับใบขึ้นทะเบียนตามมาตรา ๙ หรือมีคุณสมบัติที่ได้รับใบอนุญาตตามมาตรา ๑๑
แต่กระทำการโดยไม่ปฏิบัติตามข้อกำหนดอาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๕๙
(แนบสำเนาเอกสารใบขึ้นทะเบียนในสมุดตามมาตรา ๙ หรือมาตรา ๑๑ หรือเทียบเท่าความถูกต้อง)

ชื่อ-นามสกุล บุคคลหรือมีใบขึ้นทะเบียนผู้ดำเนินการ ตรวจวัดและวิเคราะห์ผลการปฏิบัติงาน	เลขที่ใบขึ้นทะเบียนเลขที่ใบอนุญาต	ระยะเวลาที่ได้รับ การขึ้นทะเบียนและได้รับใบอนุญาต ตั้งแต่วันที่ ถึง วันที่
๑)		

หมายเหตุ: สามารถเพิ่มบุคคลหรือมีใบขึ้นทะเบียนผู้ดำเนินการตรวจวัดและวิเคราะห์ผลการปฏิบัติงานในลำดับในตาราง

- รายการผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงาน
- ☐ แผนรายงานผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงานเกี่ยวกับความเสี่ยง (แนบ รสค. ๑)
- ☐ แผนรายงานผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงานเกี่ยวกับแสงสว่าง (แนบ รสค. ๒)
- ☐ แผนรายงานผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงานเกี่ยวกับเสียง (แนบ รสค. ๓)

ลงชื่อ _____ ลงชื่อ _____

บุคคลหรือมีใบขึ้นทะเบียนผู้ดำเนินการตรวจวัดและวิเคราะห์ผลการปฏิบัติงาน นายจ้างผู้มีอำนาจกระทำการแทน

General Business

แบบ รสค. ๓

แบบรายงานผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงานเกี่ยวกับเสียง

๑. วัน เดือน ปี ที่ตรวจวัด 21 - 25 กันยายน 2568
๒. เครื่องมือที่ใช้ในการตรวจวัด (กรณีที่ใช้เครื่องตรวจวัดมากกว่า ๑ เครื่อง ให้เพิ่มชื่อรุ่นเป็นลำดับในตาราง)

ชนิดอุปกรณ์เครื่องตรวจวัด ระดับความดังเสียง (SLM/Noise Dosimeter)	ชื่อรุ่น	หมายเลขเครื่อง (Serial Number)	มาตรฐานเครื่อง	วัน/เดือน/ปี ปรับปรุงความถูกต้อง	หมายเหตุ
๑) Noise Dose Meter	QUEST / NP-DL	EYY030018	IEC 651 - 1979	9 มิถุนายน 2568	

๓. อุปกรณ์ที่ใช้ในการปรับเทียบความถูกต้องของเครื่องมือตรวจวัดระดับความดังเสียง

อุปกรณ์ปรับเทียบความถูกต้อง	ชื่อรุ่น	หมายเลขเครื่อง (Serial Number)	มาตรฐานเครื่อง	หมายเหตุ
๑) Sound calibrator	QUEST/CC-10	QIC100060	ANSI S1.40-1984 และ IEC 942-1988 Class 1	

๔. ผลการตรวจวัดและวิเคราะห์ผลการปฏิบัติงานเกี่ยวกับเสียงด้วยเครื่องตรวจวัดระดับความดังเสียง Sound Level Meter (SLM)

ลำดับ ของ SEG ^๑	บริเวณที่ทำการตรวจวัด ^๒	ชื่อ-นามสกุลของลูกจ้าง ในเครื่อง SEG	ระยะเวลาการปฏิบัติงาน ของพนักงาน (ชั่วโมง/นาที)	พื้นที่ทำงาน ^๓	ผลการตรวจวัดระดับความดังเสียง		ระดับเสียงเฉลี่ย TWA ๘ ชั่วโมง ^๔ (dBA)	ผลการประเมิน ๕ (ระบุว่าเป็นเกณฑ์ ไม่เกินเกณฑ์)	ข้อเสนอแนะ และวิธีการปรับปรุงแก้ไข ^๕
					ความดังเสียง (dBA)	ระยะเวลาการตรวจวัด (ชั่วโมง/นาที)			
-	-	-	-	-	-	-	-	-	-

- หมายเหตุ: ๑) SEG หรือ Similar Exposure Group หมายถึง กลุ่มปฏิบัติงานซึ่งสัมผัสผลการปฏิบัติงานเกี่ยวกับระดับความดังเสียงเหมือนกัน คือ ลักษณะงานที่ทำ ที่มีการทำงานเกี่ยวกับปัจจัยเสี่ยงเหมือนกัน
- ๒) บริเวณที่ทำการตรวจวัด ให้จัดทำแผนที่พื้นที่ดำเนินการตรวจวัดระดับความดังเสียงเป็นเอกสารแนบ
- ๓) กรณีที่พนักงานสัมผัสเสียงทั้งในบริเวณตรวจวัดหลายจุดทำงาน (หลายสถานที่งาน พื้นที่ทำงาน) สามารถเพิ่มแผนที่พื้นที่ทำงานในตารางได้
- ๔) ระดับเสียงเฉลี่ย TWA ๘ ชั่วโมง (dBA) ที่ผู้ปฏิบัติงานสัมผัสก่อนมากกว่าวันละระดับเสียงที่สัมผัสในผู้สัมผัสส่วนใหญ่มากกว่า ๑๖ ชั่วโมงต่อสัปดาห์
- ๕) ผลการประเมินใช้เกณฑ์มาตรฐานความปลอดภัยตามประกาศกรมสวัสดิการและคุ้มครองแรงงาน เรื่อง มาตรฐานระดับเสียงที่ยอมรับได้ของเสียงที่ต่อเนื่องให้ลูกจ้างได้รับเสียงเฉลี่ยต่อระยะเวลาการทำงานในแต่ละวัน ลงวันที่ ๑๓ ธันวาคม พ.ศ. ๒๕๖๐ ข้อ ๓
- ๖) กรณีผลการประเมินเกินเกณฑ์มาตรฐานให้ระบุข้อเสนอแนะและวิธีการปรับปรุงแก้ไข โดยสามารถจัดทำเป็นเอกสารแนบได้

ลงชื่อ _____

บุคคลหรือมีใบขึ้นทะเบียนผู้ดำเนินการตรวจวัดและวิเคราะห์ผลการปฏิบัติงาน

ลงชื่อ _____

นายจ้างผู้มีอำนาจกระทำการแทน

General Business

๕ ผลการตรวจวัดและวิเคราะห์ผลการทำงานเกี่ยวกับเสียงด้วยเครื่องตรวจวัดระดับความดังเสียง (Noise Dosimeter)

ลำดับ ของ SEG ^๑	บริเวณที่ทำการตรวจวัด	ชื่อ-นามสกุลของลูกจ้าง ในแต่ละ SEG	ระยะเวลาการปฏิบัติงาน ขณะปฏิบัติงาน (ชั่วโมง/นาที)	ผลการตรวจวัดระดับความดังเสียง		ระดับเสียงเฉลี่ย TWA ๘ ชั่วโมง ^๒ (dBA)	ผลการประเมิน ^๓ (ระบุว่าเป็นปกติ/ ไม่เป็นปกติ)	ข้อเสนอแนะ และวิธีการปรับปรุงแก้ไข ^๔
				ระยะเวลาการตรวจวัด (ชั่วโมง/นาที)	ปริมาณเสียงสะสม (D) เปอร์เซ็นต์ (%)			
๑	FE Operator-General 12 hour exposure at Train 1	รายละเอียดตามเอกสารแนบ ๑	720 นาที	679 นาที	48.9	81.9	ไม่เป็นปกติ	
๒	FE Operator-General 12 hour exposure at Train 2		720 นาที	710 นาที	52.3	82.2	ไม่เป็นปกติ	

- หมายเหตุ ๑) SEG หรือ Similar Exposure Group หมายถึง กลุ่มผู้ปฏิบัติงานซึ่งมีผลการการทำงานเกี่ยวกับระดับความดังเสียงเหมือนกัน คือ ลักษณะงานที่ทำ พื้นที่การทำงานเกี่ยวกับปัจจัยเสียงเหมือนกัน
- ๒) ระดับเสียงเฉลี่ย TWA ๘ ชั่วโมง (dBA) ที่ผู้ปฏิบัติงานสัมผัสก่อนการคำนวณระดับเสียงที่สัมผัสกันในชุดเครื่องมือได้ถูกแปลงเป็นค่าความลดออกด้วยส่วนบุคคล
- ๓) ผลการประเมินให้เกณฑ์มาตรฐานความปลอดภัยตามประกาศกรมสวัสดิการและคุ้มครองแรงงาน เรื่อง มาตรฐานระดับเสียงที่ยอมรับได้ถูกอ้างอิงใช้กับเฉลี่ยตลอดระยะเวลาการตรวจวัดที่ ๑๓ ธันวาคม พ.ศ. ๒๕๖๐ หรือ ๓ ชั่วโมงในแต่ละวัน
- ๔) กรณีผลการประเมินเกินเกณฑ์มาตรฐานไม่ใช่ว่าข้อเสนอแนะและวิธีการปรับปรุงแก้ไข โดยสามารถจัดทำเป็นเอกสารแนบได้

ลงชื่อ _____
บุคคลหรือนิติบุคคลผู้ดำเนินการตรวจวัดและวิเคราะห์ผลการการทำงาน

ลงชื่อ _____
นายจ้างผู้มีอำนาจกระทำการแทน

General Business

แบบรายงานผลการตรวจวัดและวิเคราะห์ผลการการทำงาน
เกี่ยวกับความร้อน แสงสว่าง และเสียงภายในสถานประกอบการ
ตามข้อ ๑๕ แห่งกฎกระทรวงกำหนดมาตรฐานในการบริหาร จัดการ และดำเนินการด้านความปลอดภัย
อาชีวอนามัย และสภาพแวดล้อมในการทำงานเกี่ยวกับความ ร้อน แสงสว่าง และเสียง พ.ศ. ๒๕๕๔

๑. จ้างจ้าง (นายจ้าง/นางสาว) _____ นายจ้างผู้มีอำนาจกระทำการแทน

๒. ชื่อสถานประกอบการ บริษัท สยามโพลีเอทิลีน จำกัด

เลขทะเบียนนิติบุคคล 0105538145319

ประเภทกิจการ เม็ดพลาสติกโพลีเอทิลีน

ตั้งอยู่ที่	8/1 หมู่ที่ ๖ ต.ระยอง	จังหวัด	ระยอง	ไอ-ซี นิคมอุตสาหกรรมมาบตาพุด
ดำเนินการ	มาบตาพุด	อำเภอ	ระยอง	รหัสไปรษณีย์ 21150
โทรศัพท์	0-3867-3000	โทรสาร	0-3868-3991	โทรศัพท์มือถือ -

๓. ผลการตรวจวัดและวิเคราะห์ผลการการทำงาน
- ☒ บุคคลที่รับขึ้นทะเบียนเข้าทำงานเพื่อความปลอดภัยในการทำงานระดับวิชาชีพ หรือบุคคลผู้เข้าศึกษา
ไม่ต่ำกว่าปริญญาตรีสาขาอาชีวอนามัยหรือความปลอดภัยในการทำงาน หรือเข้าศึกษาเพื่อความปลอดภัยในการทำงาน
ของสถานประกอบการ เป็นผู้ดำเนินการเอง (แนบสำเนาเอกสารขึ้นทะเบียน และสำเนาวุฒิการศึกษา
พร้อมรับรองความถูกต้อง)

ชื่อ-นามสกุลผู้ดำเนินการ ตรวจวัดและวิเคราะห์ผลการการทำงาน	ประเภท	เลขทะเบียน
_____	เจ้าหน้าที่ความปลอดภัยในการทำงาน	เจ้าหน้าที่ความปลอดภัยในการทำงาน
_____	เจ้าหน้าที่ความปลอดภัย ระดับวิชาชีพ	05-221-2566-000606

รายการผลการตรวจวัดและวิเคราะห์ผลการการทำงาน

- ☐ แบบรายงานผลการตรวจวัดและวิเคราะห์ผลการการทำงานเกี่ยวกับความร้อน (แบบ ร.ส.ส. ๑)
- ☐ แบบรายงานผลการตรวจวัดและวิเคราะห์ผลการการทำงานเกี่ยวกับแสงสว่าง (แบบ ร.ส.ส. ๒)
- ☒ แบบรายงานผลการตรวจวัดและวิเคราะห์ผลการการทำงานเกี่ยวกับเสียง (แบบ ร.ส.ส. ๓)

- ☐ บุคคลที่ได้รับขึ้นทะเบียนตามมาตรา ๔ หรือนิติบุคคลที่ได้รับใบอนุญาตตามมาตรา ๑๑
แห่งพระราชบัญญัติความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๕๔
(แนบสำเนาเอกสารขึ้นทะเบียน/ใบอนุญาตตามมาตรา ๔ หรือมาตรา ๑๑ พร้อมรับรองความถูกต้อง)

ชื่อ-นามสกุล บุคคลหรือนิติบุคคลผู้ดำเนินการ ตรวจวัดและวิเคราะห์ผลการการทำงาน	เลขที่ขึ้นทะเบียนเลขที่ใบอนุญาต	ระยะเวลาที่ได้รับ การขึ้นทะเบียนและได้รับใบอนุญาต ตั้งแต่บัดนี้ถึง วันที่ เดือน ปี
๑) _____	_____	_____

หมายเหตุ: สามารถเพิ่มบุคคลหรือนิติบุคคลผู้ดำเนินการตรวจวัดและวิเคราะห์ผลการการทำงานเป็นลำดับในตาราง

รายการผลการตรวจวัดและวิเคราะห์ผลการการทำงาน

- ☐ แบบรายงานผลการตรวจวัดและวิเคราะห์ผลการการทำงานเกี่ยวกับความร้อน (แบบ ร.ส.ส. ๑)
- ☐ แบบรายงานผลการตรวจวัดและวิเคราะห์ผลการการทำงานเกี่ยวกับแสงสว่าง (แบบ ร.ส.ส. ๒)
- ☐ แบบรายงานผลการตรวจวัดและวิเคราะห์ผลการการทำงานเกี่ยวกับเสียง (แบบ ร.ส.ส. ๓)

ลงชื่อ _____
บุคคลหรือนิติบุคคลผู้ดำเนินการตรวจวัดและวิเคราะห์ผลการการทำงาน

ลงชื่อ _____
นายจ้างผู้มีอำนาจกระทำการแทน

General Business

แบบรายงานผลการตรวจวัดและวิเคราะห์ผลการทำงานเกี่ยวกับเสียง

๑. วัน เดือน ปี ที่ตรวจวัด 3 - 4 พฤศจิกายน 2568

๒. เครื่องมือที่ใช้ในการตรวจวัด (กรณีที่ใช้เครื่องตรวจวัดมากกว่า ๑ เครื่อง ให้เพิ่มข้อมูลเป็นลำดับในตาราง)

ชนิดประเภทเครื่องตรวจวัด ระดับความดังเสียง (SLM/Noise Dosimeter)	ยี่ห้อ/รุ่น	หมายเลขเครื่อง (Serial Number)	มาตรฐานเครื่อง	วันเดือนปี (เปรียบเทียบความถูกต้อง)	หมายเหตุ
๑) Noise Dose Meter	TSI QUEST EDGAP-NB-D	EYY030018	IEC 651 - 1979	๑ มิถุนายน 2568	

๓. อุปกรณ์ที่ใช้ในการเปรียบเทียบความถูกต้องของเครื่องมือตรวจวัดระดับความดังเสียง

อุปกรณ์เปรียบเทียบความถูกต้อง	ยี่ห้อ/รุ่น	หมายเลขเครื่อง (Serial Number)	มาตรฐานเครื่อง	หมายเหตุ
๑) Sound calibrator	TSI QUEST AC-300	AC300017760	ANSI S1.40-1984 และ IEC 942:1988 Class 1	

๔. ผลการตรวจวัดและวิเคราะห์ผลการทำงานเกี่ยวกับเสียงด้วยเครื่องตรวจวัดระดับความดังเสียง Sound Level Meter (SLM)

ลำดับ เรียง SEQ ^๑	บริเวณที่ทำการตรวจวัด ^๒	ชื่อ-นามสกุลของลูกจ้าง ในแต่ละ SEG	ระยะเวลาการปฏิบัติงาน ของพนักงาน (ชั่วโมง/นาที)	พื้นที่ทำงาน ^๓	ผลการตรวจวัดระดับความดังเสียง		ระดับเสียงเฉลี่ย TWA ๘ ชั่วโมง ^๕ (dBA)	ผลการประเมิน ๕ (ระบุว่าเป็นเกณฑ์/ ไม่เป็นเกณฑ์)	ข้อเสนอแนะ และวิธีการปรับปรุงแก้ไข ^๖
					ความดังเสียง (dBA)	ระยะเวลาการตรวจวัด (ชั่วโมง/นาที)			
-	-	-	-	-	-	-	-	-	-

- หมายเหตุ ๑) SEG หรือ Similar Exposure Group หมายถึง กลุ่มผู้ปฏิบัติงานซึ่งสัมผัสสภาพการทำงานเกี่ยวกับระดับความดังเสียงเหมือนกัน คือ ลักษณะงานที่ทำ พื้นที่การทำงานเกี่ยวกับปัจจัยเสียงเหมือนกัน
- ๒) บริเวณที่ทำการตรวจวัด ให้จัดทำแผนผังพื้นที่ที่ดำเนินการตรวจวัดระดับความดังเสียงเป็นเอกสารแนบ
- ๓) กรณีที่พนักงานสัมผัสเสียงดังไม่บริเวณตรวจวัดหลายจุดทำงาน (หลายสถานีงานพื้นที่ทำงาน) สามารถเพิ่มผังพื้นที่ทำงานในตารางได้
- ๔) ระดับเสียงเฉลี่ย TWA ๘ ชั่วโมง (dBA) ที่ผู้ปฏิบัติงานสัมผัสก่อนการคำนวณระดับเสียงที่สัมผัสในสมมติฐานใส่อุปกรณ์คุ้มครองความปลอดภัยส่วนบุคคล
- ๕) ผลการประเมินใช้เกณฑ์มาตรฐานความปลอดภัยตามประกาศกรมสวัสดิการและคุ้มครองแรงงาน เรื่อง มาตรฐานระดับเสียงที่ยอมให้ลูกจ้างได้รับเฉลี่ยตลอดระยะเวลาทำงานในแต่ละวัน ลงวันที่ ๑๓ ธันวาคม พ.ศ. ๒๕๖๐ ข้อ ๓
- ๖) กรณีผลการประเมินเกินเกณฑ์มาตรฐานให้ระบุข้อเสนอแนะและวิธีการปรับปรุงแก้ไข โดยสามารถจัดทำเป็นเอกสารแนบได้

ลงชื่อ _____
บุคคลหรือนิติบุคคลผู้ดำเนินการตรวจวัดและวิเคราะห์ผลการทำงาน

ลงชื่อ _____
นายจ้าง/ผู้มีอำนาจกระทำการแทน

General Business

๕. ผลการตรวจวัดและวิเคราะห์ผลการทำงานเกี่ยวกับเสียงด้วยเครื่องตรวจวัดระดับความดังเสียง (Noise Dosimeter)

ลำดับ เรียง SEQ ^๑	บริเวณที่ทำการตรวจวัด ^๒	ชื่อ-นามสกุลของลูกจ้าง ในแต่ละ SEG	ระยะเวลาการปฏิบัติงาน ของพนักงาน (ชั่วโมง/นาที)	ผลการตรวจวัดระดับความดังเสียง		ระดับเสียงเฉลี่ย TWA ๘ ชั่วโมง ^๕ (dBA)	ผลการประเมิน ^๖ (ระบุว่าเป็นเกณฑ์/ ไม่เป็นเกณฑ์)	ข้อเสนอแนะ และวิธีการปรับปรุงแก้ไข ^๖
				ระยะเวลาการตรวจวัด (ชั่วโมง/นาที)	ปริมาณเสียงสะสม (D) เปอร์เซ็นต์ (%)			
๑	PE Operator-General 12 hour exposure at Train 1	รายละเอียดตามเอกสารแนบ ๕	720 นาที	654 นาที	36.2	80.8	ไม่เป็นเกณฑ์	
๒	PE Operator-General 12 hour exposure at Train 2		720 นาที	655 นาที	63.7	83.0	ไม่เป็นเกณฑ์	

- หมายเหตุ ๑) SEG หรือ Similar Exposure Group หมายถึง กลุ่มผู้ปฏิบัติงานซึ่งสัมผัสสภาพการทำงานเกี่ยวกับระดับความดังเสียงเหมือนกัน คือ ลักษณะงานที่ทำ พื้นที่การทำงานเกี่ยวกับปัจจัยเสียงเหมือนกัน
- ๒) ระดับเสียงเฉลี่ย TWA ๘ ชั่วโมง (dBA) ที่ผู้ปฏิบัติงานสัมผัสก่อนการคำนวณระดับเสียงที่สัมผัสในสมมติฐานใส่อุปกรณ์คุ้มครองความปลอดภัยส่วนบุคคล
- ๓) ผลการประเมินใช้เกณฑ์มาตรฐานความปลอดภัยตามประกาศกรมสวัสดิการและคุ้มครองแรงงาน เรื่อง มาตรฐานระดับเสียงที่ยอมให้ลูกจ้างได้รับเฉลี่ยตลอดระยะเวลาการลงวันที่ ๑๓ ธันวาคม พ.ศ. ๒๕๖๐ ข้อ ๓ ทำงานในแต่ละวัน
- ๔) กรณีผลการประเมินเกินเกณฑ์มาตรฐานให้ระบุข้อเสนอแนะและวิธีการปรับปรุงแก้ไข โดยสามารถจัดทำเป็นเอกสารแนบได้

ลงชื่อ _____
บุคคลหรือนิติบุคคลผู้ดำเนินการตรวจวัดและวิเคราะห์ผลการทำงาน

ลงชื่อ _____
นายจ้าง/ผู้มีอำนาจกระทำการแทน

General Business

ภาคผนวก ค-9

คุณภาพน้ำทิ้ง



Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150

P/O : 4516885733

Project Name : Water Testing

Project Location : Map Ta Phut_Latex (SSLC)



TESTING

No.0042

Lot ID: 2560079

Date Received : Jul 02, 2025

Date Reported : Jul 11, 2025

Report Number : 3341467-1

Page 1 of 2

Sample Number	2560079-1						
Sampled Date	Jul 02, 2025 9:25 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Jul 02, 2025						
Condition of Sample	Contained in two glass vials, two amber glass bottles 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	<2.0	≤20	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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	23	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	21	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.6	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	-	-	32.4	≤40	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	472	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.8	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part NH3 (D)	Rayong

Technical Management

Photchanas

Photchanas Seeda

Scientist (4)

หมายเลขโทรศัพท์ 3-323-3-0028

Approved by

D. Chongchon

Dej Changchon

Senior Manager

หมายเลขโทรศัพท์ 3-323-3-0001

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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7780-61/ EMAIL



Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150

P/O : 4516885733

Project Name : Water Testing

Project Location : Map Ta Phut_Latex (SSLC)



TESTING

No.0042

Lot ID: 2560079

Date Received : Jul 02, 2025

Date Reported : Jul 11, 2025

Report Number : 3341467-1

Page 2 of 2

Sample Number	2560079-1						
Sampled Date	Jul 02, 2025 9:25 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Jul 02, 2025						
Condition of Sample	Contained in two glass vials, two amber glass bottles 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							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2560079-1) is 16.7 mg/L

Sampling By : Wanlop Hunchainaw ทนายณเดช 3-323-3-0038 , Pattarapol Sawangjaitam ทนายณเดช 3-204-3-0002

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

Photchanas

Photchanas Seeda

Scientist (4)

หมายเลขโทรศัพท์ 3-323-3-0028

Approved by

D. Chongchon

Dej Changchon

Senior Manager

หมายเลขโทรศัพท์ 3-323-3-0001

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 : Siam Synthetic Latex Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150

P/O : 4516885733

Project Name : Water Testing

Project Location: Map Ta Phut_Latex (SSLC)

Lot ID: 2560079

Date Received : Jul 02, 2025

Date Reported : Jul 11, 2025

Report Number : 3341467-2

Page 1 of 1

Sample Number	2560079-1						
Sampled Date	Jul 02, 2025 9:25 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Jul 04, 2025						
Condition of Sample	Contained in two glass vials, two amber glass bottles 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							
Total Organic Carbon	mg/L	0.01	0.1	5.69	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Wanlop Hunchainaow , Pattarapol Sawangjaitam

Remark :

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

Approved by

Suwimon C.

Suwimon Chairuangwut
Scientist (3)

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 : Siam Synthetic Latex Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150

P/O : 4516885733

Project Name : Water Testing

Project Location: Map Ta Phut_Latex (SSLC)



TESTING

No.0042

Lot ID: 2571001

Date Received : Aug 06, 2025

Date Reported : Aug 15, 2025

Report Number : 3369062-1

Page 1 of 2

Sample Number	2571001-1						
Sampled Date	Aug 06, 2025 9:00 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Aug 06, 2025						
Condition of Sample	Contained in two glass vials, two amber glass bottles 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	<2.0	≤20	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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	24	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	22	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.5	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	-	-	33.1	≤40	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	484	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	3.1	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part NH3 (D)	Rayong

Technical Management

Photchana S.

Photchana Seeda
Scientist (4)
โทรศัพท์ 7-323-9-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
โทรศัพท์ 7-323-9-0001

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 : Siam Synthetic Latex Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150
P/O : 4516885733
Project Name : Water Testing
Project Location: Map Ta Phut_Latex (SSLC)



TESTING
No.0042
Lot ID: 2571001
Date Received : Aug 06, 2025
Date Reported : Aug 15, 2025
Report Number : 3369062-1

Page 2 of 2

Sample Number 2571001-1
Sampled Date Aug 06, 2025 9:00 AM
Sample Description Wastewater
Location Domestic Outlet
Date Analysis Commenced Aug 06, 2025
Condition of Sample Contained in two glass vials, two amber glass bottles 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							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2571001) is 23.9 mg/L

Sampling By : Surawit Narapong ทะระณนลพ 3-323-3-0011, Pattarapol Sawangjaitam ทะระณนลพ 3-204-3-0002

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

Photchanas

Photchana Seeda
Scientist (4)
ทะระณนลพ 3-323-3-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะระณนลพ 3-323-3-0001

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150
P/O : 4516885733
Project Name : Water Testing
Project Location: Map Ta Phut_Latex (SSLC)

Lot ID: 2571001
Date Received : Aug 06, 2025
Date Reported : Aug 15, 2025
Report Number : 3369062-2

Page 1 of 1

Sample Number 2571001-1
Sampled Date Aug 06, 2025 9:00 AM
Sample Description Wastewater
Location Domestic Outlet
Date Analysis Commenced Aug 09, 2025
Condition of Sample Contained in two glass vials, two amber glass bottles 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							
Total Organic Carbon	mg/L	0.01	0.1	5.24	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2571001) is 23.9 mg/L

Sampling By : Surawit Narapong , Pattarapol Sawangjaitam

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

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Approved by

Suwimon C.

Suwimon Chairuangwut
Scientist (3)

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150
P/O : 4516885733
Project Name : Water Testing
Project Location : Map Ta Phut_Latex (SSLC)



TESTING
No.0042
Lot ID: 2580191
Date Received : Sep 03, 2025
Date Reported : Sep 11, 2025
Report Number : 3390292-1

Page 1 of 2

Sample Number	2580191-1						
Sampled Date	Sep 03, 2025 9:26 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Sep 03, 2025						
Condition of Sample	Contained in two glass vials, 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	<2.0	≤20	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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	31	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	29	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.5	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	-	-	32.2	≤40	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 Kjeldahl Nitrogen as N	mg/L	-	1.0	1.5	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part NH3 (D)	Rayong

Technical Management

Photchana S

Photchana Seeda
Scientist (4)
หมายเลขโทรศัพท์ 3-323-3-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
หมายเลขโทรศัพท์ 3-323-3-0001

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150
P/O : 4516885733
Project Name : Water Testing
Project Location : Map Ta Phut_Latex (SSLC)



TESTING
No.0042
Lot ID: 2580191
Date Received : Sep 03, 2025
Date Reported : Sep 11, 2025
Report Number : 3390292-1

Page 2 of 2

Sample Number	2580191-1						
Sampled Date	Sep 03, 2025 9:26 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Sep 03, 2025						
Condition of Sample	Contained in two glass vials, 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							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D.	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2580191-1) is 14.0 mg/L

Sampling By : Surawit Narapong หมายเลขโทรศัพท์ 3-323-3-0011 , Thanasoun Namakunna หมายเลขโทรศัพท์ 3-204-3-0101

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)
หมายเลขโทรศัพท์ 3-323-3-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
หมายเลขโทรศัพท์ 3-323-3-0001

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150

P/O : 4516885733

Project Name : Water Testing

Project Location : Map Ta Phut_Latex (SSLC)

Lot ID: 2580191

Date Received : Sep 03, 2025

Date Reported : Sep 11, 2025

Report Number : 3390292-2

Page 1 of 1

Sample Number	2580191-1						
Sampled Date	Sep 03, 2025 9:26 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Sep 08, 2025						
Condition of Sample	Contained in two glass vials, 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							
Total Organic Carbon	mg/L	0.01	0.1	6.00	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Surawit Narapong , Thanasoun Namakunna

Remark :

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

Approved by

Suwimon C.

Suwimon Chairuangwut
Scientist (3)

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150

P/O : 4516885733

Project Name : Water Testing

Project Location : Map Ta Phut_Latex (SSLC)



TESTING

No.0042

Lot ID: 2589053

Date Received : Oct 01, 2025

Date Reported : Oct 09, 2025

Report Number : 3411863-1

Page 1 of 2

Sample Number	2589053-1						
Sampled Date	Oct 01, 2025 10:10 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Oct 01, 2025						
Condition of Sample	Contained in one amber glass bottle, two glass vials 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	<2.0	≤20	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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	23	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	21	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.6	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	-	-	30.3	≤40	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	532	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	3.0	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part NH3 (D)	Rayong

Technical Management

Photchana S.

Photchana Seeda
Scientist (4)
โทรศัพท์ 7-323-9-0028

Approved by

D. Chongchon

Dej Chongchon
Senior Manager
โทรศัพท์ 7-323-9-0001

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150
P/O : 4516885733
Project Name : Water Testing
Project Location: Map Ta Phut_Latex (SSLC)



TESTING
No.0042
Lot ID: 2589053
Date Received : Oct 01, 2025
Date Reported : Oct 09, 2025
Report Number : 3411863-1

Page 2 of 2

Sample Number	2589053-1						
Sampled Date	Oct 01, 2025 10:10 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Oct 01, 2025						
Condition of Sample	Contained in one amber glass bottle, two glass vials 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							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2589053-1) is 15.9 mg/L

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-๓๒๓-๖-๐๐๓๘ , Pattarapol Sawangjaitam ทะเบียนเลขที่ ๖-๒๐๔-๖-๐๐๐๒

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

Photchanas

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ๖-๓๒๓-๖-๐๐๒๘

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ๖-๓๒๓-๖-๐๐๐๑

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150
P/O : 4516885733
Project Name : Water Testing
Project Location: Map Ta Phut_Latex (SSLC)

Lot ID: 2589053
Date Received : Oct 01, 2025
Date Reported : Oct 09, 2025
Report Number : 3411863-2

Page 1 of 1

Sample Number	2589053-1						
Sampled Date	Oct 01, 2025 10:10 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Oct 04, 2025						
Condition of Sample	Contained in one amber glass bottle, two glass vials 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							
Total Organic Carbon	mg/L	0.01	0.1	5.68	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Wanlop Hunchainaow , Pattarapol Sawangjaitam

Remark :
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Approved by

Suwimon C.

Suwimon Chairuangwut
Scientist (3)

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.
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P/O : 4516885733
Project Name : Water Testing
Project Location : Map Ta Phut_Latex (SSLC)



TESTING
No.0042
Lot ID: 2598215
Date Received : Nov 05, 2025
Date Reported : Nov 13, 2025
Report Number : 3433846-1

Page 1 of 2

Sample Number	2598215-1						
Sampled Date	Nov 05, 2025 9:45 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Nov 05, 2025						
Condition of Sample	Contained in two glass vials, two amber glass bottles 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	<2.0	≤20	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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	22	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	21	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	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	-	-	29.9	≤40	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	456	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.3	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part NH3 (D)	Rayong

Technical Management

Photchanas

Photchanas Seeda
Scientist (4)
หมายเลขโทรศัพท์ 7-323-9-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
หมายเลขโทรศัพท์ 7-323-9-0001

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150
P/O : 4516885733
Project Name : Water Testing
Project Location : Map Ta Phut_Latex (SSLC)



TESTING
No.0042
Lot ID: 2598215
Date Received : Nov 05, 2025
Date Reported : Nov 13, 2025
Report Number : 3433846-1

Page 2 of 2

Sample Number	2598215-1						
Sampled Date	Nov 05, 2025 9:45 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Nov 05, 2025						
Condition of Sample	Contained in two glass vials, two amber glass bottles 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							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2598215-1) is 13.1 mg/L

Sampling By : Wanlop Hunchainao วนลอปหุณชัยนาถ 7-323-9-0038

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

Photchanas

Photchanas Seeda
Scientist (4)
หมายเลขโทรศัพท์ 7-323-9-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
หมายเลขโทรศัพท์ 7-323-9-0001

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150

P/O : 4516885733

Project Name : Water Testing

Project Location : Map Ta Phut_Latex (SSLC)

Lot ID: 2598215

Date Received : Nov 05, 2025

Date Reported : Nov 13, 2025

Report Number : 3433846-2

Page 1 of 1

Sample Number	2598215-1
Sampled Date	Nov 05, 2025 9:45 AM
Sample Description	Wastewater
Location	Domestic Outlet
Date Analysis Commenced	Nov 07, 2025
Condition of Sample	Contained in two glass vials, two amber glass bottles 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							
Total Organic Carbon	mg/L	0.01	0.1	5.60	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2598215-1) is 13.1 mg/L

Sampling By : Wanlop Hunchainaow , Pattarapol Sawangjaitam

Remark :

- LOD : Limit of Detection

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

Approved by

Suwimon C.

Suwimon Chairuangwut
Scientist (3)

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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7780-61/ EMAIL



Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.

8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150

P/O : 4516885733

Project Name : Water Testing

Project Location : Map Ta Phut_Latex (SSLC)



TESTING

No.0042

Lot ID: 25107578

Date Received : Dec 03, 2025

Date Reported : Dec 13, 2025

Report Number : 3457467-1

Page 1 of 2

Sample Number	25107578-1
Sampled Date	Dec 03, 2025 9:20 AM
Sample Description	Wastewater
Location	Domestic Outlet
Date Analysis Commenced	Dec 03, 2025
Condition of Sample	Contained in one amber glass bottle, two glass vials 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	<2.0	≤20	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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	26	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	25	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	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	-	-	30.0	≤40	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	512	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.6	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part NH3 (D)	Rayong

Technical Management

Photchana S.

Photchana Seeda
Scientist (4)

เบอร์โทรศัพท์ 7-323-9-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager

เบอร์โทรศัพท์ 7-323-9-0001

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150
P/O : 4516885733
Project Name : Water Testing
Project Location: Map Ta Phut_Latex (SSLC)



TESTING
No.0042
Lot ID: 25107578
Date Received : Dec 03, 2025
Date Reported : Dec 13, 2025
Report Number : 3457467-1

Page 2 of 2

Sample Number	25107578-1						
Sampled Date	Dec 03, 2025 9:20 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Dec 03, 2025						
Condition of Sample	Contained in one amber glass bottle, two glass vials 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							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 25107578-1) is 9.3 mg/L

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ 7-323-ก-0038 , Thanasoun Namakunna ทะเบียนเลขที่ 7-204-ก-0101

Remark :
- LOD : Limit of Detection
- "<" : 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

Photchanas

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ 7-323-ก-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ 7-323-ก-0001

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Analysis / Test Report

Client : Siam Synthetic Latex Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Map ta phut, Muang, Rayong Thailand 21150
P/O : 4516885733
Project Name : Water Testing
Project Location: Map Ta Phut_Latex (SSLC)

Lot ID: 25107578
Date Received : Dec 03, 2025
Date Reported : Dec 13, 2025
Report Number : 3457467-2

Page 1 of 1

Sample Number	25107578-1						
Sampled Date	Dec 03, 2025 9:20 AM						
Sample Description	Wastewater						
Location	Domestic Outlet						
Date Analysis Commenced	Dec 06, 2025						
Condition of Sample	Contained in one amber glass bottle, two glass vials 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							
Total Organic Carbon	mg/L	0.01	0.1	5.33	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 25107578-1) is 9.3 mg/L

Sampling By : Wanlop Hunchainaow , Thanasoun Namakunna

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

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Approved by

Nant Somb

Nanthawadee Somboon
Specialist 2

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042
Lot ID: 2560076
Date Received : Jul 02, 2025
Date Reported : Jul 11, 2025
Report Number : 3341461-1 C1

Page 1 of 2

Sample Number	2560076-1
Sampled Date	Jul 02, 2025 10:15 AM
Sample Description	Wastewater
Location	Outfall
Date Analysis Commenced	Jul 02, 2025
Condition of Sample	Contained in six glass vials, two amber glass bottles and seven 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	<2.0	≤20	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	<25	≤120	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	14	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	13	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	8.2	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	-	-	31.7	≤40	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	800	≤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	≤50	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Technical Management

Photchanas

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ 7-323-ก-0028

Approved by

D. Chuan

Dej Changchon
Senior Manager
ทะเบียนเลขที่ 7-323-ก-0001

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042
Lot ID: 2560076
Date Received : Jul 02, 2025
Date Reported : Jul 11, 2025
Report Number : 3341461-1 C1

Page 2 of 2

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2560076-1) is 24.4 mg/L

Sampled By : Wanlop Hunchainaow ทะเบียนเลขที่ 7-323-ก-0038 , Pattarapol Sawangjaitam ทะเบียนเลขที่ 7-204-ก-0002

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

Photchanas

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ 7-323-ก-0028

Approved by

D. Chuan

Dej Changchon
Senior Manager
ทะเบียนเลขที่ 7-323-ก-0001

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0009
Lot ID: 2560076
Date Received : Jul 02, 2025
Date Reported : Jul 11, 2025
Report Number : 3341461-3 C1

Page 1 of 1

Sample Number	2560076-1
Sampled Date	Jul 02, 2025 10:15 AM
Sample Description	Wastewater
Location	Outfall
Date Analysis Commenced	Jul 03, 2025
Condition of Sample	Contained in six glass vials, two amber glass bottles and seven plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Volatile Organics Compounds							
Benzene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Styrene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Water Testing							
Total Organic Carbon *	mg/L	0.01	0.1	13.2	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2560076-1) is 24.4 mg/L

Sampled By : Wanlop Hunchainaow , Pattarapol Sawangjaitam

Remark :

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

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Approved by

Sawitree N.

Sawitree Noisangiam
Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042
Lot ID: 2570997
Date Received : Aug 06, 2025
Date Reported : Dec 25, 2025
Report Number : 3369060-1 Rev. No.1 C1

Page 1 of 2

Sample Number	2570997-1
Sampled Date	Aug 06, 2025 9:48 AM
Sample Description	Wastewater
Location	Outfall
Date Analysis Commenced	Aug 06, 2025
Condition of Sample	Contained in six glass vials, two amber glass bottles and seven 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	<2.0	≤20	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	42	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	8	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	8	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	8.0	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	≤40	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	924	≤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	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Technical Management

Photchana S

Photchana Seeda
Scientist (4)

ทะเบียนเลขที่ ๖-323-๖-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ๖-323-๖-0001

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name :

Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042

Lot ID: 2570997

Date Received : Aug 06, 2025

Date Reported : Dec 25, 2025

Report Number : 3369060-1 Rev. No.1 C1

Page 2 of 2

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : This Analysis test report is reissued to supersede report No.3369060-3, Date Reported : Aug 15, 2025 due to revise sample information.

Sampled By : Surawit Narapong ทะเบียนเลขที่ ๖-323-๖-0011 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ๖-204-๖-0002

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 ๖-323-๖-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ๖-323-๖-0001

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name :

Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0009

Lot ID: 2570997

Date Received : Aug 06, 2025

Date Reported : Dec 25, 2025

Report Number : 3369060-3 Rev. No.1 C1

Page 1 of 1

Sample Number 2570997-1
Sampled Date Aug 06, 2025 9:48 AM
Sample Description Wastewater
Location Outfall
Date Analysis Commenced Aug 08, 2025
Condition of Sample Contained in six glass vials, two amber glass bottles and seven plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Volatile Organics Compounds							
Benzene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Styrene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Water Testing							
Total Organic Carbon *	mg/L	0.01	0.1	14.9	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : This Analysis test report is reissued to supersede report No.3369060-3, Date Reported : Aug 15, 2025 due to revise sample information.

Sampled By : Surawit Narapong , Pattarapol Sawangjaitam

Remark :

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

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042
Lot ID: 2580184
Date Received : Sep 03, 2025
Date Reported : Sep 13, 2025
Report Number : 3390250-1 C1

Page 1 of 2

Sample Number	2580184-1						
Sampled Date	Sep 03, 2025 10:21 AM						
Sample Description	Wastewater						
Location	Outfall						
Date Analysis Commenced	Sep 03, 2025						
Condition of Sample	Contained in six glass vials, three amber glass bottles and eight 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	<2.0	≤20	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	28	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	11	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	9	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.9	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	≤40	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	792	≤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	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Technical Management

Photchana S

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ๖-323-๖-0028

Approved by

D. Chuan

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ๖-323-๖-0001

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042
Lot ID: 2580184
Date Received : Sep 03, 2025
Date Reported : Sep 13, 2025
Report Number : 3390250-1 C1

Page 2 of 2

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampled By : Surawit Narapong ทะเบียนเลขที่ ๖-323-๖-0011 , Thanasoun Namakunna ทะเบียนเลขที่ ๖-204-๖-0101

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 ๖-323-๖-0028

Approved by

D. Chuan

Dej Changchon
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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0009
Lot ID: 2580184
Date Received : Sep 03, 2025
Date Reported : Sep 13, 2025
Report Number : 3390250-3 C1

Page 1 of 1

Sample Number	2580184-1
Sampled Date	Sep 03, 2025 10:21 AM
Sample Description	Wastewater
Location	Outfall
Date Analysis Commenced	Sep 04, 2025
Condition of Sample	Contained in six glass vials, three amber glass bottles and eight plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Volatile Organics Compounds							
Benzene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Styrene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Water Testing							
Total Organic Carbon *	mg/L	0.01	0.1	11.8	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampled By : Surawit Narapong , Thanasoun Namakunna

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

Approved by

Sawitree N.

Sawitree Noisangiam
Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042
Lot ID: 2589050
Date Received : Oct 01, 2025
Date Reported : Dec 25, 2025
Report Number : 3411858-1 C1

Page 1 of 2

Sample Number	2589050-1
Sampled Date	Oct 01, 2025 10:50 AM
Sample Description	Wastewater
Location	Outfall
Date Analysis Commenced	Oct 01, 2025
Condition of Sample	Contained in six glass vials, two amber glass bottles and seven 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	<2.0	≤20	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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	8	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	6	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	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	-	-	33.4	≤40	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	440	≤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	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Technical Management

Photchana S.

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ๖-323-๖-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ๖-323-๖-0001

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name :

Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042

Lot ID: 2589050

Date Received : Oct 01, 2025

Date Reported : Dec 25, 2025

Report Number : 3411858-1 C1

Page 2 of 2

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2589050-1) is 23.5 mg/L

Sampled By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-323-๖-0038 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ๖-204-๖-0002

Remark :

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

Technical Management

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Photchana Seeda
Scientist (4)

ทะเบียนเลขที่ ๖-323-๖-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ๖-323-๖-0001

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name :

Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0009

Lot ID: 2589050

Date Received : Oct 01, 2025

Date Reported : Dec 25, 2025

Report Number : 3411858-3 C1

Page 1 of 1

Sample Number : 2589050-1
Sampled Date : Oct 01, 2025 10:50 AM
Sample Description : Wastewater
Location : Outfall
Date Analysis Commenced : Oct 02, 2025
Condition of Sample : Contained in six glass vials, two amber glass bottles and seven plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Volatile Organics Compounds							
Benzene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Styrene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Water Testing							
Total Organic Carbon *	mg/L	0.01	0.1	8.04	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2589050-1) is 23.5 mg/L

Sampled By : Wanlop Hunchainaow , Pattarapol Sawangjaitam

Remark :

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

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042
Lot ID: 2598212
Date Received : Nov 05, 2025
Date Reported : Nov 14, 2025
Report Number : 3433844-1 C1

Page 1 of 2

Sample Number	2598212-1						
Sampled Date	Nov 05, 2025 10:05 AM						
Sample Description	Wastewater						
Location	Outfall						
Date Analysis Commenced	Nov 05, 2025						
Condition of Sample	Contained in four glass vials, two amber glass bottles and seven 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	<2.0	≤20	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	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	16	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	14	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.5	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	-	-	34.6	≤40	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	640	≤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	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Technical Management

Photchanas

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ 7-323-ก-0028

Approved by

D. Chuan

Dej Changchon
Senior Manager
ทะเบียนเลขที่ 7-323-ก-0001

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150
P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042
Lot ID: 2598212
Date Received : Nov 05, 2025
Date Reported : Nov 14, 2025
Report Number : 3433844-1 C1

Page 2 of 2

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2598212-1) is 15.6 mg/L

Sampled By : Wanlop Hunchainaow ทะเบียนเลขที่ 7-323-ก-0038 , Pattarapol Sawangjaitam ทะเบียนเลขที่ 7-204-ก-0002

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

Photchanas

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ 7-323-ก-0028

Approved by

D. Chuan

Dej Changchon
Senior Manager
ทะเบียนเลขที่ 7-323-ก-0001

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0009
Lot ID: 2598212
Date Received : Nov 05, 2025
Date Reported : Nov 14, 2025
Report Number : 3433844-3 C1

Page 1 of 1

Sample Number	2598212-1						
Sampled Date	Nov 05, 2025 10:05 AM						
Sample Description	Wastewater						
Location	Outfall						
Date Analysis Commenced	Nov 06, 2025						
Condition of Sample	Contained in four glass vials, two amber glass bottles and seven plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Volatile Organics Compounds							
Benzene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Styrene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Water Testing							
Total Organic Carbon *	mg/L	0.01	0.1	11.9	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Raw data of COD value (Refer to Lot ID 2598212-1) is 15.6 mg/L

Sampled By : Wanlop Hunchainaw , Pattarapol Sawangjaitam

Remark :

- LOD : Limit of Detection
- "<" : 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

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Approved by

Sawitree N.

Sawitree Noisangiam
Manager

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Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :
Project Name :
Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042
Lot ID: 25107575
Date Received : Dec 03, 2025
Date Reported : Dec 25, 2025
Report Number : 3457463-1 C1

Page 1 of 2

Sample Number	25107575-1						
Sampled Date	Dec 03, 2025 10:41 AM						
Sample Description	Wastewater						
Location	Outfall						
Date Analysis Commenced	Dec 03, 2025						
Condition of Sample	Contained in six glass vials, two amber glass bottles and seven 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	<2.0	≤20	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	31	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	16	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	16	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	7.9	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	-	-	30.5	≤40	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	940	≤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	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Technical Management

Photchana S

Photchana Seeda
Scientist (4)

ทะเบียนเลขที่ ๖-323-๖-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ๖-323-๖-0001

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6506-102/ EMAIL



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name :

Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0042

Lot ID: 25107575

Date Received : Dec 03, 2025

Date Reported : Dec 25, 2025

Report Number : 3457463-1 C1

Page 2 of 2

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampled By : Wanlop Hunchainaow ทะเบียนเลขที่ 7-323-3-0038 , Thanasoun Namakunna ทะเบียนเลขที่ 7-204-3-0101

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 7-323-3-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ 7-323-3-0001

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6506-102/ EMAIL



Analysis / Test Report

Client : Siam Polyethylene Co., Ltd.
8, Map Ta Phut Industrial Estate, I-4 Road, Muang, Rayong Thailand 21150

P/O :

Project Name :

Project Location: Map Ta Phut_PE (SPE)



TESTING
No.0009

Lot ID: 25107575

Date Received : Dec 03, 2025

Date Reported : Dec 25, 2025

Report Number : 3457463-3 C1

Page 1 of 1

Sample Number 25107575-1
Sampled Date Dec 03, 2025 10:41 AM
Sample Description Wastewater
Location Outfall
Date Analysis Commenced Dec 04, 2025
Condition of Sample Contained in six glass vials, two amber glass bottles and seven plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Volatile Organics Compounds							
Benzene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Styrene	ug/L	1.5	5	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok
Water Testing							
Total Organic Carbon *	mg/L	0.01	0.1	14.3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5310 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampled By : Wanlop Hunchainaow , Thanasoun Namakunna

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

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Approved by

Nant Somb

Nanthawadee Somborn
Specialist 2

ภาคผนวก ง

ใบรับรองการสอบเทียบเครื่องมือ



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1 shylohol.com



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2 stg.ihl.ac.cnDate: 23 Sep 29 Fuel Operator: Bathgorn 1.

Span (%) 25

NO. ANALYZER	DATE	TIME	ANALYST
1	10/10/2010	10:00	1000000000

[illegible]

	Cylinder Value	Initial Analyzers	Final Analyzers	Difference
--	----------------	-------------------	-----------------	------------

Calibrated by

Sathaporn, I

Environmental Field Scientist (3)



848

Date: 23 Sep 75

O_2/CO_2 Analyser Model	HORIBA PG-350
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Environmental Field Sci



EMISSION TEST RESULT

Client	Siem Polyethylene Co., Ltd.	Location	Run #	3
Date	23 Sep 25	Test Operator	furnace 1	
Start Time	12:51	Finish Time	Bathaporn T.	
NO Analyzer Model	-	Serial No.	13.11	
NO _x Analyzer Model	HORIBA PG-350	Serial No.	TD8ARGP	
CO/CO ₂ Analyzer Model	HORIBA PG-350	Serial No.	TD8ARGP	

Time (min)	O ₂ (%)	CO ₂ (%)	NO _x (ppm)	SO ₂ (ppm)	CO (ppm)	Remark
12:51	9.57	8.54	15.11	5.74	-	
12:52	9.58	8.54	15.21	-	5.14	
12:53	9.70	8.50	14.72	-	5.07	
12:54	9.71	8.49	14.57	-	5.12	
12:55	9.89	8.71	14.89	-	5.12	
12:56	9.92	8.71	14.99	-	5.14	
12:57	9.09	8.69	14.67	-	5.05	
12:58	9.89	8.71	14.85	-	5.04	
12:59	9.87	8.92	14.89	-	5.06	
13:00	9.94	9.02	14.72	-	5.04	
13:01	9.57	8.97	14.62	-	5.05	
13:02	9.74	8.88	14.35	-	5.11	
13:03	9.88	8.76	14.25	-	5.04	
13:04	9.57	8.99	14.49	-	5.75	
13:05	9.47	9.22	14.23	-	5.54	
13:06	9.70	8.89	14.03	-	5.19	
13:07	9.70	8.80	14.20	-	5.19	
13:08	9.49	9.02	14.25	-	5.34	
13:09	9.58	9.03	14.24	-	5.24	
13:10	9.71	8.99	14.25	-	5.23	
13:11	9.69	9.00	14.37	-	5.21	
Average	9.77	8.85	14.61	-	5.75	

Sathaporn T.

(M. Sathaporn Thakue)

Environmental Field Scientist (2)

FORM NO. 7 (REV. 2) REVISION NO. 1 ISSUE DATE: 1987-08

ALS Laboratory Group



SYSTEM CALIBRATION BIAS AND DRIFT DATA

Client	Siem Polyethylene Co., Ltd.	Location	Run #	3
Date	23 Sep 25	Test Operator	furnace 1	
O ₂ ANALYZER				
Cylinder Conc. (%)	19.07	Span (%)	25	

Time (min)	O ₂ Analyzer Calibration Response (%)	System Calibration Response (%)	System Calibration Response (%)	System Calibration Response (%)	System Calibration Response (%)	Drift (%)
Zero Gas	0.05	0.11	0.11	0.11	0.11	0.00
Span Gas	18.17	19.21	0.38	18.22	0.49	0.04

NO _x ANALYZER						
Cylinder Conc. (ppm)	82.51	Span (ppm)	180			

Time (min)	NO _x Analyzer Calibration Response (ppm)	System Calibration Response (ppm)	System Calibration Response (ppm)	System Calibration Response (ppm)	System Calibration Response (ppm)	Drift (%)
Zero Gas	0.10	0.10	0.10	0.10	0.10	0.00
Span Gas	81.83	82.33	0.29	82.25	0.37	0.05

CO ANALYZER						
Cylinder Conc. (ppm)	79.74	Span (ppm)	180			

Time (min)	CO Analyzer Calibration Response (ppm)	System Calibration Response (ppm)	System Calibration Response (ppm)	System Calibration Response (ppm)	System Calibration Response (ppm)	Drift (%)
Zero Gas	0.03	0.10	0.10	0.10	0.10	0.00
Span Gas	79.75	79.80	0.10	79.58	0.20	0.02

Sathaporn T.

(M. Sathaporn Thakue)

Environmental Field Scientist (2)

FORM NO. 7 (REV. 2) REVISION NO. 1 ISSUE DATE: 1987-08

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EMISSION TEST RESULT

Client	Siem Polyethylene Co., Ltd.	Location	Run #	3
Date	23 Sep 25	Test Operator	furnace 1	
Start Time	13:12	Finish Time	Bathaporn T.	
NO Analyzer Model	-	Serial No.	13.12	
NO _x Analyzer Model	HORIBA PG-350	Serial No.	TD8ARGP	
CO/CO ₂ Analyzer Model	HORIBA PG-350	Serial No.	TD8ARGP	

Time (min)	O ₂ (%)	CO ₂ (%)	NO _x (ppm)	SO ₂ (ppm)	CO (ppm)	Remark
13:12	9.37	9.10	14.59	-	5.39	
13:13	9.38	9.09	14.61	-	5.71	
13:14	9.70	8.89	14.72	-	5.05	
13:15	9.69	8.92	14.58	-	5.05	
13:16	9.58	9.10	14.62	-	5.39	
13:17	9.58	9.11	14.69	-	5.14	
13:18	9.63	8.97	14.58	-	6.19	
13:19	9.69	8.79	14.58	-	6.32	
13:20	9.69	8.94	14.79	-	6.05	
13:21	9.37	9.11	14.69	-	5.39	
13:22	9.47	9.09	14.72	-	5.14	
13:23	9.52	8.84	14.49	-	6.01	
13:24	9.74	8.88	14.71	-	5.09	
13:25	9.74	9.09	14.59	-	5.19	
13:26	9.44	9.09	14.72	-	5.54	
13:27	9.69	8.93	14.47	-	5.53	
13:28	9.69	8.89	14.40	-	5.04	
13:29	9.37	9.11	15.00	-	5.14	
13:30	9.25	9.21	14.60	-	5.19	
13:31	9.63	8.95	14.55	-	6.19	
13:32	9.71	8.93	14.52	-	5.54	
Average	9.59	8.99	14.63	-	5.69	

Sathaporn T.

(M. Sathaporn Thakue)

Environmental Field Scientist (2)

FORM NO. 7 (REV. 2) REVISION NO. 1 ISSUE DATE: 1987-08

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ANALYZER CALIBRATION DATA

Client	Siem Polyethylene Co., Ltd.	Location	Run #	3
Date	23 Sep 25	Test Operator	furnace 1	
O ₂ ANALYZER				
Model	HORIBA PG-350	Serial No.	TD8ARGP	
Span (%)	25			

Time (min)	Cylinder Value (%)	Initial Analyzers Calibration Response (%)	Final Analyzers Calibration Response (%)	Difference (Percent of Span)
Zero Gas	0.00	0.00	0.00	0.00
Low-Level Gas	9.70	9.70	9.80	0.00
Span Gas	19.07	18.12	18.13	0.04

NO _x ANALYZER				
Model	HORIBA PG-350	Serial No.	TD8ARGP	
Span (ppm)	180			

Time (min)	Cylinder Value (ppm)	Initial Analyzers Calibration Response (ppm)	Final Analyzers Calibration Response (ppm)	Difference (Percent of Span)
Zero Gas	0.00	0.10	0.10	0.00
Low-Level Gas	9.70	9.70	9.80	0.00
Span Gas	18.13	18.40	18.40	0.00

CO ANALYZER				
Model	HORIBA PG-350	Serial No.	TD8ARGP	
Span (ppm)	180			

Time (min)	Cylinder Value (ppm)	Initial Analyzers Calibration Response (ppm)	Final Analyzers Calibration Response (ppm)	Difference (Percent of Span)
Zero Gas	0.00	0.00	0.00	0.00
Low-Level Gas	9.70	9.70	9.80	0.00
Span Gas	79.74	79.75	79.75	0.00

Calibrated by

Sathaporn T.

(M. Sathaporn Thakue)

Environmental Field Scientist (2)

FORM NO. 7 (REV. 2) REVISION NO. 1 ISSUE DATE: 1987-08

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CEMs Data

Client Name	Siem Polyethylene Co., Ltd.	Date	23 Sep 25
Plant Name	Step 12 (PVC, 25 (25%))	Location	furnace 1
Run #	3	Test Operator	Bathaporn T.
Time (min)	13:12	Time (min)	13:12
Time (min)	13:13	Time (min)	13:13
Time (min)	13:14	Time (min)	13:14
Time (min)	13:15	Time (min)	13:15
Time (min)	13:16	Time (min)	13:16
Time (min)	13:17	Time (min)	13:17
Time (min)	13:18	Time (min)	13:18
Time (min)	13:19	Time (min)	13:19
Time (min)	13:20	Time (min)	13:20
Time (min)	13:21	Time (min)	13:21
Time (min)	13:22	Time (min)	13:22
Time (min)	13:23	Time (min)	13:23
Time (min)	13:24	Time (min)	13:24
Time (min)	13:25	Time (min)	13:25
Time (min)	13:26	Time (min)	13:26
Time (min)	13:27	Time (min)	13:27
Time (min)	13:28	Time (min)	13:28
Time (min)	13:29	Time (min)	13:29
Time (min)	13:30	Time (min)	13:30
Time (min)	13:31	Time (min)	13:31
Time (min)	13:32	Time (min)	13:32
Time (min)	13:33	Time (min)	13:33
Time (min)	13:34	Time (min)	13:34
Time (min)	13:35	Time (min)	13:35
Time (min)	13:36	Time (min)	13:36
Time (min)	13:37	Time (min)	13:37
Time (min)	13:38	Time (min)	13:38
Time (min)	13:39	Time (min)	13:39
Time (min)	13:40	Time (min)	13:40
Time (min)	13:41	Time (min)	13:41
Time (min)	13:42	Time (min)	13:42
Time (min)	13:43	Time (min)	13:43
Time (min)	13:44	Time (min)	13:44
Time (min)	13:45	Time (min)	13:45
Time (min)	13:46	Time (min)	13:46
Time (min)	13:47	Time (min)	13:47
Time (min)	13:48	Time (min)	13:48
Time (min)	13:49	Time (min)	13:49
Time (min)	13:50	Time (min)	13:50
Time (min)	13:51	Time (min)	13:51
Time (min)	13:52	Time (min)	13:52
Time (min)	13:53	Time (min)	13:53
Time (min)	13:54	Time (min)	13:54
Time (min)	13:55	Time (min)	13:55
Time (min)	13:56	Time (min)	13:56
Time (min)	13:57	Time (min)	13:57
Time (min)	13:58	Time (min)	13:58
Time (min)	13:59	Time (min)	13:59
Time (min)	14:00	Time (min)	14:00
Time (min)	14:01	Time (min)	14:01
Time (min)	14:02	Time (min)	14:02
Time (min)	14:03	Time (min)	14:03
Time (min)	14:04	Time (min)	14:04
Time (min)	14:05	Time (min)	14:05
Time (min)	14:06	Time (min)	14:06
Time (min)	14:07	Time (min)	14:07
Time (min)	14:08	Time (min)	14:08
Time (min)	14:09	Time (min)	14:09
Time (min)	14:10	Time (min)	14:10
Time (min)	14:11	Time (min)	14:11
Time (min)	14:12	Time (min)	14:12
Time (min)	14:13	Time (min)	14:13
Time (min)	14:14	Time (min)	14:14
Time (min)	14:15	Time (min)	14:15
Time (min)	14:16	Time (min)	14:16
Time (min)	14:17	Time (min)	14:17
Time (min)	14:18	Time (min)	14:18
Time (min)	14:19	Time (min)	14:19
Time (min)	14:20	Time (min)	14:20
Time (min)	14:21	Time (min)	14:21
Time (min)	14:22	Time (min)	14:22
Time (min)	14:23	Time (min)	14:23
Time (min)	14:24	Time (min)	14:24
Time (min)	14:25	Time (min)	14:25
Time (min)	14:26	Time (min)	14:26
Time (min)	14:27	Time (min)	14:27
Time (min)	14:28	Time (min)	14:28
Time (min)	14:29	Time (min)	14:29
Time (min)	14:30	Time (min)	14:30
Time (min)	14:31	Time (min)	14:31
Time (min)	14:32	Time (min)	14:32
Time (min)	14:33	Time (min)	14:33
Time (min)	14:34	Time (min)	14:34
Time (min)	14:35	Time (min)	14:35
Time (min)	14:36	Time (min)	14:36
Time (min)	14:37	Time (min)	14:37
Time (min)	14:38	Time (min)	14:38
Time (min)	14:39	Time (min)	14:39
Time (min)	14:40	Time (min)	14:40
Time (min)	14:41	Time (min)	14:41
Time (min)	14:42	Time (min)	14:42
Time (min)	14:43	Time (min)	14:43
Time (min)	14:44	Time (min)	14:44
Time (min)	14:45	Time (min)	14:45
Time (min)	14:46	Time (min)	14:46
Time (min)	14:47	Time (min)	14:47
Time (min)	14:48	Time (min)	14:48
Time (min)	14:49	Time (min)	14:49
Time (min)	14:50	Time (min)	14:50
Time (min)	14:51	Time (min)	14:51
Time (min)	14:52	Time (min)	14:52
Time (min)	14:53	Time (min)	14:53
Time (min)	14:54	Time (min)	14:54
Time (min)	14:55	Time (min)	14:55
Time (min)	14:56	Time (min)	14:56
Time (min)	14:57	Time (min)	14:57
Time (min)	14:58	Time (min)	14:58
Time (min)	14:59	Time (min)	14:59
Time (min)	15:00	Time (min)	15:00
Time (min)	15:01	Time (min)	15:01
Time (min)	15:02	Time (min)	15:02
Time (min)	15:03	Time (min)	15:03
Time (min)	15:04	Time (min)	15:04
Time (min)	15:05	Time (min)	15:05
Time (min)	15:06	Time (min)	15:06
Time (min)	15:07	Time (min)	15:07
Time (min)	15:08	Time (min)	15:08
Time (min)	15:09	Time (min)	15:09
Time (min)	15:10	Time (min)	15:10
Time (min)	15:11	Time (min)	15:11
Time (min)	15:12	Time (min)	15:12
Time (min)	15:13	Time (min)	15:13
Time (min)	15:14	Time (min)	15:14
Time (min)	15:15	Time (min)	15:15
Time (min)	15:16	Time (min)	15:16
Time (min)	15:17	Time (min)	15:17
Time (min)	15:18	Time (min)	15:18
Time (min)	15:19	Time (min)	15:19
Time (min)	15:		



Reference Method Data

Client Name		Date	
Siam Polyethylene Co., Ltd.		22 Sep 25	
Plant Name		Location	
Site 1 (C-1)		Furnace 2	
Run	Time	Temp	Flow
1	10:00	100	100
2	10:05	100	100
3	10:10	100	100
4	10:15	100	100
5	10:20	100	100
6	10:25	100	100
7	10:30	100	100
8	10:35	100	100
9	10:40	100	100
10	10:45	100	100
11	10:50	100	100
12	10:55	100	100
13	11:00	100	100
14	11:05	100	100
15	11:10	100	100
16	11:15	100	100
17	11:20	100	100
18	11:25	100	100
19	11:30	100	100
20	11:35	100	100
21	11:40	100	100
22	11:45	100	100
23	11:50	100	100
24	11:55	100	100
25	12:00	100	100
26	12:05	100	100
27	12:10	100	100
28	12:15	100	100
29	12:20	100	100
30	12:25	100	100
31	12:30	100	100
32	12:35	100	100
33	12:40	100	100
34	12:45	100	100
35	12:50	100	100
36	12:55	100	100
37	13:00	100	100
38	13:05	100	100
39	13:10	100	100
40	13:15	100	100
41	13:20	100	100
42	13:25	100	100
43	13:30	100	100
44	13:35	100	100
45	13:40	100	100
46	13:45	100	100
47	13:50	100	100
48	13:55	100	100
49	14:00	100	100
50	14:05	100	100
51	14:10	100	100
52	14:15	100	100
53	14:20	100	100
54	14:25	100	100
55	14:30	100	100
56	14:35	100	100
57	14:40	100	100
58	14:45	100	100
59	14:50	100	100
60	14:55	100	100
61	15:00	100	100
62	15:05	100	100
63	15:10	100	100
64	15:15	100	100
65	15:20	100	100
66	15:25	100	100
67	15:30	100	100
68	15:35	100	100
69	15:40	100	100
70	15:45	100	100
71	15:50	100	100
72	15:55	100	100
73	16:00	100	100
74	16:05	100	100
75	16:10	100	100
76	16:15	100	100
77	16:20	100	100
78	16:25	100	100
79	16:30	100	100
80	16:35	100	100
81	16:40	100	100
82	16:45	100	100
83	16:50	100	100
84	16:55	100	100
85	17:00	100	100
86	17:05	100	100
87	17:10	100	100
88	17:15	100	100
89	17:20	100	100
90	17:25	100	100
91	17:30	100	100
92	17:35	100	100
93	17:40	100	100
94	17:45	100	100
95	17:50	100	100
96	17:55	100	100
97	18:00	100	100
98	18:05	100	100
99	18:10	100	100
100	18:15	100	100



Reference Method Data

Client Name		Date	
Siam Polyethylene Co., Ltd.		22 Sep 25	
Plant Name		Location	
Site 1 (C-1)		Furnace 2	
Run	Time	Temp	Flow
1	10:00	100	100
2	10:05	100	100
3	10:10	100	100
4	10:15	100	100
5	10:20	100	100
6	10:25	100	100
7	10:30	100	100
8	10:35	100	100
9	10:40	100	100
10	10:45	100	100
11	10:50	100	100
12	10:55	100	100
13	11:00	100	100
14	11:05	100	100
15	11:10	100	100
16	11:15	100	100
17	11:20	100	100
18	11:25	100	100
19	11:30	100	100
20	11:35	100	100
21	11:40	100	100
22	11:45	100	100
23	11:50	100	100
24	11:55	100	100
25	12:00	100	100
26	12:05	100	100
27	12:10	100	100
28	12:15	100	100
29	12:20	100	100
30	12:25	100	100
31	12:30	100	100
32	12:35	100	100
33	12:40	100	100
34	12:45	100	100
35	12:50	100	100
36	12:55	100	100
37	13:00	100	100
38	13:05	100	100
39	13:10	100	100
40	13:15	100	100
41	13:20	100	100
42	13:25	100	100
43	13:30	100	100
44	13:35	100	100
45	13:40	100	100
46	13:45	100	100
47	13:50	100	100
48	13:55	100	100
49	14:00	100	100
50	14:05	100	100
51	14:10	100	100
52	14:15	100	100
53	14:20	100	100
54	14:25	100	100
55	14:30	100	100
56	14:35	100	100
57	14:40	100	100
58	14:45	100	100
59	14:50	100	100
60	14:55	100	100
61	15:00	100	100
62	15:05	100	100
63	15:10	100	100
64	15:15	100	100
65	15:20	100	100
66	15:25	100	100
67	15:30	100	100
68	15:35	100	100
69	15:40	100	100
70	15:45	100	100
71	15:50	100	100
72	15:55	100	100
73	16:00	100	100
74	16:05	100	100
75	16:10	100	100
76	16:15	100	100
77	16:20	100	100
78	16:25	100	100
79	16:30	100	100
80	16:35	100	100
81	16:40	100	100
82	16:45	100	100
83	16:50	100	100
84	16:55	100	100
85	17:00	100	100
86	17:05	100	100
87	17:10	100	100
88	17:15	100	100
89	17:20	100	100
90	17:25	100	100
91	17:30	100	100
92	17:35	100	100
93	17:40	100	100
94	17:45	100	100
95	17:50	100	100
96	17:55	100	100
97	18:00	100	100
98	18:05	100	100
99	18:10	100	100
100	18:15	100	100



ANALYZER CALIBRATION DATA

Client Name: Siam Polyethylene Co., Ltd. Location: Furnace 2
Date: 24 Sep 25 Test Operator: Sathaporn T.

O₂ ANALYZER
Model: HORIBA PG-350 Serial No.: TDBAR0KP
Span (%): 25

Cylinder Value (%)	Initial Analyzers Calibration Response (%)	Final Analyzers Calibration Response (%)	Difference (Percent of Span)
Zero Gas	0.00	0.00	0.00
Low-Level Gas	18.07	18.12	0.05
Span Gas	18.07	18.12	0.05

NO_x ANALYZER
Model: HORIBA PG-350 Serial No.: TDBAR0KP
Span (ppm): 100

Cylinder Value (ppm)	Initial Analyzers Calibration Response (ppm)	Final Analyzers Calibration Response (ppm)	Difference (Percent of Span)
Zero Gas	0.00	0.00	0.00
Low-Level Gas	10.00	10.00	0.00
Span Gas	10.00	10.00	0.00

CO ANALYZER
Model: HORIBA PG-350 Serial No.: TDBAR0KP
Span (ppm): 100

Cylinder Value (ppm)	Initial Analyzers Calibration Response (ppm)	Final Analyzers Calibration Response (ppm)	Difference (Percent of Span)
Zero Gas	0.00	0.00	0.00
Low-Level Gas	10.00	10.00	0.00
Span Gas	10.00	10.00	0.00

Calibrated by: Sathaporn T.
(M. Sathaporn Thakue)
Environmental Field Scientist (3)

FORM NO. 7-B-002 REVISION NO. 4 ISSUE DATE: 18/01/24
ALS Laboratory Group



SYSTEM CALIBRATION BIAS AND DRIFT DATA

Client Name: Siam Polyethylene Co., Ltd. Location: Furnace 2
Date: 24 Sep 25 Test Operator: Sathaporn T.

O₂ ANALYZER
Cylinder Conc. (%): 18.07 Span (%): 25

O ₂ Analyzer Calibration Response	System Calibration Response	System Calibration Response (% of Span)	System Calibration Response (% of Span)	System Calibration Response (% of Span)	Drift (% of Span)
Zero Gas	0.00	0.00	0.00	0.00	0.00
Span Gas	18.07	18.07	0.00	0.00	0.00

NO_x ANALYZER
Cylinder Conc. (ppm): 100 Span (ppm): 100

NO _x Analyzer Calibration Response	System Calibration Response	System Calibration Response (% of Span)	System Calibration Response (% of Span)	System Calibration Response (% of Span)	Drift (% of Span)
Zero Gas	0.00	0.00	0.00	0.00	0.00
Span Gas	10.00	10.00	0.00	0.00	0.00

CO ANALYZER
Cylinder Conc. (ppm): 100 Span (ppm): 100

CO Analyzer Calibration Response	System Calibration Response	System Calibration Response (% of Span)	System Calibration Response (% of Span)	System Calibration Response (% of Span)	Drift (% of Span)
Zero Gas	0.00	0.00	0.00	0.00	0.00
Span Gas	10.00	10.00	0.00	0.00	0.00

Calibrated by: Sathaporn T.
(M. Sathaporn Thakue)
Environmental Field Scientist (3)

FORM NO. 7-B-002 REVISION NO. 4 ISSUE DATE: 18/01/24
ALS Laboratory Group



EMISSION TEST RESULT

Client Name: Siam Polyethylene Co., Ltd. Run # 1
Date: 24 Sep 25 Location: Furnace 2
Test Operator: Sathaporn T.

NO_x ANALYZER Model: HORIBA PG-350 Serial No.: TDBAR0KP
CO/CO₂ ANALYZER Model: HORIBA PG-350 Serial No.: TDBAR0KP

Time (min)	O ₂ (%)	CO (%)	NO _x (ppm)	CO (ppm)	Remark
11:00	18.07	0.00	10.00	10.00	
11:01	18.07	0.00	10.00	10.00	
11:02	18.07	0.00	10.00	10.00	
11:03	18.07	0.00	10.00	10.00	
11:04	18.07	0.00	10.00	10.00	
11:05	18.07	0.00	10.00	10.00	
11:06	18.07	0.00	10.00	10.00	
11:07	18.07	0.00	10.00	10.00	
11:08	18.07	0.00	10.00	10.00	
11:09	18.07	0.00	10.00	10.00	
11:10	18.07	0.00	10.00	10.00	
11:11	18.07	0.00	10.00	10.00	
11:12	18.07	0.00	10.00	10.00	
11:13	18.07	0.00	10.00	10.00	
11:14	18.07	0.00	10.00	10.00	
11:15	18.07	0.00	10.00	10.00	
11:16	18.07	0.00	10.00	10.00	
11:17	18.07	0.00	10.00	10.00	
11:18	18.07	0.00	10.00	10.00	
11:19	18.07	0.00	10.00	10.00	
11:20	18.07	0.00	10.00	10.00	
Average	18.07	0.00	10.00	10.00	

Calibrated by: Sathaporn T.
(M. Sathaporn Thakue)
Environmental Field Scientist (3)

FORM NO. 7-B-002 REVISION NO. 4 ISSUE DATE: 18/01/24
ALS Laboratory Group





EMISSION TEST RESULT

Client	Blam Polyethylene Co., Ltd.	Run #	3
Date	24 Sep 25	Location	Furnace 2
Shift Time	17:42	Test Operator	Sathaporn T.
SO ₂ Analyzer Model	HORIBA PG-350	Serial No.	12182
NO _x /CO Analyzer Model	HORIBA PG-350	Serial No.	12182
CO/CO ₂ Analyzer Model	HORIBA PG-350	Serial No.	12182

Time (min)	O ₂ (%)	CO ₂ (%)	NO _x (ppm)	SO ₂ (ppm)	CO (ppm)	Remark
11:42	5.88	8.93	13.52	-	11.42	
11:43	5.90	8.92	13.51	-	11.42	
11:44	5.84	8.92	13.51	-	11.39	
11:45	5.90	8.92	13.48	-	11.39	
11:46	5.85	8.94	13.42	-	11.37	
11:47	5.82	8.95	13.41	-	11.38	
11:48	5.79	8.97	13.48	-	11.35	
11:49	5.83	8.97	13.42	-	11.33	
11:50	5.87	8.95	13.43	-	11.38	
11:51	5.85	8.95	13.41	-	11.37	
11:52	5.81	8.95	13.42	-	11.36	
11:53	5.82	8.95	13.48	-	11.38	
11:54	5.95	8.92	13.46	-	11.34	
11:55	5.94	8.95	13.45	-	11.37	
11:56	5.85	8.95	13.42	-	11.31	
11:57	5.82	8.94	13.45	-	11.36	
11:58	5.83	8.95	13.44	-	11.31	
11:59	5.81	8.95	13.41	-	11.32	
12:00	5.78	8.95	13.45	-	11.35	
12:01	5.73	8.79	13.48	-	11.33	
12:02	5.86	8.95	13.42	-	11.38	
Average	5.88	8.94	13.47	-	11.38	

Sathaporn.T

(Mr. Sathaporn Thakasee)

Environmental Field Scientist (3)

FORM NO. 7 (Rev.03) REVISION NO. 3 - ISSUE DATE: 18/04/24

ALS Laboratory Group



ANALYZER CALIBRATION DATA

Client	Blam Polyethylene Co., Ltd.	Location	Furnace 2
Date	24 Sep 25	Test Operator	Sathaporn T.
O ₂ ANALYZER Model	HORIBA PG-350	Serial No.	12182
Span (%)	25	Span (%)	25

Cylinder Value (%)	Initial Analyzers Calibration Response (%)	Final Analyzers Calibration Response (%)	Difference (Percent of Span)
Zero Gas	0.00	0.00	0.00
Low-Level Gas	8.18	8.25	0.07
Span Gas	16.07	16.17	0.10

NO _x ANALYZER Model	HORIBA PG-350	Serial No.	12182
Span (ppm)	100	Span (ppm)	100

Cylinder Value (ppm)	Initial Analyzers Calibration Response (ppm)	Final Analyzers Calibration Response (ppm)	Difference (Percent of Span)
Zero Gas	0.00	0.10	0.10
Low-Level Gas	20.57	20.67	0.10
Span Gas	80.51	80.40	-0.10

CO ANALYZER Model	HORIBA PG-350	Serial No.	12182
Span (ppm)	100	Span (ppm)	100

Cylinder Value (ppm)	Initial Analyzers Calibration Response (ppm)	Final Analyzers Calibration Response (ppm)	Difference (Percent of Span)
Zero Gas	0.00	0.00	0.00
Low-Level Gas	55.20	55.20	0.00
Span Gas	100.14	100.14	0.00

Calibrated by

Sathaporn.T

(Mr. Sathaporn Thakasee)

Environmental Field Scientist (3)

FORM NO. 7 (Rev.03) REVISION NO. 3 - ISSUE DATE: 18/04/24

ALS Laboratory Group



SYSTEM CALIBRATION BIAS AND DRIFT DATA

Client	Blam Polyethylene Co., Ltd.	Location	Furnace 2
Date	24 Sep 25	Test Operator	Sathaporn T.
O ₂ ANALYZER Cylinder Conc. (%)	18.87	Span (ppm)	25

O ₂ Analyzer Calibration Response	Initial Values System Calibration Response	System Calibration Response	System Calibration Response	System Calibration Response	Drift (% of Span)
Zero Gas	0.05	0.11	0.06	0.11	0.05
Span Gas	18.12	18.21	0.08	18.22	0.04

NO _x ANALYZER Cylinder Conc. (ppm)	52.51	Span (ppm)	100
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NO _x Analyzer Calibration Response	Initial Values System Calibration Response	System Calibration Response	System Calibration Response	System Calibration Response	Drift (% of Span)
Zero Gas	0.10	0.20	0.10	0.20	0.10
Span Gas	52.40	52.70	0.30	52.70	0.50

CO ANALYZER Cylinder Conc. (ppm)	79.74	Span (ppm)	100
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CO Analyzer Calibration Response	Initial Values System Calibration Response	System Calibration Response	System Calibration Response	System Calibration Response	Drift (% of Span)
Zero Gas	0.00	0.00	0.00	0.00	0.00
Span Gas	79.70	79.68	-0.02	79.70	0.02

Calibrated by

Sathaporn.T

(Mr. Sathaporn Thakasee)

Environmental Field Scientist (3)

FORM NO. 7 (Rev.03) REVISION NO. 4 - ISSUE DATE: 18/04/24

ALS Laboratory Group



CEMs Data

Client Name	Blam Polyethylene Co., Ltd.	Date	24 Sep 25										
Plant Name	Step 17 (HV, 20 (C))	Location	Furnace 2										
Run No.	1	Time Span	21 min										
Time	min	sec	min	sec	min	sec	min	sec	min	sec	min	sec	
01:40:00	11:10	5.88	8.93	13.52	-	11.42	01:40:00	11:10	5.88	8.93	13.52	-	11.42
01:40:01	11:11	5.88	8.93	13.52	-	11.42	01:40:01	11:11	5.88	8.93	13.52	-	11.42
01:40:02	11:12	5.88	8.93	13.52	-	11.42	01:40:02	11:12	5.88	8.93	13.52	-	11.42
01:40:03	11:13	5.88	8.93	13.52	-	11.42	01:40:03	11:13	5.88	8.93	13.52	-	11.42
01:40:04	11:14	5.88	8.93	13.52	-	11.42	01:40:04	11:14	5.88	8.93	13.52	-	11.42
01:40:05	11:15	5.88	8.93	13.52	-	11.42	01:40:05	11:15	5.88	8.93	13.52	-	11.42
01:40:06	11:16	5.88	8.93	13.52	-	11.42	01:40:06	11:16	5.88	8.93	13.52	-	11.42
01:40:07	11:17	5.88	8.93	13.52	-	11.42	01:40:07	11:17	5.88	8.93	13.52	-	11.42
01:40:08	11:18	5.88	8.93	13.52	-	11.42	01:40:08	11:18	5.88	8.93	13.52	-	11.42
01:40:09	11:19	5.88	8.93	13.52	-	11.42	01:40:09	11:19	5.88	8.93	13.52	-	11.42
01:40:10	11:20	5.88	8.93	13.52	-	11.42	01:40:10	11:20	5.88	8.93	13.52	-	11.42
01:40:11	11:21	5.88	8.93	13.52	-	11.42	01:40:11	11:21	5.88	8.93	13.52	-	11.42
01:40:12	11:22	5.88	8.93	13.52	-	11.42	01:40:12	11:22	5.88	8.93	13.52	-	11.42
01:40:13	11:23	5.88	8.93	13.52	-	11.42	01:40:13	11:23	5.88	8.93	13.52	-	11.42
01:40:14	11:24	5.88	8.93	13.52	-	11.42	01:40:14	11:24	5.88	8.93	13.52	-	11.42
01:40:15	11:25	5.88	8.93	13.52	-	11.42	01:40:15	11:25	5.88	8.93	13.52	-	11.42
01:40:16	11:26	5.88	8.93	13.52	-	11.42	01:40:16	11:26	5.88	8.93	13.52	-	11.42
01:40:17	11:27	5.88	8.93	13.52	-	11.42	01:40:17	11:27	5.88	8.93	13.52	-	11.42
01:40:18	11:28	5.88	8.93	13.52	-	11.42	01:40:18	11:28	5.88	8.93	13.52	-	11.42
01:40:19	11:29	5.88	8.93	13.52	-	11.42	01:40:19	11:29	5.88	8.93	13.52	-	11.42
01:40:20	11:30	5.88	8.93	13.52	-	11.42	01:40:20	11:30	5.88	8.93	13.52	-	11.42
01:40:21	11:31	5.88	8.93	13.52	-	11.42	01:40:21	11:31	5.88	8.93	13.52	-	11.42
01:40:22	11:32	5.88	8.93	13.52	-	11.42	01:40:22	11:32	5.88	8.93	13.52	-	11.42
01:40:23	11:33	5.88	8.93	13.52	-	11.42	01:40:23	11:33	5.88	8.93	13.52	-	11.42
01:40:24	11:34	5.88	8.93	13.52	-	11.42	01:40:24	11:34	5.88	8.93	13.52	-	11.42
01:40:25	11:35	5.88	8.93	13.52	-	11.42	01:40:25	11:35	5.88	8.93	13.52	-	11.42
01:40:26	11:36	5.88	8.93	13.52	-	11.42	01:40:26	11:36	5.88	8.93	13.52	-	11.42
01:40:27	11:37	5.88	8.93	13.52	-	11.42	01:40:27	11:37	5.88	8.93	13.52	-	11.42
01:40:28	11:38	5.88	8.93	13.52	-	11.42	01:40:28	11:38	5.88	8.93	13.52	-	11.42
01:40:29	11:39	5.88	8.93	13.52	-	11.42	01:40:29	11:39	5.88	8.93	13.52	-	11.42
01:40:30	11:40	5.88	8.93	13.52	-	11.42	01:40:30	11:40	5.88	8.93	13.52	-	11.42
01:40:31	11:41	5.88	8.93	13.52	-	11.42	01:40:31	11:41	5.88	8.93	13.52	-	11.42
01:40:32	11:42	5.88	8.93	13.52	-	11.42	01:40:32	11:42	5.88	8.93	13.52	-	11.42
01:40:33	11:43	5.88	8.93	13.52	-	11.42	01:40:33	11:43	5.88	8.93	13.52	-	11.42
01:40:34	11:44	5.88	8.93	13.52	-	11.42	01:40:34	11:44	5.88	8.93	13.52	-	11.42
01:40:35	11:45	5.88	8.93	13.52	-	11.42	01:40:35	11:45	5.88	8.93	13.52	-	11.42
01:40:36	11:46	5.88	8.93	13.52	-	11.42	01:40:36	11:46	5.88	8.93	13.52	-	11.42
01:40:37	11:47	5.88	8.93	13.52	-	11.42	01:40:37	11:47	5.88	8.93	13.52	-	11.42
01:40:38	11:48	5.88	8.93	13.52	-	11.42	01:40:38	11:48	5.88	8.93	13.52	-	11.42
01:40:39	11:49	5.88	8.93	13.52	-	11.42	01:40:39	11:49	5.88	8.93	13.52	-	11.42
01:40:40	11:50	5.88	8.93	13.52	-	11.42	01:40:40	11:50	5.88	8.93	13.52	-	11.42
01:40:41	11:51	5.88	8.93	13.52	-	11.42	01:40:41	11:51	5.88	8.93	13.52	-	11.42
01:40:42	11:52	5.88	8.93	13.52	-	11.42	01:40:42	11:52	5.88	8.93	13.52	-	11.42
01:40:43	11:53	5.88	8.93	13.52	-	11.42	01:40:43	11:53	5.88	8.93	13.52	-	11.42
01:40:44	11:54	5.88	8.93	13.52	-	11.42	01:40:44	11:54	5.88	8.93	13.52	-	11.42
01:40:45	11:55	5.88	8.93	13.52	-	11.42	01:40:45	11:55	5.88	8.93	13.52	-	11.42
01:40:46	11:56	5.88	8.93	13.52	-	11.42	01:40:46	11:56	5.88	8.93	13.52	-	11.42
01:40:47	11:57	5.88	8.93	13.52	-	11.42	01:40:47	11:57	5.88	8.93	13.52	-	11.42
01:40:48	11:58	5.88	8.93	13.52	-	11.42	01:40:48	11:58	5.88	8.93	13.52	-	11.42
01:40:49	11:59	5.88	8.93	13.52	-	11.42	01:40:49	11:59	5.88	8.93	13.52	-	11.42
01:40:50	12:00	5.88	8.93	13.52	-	11.42	01:40:50	12:00	5.88	8.93	13.52	-	11.42
01:40:51	12:01	5.88	8.93	13.52	-	11.42	01:40:51	12:01	5.88	8.93	13.52	-	11.42
01:40:52	12:02	5.88	8.93	13.52	-	11.42	01:40:52	12:02	5.88	8.93	13.52	-	11.42
01:40:53	12:03	5.88	8.93	13.52	-	11.42	01:40:53	12:03	5.88	8.93	13.52	-	11.42
01:40:54	12:04	5.88	8.93	13.52	-	11.42							

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CENSA Data											
Client Name		New Population (2014-15)				Location				Estimate 1	
Project Name		New Pop. 2014-15									
Site No. 1			Site No. 2			Site No. 3			Site No. 4		
Year	Sex	Estimate	Year	Sex	Estimate	Year	Sex	Estimate	Year	Sex	Estimate
2015/16	M	1118	2015/16	M	1174	2015/16	M	1174	2015/16	M	1174
2015/16	F	1118	2015/16	F	1174	2015/16	F	1174	2015/16	F	1174
2016/17	M	1118	2016/17	M	1174	2016/17	M	1174	2016/17	M	1174
2016/17	F	1118	2016/17	F	1174	2016/17	F	1174	2016/17	F	1174
2017/18	M	1118	2017/18	M	1174	2017/18	M	1174	2017/18	M	1174
2017/18	F	1118	2017/18	F	1174	2017/18	F	1174	2017/18	F	1174
2018/19	M	1118	2018/19	M	1174	2018/19	M	1174	2018/19	M	1174
2018/19	F	1118	2018/19	F	1174	2018/19	F	1174	2018/19	F	1174
2019/20	M	1118	2019/20	M	1174	2019/20	M	1174	2019/20	M	1174
2019/20	F	1118	2019/20	F	1174	2019/20	F	1174	2019/20	F	1174
2020/21	M	1118	2020/21	M	1174	2020/21	M	1174	2020/21	M	1174
2020/21	F	1118	2020/21	F	1174	2020/21	F	1174	2020/21	F	1174
2021/22	M	1118	2021/22	M	1174	2021/22	M	1174	2021/22	M	1174
2021/22	F	1118	2021/22	F	1174	2021/22	F	1174	2021/22	F	1174
2022/23	M	1118	2022/23	M	1174	2022/23	M	1174	2022/23	M	1174
2022/23	F	1118	2022/23	F	1174	2022/23	F	1174	2022/23	F	1174
2023/24	M	1118	2023/24	M	1174	2023/24	M	1174	2023/24	M	1174
2023/24	F	1118	2023/24	F	1174	2023/24	F	1174	2023/24	F	1174
2024/25	M	1118	2024/25	M	1174	2024/25	M	1174	2024/25	M	1174
2024/25	F	1118	2024/25	F	1174	2024/25	F	1174	2024/25	F	1174
2025/26	M	1118	2025/26	M	1174	2025/26	M	1174	2025/26	M	1174
2025/26	F	1118	2025/26	F	1174	2025/26	F	1174	2025/26	F	1174
2026/27	M	1118	2026/27	M	1174	2026/27	M	1174	2026/27	M	1174
2026/27	F	1118	2026/27	F	1174	2026/27	F	1174	2026/27	F	1174
2027/28	M	1118	2027/28	M	1174	2027/28	M	1174	2027/28	M	1174
2027/28	F	1118	2027/28	F	1174	2027/28	F	1174	2027/28	F	1174
2028/29	M	1118	2028/29	M	1174	2028/29	M	1174	2028/29	M	1174
2028/29	F	1118	2028/29	F	1174	2028/29	F	1174	2028/29	F	1174
2029/30	M	1118	2029/30	M	1174	2029/30	M	1174	2029/30	M	1174
2029/30	F	1118	2029/30	F	1174	2029/30	F	1174	2029/30	F	1174
2030/31	M	1118	2030/31	M	1174	2030/31	M	1174	2030/31	M	1174
2030/31	F		2030/31	F		2030/31	F		2030/31	F	

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CENR Data												
Client Name		Site Population (50-100)					Location			Page 1		
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Client Name		Site Population (

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Type S Pitot Tube Calibration

Date Calibration 10-Jul-25 Due Date 10-Jan-26
Pitot ID BKK_FS0561 Inclometer ID BKK_FS1131
Pitot SN - Vernier ID RYG_FS0539

Parameter	Value	Allowable Range	Check
$\alpha 1$	-3.2	$-10^\circ < \alpha 1 < +10^\circ$	OK
$\alpha 2$	2.4	$-10^\circ < \alpha 2 < +10^\circ$	OK
$\beta 1$	-2.3	$-5^\circ < \beta 1 < +5^\circ$	OK
$\beta 2$	2.4	$-5^\circ < \beta 2 < +5^\circ$	OK
Y	1.1	-	-
θ	0.2	-	-
$Z = A \tan \theta$	0.018	$Z \leq 0.125^*$	OK
$W = A \tan \theta$	0.003	$W \leq 0.031^*$	OK
Dt	0.310	$0.188^* \leq 0.375^*$	OK
A/2Dt	1.484	$1.05 \leq A/2Dt \leq 1.5$	OK
A	0.92	$2.10t \leq A \leq 3.0t$	OK

Certify that pitot tube/orb meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube certification factor of 0.84. See 40 CFR Pt. 60, App. A, EPA Method 2.

Calibrated by:
(Mr. Warawut Putpa)
RYG Field Services Scientist (3)

Approved by:
(Mr. Nattapong Jengwarempong)
RYG Field Services Specialist (1)

FORM NO.: F-06-124 REVISION NO.: 0 ISSUE DATE: 25/12/23



Type S Pitot Tube Calibration

Date Calibration 10-Jul-25 Due Date 10-Jan-26
Pitot ID BKK_FS0560 Inclometer ID BKK_FS1131
Pitot SN - Vernier ID RYG_FS0539

Parameter	Value	Allowable Range	Check
$\alpha 1$	2.6	$-10^\circ < \alpha 1 < +10^\circ$	OK
$\alpha 2$	2.4	$-10^\circ < \alpha 2 < +10^\circ$	OK
$\beta 1$	0.4	$-5^\circ < \beta 1 < +5^\circ$	OK
$\beta 2$	2.4	$-5^\circ < \beta 2 < +5^\circ$	OK
Y	2.3	-	-
θ	0.4	-	-
$Z = A \tan \theta$	0.037	$Z \leq 0.125^*$	OK
$W = A \tan \theta$	0.006	$W \leq 0.031^*$	OK
Dt	0.310	$0.188^* \leq 0.375^*$	OK
A/2Dt	1.484	$1.05 \leq A/2Dt \leq 1.5$	OK
A	0.92	$2.10t \leq A \leq 3.0t$	OK

Certify that pitot tube/orb meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube certification factor of 0.84. See 40 CFR Pt. 60, App. A, EPA Method 2.

Calibrated by:
(Mr. Warawut Putpa)
RYG Field Services Scientist (3)

Approved by:
(Mr. Nattapong Jengwarempong)
RYG Field Services Specialist (1)

FORM NO.: F-06-124 REVISION NO.: 0 ISSUE DATE: 25/12/23



Certificate No: G 680210
Date of issue : 25-Mar-25

Instrument description : Flue Gas Analyzer
Instrument model : Testo 350 New
Instrument serial no. : 620873401119
Control unit serial no. : 520430491119
ID no. or control no. : RYG_FS0464
Manufacturer : Testo SE & Co. KGaA
Probe description : -
Probe model : -
Probe serial no. : -
Customer name : ALS LABORATORY GROUP (THAILAND) CO., LTD.
Customer address : 104 Phatthanarak 40, Phatthanarak Road, Khwaeng Phatthanarak, Khet San Luang, Bangkok, 10210 Thailand
Total pages of certificate : 3 Pages
Receiving no. : L-750946
Receiving date. : 18-Mar-25
Parameter of calibration : Gas Calibration (Oxygen 1.50, 9.94, 21.01 %vol, Carbon Monoxide 80.45, 300.0, 1007 ppm, Nitrogen Dioxide 30.68, 81.8, 202.6 ppm, Nitric Oxide 30.6, 151.8, 322.5 ppm, Sulphur Dioxide 50.36, 100.7, 600.8 ppm)
Condition of UUC : -
Ambient condition : All of the Measurement were carried out the stabilized laboratory
Temperature : 23.45 °C
Humidity : 55 ± 15 %RH
Calibration place : 17/121 Soi Ngamwongwan 47 Yuen 48, Tongprachong, Lohb, Bangkok 10210 THAILAND
Calibration procedure no : This instrument was calibrated by comparison with Standard gas mixture according to calibration Work Instruction no. WI-CL-28-C
The calibration certificate expected uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%. This certificate is applied only to items under test Environmental condition.
This Calibration Certificate may not be reproduced other than in full except with the permission of the issuing laboratory.
Calibration certificates without signature and not valid and the results relate only to the items tested/calibrated.
The calibration certificate documents are traceability to national standards, which realize measurement according to the International System of Units (SI).
Date of calibration : 24-Mar-25

Calibration Technician:
Mr. Kewchai Khamsung
Technical Manager:
Ms. Nongluck Wongpatan

ENTECH Industrial Solution Co., Ltd.
17/121 Soi Ngamwongwan 47 Yuen 48, Tongprachong, Lohb, Bangkok 10210 THAILAND Tel: 0-2779-8888 Calibration@entech.co.th
Fax: 0-0105530035591 www.entech.co.th



Certificate No.: G 680210

Standard References (Table 1)

Standard	Certificate No.	Vendor	Due date
Oxygen (O ₂) 2.50 % Vol	2412/23	Unide	27-Aug-27
Oxygen (O ₂) 9.94 % Vol	CG-0113-24	Nant	05-Aug-29
Oxygen (O ₂) 21.02 % Vol	CG-0041-22	Nant	10-Feb-27
Carbon monoxide (CO) 80.45 ppm	CG-0113-24	Nant	10-Sep-29
Carbon monoxide (CO) 302 ppm	1915/23	Unide	16-Jun-25
Carbon monoxide (CO) 1007 ppm	1870/24	Unide	17-Jun-26
Nitrogen Dioxide (NO ₂) 30.68 ppm	3832/24	Unide	08-Sep-26
Nitrogen Dioxide (NO ₂) 81.8 ppm	2330/24	Unide	05-Aug-26
Nitrogen Dioxide (NO ₂) 202.6 ppm	3794/24	Unide	29-Nov-26
Nitric Oxide (NO) 30.6 ppm	CG-0005-24	Nant	06-May-26
Nitric Oxide (NO) 151.8 ppm	4904/25	Unide	09-Feb-27
Nitric Oxide (NO) 322.5 ppm	1874/23	Unide	17-Jul-25
Sulphur Dioxide (SO ₂) 50.36 ppm	2004/23	Unide	17-Jul-25
Sulphur Dioxide (SO ₂) 100.7 ppm	3662/24	Unide	25-Aug-26
Sulphur Dioxide (SO ₂) 600.8 ppm	2003/23	Unide	17-Jul-25

Measured room conditions
Temperature : 22.7 °C Humidity : 62.6 %RH Pressure : 1010.5 mbar
Calibration condition
Gas Temperature : 23 °C Flow rate : 1,300 ml/min Gas pressure : 1016.2 mbar

Calibration Results (Before adjustment) (Table 2)

Parameter of Standard	Standard Values	Mean of UUC	Error	Uncertainty
O ₂ (%Vol)	2.50	2.46	-0.04	0.15
O ₂ (%Vol)	9.94	9.95	-0.034	0.20
O ₂ (%Vol)	21.02	21.08	0.06	0.30
CO (ppm)	80.45	81	0.55	3.0
CO (ppm)	302	302	0	6.0
CO (ppm)	1007	1010	3	12
NO ₂ (ppm)	30.68	26.9	-3.78	8.0
NO ₂ (ppm)	81.8	67.1	-14.7	8.0
NO ₂ (ppm)	202.6	181.3	-21.3	12
NO (ppm)	30.6	24	-6.6	8.0
NO (ppm)	151.8	145	-6.8	8.0
NO (ppm)	322.5	302	-20.5	12
SO ₂ (ppm)	50.36	48	-2.36	6.0
SO ₂ (ppm)	100.7	97	-3.7	6.0
SO ₂ (ppm)	600.8	589	-11.8	12

FORM CL-09-C Rev.0 Page 2 of 3 Issued Date 26/02/26

ENTECH Industrial Solution Co., Ltd.
17/121 Soi Ngamwongwan 47 Yuen 48, Tongprachong, Lohb, Bangkok 10210 THAILAND Tel: 0-2779-8888 Calibration@entech.co.th
Fax: 0-0105530035591 www.entech.co.th



Certificate No.: G 680210

Calibration Results (After adjustment) (Table 3)

Parameter of Standard	Standard Values	Mean of UUC	Error	Uncertainty
O ₂ (%Vol)	2.50	2.46	-0.04	0.15
O ₂ (%Vol)	9.94	9.95	-0.034	0.20
O ₂ (%Vol)	21.02	21.08	0.06	0.30
CO (ppm)	80.45	81	0.55	3.0
CO (ppm)	302	302	0	6.0
CO (ppm)	1007	1010	3	12
NO ₂ (ppm)	30.68	29.4	-1.28	8.0
NO ₂ (ppm)	81.8	79.7	-2.1	8.0
NO ₂ (ppm)	202.6	199.2	-3.4	12
NO (ppm)	30.6	29	-0.6	8.0
NO (ppm)	151.8	153	1.2	8.0
NO (ppm)	322.5	324	1.5	12
SO ₂ (ppm)	50.36	50	-0.36	6.0
SO ₂ (ppm)	100.7	101	0.3	6.0
SO ₂ (ppm)	600.8	599	-1.8	12

Remark : 1 ppm(mol) = 1 %Vol, 1 ppm(mol) = 1 ppm, Sensor CO New.

End of Report

FORM CL-09-C Rev.0 Page 3 of 3 Issued Date 26/02/26

ENTECH Industrial Solution Co., Ltd.
17/121 Soi Ngamwongwan 47 Yuen 48, Tongprachong, Lohb, Bangkok 10210 THAILAND Tel: 0-2779-8888 Calibration@entech.co.th
Fax: 0-0105530035591 www.entech.co.th



Certificate No: G 250015
Date of issue : 14-Jul-25

Instrument description : Flue Gas Analyzer
Instrument model : Testo 350 New
Instrument serial no. : 6474908/0274
Control unit serial no. : 6454907/0274
ID no. or control no. : RYG_FS0711
Manufacturer : Testo SE & Co. KGaA
Probe description : -
Probe model : -
Probe serial no. : -
Customer name : ALS LABORATORY GROUP (THAILAND) CO., LTD.
Customer address : 104 Phatthanarak 40, Phatthanarak Road, Khwaeng Phatthanarak, Khet San Luang, Bangkok, 10210 Thailand
Total pages of certificate : 3 Pages
Receiving no. : L-752538
Receiving date. : 03-Jul-25
Parameter of calibration : Gas Calibration (Oxygen 2.50, 9.94, 21.01 %vol, Carbon Monoxide 80.45, 300.0, 1007 ppm, Nitrogen Dioxide 30.68, 81.8, 202.6 ppm, Nitric Oxide 30.6, 151.8, 322.5 ppm, Sulphur Dioxide 50.36, 100.7, 600.8 ppm)
Condition of UUC : -
Ambient condition : All of the Measurement were carried out the stabilized laboratory
Temperature : 23.45 °C
Humidity : 55 ± 15 %RH
Calibration place : 17/121 Soi Ngamwongwan 47 Yuen 48, Tongprachong, Lohb, Bangkok 10210 THAILAND
Calibration procedure no : This instrument was calibrated by comparison with Standard gas mixture according to calibration Work Instruction no. WI-CL-28-C
The calibration certificate expected uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%. This certificate is applied only to items under test Environmental condition.
This Calibration Certificate may not be reproduced other than in full except with the permission of the issuing laboratory.
Calibration certificates without signature and not valid and the results relate only to the items tested/calibrated.
The calibration certificate documents are traceability to national standards, which realize measurement according to the International System of Units (SI).
Date of calibration : 14-Jul-25

Calibration Technician:
Mr. Kewchai Khamsung
Technical Manager:
Ms. Nongluck Wongpatan

ENTECH Industrial Solution Co., Ltd. Page 3 of 3 Issued Date 26/02/26

ENTECH Industrial Solution Co., Ltd.
17/121 Soi Ngamwongwan 47 Yuen 48, Tongprachong, Lohb, Bangkok 10210 THAILAND Tel: 0-2779-8888 Calibration@entech.co.th
Fax: 0-0105530035591 www.entech.co.th

Standard References (Table 1)

Standard	Certificate No.	Vendor	Due date
Oxygen (O ₂) 2.50 % Vol	2412/23	Linde	27-Aug-27
Oxygen (O ₂) 2.50 % Vol	CO-0113-24	Norit	01-Aug-29
Oxygen (O ₂) 21.01 % Vol	CO-0112-24	Norit	01-Aug-29
Carbon monoxide (CO) 80.45 ppm	CO-0113-24	Norit	10-Sep-29
Carbon monoxide (CO) 300.0 ppm	1422/23	Linde	21-May-29
Carbon monoxide (CO) 1007 ppm	1870/24	Linde	17-Jun-26
Nitrogen Dioxide (NO ₂) 30.68 ppm	2632/24	Linde	08-Sep-26
Nitrogen Dioxide (NO ₂) 30.8 ppm	2730/24	Linde	01-Aug-26
Nitrogen Dioxide (NO ₂) 202.8 ppm	1794/24	Linde	23-Dec-26
Nitric Oxide (NO) 30.8 ppm	CO-0005-24	Norit	06-May-26
Nitric Oxide (NO) 115.8 ppm	0940/25	Linde	09-Feb-27
Nitric Oxide (NO) 322.5 ppm	1974/23	Linde	17-Jul-25
Sulphur Dioxide (SO ₂) 50.36 ppm	2094/23	Linde	17-Jul-25
Sulphur Dioxide (SO ₂) 100.7 ppm	2662/24	Linde	25-Aug-26
Sulphur Dioxide (SO ₂) 600.8 ppm	2003/23	Linde	17-Jul-25

Measured room conditions

Temperature : 23.8 °C Humidity : 65.2 %RH Pressure : 1006.4 mbar

Calibration conditions

Gas Temperature : 24 °C Flow rate : 1,200 ml/min Gas pressure : 1014.6 mbar

Calibration Results (Before adjustment) (Table 2)

Parameter of Standard	Standard Values	Mean of UUC	Error (%)	Uncertainty (%)
O ₂ (%Vol)	2.50	2.42	-0.08	0.15
O ₂ (%Vol)	9.984	9.89	-0.094	0.20
O ₂ (%Vol)	21.01	21.13	0.12	0.30
CO (ppm)	80.45	80	-0.45	3.0
CO (ppm)	300.0	300	-0.0	6.0
CO (ppm)	1007	1003	-4	12
NO ₂ (ppm)	30.68	18.6	-12.08	14
NO ₂ (ppm)	61.8	52.2	-9.6	30
NO ₂ (ppm)	202.8	141.5	-61.1	71
NO (ppm)	30.0	26	-4.0	8.0
NO (ppm)	115.8	138	22.2	18
NO (ppm)	322.5	295	-27.5	32
SO ₂ (ppm)	50.36	47	-3.36	6.0
SO ₂ (ppm)	100.7	94	-6.7	10
SO ₂ (ppm)	600.8	568	-32.8	39

Calibration Results (After adjustment) (Table 3)

Parameter of Standard	Value	UUC	Error	Uncertainty
NO ₂ (ppm)	30.68	29.1	-1.58	8.0
NO ₂ (ppm)	61.8	76.7	-1.1	8.0
NO ₂ (ppm)	202	196.8	-5.2	12
NO (ppm)	30.0	32	2.0	8.0
NO (ppm)	115.8	114	-1.8	8.0
NO (ppm)	322.5	320	-2.5	12
SO ₂ (ppm)	50.36	50	-0.36	6.0
SO ₂ (ppm)	100.7	102	1.3	8.0
SO ₂ (ppm)	600.8	603	2.2	13

Remark : 1 ppm/mid = 1 %Vol, 1 ppm/mid = 1 ppm, No adjustment Sensor(O₂CO).

End of Report

Certificate of Calibration

Customer : ALS Laboratory Group Thailand Co., Ltd.
Name : ALS Laboratory Group Thailand Co., Ltd.
Address : 104 Soi Phatthanasak 40, Phatthanasak Road, Suan Luang,
Bangkok 10250

Certificate No.: 25-AFM-023
Request No.: Req-2025-0109

Unit Under Calibration Details

Measurement Item : Air Flow Meter
Manufacturer : Moxa Ltd.
Model : 200-110E
Serial Number : 130027
ID : XVO130028
Location of Calibration : LAB 4 AIR VELOCITY METER

Accuracy : 1% of Reading

Sensor Model : -

Sensor Serial Number : -

Instrument Status : Good

Calibration Environment and Details

Temperature : 23 °C ± 1 °C
Humidity : 55 %RH ± 20 %RH
Barometric Pressure : 1013 hPa ± 10 hPa
Received Date : 21 January 2025
Calibration Date : 27 January 2025
Calibration Procedure : In-house method CP-AFM-01 by Comparison technique with Standard Primary Flow Calibrator

Reference Standard	Model	Serial Number	Traceable	Due Calibration
Air Flow Meter	Calibrator 3 Low flow	1851010006	Sensidyne	6 August 2025
Air Flow Meter	Calibrator 3 Standard flow	1901011003	Sensidyne	2 August 2025
Temperature meter	GT 11	00000007	Qubens	1 March 2025
Pressure meter	CP02400	41000RJA3611002	TFA	21 October 2025

Traceability :

This Certificate is traceable to SI Unit through Sensidyne A2LA Accreditation No. 3943.01

Note :

The reported uncertainty is based on standard uncertainty multiplied by the Coverage Factor k = 2, providing a level of confidence approximately 95 %.

Calibration By :
Mr. Nopphakorn Luangrat
Service Calibration Engineer

Approved By :
Mr. Pait Mahasarak
Calibration Engineer Supervisor

Issue Date : 27 January 2025

Result of Calibration : Without Adjustment

Temperature (°C)	Pressure (kPa)	STD (cc/min)	UUC (cc/min)	Error (cc/min)	Uncertainty (cc/min)	MPE (cc/min)	Result
22.50	100.90	20	19.854	-0.1	1.3	0.2	Pass
22.50	100.90	50	49.732	-0.3	1.3	0.3	Pass
22.50	100.90	101	100.77	-0.2	2.8	1.0	Pass
22.70	100.90	111	110.23	-0.8	4.2	1.5	Pass
22.70	100.90	201	200.39	-0.6	9.8	3.0	Pass
22.70	100.90	301	300.69	-0.3	8.4	3.0	Pass
22.80	100.90	400	402.96	2.0	11	4.0	Pass
23.10	100.90	500	504.62	4.6	7.2	3.0	Pass

Note : STD : Standard UUC : Unit Under Calibration

-UUC Reference Condition : At atmospheric pressure and room temperature condition

-Flow Rate was corrected for non-standard operating condition by using equation :

$$Q_{meas} = Q_{ref} \times \frac{P_{ref}}{P_{meas}} \times \frac{T_{meas}}{T_{ref}}$$

where : Q = Flow Rate P = Absolute Pressure T = Absolute Temperature

Meas = Measurement Condition ref = Standard Condition

* Indicator not accredited

MPE = Maximum Permissible Error (Specified in Manufacturer's Specifications)

N/A = Not Applicable, Customer does not require a statement of conformity

Decision Rule for Statement of Conformity

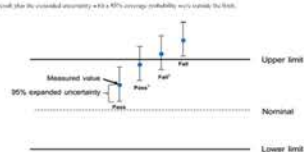
The standard decision rule, interpreted for the statement of conformity to each calibration result, will be applied using B.S.60049:2019 Guidelines on the Reporting of Conformity with Specifications as following Fig. and equations.

Pass = The measurement result (plus the expanded uncertainty with a 95% coverage probability) was within the limit.

Pass = The measurement result was within the limit. However, a portion of the expanded uncertainty of measurement at 95% exceeds the limit.

Fail = The measurement result was out of the limit. However, a portion of the expanded uncertainty of measurement at 95% is within the limit.

Fail = The measurement result (plus the expanded uncertainty with a 95% coverage probability) was outside the limit.



End of Certificate

Certificate of Calibration

Customer : ALS Laboratory Group Thailand Co., Ltd.
Name : ALS Laboratory Group Thailand Co., Ltd.
Address : 104 Soi Phatthanasak 40, Phatthanasak Road, Suan Luang,
Bangkok 10250

Certificate No.: 25-AFM-179
Request No.: Req-2024-1987

Unit Under Calibration Details

Measurement Item : Air Flow Meter
Manufacturer : Moxa Ltd.
Model : Delimator 110-M
Serial Number : 151114
ID : BKR_150016
Location of Calibration : LAB 4 AIR VELOCITY METER

Accuracy : 1% of Reading

Sensor Model : -

Sensor Serial Number : -

Instrument Status : Good

Calibration Environment and Details

Temperature : 23 °C ± 1 °C
Humidity : 55 %RH ± 20 %RH
Barometric Pressure : 1013 hPa ± 10 hPa
Received Date : 10 August 2024
Calibration Date : 9 September 2024
Calibration Procedure : In-house method CP-AFM-01 by Comparison technique with Standard Primary Flow Calibrator

Reference Standard	Model	Serial Number	Traceable	Due Calibration
Air Flow Meter	Calibrator 3 Low flow	1851010006	Sensidyne	6 August 2025
Air Flow Meter	Calibrator 3 Standard flow	1901011003	Sensidyne	2 August 2025
Temperature meter	GT 11	00000007	Qubens	1 March 2025
Pressure meter	CP02400	41000RJA3611002	TFA	9 November 2024

Traceability :

This Certificate is traceable to SI Unit through Sensidyne A2LA Accreditation No. 3943.01

Note :

The reported uncertainty is based on standard uncertainty multiplied by the Coverage Factor k = 2, providing a level of confidence approximately 95 %.

Calibration By :
Mr. Nopphakorn Luangrat
Service Calibration Engineer

Approved By :
Mr. Pait Mahasarak
Calibration Engineer Supervisor

Issue Date : 9 September 2024

INNOVATIVE INSTRUMENT CALIBRATION LAB
INNOVATIVE INSTRUMENT CO., LTD. HEAD OFFICE
7/20 MOO 11, WONGWATAPORN 11 TAMBON BANGKAKHAI,
KAMPHAENG WILAYAT, PHRAKRUANG DISTRICT, PHRAKRUANG
TEL: 0662-2167889 / FAX: 0662-2167740

INNOVATIVE
Innovative Instrument Co., Ltd.

ISIRI-MRA
Innovative Instrument Co., Ltd.

ANAB
ANAB Accredited

Certificate No : 24-AFM-178
Request No : Req 2024-1987

Result of Calibration : Without Adjustment

Temperature	Pressure	STD	UUC	Error	Uncertainty	MPE	Result
(°C)	(kPa)	(cc/min)	(cc/min)	(cc/min)	(cc/min)	(cc/min)	
24.79	100.93	100	100.41	0.4	2.8	1.0	N/A
24.90	100.90	102	100.47	-1.3	2.3	3.0	N/A
24.96	100.97	1001	1001.3	-2	14	10.0	N/A
25.00	100.92	1014	1009.9	-4	29	20.3	N/A
25.20	101.03	1041	1018.3	17	40	30.0	N/A
25.30	101.10	1043	1015.1	-18	57	40.0	N/A
25.50	101.13	1052	1003.8	-48	74	50.0	N/A

Name : UTD / Standard UUC / Unit Under Calibration
- UUC Reference Condition : At atmospheric pressure and room temperature condition
- Flow Rate was corrected for non-standard operating condition by using equation :

$$Q_{meas} = Q_{ref} \times \frac{P_{ref}}{P_{meas}} \times \frac{T_{meas}}{T_{ref}}$$

where : Q = Flow Rate P = Absolute Pressure T = Absolute Temperature
Meas = Measurement Condition ref = Standard Condition

* Indicates item accepted
MPE = Maximum Permissible Error (Specified in Manufacturer's Specifications)
N/A = Not Available, Customer does not require a statement of conformity

The results stated only on the test certificate. This certificate shall not be reproduced except in full, without written approval of the Innovative Instrument Co., Ltd.
194-708-AFM-01 Rev.04 Issue date 17/5/24

INNOVATIVE INSTRUMENT CALIBRATION LAB
INNOVATIVE INSTRUMENT CO., LTD. HEAD OFFICE
7/20 MOO 11, WONGWATAPORN 11 TAMBON BANGKAKHAI,
KAMPHAENG WILAYAT, PHRAKRUANG DISTRICT, PHRAKRUANG
TEL: 0662-2167889 / FAX: 0662-2167740

INNOVATIVE
Innovative Instrument Co., Ltd.

ISIRI-MRA
Innovative Instrument Co., Ltd.

ANAB
ANAB Accredited

Certificate No : 24-AFM-178
Request No : Req 2024-1987

Decision Rule for Statements of Conformity

The standard decision rule applied for the statement of conformity to each calibration result will be applied using ISIRI-ANAB-2019 Guidelines on the Statement of Conformity with Specifications as following Fig. and statement

Pass - The measurement result plus the expanded uncertainty with a 95% coverage probability does not exceed the limit
Fail - The measurement result was within the limit. However, a portion of the expanded uncertainty of measurement is 95% exceeds the limit
Fail - The measurement result was out of the limit. However, a portion of the expanded uncertainty of measurement is 95% is within the limit
Fail - The measurement result plus the expanded uncertainty with a 95% coverage probability does not exceed the limit

End of Certificate

The results stated only on the test certificate. This certificate shall not be reproduced except in full, without written approval of the Innovative Instrument Co., Ltd.
194-708-AFM-01 Rev.04 Issue date 17/5/24

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanaburi Rd., Phatthanaburi
Phatthanaburi, Surin, Bangkok 10100
T +66 2 562 1000 F +66 2 562 1001

Certificate of Calibration

Certificate No. : C-007026-RYG_F50145

Air Sampling Pump Detail

Equipment name : Personal Air Sampling Pump Equipment ID : RYG_F50145
Brand : Gasek Serial No. : 20007110099
Model/Type : Gasek Plus Calibration Date : 05-Jul-25
Next calibration date : 05-Oct-25

Reference Standard Low Flow Meter

Equipment name : Air Flow Meter Equipment ID : RYG_F50008
Brand : Mettler Serial No. : 130027
Model/Type : Defensor F10/L Calibration Date : 25-Jan-25
Due Date : 25-Jan-25

Reference Standard High Flow Meter

Equipment name : Air Flow Meter Equipment ID : BOK_F50014
Brand : Mettler Serial No. : 151114
Model/Type : Defensor F10-M Calibration Date : 05-Sep-25
Due Date : 05-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.7	20.1	19.7	19.8	0%	19 - 21	Passed
50	52.2	52.3	52.3	52.3	0%	48 - 53	Passed
100	100.5	101.9	100.8	100.5	0%	95 - 105	Passed
200	201.5	198.3	200.6	200.5	0%	190 - 210	Passed
High Flow							
500	490.2	498.5	500.1	496.3	3%	485 - 515	Passed
1000	1000.1	1000.4	1000.4	1000.5	3%	970 - 1030	Passed
2000	2000.1	2001.2	2004.2	2001.8	3%	1940 - 2060	Passed
2500	2498.7	2490.2	2498.1	2496.0	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By : Approved By :
(Mr. Anant Vongsathan) (Mr. Supot Salernam)
RYG Field Services Scientist (1) Field Services Section Head

Issue date : 07-Jul-25

Page 1 of 1 RYG-105 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanaburi Rd., Phatthanaburi
Phatthanaburi, Surin, Bangkok 10100
T +66 2 562 1000 F +66 2 562 1001

Certificate of Calibration

Certificate No. : C-007026-RYG_F50144

Air Sampling Pump Detail

Equipment name : Personal Air Sampling Pump Equipment ID : RYG_F50144
Brand : Gasek Serial No. : 20007110094
Model/Type : Gasek Plus Calibration Date : 05-Jul-25
Next calibration date : 05-Oct-25

Reference Standard Low Flow Meter

Equipment name : Air Flow Meter Equipment ID : RYG_F50008
Brand : Mettler Serial No. : 130027
Model/Type : Defensor F10/L Calibration Date : 25-Jan-25
Due Date : 25-Jan-25

Reference Standard High Flow Meter

Equipment name : Air Flow Meter Equipment ID : BOK_F50014
Brand : Mettler Serial No. : 151114
Model/Type : Defensor F10-M Calibration Date : 05-Sep-25
Due Date : 05-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.9	20.7	20.4	20.4	0%	19 - 21	Passed
50	51.5	51.3	51.7	51.6	0%	48 - 53	Passed
100	104.7	101.4	103.5	103.2	0%	95 - 105	Passed
200	200.9	207.7	204.4	206.5	0%	190 - 210	Passed
High Flow							
500	490.8	501.4	500.0	500.6	3%	485 - 515	Passed
1000	1000.5	1005.1	1001.8	1002.5	3%	970 - 1030	Passed
2000	1997.5	1995.2	1999.1	1997.3	3%	1940 - 2060	Passed
2500	2493.7	2486.4	2493.3	2492.8	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By : Approved By :
(Mr. Natchapon Tharnkang) (Mr. Supot Salernam)
RYG Field Services Scientist (1) Field Services Section Head

Issue date : 05-Jul-25

Page 1 of 1 RYG-105 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanaburi Rd., Phatthanaburi
Phatthanaburi, Surin, Bangkok 10100
T +66 2 562 1000 F +66 2 562 1001

Certificate of Calibration

Certificate No. : C-007026-RYG_F50016

Air Sampling Pump Detail

Equipment name : Personal Air Sampling Pump Equipment ID : RYG_F50016
Brand : Gasek Serial No. : 20001100099
Model/Type : Gasek Plus Calibration Date : 07-Jul-25
Next calibration date : 07-Oct-25

Reference Standard Low Flow Meter

Equipment name : Air Flow Meter Equipment ID : RYG_F50008
Brand : Mettler Serial No. : 130027
Model/Type : Defensor F10/L Calibration Date : 25-Jan-25
Due Date : 25-Jan-25

Reference Standard High Flow Meter

Equipment name : Air Flow Meter Equipment ID : BOK_F50014
Brand : Mettler Serial No. : 151114
Model/Type : Defensor F10-M Calibration Date : 05-Sep-25
Due Date : 05-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.4	19.6	19.6	19.5	0%	19 - 21	Passed
50	50.9	52.4	51.3	51.5	0%	48 - 53	Passed
100	100.7	99.6	101.8	100.7	0%	95 - 105	Passed
200	201.8	204.9	202.1	202.9	0%	190 - 210	Passed
High Flow							
500	507.4	506.9	506.6	506.0	3%	485 - 515	Passed
1000	997.8	997.2	999.5	998.2	3%	970 - 1030	Passed
2000	2001.2	2002.4	2000.5	2001.4	3%	1940 - 2060	Passed
2500	2510.1	2511.9	2515.4	2512.5	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By : Approved By :
(Mr. Natchapon Tharnkang) (Mr. Supot Salernam)
RYG Field Services Scientist (1) Field Services Section Head

Issue date : 05-Jul-25

Page 1 of 1 RYG-105 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanaburi Rd., Phatthanaburi
Phatthanaburi, Surin, Bangkok 10100
T +66 2 562 1000 F +66 2 562 1001

Certificate of Calibration

Certificate No. : C-007026-RYG_F50015

Air Sampling Pump Detail

Equipment name : Personal Air Sampling Pump Equipment ID : RYG_F50015
Brand : Gasek Serial No. : 20001100092
Model/Type : Gasek Plus Calibration Date : 05-Jul-25
Next calibration date : 05-Oct-25

Reference Standard Low Flow Meter

Equipment name : Air Flow Meter Equipment ID : RYG_F50008
Brand : Mettler Serial No. : 130027
Model/Type : Defensor F10/L Calibration Date : 25-Jan-25
Due Date : 25-Jan-25

Reference Standard High Flow Meter

Equipment name : Air Flow Meter Equipment ID : BOK_F50014
Brand : Mettler Serial No. : 151114
Model/Type : Defensor F10-M Calibration Date : 05-Sep-25
Due Date : 05-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	20.4	20.8	20.2	20.5	0%	19 - 21	Passed
50	49.2	51.1	50.9	50.4	0%	48 - 53	Passed
100	99.3	104.3	102.1	101.9	0%	95 - 105	Passed
200	199.9	201.1	200.9	200.3	0%	190 - 210	Passed
High Flow							
500	499.9	497.8	498.5	498.7	3%	485 - 515	Passed
1000	999.5	998.8	996.3	998.2	3%	970 - 1030	Passed
2000	1999.8	2001.8	2002.2	2001.3	3%	1940 - 2060	Passed
2500	2496.7	2492.8	2498.1	2496.2	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By : Approved By :
(Mr. Natchapon Tharnkang) (Mr. Supot Salernam)
RYG Field Services Scientist (1) Field Services Section Head

Issue date : 04-Jul-25

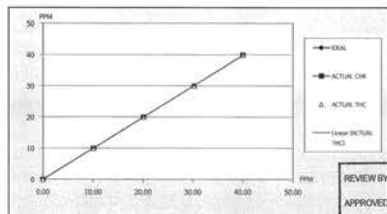
Page 1 of 1 RYG-105 Rev.2 Issue date 27/03/25

TEST REPORT

CUSTOMER NAME	: ALS Laboratory Group (Thailand) Co., Ltd. (บริษัท แอลเอส ลैบอราทอรี กรุ๊ป จำกัด)		
EQUIPMENT NAME	: THC Analyzer		
MANUFACTURER	: HORIBA	MODEL	: AFHA-370
		SERIAL NO	: UH30GT(H)
STANDARD GAS CONCENTRATION (PPM) (CH4)	: 506.1 PPM	CYLINDER NO	: CC734373
CYLINDER PRESSURE (psig)	: 1,600 PSI	CERTIFIED DATE	: 12/05/2020
CERTIFIED BY	: ARGAS	EXPIRED DATE	: 12/05/2028

TEST RESULTS

POINT NO	TEST RESULTS						
	IDEAL	ACTUAL CH	ERROR CH4	NEURON CH	ACTUAL THC	ERROR THC	NEURON THC
ZERO	0.00	0.00	0.00	-	0.00	0.00	-
1	10.00	10.05	0.05	0.50	10.05	0.05	0.50
2	20.00	20.10	0.10	0.50	20.12	0.12	0.60
3	30.00	30.29	0.29	0.97	30.27	0.27	0.90
4	40.00	40.01	0.01	0.02	40.02	0.02	0.05
AVERAGE (%)				0.50			0.51



CALIBRATED BY: <i>20100</i>	DATE: <i>6/3/68</i>
CHECKED BY: <i>20100</i>	DATE: <i>6/3/68</i>

ສຳນັກງານວິທະຍາສາດວິທະຍາສາດ: ເຢັນໂລກວິທະຍາສາດ, ໂທ 02-868-0812 W 15,16, E-Mail: Engineering@vsn.ac.lk
 ໂທ 65/64-15,61/25-36 ສຳນັກງານ ວິທະຍາສາດວິທະຍາສາດ: ໂທ 02-868-0812 (1) ໂທ 02-868-0888

0034-6543/96/0013-0001\$10.00/0

CHECK LIST

EQUIPMENT NAME : R5.1 Analytology Group (Thailand) Co., Ltd. (บริษัท อานะล็อกยี กรุ๊ป (ไทยแลนด์) จำกัด)				
EQUIPMENT NAME : T-9 Analyzer				
MANUFACTURER : HC98BA		MODEL : A7H9-370	SERIAL NO. : U0007018	
TEST VALUES				
NO.	THC Analyzer (A7H9 - 370)	UNIT		
			BEFORE AFTER	
1	Signal (CH1)	mV	35.50	35.50
2	Signal (THC)	mV	56.40	56.40
3	Detector	Temp-TC : Standard Value : Ambient temp+0PC(±15PC)	45.20	45.20
4	Ambient	Pressure MPa : Standard Value : (Ambient/200)±0.00-200 MPa	0.950	0.950
5	Ambient	MPa current atmospheric pressure	100.60	100.60
6	Purifier	TC : Standard Value : 200 °C to 430 °C	433.90	433.90
7	MPa	MPa : Normal value : 8 MPa to 9 MPa	8.70	8.70
8	NAHC	TC : Standard Value : 230 °C to 260 °C	264.00	264.00
9	DC 5 V	V : Standard Value : 24 V ± 0.5 V	23.90	23.90
10	DC 5 V	V : Standard Value : 5 V ± 0.5 V	5.00	5.00
11	System (Optional)	L/min, Normal Value : 0.9 L/min ± 0.3 L/min	-	-
12	Over Flow (Optional)	L/min, Standard Value : 0.8 L/min or More	-	-
13	CH1 Sampling Reading	PPM	2.08	2.07
14	NAHC Sampling Reading	PPM	0.56	0.57
15	THC : Sampling Reading	PPM	2.18	2.18
16	THC : Gas CH4/TC	PPM	0.020-0.010	0.009-0.010
17	Flow Gas	PPM	39.66/39.70	80.01/80.05
18	Gas PS2	PPM		20

Remark : Reference : EX-EN-017-56 , Ambient HC Monitor APHA-370 Operation Manual Page #81
 Remark : (Ambient temperature = 5°C to 40°C)

การบริการลูกค้า

- Service Maintenance

รายละเอียดการดำเนินการ

- ช่าง Service Maintenance : ทำ Calibration Zero/Span, Nullpoint

ผลการดำเนินการ

ด้วยระบบ เครื่องวัดการปนเปื้อนการตรวจวัดได้ใกล้เคียงปกติ

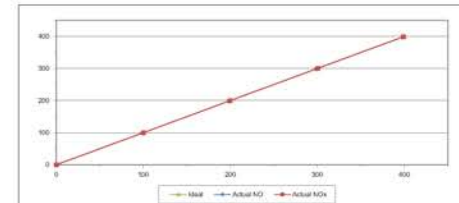
CALIBRATED BY: စိုးစိုး အောင် DATE: 6/13/18
CHECKED BY: စိုးစိုး အောင် NAC 6/13/18

ติดต่อการวิจัยฐานชีวสารสนเทศเพิ่มเติม: เจ้าภาพที่มีส่วนในการจัดการงาน, โทร 02-666-0812 # 15-16, E-Mail : Engweeng@wut.ac.th
 61/14-15/67/25-36 ซอยพรพหล 7/71 ซอยพรพหล แขวงวัดราชบพิธ เขตพระนคร กรุงเทพฯ 10600 โทร 02-666-0812-13 โทรสาร 02-666-0812-14

MULTIPOINT CALIBRATION REPORT

Calibration Date	3-Jul-25	Equipment Name	NOx Analyzer
Manufacturer	HORIBA	Model	APNA-370
Serial No.	7AV89644	Equipment ID	RYG_F50272
Calibrator Manufacturer	Teledyne API	Model	700
Serial No.	947		
Std. Gas Concentration (PPM)	55.88	Cylinder No.	QN0027222
Cylinder Pressure (psi)	1800	Certified By	Argus Inc.
Certified Date	9-Feb-22	Expired Date	9-Feb-30

Point	CALIBRATION RESULTS						
	Ideal	Actual NO	Error NO	%Error NO	Actual NOx	Error NOx	%Error NOx
ZERO	0.00	0.05	0.05	0.05	0.10	0.10	0.10
1	100.00	99.10	-0.90	-0.90	100.10	0.10	0.10
2	200.00	198.50	-1.50	-0.75	199.00	-0.50	-0.25
3	300.00	298.60	-1.40	-0.47	300.50	0.50	0.17
4	400.00	398.90	-1.10	-0.28	398.70	-1.30	-0.33
AVERAGE (%)				-0.47			-0.04



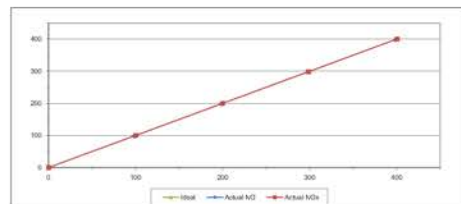
Calibrated By	Approved By
	
(Mr.Jirawat Sakam)	(Mr.Sarayuth Jitthirattana)
Lead Environmental Scientist (70)	Assistant General Manager

FORM NO: F 06-056 REVISION NO: ISSUE DATE: (2014)

MULTIPOINT CALIBRATION REPORT

Calibration Date	3-Jul-25	Equipment Name	NOx Analyzer
Manufacturer	HORIBA	Model	APNA-370
Serial No.	T2T8YRLL	Equipment ID	RYG_F50457
Calibrator Manufacturer	Telodyne API	Model	700
Serial No.	947		
Std. Gas Concentration (PPM)	55.88	Cylinder No.	QIN027222
Cylinder Pressure (psi)	1800	Certified By	Alphas Inc.
Certified Date	9-Feb-22	Expired Date	9-Feb-30

Point	CALIBRATION RESULTS						
	Ideal	Actual NO	Error NO	%Error NO	Actual NOx	Error NOx	%Error NOx
ZERO	0.00	0.10	0.10	0.10	0.10	0.10	0.10
1	100.00	98.30	-1.70	-1.70	100.30	0.30	0.30
2	200.00	198.40	-1.60	-0.80	199.80	-0.20	-0.10
3	300.00	299.70	-1.30	-0.43	298.50	-1.50	-0.50
4	400.00	399.60	-1.40	-0.35	400.50	0.50	0.13
	AVERAGE (%)			-0.64			-0.01



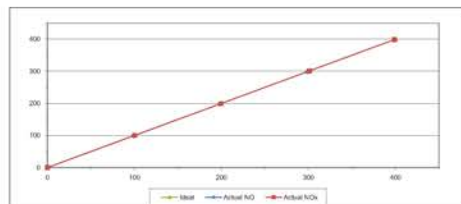
Calibrated By	Approved By
	
Mr. Jirawut Sakam Environmental Scientist (3)	(Mr. Serayuth Jitranon) Assistant General Manager

ALS Laboratory Group
FORM NO.: F 06-056 REVISION NO.: ISSUE DATE: 02/04/12

MULTIPOINT CALIBRATION REPORT

Calibration Date	2-Jul-25	Equipment Name	NOx Analyzer
Manufacturer	HCR18A	Model	APNA-370
Serial No.	8G314JK	Equipment ID	RYG_FS0264
Calibrator/Manufacturer	Teletyne API	Model	700
Serial No.	947	Cylinder No.	QNO027222
Std. Gas Concentration (PPM)	55.88	Certified By	Airgas Inc.
Cylinder Pressure (psi)	1800	Expired Date	9-Feb-30
Certified Date	9-Feb-26		

Point	CALIBRATION RESULTS						
	Ideal	Actual NO	Error NO	%Error NO	Actual NOx	Error NOx	%Error NOx
ZERO	0.00	0.00	0.00	0.00	0.10	0.10	0.16
1	100.00	99.20	-0.80	-0.80	5.10	0.16	0.16
2	200.00	198.70	-1.30	-0.65	196.30	-0.70	-0.35
3	300.00	299.60	-0.40	-0.47	301.40	1.40	0.47
4	400.00	398.60	-1.40	-0.35	398.60	-1.20	-0.30
	AVERAGE (%)			-0.44			0.00



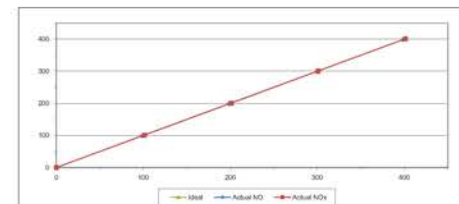
<p>Calibrated By</p>  <p>(Mr. Jirawut Sakarn) Field Environmental Scientist (3)</p>	<p>Approved By</p>  <p>(Mr. Sarayuth Jittront) Assistant General Manager</p>
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ALS Laboratory Group
FORM NO.: F-06-056 REVISION NO.: ISSUE DATE: 02/04/11

MULTIPOINT CALIBRATION REPORT

Calibration Date	3-Jul-25	Equipment Name	NOx Analyzer
Manufacturer	HORIBA	Model	APNA-370
Serial No.	ALPOVWY	Equipment ID	RYG_F50455
Calibrator Manufacturer	Teledyne API	Model	700
Serial No.	947		
Std. Gas Concentration (PPM)	55.68	Cylinder No.	GN0027222
Cylinder Pressure (psi)	1800	Certified By	Airgas Inc.
Certified Date	9-Feb-22	Expired Date	9-Feb-30

Point	CALIBRATION RESULTS						
	Ideal	Actual NO	Error NO	%Error NO	Actual NOx	Error NOx	%Error NOx
ZERO	0.00	0.10	0.10	0.10	0.10	0.10	1.00
1	100.00	98.60	-1.40	-1.40	101.60	1.60	1.60
2	200.00	198.80	-1.20	-0.60	201.30	1.30	0.65
3	300.00	301.30	1.30	0.43	301.00	1.00	0.33
4	400.00	398.50	-1.50	-0.38	401.30	1.30	0.33
AVERAGE (%)				-0.37			0.60



<p>Calibrated By</p>  <p>(Mr. Jirawat Sakarn) Field Environmental Scientist (3)</p>	<p>Approved By</p>  <p>(Mr. Sanyuth Jitranont) Assistant General Manager</p>
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ALS Laboratory Group
FORM NO.: F 06 056 REVISION NO.: ISSUE DATE: 02/04/12

Certificate of System Qualification

GC-OQ - GCMS-OQ

System ID: RYG_END136
Organization Name: ALS Laboratory Group (Thailand) Co.Ltd.
Organization Location: 616/10, Moo 5, Tambol Mae Nam Khu, Phuk Daeng, Rayong, 21140, Thailand

Date: January 5, 2024 10:53:24 AM
EQP Name: Agilent/Recommended - Agilent/Recommended
EQP Revision: GC.02.54, GCMS.02.54
Overall Qualification Status: Pass

REVIEW BY: *Chotichok*
APPROVED BY: *Dan*
NEXT CAL DATE: *09/10/2026*

CDS Logon Verification - GC

Logon: chotichok.hunakaw

Overall CDS Logon Verification - GC Test Status

Pass

System Inspection and Basic Safety and Operation

Name: 7890
Setpoint Status: Pass

Overall System Inspection and Basic Safety and Operation Test Status

Pass

Inlet Pressure Accuracy

Name: 7890
Front: SSL
Setpoint Status: Pass
Setpoint: 25.0 psi
Actual: 25.0 psi
Accuracy: 0.0 psi
Agilent Recommended: <= 1.2 psi

Date: January 5, 2024 10:53:24 AM
System ID: RYG_END136

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Overall Inlet Pressure Accuracy Test Status

Pass

GC Oven Temperature Accuracy

Name: 7890
Setpoint Status: Pass
Zone: Oven
Setpoint/Actual: 220.0 / 229 °C
Accuracy: -1.0 °C
Agilent Recommended: >= -1.0 °C setpoint in K (-1.0 °C)
<= 1.0 °C setpoint in K (1.0 °C)
Setpoint Status: Pass
Zone: Oven
Setpoint/Actual: 100.0 / 100.6 °C
Accuracy: -0.6 °C
Agilent Recommended: >= -1.0 °C setpoint in K (-1.0 °C)
<= 1.0 °C setpoint in K (1.0 °C)

Overall GC Oven Temperature Accuracy Test Status

Pass

GC Oven Temperature Stability

Name: 7890
Setpoint Status: Pass
Setpoint/Average: 100.0 / 100.6167 °C
Temperature: 100.0 °C
Stability: 0.1 °C
Agilent Recommended: <= 0.5 °C

Overall GC Oven Temperature Stability Test Status

Pass

Date: January 5, 2024 10:53:24 AM
System ID: RYG_END136

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Log Amp

Tested Combination: Front SSL / External SQ
Name: 58778
Setpoint Status: Pass

Overall Log Amp Test Status

Pass

RPFA

Tested Combination: Front SSL / External SQ
Name: 58778
Setpoint Status: Pass
Amps: 1000 mV
Drift After Five Minutes: 6 mV
RPFA Voltage: 500 mV
Agilent Recommended: >= -100 and <= 100 <= 1000 mV

Overall RPFA Test Status

Pass

Tune E1

Tested Combination: Front SSL / External SQ
Name: 58778
Setpoint Status: Pass
Flame: 1
Setpoint Status: Pass
Flame: 2

Overall Tune E1 Test Status

Pass

Scouting Run

Date: January 5, 2024 10:53:24 AM
System ID: RYG_END136

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Tested Combination: Front SSL / External SQ
Name: Manual Injection
Source: EI - Extractor
Setpoint Status: Completed
Injection Volume on Column: 1.0 µL
Overall Scouting Run Status: Completed

Signal to Noise E1

Tested Combination: Front SSL / External SQ
Name: 58778
Source: EI - Extractor
Setpoint Status: Pass
Signal to Noise: 5113
Agilent Recommended: >= 1200
Source: EI - Extractor
Setpoint Status: Pass
Signal to Noise: 4408
Agilent Recommended: >= 1200

Overall Signal to Noise E1 Test Status

Pass

NOTE: This test's 2 comment(s) and 3 deviation(s) are available in the Attachments section.

Date: January 5, 2024 10:53:24 AM
System ID: RYG_END136

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Instrument Details

Purpose
This section describes the as found system configuration.

Details

System
System ID: RYG_END136
Manufacturer: Agilent Technologies
Name: 7890
Flow Data Input: Manual Data
Temperature Data Input: Manual Data or Other Data Logging
Tested Combination: Manual Injection
Injection Technique: Front
Inlet: External
Detector: External
LTM Included?: No
Sampler 1
Manufacturer: Agilent Technologies
Type: Manual Injection
Usage: Sample Injection
Syringe Volume (µL): 10
Maintenance 1
Manufacturer: Agilent Technologies
Name: 7890
Model Number: G5442B
Serial Number: CN16463238
Firmware Revision: B.02.04.3
Component ID/Asset No.: 061117000236
Oven Type: Standard

Date: January 5, 2024 10:53:24 AM
System ID: RYG_END136

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Inlet 1
Manufacturer: Agilent Technologies
Name: 7890
Type: SSL
Location: Front
Carrier Gas: Helium
Control Type: Electronic Pressure Control (EPC)
Purged Inlet: Yes
Detector 1
Manufacturer: Agilent Technologies
Name: Mass Spectrometer
Type: Mass Spectrometer
Location: External
Mass Spectrometer 1
Manufacturer: Agilent Technologies
Type: SQ
Name: 58778
Model Number: G7077B
Serial Number: US17018058
Firmware Revision: 9377.6.00.34
High Vacuum System: Turbo Pump
Scouting Run Standard: OFN Std
Component ID/Asset No.: 061117000236
MS E1 Source 1
Manufacturer: Agilent Technologies
Source Type: EI - Extractor
Number of Elements: 2

Date: January 5, 2024 10:53:24 AM
System ID: RYG_END136

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Electronic Signature

Purpose

This signature page was created by a computer program and the digital signature cannot be displayed, which is normal for e-signatures. The signature is represented by the text "I have signed this document electronically." and the text "I have signed this document electronically." including attachments. The ACE sign-off is an electronic signature that requires two distinct identification components: unique username and personal password. The Agilent representative who has delivered this service understands the meaning and legal status of an electronic signature. As a trained official operator, the Agilent representative has a unique password and login to access ACE and electronically sign this document. (Other e-signatures can be applied to this document using a Document Content Management or other suitable method defined in your data access and control procedures.)

Details

Full Name of Signer:	Eakworn Puangtong
Logged On User Name:	eakworn_puangtong@agilent.com
Signature Creation Date:	January 5, 2024
Reason for Signature:	Executed protocol and published the results

Regulatory Disclaimer

This document provides a protocol to verify and record instrument configuration and evidence of proper operation. It has been prepared from our interpretation of applicable regulations as well as industry best practices. The document is designed to provide an important component of a complete compliance package. Validation depends upon many factors and use of this protocol alone does not assure compliance. Agilent Technologies makes no promises or representations as to its sufficiency for any specific regulatory program.

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Date: January 5, 2024 10:53:24 AM
System ID: IYG_BNO136

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User Name: subhraj_singh@redhat.com			System ID: 8716_120413	
Report Generated by Nucleon: ASDP1000014			Print Date: January 4, 2024 10:25:39 AM	
ALL_C20_8716_120413 Transaction Log:				
Time	Transaction Date	Activity Performed	Type of Transaction	Optional Information
January 4, 2024 10:37:31 AM	Auto	ServiceControl	Success	None
January 4, 2024 10:37:31 AM	Auto	Configuration	Success	None
January 4, 2024 10:37:31 AM	Auto	Entitlement	Licensing	User is PostgreSQL and does not require an external code
January 4, 2024 10:38:28 AM	Auto	LogUpdated	Success	SQL update for primary instance (SQL) - File path: (ProcessPath)\Data\Configured\nucleon\8716_120413.sql SQL File Name: (SQL-120413.sql) - SQL File Name: (ProcessPath)\Data\Configured\nucleon\8716_120413.sql SQL update for secondary instance (SQL) - File path: (ProcessPath)\Data\Configured\nucleon\8716_120413.sql SQL File Name: (SQL-120413.sql) - SQL File Name: (ProcessPath)\Data\Configured\nucleon\8716_120413.sql
January 4, 2024 10:38:40 AM	Auto	Configuration	Success	None
January 4, 2024 10:38:40 AM	Auto	Configuration	Success	None
January 4, 2024 10:38:40 AM	Auto	Execution	C20 - Logon Validation - (C20 - 1980) - Qualification test	OK
January 4, 2024 10:40:00 AM	Auto	Execution	C20 - Logon Validation - (C20 - 1980) - Qualification test	OK (Client :)

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Date: January 5, 2024 10:53:24 AM
System ID: RYO_EN0126

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Time	Transaction Status	Activity Performed	Type of Transaction	Options/Information
January 4, 2024 14:40:23	Start	Execution	System Inspection and Status Safety and Operation - 7885 - Qualifies Test - No warnings encountered	None
January 4, 2024 14:40:18	End	Execution	System Inspection and Status Safety and Operation - 7885 - Qualifies Test - No warnings encountered	Run Count: 1
January 4, 2024 14:40:22	Start	Execution	Initial Pressure Activity - Front EBL - Pressure Controller Idle - 9.24 psi - L = 1.2 psi	None
January 4, 2024 14:40:21	End	Execution	Initial Pressure Activity - Front EBL - Pressure Controller Idle - 9.24 psi - L = 1.2 psi	Run Count: 1
January 4, 2024 14:40:20	Start	Execution	OC Cool Temperature Accuracy - 7885 - Temperature (Own: 8.330 (°F) - L = 0.3 800) = 1.0.5, requires 0.4	None
January 4, 2024 14:40:18	Auto	Start	OC Cool Temperature Accuracy - 7885 - Temperature (Own: 8.330 (°F) - L = 0.3 800) = 1.0.5, requires 0.4	Manual Data Entry
January 4, 2024 14:40:18	End	Execution	OC Cool Temperature Accuracy - 7885 - Temperature (Own: 8.330 (°F) - L = 0.3 800) = 1.0.5, requires 0.4	Run Count: 1
January 4, 2024 14:40:14	Start	Execution	OC Cool Temperature Accuracy - 7885 - Temperature (Own: 8.330 (°F) - L = 0.3 800) = 1.0.5, requires 0.4	None
January 4, 2024 14:40:14	Auto	Start	OC Cool Temperature Accuracy - 7885 - Temperature (Own: 8.330 (°F) - L = 0.3 800) = 1.0.5, requires 0.4	Manual Data Entry

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Date: January 5, 2024 10:53:24 AM
System ID: RYG_EN0136

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User Name: admin@_pangloss
Report Generated by Procedure: APT0000004

System ID: RPT5_040108
Print Date: January 5, 2024 10:37:25 AM

APR_04_RPT_040108 Transmission Log

Time	Transmission Data	Activity Performed	Optional Information
January 4, 2024 10:09:48 AM	End	Execution	00 Open Temperature Stability - Run Count: 1
January 4, 2024 10:09:59 AM	Start	Execution	Activate: 1000 - Temperature
			1000 - 100.0°C L ₁ ← 1.0
			1000 ← 1.0, setpoint A,K
January 4, 2024 10:09:59 AM	Start	Execution	00 Open Temperature Stability - Hold
			1000 - Temperature - Open
			0 100.0°C L ₁ ← 0.0°C
January 4, 2024 11:02:08 AM	Auto	Data	00 Open Temperature Stability - Run Count: 1
			1000 - Temperature - Open
			0 100.0°C L ₁ ← 0.0°C
January 4, 2024 11:02:08 AM	End	Execution	00 Open Temperature Stability - Run Count: 1
			1000 - Temperature - Open
			0 100.0°C L ₁ ← 0.0°C
January 4, 2024 11:02:08 AM	End	Execution	Log Key: 00710 - 00 - Source: Hold
			0 - Execute
			0 - Execute
January 4, 2024 11:43:23 AM	End	Execution	Log Key: 00710 - 00 - Source: Run Count: 1
			0 - Execute
			0 - Execute
January 4, 2024 11:43:23 AM	Start	Execution	00PA - 00710 - 00 - Source: 0
			0 - Execute
			00PA - 00710 - 00 - Source: 0
January 4, 2024 11:50:23 AM	End	Execution	00PA - 00710 - 00 - Source: 0
			0 - Execute
			00PA - 00710 - 00 - Source: 0
January 4, 2024 11:50:23 AM	Start	Execution	Turn On: 00710 - 00 - Source: - Hold
			0 - Execute (Flament 1)
			(Flament) - No setpoint associated)
January 4, 2024 1:07:18 PM	End	Execution	Turn On: 00710 - 00 - Source: - Run Count: 0
			0 - Execute (Flament 1)
			(Flament) - No setpoint associated)
January 4, 2024 1:07:18 PM	Start	Execution	Turn On: 00710 - 00 - Source: - Hold
			0 - Execute (Flament 2)
			(Flament) - No setpoint associated)

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Date: January 5, 2024 10:53:24 AM
System ID: RYG_8340136

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User: Rocco.casimiro_jaramigue		System: 01 - RYS - 0001	
Report Generated by: Wicacura: AYS010000019		Print Date: January 5, 2024 10:20:25 AM	
ALC_OG_RYS_000105 Thresholding Job			
Time	Transaction Status	Activity Performed	Type of Transaction Optional Information
January 4, 2024 1:45:39 AM	End	Execution	Task 01 - RYS0105 - Success - Run Count: 1 01 - Execution Parameter 1 (Qualitative - No separate execution)
January 4, 2024 1:49:02 AM	Start end	Execution	Reading Run - Manual Ingestion - Run SBL 002 - Success - 01 - Execution Part of GCMS System Preparation
January 4, 2024 2:10:02 AM	Auto	AutoCloud	Success
January 5, 2024 8:05:16 AM	Auto	AutoRefreshed	Success
January 5, 2024 8:10:16 AM	Auto	SuccessRefreshed	Success
January 5, 2024 8:20:29 AM	Start	Qualification	Success
January 5, 2024 8:25:29 AM	End	Execution	Reading Run - Manual Ingestion - Run SBL 002 - Success - 01 - Execution Part of GCMS System Preparation
January 5, 2024 9:21:26 AM	Auto	Data	Reading Run - Manual Ingestion - Run SBL 002 - Success - 01 - Execution Part of GCMS System Preparation
January 5, 2024 9:21:33 AM	End	Execution	Reading Run - Manual Ingestion - Run SBL 002 - Success - 01 - Execution Part of GCMS System Preparation
January 5, 2024 9:21:33 AM	Start	Execution	Signal to Pulse 1 to Pulse 2 Ingestion - Run SBL 002 - Success - 01 - Execution going Parameter 1 (-) = 1000

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Date: January 5, 2024 10:53:24 AM
System ID: RYQ_EMD136

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User Name: celsionn_cjpurge@msd						System ID: RPTG_001819	
Report Generated by Mechanism: ADM70000019							
<u>AUX_OIG_Rptg_Mechanism Transactions</u>							
Date	Transaction Date	Status	Activity Performed	Type of Transaction	Optional Information		
January 9, 2024 9:20:39 AM		End	Qualification	Success	OQ		
January 9, 2024 9:20:39 AM		Start	Reporting	Success		None	
January 9, 2024 9:27:48 AM		End	Reporting	Success	None		
January 9, 2024 9:27:48 AM		Start	Qualification	Success	OQ		
January 9, 2024 9:30:14 AM		End	Execution	Signal to Host - E1 - Liquid Injection, Flow BBS, D2 - Source, E1 - Detector using Parameter 1, L=1	None	None	
January 9, 2024 9:33:16 AM		Auto end	Data	Signal to Host - E1 - Liquid Injection, Flow BBS, D2 - Source, E1 - Detector using Parameter 1, L=1	Data File Path: D:\OIG\DATA\RPTG_001819.D		
January 9, 2024 9:45:22 AM		End	Execution	Signal to Host - E1 - Liquid Injection, Flow BBS, D2 - Source, E1 - Detector using Parameter 1, L=1	Run Count : 1		
January 9, 2024 9:46:02 AM		Start	Execution	Signal to Host - E1 - Liquid Injection, Flow BBS, D2 - Source, E1 - Detector using Parameter 1, L=1	None		
January 9, 2024 9:48:15 AM		Auto end	Data	Signal to Host - E1 - Liquid Injection, Flow BBS, D2 - Source, E1 - Detector using Parameter 1, L=1	Data File Path: D:\OIG\DATA\RPTG_001819.D		
January 9, 2024 10:00:10 AM		End	Execution	Signal to Host - E1 - Liquid Injection, Flow BBS, D2 - Source, E1 - Detector using Parameter 1, L=1	Run Count : 1		

Date: January 8, 2024 10:53:24 AM
System ID: RYG_ENG136

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User Name: admin@_pennagon

Report Generated by Machine: ASD10000214

System ID: RYD_EN0136

Print Date: January 5, 2024 10:53:25 AM

ALS_RL_RYD_EN0136 Transaction Log:

Time	Transaction State	Activity Performed	Type of Transaction	Optional Information
January 5, 2024 10:53:05 AM	Auto	TestCompleted	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	Deviation Not for Run Count: 1
January 5, 2024 10:53:05 AM	Start	Execution	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	None
January 5, 2024 10:53:40 AM	Auto	Data	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	Data File Path: D:\00000000_RYD.D
January 5, 2024 10:53:50 AM	End	Execution	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	Run Count: 2
January 5, 2024 10:53:50 AM	Auto	TestCompleted	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	Deviation Not for Run Count: 2
January 5, 2024 10:53:50 AM	Start	Execution	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	None
January 5, 2024 10:53:50 AM	Auto	Data	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	Data File Path: D:\00000000_RYD.D
January 5, 2024 10:53:57 AM	End	Execution	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	Run Count: 3

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Date: January 5, 2024 10:53:24 AM
System ID: RYD_EN0136

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User Name: admin@_pennagon				System ID: RYD_EN0136	
Report Generated by Machine: ASD10000214				Print Date: January 5, 2024 10:53:25 AM	
ALS_RL_RYD_EN0136 Transaction Log:					
Time	Transaction State	Activity Performed	Type of Transaction	Optional Information	
January 5, 2024 10:53:11 AM	Auto	TestCompleted	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	Deviation Not for Run Count: 3	
January 5, 2024 10:53:11 AM	Start	Execution	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	None	
January 5, 2024 10:53:50 AM	Auto	Data	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	Data File Path: D:\000000000_RYD.D	
January 5, 2024 10:53:50 AM	End	Execution	Signal to Noise E1 - Liquid Injection, Front SSL, SQ - Source: E1 - Extractor using Filament 2 - L1 => 1200	Run Count: 4	
January 5, 2024 10:54:01 AM	End	Qualitative	Section	GC	
January 5, 2024 10:54:01 AM	Start	Reporting	Section	None	
January 5, 2024 10:53:27 AM	Auto	Reporting	Section	Report Generated: Certificate	
January 5, 2024 10:53:07 AM	Auto	Reporting	Section	Report Generated: Report	
January 5, 2024 10:53:28 AM	Auto	Reporting	Section	Report Generated: Certificate	
January 5, 2024 10:53:00 AM	Auto	Reporting	Section	Report Generated: Report	

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Date: January 5, 2024 10:53:24 AM
System ID: RYD_EN0136

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Certificate of System Qualification
GC-O2 - GOMS-O2

System ID: RYD_EN0136
Organization Name: ALS Laboratory Group (Thailand) Co Ltd.
Organization Location: 616/10, Moo 5, Tambon Mae Nam Khu, Phuk Daeng, Rayong 21140, Thailand
Date: July 4, 2025 10:49:05 AM
EOP Name: AgilentRecommended, AgilentRecommended
EOP Revision: GC0234, GOMS0234
Overall Qualification Status: Pass

REVIEW BY: *Chaitichak*
APPROVED BY: *P. J. J.*
NEXT CAL DATE: *01/01/27*

CDS Login Verification - GC

Login: chonicha.thurkawe
Overall CDS Login Verification - GC Test Status: Pass

System Inspection and Basic Safety and Operation

Name: 7890
Setpoint Status: Pass

Overall System Inspection and Basic Safety and Operation Test Status

Pass

Inlet Pressure Accuracy

Name: 7890
Front: SSL
Setpoint Status: Pass
Actual: 24.9 psi
Inlet Pressure: 25.0 psi
Accuracy: 0.1 psi
Agilent Recommended: +/- 1.2

Date: July 4, 2025 10:49:05 AM
System ID: RYD_EN0136

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Overall Inlet Pressure Accuracy Test Status

Pass

GC Oven Temperature Accuracy

Name: 7890
Setpoint Status: Pass
Zone: Oven
Temperature: 230.0 °C
Accuracy: 1.0 °C
Agilent Recommended: +/- 1.0 °C
Setpoint/Actual: 231 °C
% setpoint in K: (- 0.0 °C)
% setpoint in K: (0.0 °C)

Setpoint Status: Pass
Zone: Oven
Temperature: 100.0 °C
Accuracy: -0.2 °C
Agilent Recommended: +/- 0.5 °C
Setpoint/Actual: 99.8 °C
% setpoint in K: (- 0.7 °C)
% setpoint in K: (3.7 °C)

Overall GC Oven Temperature Accuracy Test Status

Pass

GC Oven Temperature Stability

Name: 7890
Setpoint Status: Pass
Temperature: 100.0 °C
Stability: 0.1 °C
Agilent Recommended: +/- 0.5 °C
Setpoint/Average: 99.61867 °C

Overall GC Oven Temperature Stability Test Status

Pass

Date: July 4, 2025 10:49:05 AM
System ID: RYD_EN0136

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Log Amp

Tested Combination1: Front SSL / External SQ
Name: 50778
Setpoint Status: Pass

Overall Log Amp Test Status

Pass

RPPA

Tested Combination1: Front SSL / External SQ
Name: 50778
Setpoint Status: Pass
Ampl: 1050 mV
Drift After Five Minutes: 7 mV
RPPA Voltage: 303 mV
Agilent Recommended: +/- 100 mV and +/- 1100 mV

Overall RPPA Test Status

Pass

Time E1

Tested Combination1: Front SSL / External SQ
Name: 50778
Setpoint Status: Pass
Filament: 1
Setpoint Status: Pass
Filament: 2

Overall Time E1 Test Status

Pass

Scouting Run

Date: July 4, 2025 10:49:05 AM
System ID: RYD_EN0136

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Tested Combination1: Front SSL / External SQ

Name: Manual Injection
Source: Not applicable
E1 - Extractor

Setpoint Status: Completed
Injection Volume on Column: 1.0 uL

Overall Scouting Run Status

Completed

Signal to Noise E1

Tested Combination1: Front SSL / External SQ
Name: 50778
Source: E1 - Extractor
Setpoint Status: Pass
Signal to Noise: 1862
Agilent Recommended: +/- 1200
Source: E1 - Extractor
Setpoint Status: Pass
Signal to Noise: 1542
Agilent Recommended: +/- 1200

Overall Signal to Noise E1 Test Status

Pass

Date: July 4, 2025 10:49:05 AM
System ID: RYD_EN0136

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Instrument Details

Purpose

This section describes the as found system configuration.

Details

System	
System ID	RYQ_EN0136
Manufacturer	Agilent Technologies
Name	7890
Flow Data Input	Manual Data
Temperature Data Input	Manual Data or Other Data Logging
Tested Configuration?	
Injection Technique	Manual Injection
Inlet	Front
Detector	External
LTM Included?	No
Sampler 1	
Manufacturer	Agilent Technologies
Type	Manual Injection
Usage	Sample Injection
Syringe Volume (uL)	10
Module 1	
Manufacturer	Agilent Technologies
Name	7890
Model Number	G3442B
Serial Number	CN14663238
Firmware Revision	B 02.04.3
Component Kit/Serial No.	081117002238
Oven Type	Standard

Date: July 4, 2020 10:49:05 AM
System ID: RYD_END138

Table 1

Manufacturer	Agilent Technologies
Name	7890
Type	SSC
Location	Front
Carrier Gas	Helium
Control Type	Electronic Pressure Control (EPC)
Purged Inlet	Yes
Detector 1	
Manufacturer	Agilent Technologies
Name	Mass Spectrometer
Type	Mass Spectrometer
Location	External
Mass Spectrometer 1	
Manufacturer	Agilent Technologies
Type	BQ
Name	5979B
Model Number	G7077B
Serial Number	US1701M008
Firmware Revision	5877 6.00.34
High Vacuum System	Turbo Pump
Scouting Run Standard	OFN Std
Component Exhaust No.	08111700235
MS El Source 1	
Manufacturer	Agilent Technologies
Source Type	El - Extractor
Number of Elements	2

Date: July 4, 2025 10:49:05 AM
System ID: RVC_EN0136

Electronic Signature

Purpose

This signature page was created and published because the ACE sign-off action was executed, which is valid for the entire document, including attachments. The ACE sign-off is an electronic signature that requires two distinct identification components: unique username and personal password. The Agilent representative who has delivered this service understands the meaning and legal status of an electronic signature. As a trained official operator, the Agilent representative has a unique password and login to access ACE and electronically sign this document. (Other e-signatures can be applied to this document using a Document Content Management or other suitable method defined in your data access and control procedures.)

[Details](#)

Full Name of Signer:	Eaknarn Puangsoopa
Logged On User Name:	eaknarn_puangsoopa@agilent.com
Signature Creation Date:	July 4, 2025
Reason for Signature:	Executed protocol and published this original version of document

ACE Self Qualification Status

The installed version of ACE used to deliver this service passed qualification; the results conform with expected values. The self qualification summary report is available in the session folder location `TS01\CleanStore\AreSelfQualification`.

Regulatory Disclaimers

This document provides a protocol to verify and record instrument configuration and evidence of proper operation. It has been prepared from our interpretation of applicable regulations as well as industry best practices. The document is designed to provide an important component of a complete compliance package. Validation depends upon many factors and use of this protocol alone does not assure compliance. Agilent Technologies makes no promises or representations as to its sufficiency for any specific regulatory concern.

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Date: July 4, 2025 10:48:09 AM
System ID: RYO_END138

User Name: adminstrator_journeago			System No: 8576, 10458	
Report Generated by Testrunner: 2023-05-22T14:50:25+05:30			Print Date: July 1, 2023 10:48:37 AM	
ALX_003_001_000103 Testrunner log -				
Time	Transaction Name	Activity Performed	Type of Transaction	Optional Information
July 1, 2023 12:57:42 PM	Auth	SessionCreated	Session	Auth Name: ALX003000001, User Name: User000177
July 1, 2023 1:00:47 PM	Auth	Configuration	Session	Name
July 1, 2023 1:01:49 PM	Auth	Execution	Session	Logic of configuration and does not require an update info.
July 1, 2023 1:08:37 PM	Auth	Exp. ended	Session	ESIP update for primary software (EC) File path: [PhysicalPath]\Config\Exp ended\ESIP (32 bit).asp ESIP File Name: [ESIP (32 bit).asp] ESIP Name: [PhysicalPath]\Config\Exp ended\ESIP (32 bit).asp ESIP update for Symantec security (ESIP) File path: [PhysicalPath]\Config\Exp ended\ESIP (32 bit).asp ESIP File Name: [ESIP (32 bit).asp] ESIP Name: [PhysicalPath]\Config\
July 1, 2023 12:58:47 PM	Env	Configuration	Session	Name
July 1, 2023 1:01:47 PM	start	Qualification	Session	(S)
July 1, 2023 1:08:49 PM	start	Execution	ESIP Logon Verification - (C) Test - Qualifier set	Name
July 1, 2023 1:12:14 PM	End	Execution	ESIP Logon Verification - (C) Test - Qualifier set	Test Count: 1

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Date: July 4, 2025 10:48:05 AM
System ID: RYU-ENG-38

[illegible]

Date: July 4, 2025 10:49:05 AM
System ID: RYG-2340138

User Name: admin_maintenance			System ID: 9351_2018	
Report Generated by: maintenance			Print Date: July 1, 2018 10:49 AM	
ALU_001_001_001018_2018 Transducer log				
Time	Transducer State	Activity Performed	Type of Transducer	Optional Information
July 1, 2018 12:25:04 PM	Alert	Done	GC Oven Temperature Alarm: 1900 °Temperature Clean: 8.160 PTC, ± 1.0 °C Dry: 10.0 PTC, ± 1.0 °C AW: ± 1.0 S, ± 0.0 S AW: ± 1.0 S, ± 0.0 S	Internal Data Entry
July 1, 2018 12:25:10 PM	Done	Execution	GC Oven Temperature	Run Count: 1
July 1, 2018 12:25:10 PM	Alert	Execution	GC Oven Temperature Alarm: 1900 °Temperature Clean: 8.160 PTC, ± 1.0 °C Dry: 10.0 PTC, ± 1.0 °C AW: ± 1.0 S, ± 0.0 S	
July 1, 2018 12:25:12 PM	Alert	Execution	GC Oven Temperature Alarm: 1900 °Temperature Clean: 8.160 PTC, ± 1.0 °C Dry: 10.0 PTC, ± 1.0 °C AW: ± 1.0 S, ± 0.0 S	Internal Data Entry
July 1, 2018 12:25:12 PM	Alert	Execution	GC Oven Temperature Alarm: 1900 °Temperature Clean: 8.160 PTC, ± 1.0 °C Dry: 10.0 PTC, ± 1.0 °C AW: ± 1.0 S, ± 0.0 S	Run Count: 1
July 1, 2018 12:25:14 PM	Alert	Execution	Log Arg. 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:17 PM	Done	Execution	Log Arg. 101779-302 - Source: Run Count: 1 1 - Error	
July 1, 2018 1:00:19 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:21 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:23 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:25 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:27 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:29 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:31 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:33 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:35 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:37 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:39 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:41 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:43 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:45 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:47 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:49 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:51 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:53 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:55 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:57 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:00:59 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:01 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:03 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:05 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:07 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:09 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:11 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:13 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:15 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:17 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:19 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:21 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:23 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:25 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:27 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:29 PM	Alert	Execution	101779 - 101779-302 - Source: None 1 - Error	
July 1, 2018 1:01:31 PM	Alert			

Date: July 4, 2025 10:49:05 AM
System ID: RYG_END136

Certificate No.: 1043-0000-0000
Request No.: 1043-0000-0000

Result of Calibration (Without Adjustment)

STD Reading			UUC Reading			Error		Uncertainty	
Temperature (°C)	Pressure (kPa)	Flow (cc/min)	Temperature (°C)	Pressure (kPa)	Flow (cc/min)	(cc/min)	(cc/min)	(°C)	(kPa)
25.3	100.98	180	-	-	180.02	-0.04	3.6	1.8	0.50
22.7	100.97	363	-	-	360.83	-2.2	8.3	1.8	0.50
23.8	100.89	1083	-	-	1080.4	-3	19	1.8	0.50
26.1	100.88	2000	-	-	2001.9	2	38	1.8	0.50
26.3	100.85	3614	-	-	3602.2	-12	57	1.8	0.50
26.7	100.81	4027	-	-	4009.9	-18	76	1.8	0.50
27.0	100.74	5048	-	-	5001.8	-46	93	1.8	0.50

Note: STD: Standard UUC: Unit Under Calibration
• UUC Reference Condition: At atmospheric pressure and room temperature condition, Air
• Flow Rate was corrected for non-standard operating condition by using equation:

$$Q_{meas} = Q_{ref} \times \frac{P_{ref}}{P_{meas}} \times \frac{T_{meas}}{T_{ref}}$$

where Q = Flow Rate P = Absolute Pressure T = Absolute Temperature
meas = Measurement Condition ref = Standard Condition

* Indicator not accredited

End of Certificate

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Certificate No.: 1043-0000-0000

Air Sampling Pump Detail

Equipment name	Personal Air Sampling Pump	Equipment ID	RYG_F50001
Brand	Qian	Serial No.	2010010004
Model/Type	Qian Plus	Calibration Date	05-Apr-25
		Next calibration date	05-Jul-25

Reference Standard Low Flow Meter

Equipment name	Air Flow Meter	Equipment ID	RYG_F50008
Brand	Metala	Serial No.	130027
Model/Type	Defender 110-L	Calibration Date	27-Jan-25
		Due Date	26-Jan-25

Reference Standard High Flow Meter

Equipment name	Air Flow Meter	Equipment ID	RYG_F50014
Brand	Metala	Serial No.	131114
Model/Type	Defender 110-M	Calibration Date	9-Sep-24
		Due Date	8-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.5	20.5	20.2	20.1	5%	19 - 21	Passed
50	51.7	51.8	51.7	51.7	5%	48 - 53	Passed
100	102.7	101.9	102.3	102.3	5%	95 - 105	Passed
200	200.5	200.9	200.6	200.6	5%	190 - 210	Passed
High Flow							
500	498.8	499.3	499.2	499.1	3%	485 - 515	Passed
1000	1016.7	1003.8	1010.1	1010.9	3%	970 - 1030	Passed
2000	1994.3	1980.8	1985.6	1985.1	3%	1940 - 2060	Passed
2500	2488.1	2482.1	2486.1	2485.4	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By: (Mr. Natchaporn Tharnkang) Approved By: (Mr. Supot Salatan) RYG Field Services Section Head
Issue date: 05-Apr-25

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Certificate No.: 1043-0000-0000

Air Sampling Pump Detail

Equipment name	Personal Air Sampling Pump	Equipment ID	RYG_F50002
Brand	Qian	Serial No.	2010010005
Model/Type	Qian Plus	Calibration Date	05-Apr-25
		Next calibration date	05-Jul-25

Reference Standard Low Flow Meter

Equipment name	Air Flow Meter	Equipment ID	RYG_F50008
Brand	Metala	Serial No.	130027
Model/Type	Defender 110-L	Calibration Date	27-Jan-25
		Due Date	26-Jan-25

Reference Standard High Flow Meter

Equipment name	Air Flow Meter	Equipment ID	RYG_F50014
Brand	Metala	Serial No.	131114
Model/Type	Defender 110-M	Calibration Date	9-Sep-24
		Due Date	8-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	20.8	20.4	20.4	20.5	5%	19 - 21	Passed
50	52.2	52.1	52.2	52.2	5%	48 - 53	Passed
100	101.1	101.9	101.2	101.1	5%	95 - 105	Passed
200	199.0	201.6	200.6	200.4	5%	190 - 210	Passed
High Flow							
500	497.4	499.2	498.3	498.6	3%	485 - 515	Passed
1000	999.0	1003.8	1001.5	1001.6	3%	970 - 1030	Passed
2000	2004.8	2003.8	2007.2	2005.2	3%	1940 - 2060	Passed
2500	2510.0	2511.7	2507.7	2509.6	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By: (Mr. Natchaporn Tharnkang) Approved By: (Mr. Supot Salatan) RYG Field Services Section Head
Issue date: 05-Apr-25

ALS Laboratory Group (Thailand) Co., Ltd.
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Certificate No.: 1043-0000-0000

Air Sampling Pump Detail

Equipment name	Personal Air Sampling Pump	Equipment ID	RYG_F50005
Brand	Qian	Serial No.	2010010006
Model/Type	Qian Plus	Calibration Date	05-Apr-25
		Next calibration date	05-Jul-25

Reference Standard Low Flow Meter

Equipment name	Air Flow Meter	Equipment ID	RYG_F50008
Brand	Metala	Serial No.	130027
Model/Type	Defender 110-L	Calibration Date	27-Jan-25
		Due Date	26-Jan-25

Reference Standard High Flow Meter

Equipment name	Air Flow Meter	Equipment ID	RYG_F50014
Brand	Metala	Serial No.	131114
Model/Type	Defender 110-M	Calibration Date	9-Sep-24
		Due Date	8-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.8	20.2	20.3	20.1	5%	19 - 21	Passed
50	50.5	50.7	50.9	50.7	5%	48 - 53	Passed
100	100.8	101.2	101.3	101.2	5%	95 - 105	Passed
200	201.2	200.8	201.0	201.0	5%	190 - 210	Passed
High Flow							
500	501.7	500.8	500.4	501.0	3%	485 - 515	Passed
1000	998.2	1000.3	1000.4	999.6	3%	970 - 1030	Passed
2000	2002.5	1999.5	1999.7	2000.6	3%	1940 - 2060	Passed
2500	2508.5	2508.4	2503.5	2506.1	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By: (Mr. Natchaporn Tharnkang) Approved By: (Mr. Supot Salatan) RYG Field Services Section Head
Issue date: 07-Apr-25

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Certificate No.: 1043-0000-0000

Air Sampling Pump Detail

Equipment name	Personal Air Sampling Pump	Equipment ID	RYG_F50043
Brand	Qian	Serial No.	2010010007
Model/Type	Qian Plus	Calibration Date	05-Apr-25
		Next calibration date	05-Jul-25

Reference Standard Low Flow Meter

Equipment name	Air Flow Meter	Equipment ID	RYG_F50008
Brand	Metala	Serial No.	130027
Model/Type	Defender 110-L	Calibration Date	27-Jan-25
		Due Date	26-Jan-25

Reference Standard High Flow Meter

Equipment name	Air Flow Meter	Equipment ID	RYG_F50014
Brand	Metala	Serial No.	131114
Model/Type	Defender 110-M	Calibration Date	9-Sep-24
		Due Date	8-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.2	19.4	19.6	19.4	5%	19 - 21	Passed
50	49.0	48.5	48.4	48.6	5%	48 - 53	Passed
100	101.1	101.4	100.6	101.0	5%	95 - 105	Passed
200	199.9	199.8	199.4	199.6	5%	190 - 210	Passed
High Flow							
500	504.2	504.8	505.5	504.8	3%	485 - 515	Passed
1000	1004.1	1002.8	1000.8	1002.6	3%	970 - 1030	Passed
2000	2005.6	2005.2	2007.6	2006.1	3%	1940 - 2060	Passed
2500	2514.2	2508.4	2512.3	2511.0	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By: (Mr. Natchaporn Tharnkang) Approved By: (Mr. Supot Salatan) RYG Field Services Section Head
Issue date: 04-Jul-25

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Certificate No.: 1043-0000-0000

Air Sampling Pump Detail

Equipment name	Personal Air Sampling Pump	Equipment ID	RYG_F50042
Brand	Qian	Serial No.	2020071908
Model/Type	Qian Plus	Calibration Date	27-Jan-25
		Next calibration date	27-Oct-25

Reference Standard Low Flow Meter

Equipment name	Air Flow Meter	Equipment ID	RYG_F50008
Brand	Metala	Serial No.	130027
Model/Type	Defender 110-L	Calibration Date	27-Jan-25
		Due Date	26-Jan-25

Reference Standard High Flow Meter

Equipment name	Air Flow Meter	Equipment ID	RYG_F50014
Brand	Metala	Serial No.	131114
Model/Type	Defender 110-M	Calibration Date	9-Sep-24
		Due Date	8-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range
------------------------------------	--------------------------------------	--	--	---------------	-------------------	------------------

ALS Laboratory Group (Thailand) Co., Ltd.
104 Pathumwan Rd. Pathumwan Rd.
Pathumwan, Suan Luang Bangkok 10330
T +66 2 745 3888 F +66 2 745 3107

Certificate of Calibration

Certificate No. : C-080725-RYD_F30238

Air Sampling Pump Detail

Equipment name : Personal Air Sampling Pump
Brand : Oshan
Model/Type : G404 Plus
Equipment ID : RYD_F30238
Serial No. : 20150210096
Calibration Date : 03-Jul-25
Next calibration date : 03-Oct-25

Reference Standard Low Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-L
Equipment ID : RYD_F30208
Serial No. : 130027
Calibration Date : 27-Jan-25
Due Date : 26-Jan-25



Reference Standard High Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-M
Equipment ID : BOK_F30614
Serial No. : 131114
Calibration Date : 9-Sep-24
Due Date : 9-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.8	20.3	20.3	20.1	5%	19 - 21	Passed
50	49.9	50.0	50.0	50.0	5%	48 - 53	Passed
100	99.4	99.9	99.9	99.8	5%	95 - 105	Passed
200	200.3	201.6	202.3	201.4	5%	190 - 210	Passed
High Flow							
500	502.3	506.5	503.4	504.1	3%	485 - 515	Passed
1000	998.7	992.9	994.9	995.5	3%	970 - 1020	Passed
2000	1998.9	1998.8	1995.5	1998.1	3%	1940 - 2060	Passed
2500	2518.5	2507.6	2512.2	2512.1	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By :  (Mr. Natchaphon Thiangkarn)
Approved By :  (Mr. Supot Salamee)
RYD Field Services Scientist (1) Field Services Section Head

Issue date : 04-Jul-25

Page 1 of 1

R98-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Pathumwan Rd. Pathumwan Rd.
Pathumwan, Suan Luang Bangkok 10330
T +66 2 745 3888 F +66 2 745 3107

Certificate of Calibration

Certificate No. : C-080725-RYD_F30298

Air Sampling Pump Detail

Equipment name : Personal Air Sampling Pump
Brand : Oshan
Model/Type : G404 Plus
Equipment ID : RYD_F30298
Serial No. : 20150210099
Calibration Date : 06-Jul-25
Next calibration date : 06-Oct-25

Reference Standard Low Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-L
Equipment ID : RYD_F30208
Serial No. : 130027
Calibration Date : 27-Jan-25
Due Date : 26-Jan-25



Reference Standard High Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-M
Equipment ID : BOK_F30614
Serial No. : 131114
Calibration Date : 9-Sep-24
Due Date : 9-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	20.1	19.8	21.0	20.3	5%	19 - 21	Passed
50	49.7	49.5	49.1	49.4	5%	48 - 53	Passed
100	98.9	98.9	99.2	99.0	5%	95 - 105	Passed
200	201.6	202.3	202.8	202.2	5%	190 - 210	Passed
High Flow							
500	500.6	511.2	508.1	509.0	3%	485 - 515	Passed
1000	999.6	997.1	998.4	999.4	3%	970 - 1020	Passed
2000	2003.8	2003.1	2002.4	2003.1	3%	1940 - 2060	Passed
2500	2518.0	2514.8	2516.8	2516.5	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By :  (Mr. Natchaphon Thiangkarn)
Approved By :  (Mr. Supot Salamee)
RYD Field Services Scientist (1) Field Services Section Head

Issue date : 07-Jul-25

Page 1 of 1

R98-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Pathumwan Rd. Pathumwan Rd.
Pathumwan, Suan Luang Bangkok 10330
T +66 2 745 3888 F +66 2 745 3107

Certificate of Calibration

Certificate No. : C-080725-RYD_F30268

Air Sampling Pump Detail

Equipment name : Personal Air Sampling Pump
Brand : Oshan
Model/Type : G404 Plus
Equipment ID : RYD_F30268
Serial No. : 20150210061
Calibration Date : 26-Jul-25
Next calibration date : 26-Oct-25

Reference Standard Low Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-L
Equipment ID : RYD_F30208
Serial No. : 130027
Calibration Date : 27-Jan-25
Due Date : 26-Jan-25



Reference Standard High Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-M
Equipment ID : BOK_F30614
Serial No. : 131114
Calibration Date : 9-Sep-24
Due Date : 9-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.4	20.7	20.5	20.2	5%	19 - 21	Passed
50	50.8	49.4	49.6	49.9	5%	48 - 53	Passed
100	99.8	99.8	99.8	99.8	5%	95 - 105	Passed
200	200.2	200.2	200.2	200.2	5%	190 - 210	Passed
High Flow							
500	502.5	503.7	502.2	502.8	3%	485 - 515	Passed
1000	1003.7	1003.2	1005.6	1004.2	3%	970 - 1020	Passed
2000	1998.1	2003.9	1999.5	2000.0	3%	1940 - 2060	Passed
2500	2503.2	2509.8	2502.6	2505.2	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By :  (Mr. Natchaphon Thiangkarn)
Approved By :  (Mr. Supot Salamee)
RYD Field Services Scientist (1) Field Services Section Head

Issue date : 07-Jul-25

Page 1 of 1

R98-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Pathumwan Rd. Pathumwan Rd.
Pathumwan, Suan Luang Bangkok 10330
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Certificate of Calibration

Certificate No. : C-080725-RYD_F30268

Air Sampling Pump Detail

Equipment name : Personal Air Sampling Pump
Brand : Oshan
Model/Type : G404 Plus
Equipment ID : RYD_F30268
Serial No. : 20150210061
Calibration Date : 03-Jul-25
Next calibration date : 03-Oct-25

Reference Standard Low Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-L
Equipment ID : RYD_F30208
Serial No. : 130027
Calibration Date : 27-Jan-25
Due Date : 26-Jan-25



Reference Standard High Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-M
Equipment ID : BOK_F30614
Serial No. : 131114
Calibration Date : 9-Sep-24
Due Date : 9-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.6	19.3	19.5	19.5	5%	19 - 21	Passed
50	50.5	50.5	49.8	50.2	5%	48 - 53	Passed
100	100.6	100.6	100.6	100.6	5%	95 - 105	Passed
200	199.9	200.1	200.2	200.1	5%	190 - 210	Passed
High Flow							
500	503.8	504.8	501.4	504.6	3%	485 - 515	Passed
1000	1008.0	1006.4	1005.1	1006.5	3%	970 - 1020	Passed
2000	1998.2	1999.0	1997.3	1998.2	3%	1940 - 2060	Passed
2500	2502.2	2508.8	2498.8	2502.6	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By :  (Mr. Natchaphon Thiangkarn)
Approved By :  (Mr. Supot Salamee)
RYD Field Services Scientist (1) Field Services Section Head

Issue date : 04-Jul-25

Page 1 of 1

R98-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Pathumwan Rd. Pathumwan Rd.
Pathumwan, Suan Luang Bangkok 10330
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Certificate of Calibration

Certificate No. : C-080725-RYD_F30267

Air Sampling Pump Detail

Equipment name : Personal Air Sampling Pump
Brand : Oshan
Model/Type : G404 Plus
Equipment ID : RYD_F30267
Serial No. : 20150210164
Calibration Date : 06-Jul-25
Next calibration date : 06-Oct-25

Reference Standard Low Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-L
Equipment ID : RYD_F30208
Serial No. : 130027
Calibration Date : 27-Jan-25
Due Date : 26-Jan-25



Reference Standard High Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-M
Equipment ID : BOK_F30614
Serial No. : 131114
Calibration Date : 9-Sep-24
Due Date : 9-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.7	19.9	19.7	19.8	5%	19 - 21	Passed
50	51.1	51.1	50.4	50.9	5%	48 - 53	Passed
100	100.9	100.8	101.1	100.9	5%	95 - 105	Passed
200	199.1	199.2	199.9	199.1	5%	190 - 210	Passed
High Flow							
500	508.1	504.9	507.3	506.8	3%	485 - 515	Passed
1000	1003.6	1009.9	1006.7	1006.7	3%	970 - 1020	Passed
2000	2015.9	2014.2	2015.9	2015.3	3%	1940 - 2060	Passed
2500	2494.0	2490.6	2495.7	2494.4	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By :  (Mr. Natchaphon Thiangkarn)
Approved By :  (Mr. Supot Salamee)
RYD Field Services Scientist (1) Field Services Section Head

Issue date : 07-Jul-25

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R98-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Pathumwan Rd. Pathumwan Rd.
Pathumwan, Suan Luang Bangkok 10330
T +66 2 745 3888 F +66 2 745 3107

Certificate of Calibration

Certificate No. : C-080725-RYD_F30217

Air Sampling Pump Detail

Equipment name : Personal Air Sampling Pump
Brand : Oshan
Model/Type : G404 Plus
Equipment ID : RYD_F30217
Serial No. : 20150210168
Calibration Date : 26-Jul-25
Next calibration date : 26-Oct-25

Reference Standard Low Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-L
Equipment ID : RYD_F30208
Serial No. : 130027
Calibration Date : 27-Jan-25
Due Date : 26-Jan-25



Reference Standard High Flow Meter

Equipment name : Air Flow Meter
Brand : Mettler
Model/Type : Defender F10-M
Equipment ID : BOK_F30614
Serial No. : 131114
Calibration Date : 9-Sep-24
Due Date : 9-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	21.1	20.7	20.9	20.9	5%	19 - 21	Passed
50	49.1	49.7	49.3	49.4	5%	48 - 53	Passed
100	101.2	102.7	100.4	101.4	5%	95 - 105	Passed
200	200.1	204.1	202.1	204.4	5%	190 - 210	Passed
High Flow							
500	500.8	500.7	500.4	500.3	3%	485 - 515	Passed
1000	997.5	997.7	990.1	994.4	3%	970 - 1020	Passed
2000	2009.6	2008.7	2009.0	2009.1	3%	1940 - 2060	Passed
2500	2501.1	2501.6	2501.3	2501.3	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By :  (Mr. Natchaphon Thiangkarn)
Approved By :  (Mr. Supot Salamee)
RYD Field Services Scientist (1) Field Services Section Head

Issue date : 07-Jul-25

Page 1 of 1

R98-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanasarakul Phatthanasarakul Rd.
Phatthanasarakul, Suvarnabhumi, Bangkok 10150
T +66 2 585 8888 F +66 2 585 1101

Certificate of Calibration

Certificate No.: C-081025-RYG_F50006

Air Sampling Pump Detail

Equipment name: Personal Air Sampling Pump
Brand: Osha
Model/Type: Osha Plus
Equipment ID: RYG_F50006
Serial No.: 2020110099
Calibration Date: 05-Oct-25
Next calibration date: 05-Oct-25

Reference Standard Low Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-L
Equipment ID: RYG_F50008
Serial No.: 130027
Calibration Date: 27-Jan-25
Due Date: 26-Jan-25

Reference Standard High Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-M
Equipment ID: BOK_F50014
Serial No.: 131114
Calibration Date: 9-Sep-24
Due Date: 9-Sep-25

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	20.6	20.4	20.6	20.5	5%	19 - 21	Passed
50	50.5	50.0	49.9	50.1	5%	48 - 53	Passed
100	101.0	100.8	100.9	100.9	5%	95 - 105	Passed
200	199.2	198.9	198.9	199.0	5%	190 - 210	Passed
High Flow							
500	502.3	500.7	502.9	502.0	3%	485 - 515	Passed
1000	1002.6	1001.8	1002.1	1002.2	3%	970 - 1030	Passed
2000	2000.5	2002.9	2002.3	2001.9	3%	1940 - 2060	Passed
2500	2501.2	2494.9	2498.8	2498.3	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By: (Signature)
(Mr. Nattawat Sam)
RYO Field Services Scientist (1)

Approved By: (Signature)
(Mr. Supot Salameh)
Field Services Section Head

Issue date: 07-Jul-25

Page 1 of 1

R96-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanasarakul Phatthanasarakul Rd.
Phatthanasarakul, Suvarnabhumi, Bangkok 10150
T +66 2 585 8888 F +66 2 585 1101

Certificate of Calibration

Certificate No.: C-021025-RYG_F50009

Air Sampling Pump Detail

Equipment name: Personal Air Sampling Pump
Brand: Osha
Model/Type: Osha Plus
Equipment ID: RYG_F50009
Serial No.: 2020110099
Calibration Date: 03-Oct-25
Next calibration date: 03-Jan-26

Reference Standard Low Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-L
Equipment ID: RYG_F50008
Serial No.: 130027
Calibration Date: 27-Jan-25
Due Date: 26-Jan-25

Reference Standard High Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-M
Equipment ID: BOK_F50014
Serial No.: 131114
Calibration Date: 30-Sep-25
Due Date: 09-Sep-26

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	20.3	20.1	20.4	20.3	5%	19 - 21	Passed
50	51.1	51.8	51.0	51.2	5%	48 - 53	Passed
100	102.2	102.1	99.3	100.9	5%	95 - 105	Passed
200	201.4	200.9	200.3	200.9	5%	190 - 210	Passed
High Flow							
500	501.9	502.6	503.0	502.5	3%	485 - 515	Passed
1000	1004.9	1005.7	1006.4	1005.7	3%	970 - 1030	Passed
2000	2000.1	2003.6	2001.3	2001.7	3%	1940 - 2060	Passed
2500	2505.0	2507.1	2504.6	2505.6	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By: (Signature)
(Mr. Nattawat Sam)
RYO Field Services Scientist (1)

Approved By: (Signature)
(Mr. Supot Salameh)
Field Services Section Head

Issue date: 04-Oct-25

Page 1 of 1

R96-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanasarakul Phatthanasarakul Rd.
Phatthanasarakul, Suvarnabhumi, Bangkok 10150
T +66 2 585 8888 F +66 2 585 1101

Certificate of Calibration

Certificate No.: C-081025-RYG_F50001

Air Sampling Pump Detail

Equipment name: Personal Air Sampling Pump
Brand: Osha
Model/Type: Osha Plus
Equipment ID: RYG_F50001
Serial No.: 2020110099
Calibration Date: 05-Oct-25
Next calibration date: 05-Jan-26

Reference Standard Low Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-L
Equipment ID: RYG_F50008
Serial No.: 130027
Calibration Date: 27-Jan-25
Due Date: 26-Jan-25

Reference Standard High Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-M
Equipment ID: BOK_F50014
Serial No.: 131114
Calibration Date: 30-Sep-25
Due Date: 09-Sep-26

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	20.8	20.1	20.5	20.5	5%	19 - 21	Passed
50	51.1	50.9	51.0	51.0	5%	48 - 53	Passed
100	101.9	100.8	102.3	101.7	5%	95 - 105	Passed
200	201.6	202.4	203.1	202.4	5%	190 - 210	Passed
High Flow							
500	504.8	505.2	507.6	505.7	3%	485 - 515	Passed
1000	1004.1	1007.6	1006.1	1005.9	3%	970 - 1030	Passed
2000	2003.3	2002.9	2007.3	2004.5	3%	1940 - 2060	Passed
2500	2507.9	2503.8	2504.1	2505.2	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By: (Signature)
(Mr. Nattawat Sam)

Approved By: (Signature)
(Mr. Supot Salameh)
Field Services Section Head

Issue date: 07-Oct-25

Page 1 of 1

R96-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanasarakul Phatthanasarakul Rd.
Phatthanasarakul, Suvarnabhumi, Bangkok 10150
T +66 2 585 8888 F +66 2 585 1101

Certificate of Calibration

Certificate No.: C-021025-RYG_F50080

Air Sampling Pump Detail

Equipment name: Personal Air Sampling Pump
Brand: Osha
Model/Type: Osha Plus
Equipment ID: RYG_F50080
Serial No.: 2020110099
Calibration Date: 02-Oct-25
Next calibration date: 02-Jan-26

Reference Standard Low Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-L
Equipment ID: RYG_F50008
Serial No.: 130027
Calibration Date: 27-Jan-25
Due Date: 26-Jan-25

Reference Standard High Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-M
Equipment ID: BOK_F50014
Serial No.: 131114
Calibration Date: 30-Sep-25
Due Date: 09-Sep-26

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.8	19.9	20.4	20.1	5%	19 - 21	Passed
50	51.5	51.1	51.7	51.4	5%	48 - 53	Passed
100	100.7	100.4	100.6	100.5	5%	95 - 105	Passed
200	200.1	199.6	200.0	200.0	5%	190 - 210	Passed
High Flow							
500	502.9	503.0	500.9	501.9	3%	485 - 515	Passed
1000	1002.8	1001.7	1001.0	1001.6	3%	970 - 1030	Passed
2000	2003.6	2001.0	2001.4	2002.0	3%	1940 - 2060	Passed
2500	2501.0	2504.1	2498.5	2501.2	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By: (Signature)
(Mr. Nattawat Sam)
RYO Field Services Scientist (1)

Approved By: (Signature)
(Mr. Supot Salameh)
Field Services Section Head

Issue date: 03-Oct-25

Page 1 of 1

R96-125 Rev.2 Issue date 27/03/25

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Agilent GreenLab Compliance Services

Certificate of System Qualification

GC-QQ

System ID: GC-4_QN1481006
Organization Name: ALS Laboratory Group (Thailand) Co., Ltd.
Organization Location: 104 Soi 40 Phatthanasarakul Rd./Phuang Suvarnabhumi, Khlong San, Bangkok 10150

Date: October 22, 2024 9:27:05 AM
EQP Name: Agilent Recommended
EQP Revision: GC-02-03
Overall Qualification Status: Pass

CDR Logon Verification - GC
Logon: Successful
Overall CDR Logon Verification - GC Test Status: Pass

System Inspection and Basic Safety and Operation

Name: 7890
Setpoint Status: Pass
Pressure: 25.0 psi
Pressure Change: 0.0 psi and 0.5 minutes
Agilent Recommended: +/- 2.0 and +/- 0.5

Overall System Inspection and Basic Safety and Operation Test Status: Pass

Inlet Pressure Decay

Name: 7890
Front: SSL
Setpoint Status: Pass
Pressure: 25.0 psi
Pressure Change: 0.0 psi and 0.5 minutes
Agilent Recommended: +/- 2.0 and +/- 0.5

Date: October 22, 2024 9:27:05 AM
System ID: GC-4_QN1481006

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Agilent GreenLab Compliance Services

Overall Inlet Pressure Decay Test Status

Pass

Inlet Pressure Accuracy

Name: 7890
Front: SSL
Setpoint Status: Pass
Pressure: 25.0 psi
Pressure Change: 0.0 psi and 0.5 minutes
Agilent Recommended: +/- 2.0 and +/- 0.5

Overall Inlet Pressure Accuracy Test Status

Pass

Inlet Pressure Decay

Name: 7890
Back: SSL
Setpoint Status: Pass
Pressure: 25.0 psi
Pressure Change: 0.0 psi and 0.5 minutes
Agilent Recommended: +/- 2.0 and +/- 0.5

Overall Inlet Pressure Decay Test Status

Pass

Inlet Pressure Accuracy

Name: 7890
Back: SSL
Setpoint Status: Pass
Pressure: 25.0 psi
Pressure Change: 0.0 psi and 0.5 minutes
Agilent Recommended: +/- 2.0 and +/- 0.5

Date: October 22, 2024 9:27:05 AM
System ID: GC-4_QN1481006

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Setpoint Status: Pass

Inlet Pressure: Setpoint 25.0 psi Actual 26.00 psi

Accuracy: 0.1 psi

Agilent Recommended: <= 1.2

Overall Inlet Pressure Accuracy Test Status: Pass

Detector Flow Accuracy

Name: 7890

Flow Type: Front FID

Setpoint Status: Pass

Flow Type: Fuel

Setpoint: 30.0 mL/min Measured Flow: 28.8 mL/min

Accuracy: 1.2 mL/min

Agilent Recommended: <= 10.0 % setpoint (3.0 mL/min)

Limit is percentage of setpoint or 0.5 mL/min, whichever is largest.

Setpoint Status: Pass

Flow Type: Outdoor

Setpoint: 400.0 mL/min Measured Flow: 392 mL/min

Accuracy: 8.0 mL/min

Agilent Recommended: <= 10.0 % setpoint (40.0 mL/min)

Limit is percentage of setpoint or 0.5 mL/min, whichever is largest.

Setpoint Status: Pass

Flow Type: Makeup

Setpoint: 25.0 mL/min Measured Flow: 25.4 mL/min

Accuracy: 0.4 mL/min

Agilent Recommended: <= 10.0 % setpoint (2.5 mL/min)

Limit is percentage of setpoint or 0.5 mL/min, whichever is largest.

Date: October 22, 2024 9:27:55 AM

System ID: GC-6_C011401086

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Overall Detector Flow Accuracy Test Status: Pass

Detector Flow Accuracy

Name: 7890

Back FID

Setpoint Status: Pass

Flow Type: Fuel

Setpoint: 30.0 mL/min Measured Flow: 30.8 mL/min

Accuracy: 0.8 mL/min

Agilent Recommended: <= 10.0 % setpoint (3.0 mL/min)

Limit is percentage of setpoint or 0.5 mL/min, whichever is largest.

Setpoint Status: Pass

Flow Type: Outdoor

Setpoint: 400.0 mL/min Measured Flow: 393 mL/min

Accuracy: 7.0 mL/min

Agilent Recommended: <= 10.0 % setpoint (40.0 mL/min)

Limit is percentage of setpoint or 0.5 mL/min, whichever is largest.

Setpoint Status: Pass

Flow Type: Makeup

Setpoint: 25.0 mL/min Measured Flow: 25.2 mL/min

Accuracy: 0.2 mL/min

Agilent Recommended: <= 10.0 % setpoint (2.5 mL/min)

Limit is percentage of setpoint or 0.5 mL/min, whichever is largest.

Overall Detector Flow Accuracy Test Status: Pass

GC Oven Temperature Accuracy

Name: 7890

Date: October 22, 2024 9:27:55 AM

System ID: GC-6_C011401086

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Setpoint Status: Pass

Zone: Oven

Setpoint/Actual: 220.0 220.3 °C

Accuracy: 0.3 °C

Agilent Recommended: <= -1.0 % setpoint in K (-5.0 °C)

<= 1.0 % setpoint in K (5.0 °C)

Setpoint Status: Pass

Zone: Oven

Setpoint/Actual: 100.0 100.0 °C

Accuracy: 0.0 °C

Agilent Recommended: <= -1.0 % setpoint in K (-3.7 °C)

<= 1.0 % setpoint in K (3.7 °C)

Overall GC Oven Temperature Accuracy Test Status: Pass

GC Oven Temperature Stability

Name: 7890

Setpoint Status: Pass

Setpoint/Average: 100.0 100.0167 °C

Stability: 0.1 °C

Agilent Recommended: <= 0.5

Overall GC Oven Temperature Stability Test Status: Pass

Scouting Run

Tested Combination1: Front SSL / Front FID

Injection Tower: 7890A

Name: 7890A

Date: October 22, 2024 9:27:55 AM

System ID: GC-6_C011401086

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Setpoint Status: Completed

Injection Volume on Column: 1.0 µL

Overall Scouting Run Status: Completed

Noise and Drift

Tested Combination1: Front SSL / Front FID

Name: 7890

Setpoint Status: Pass

Base Signal: 14.05 pA

ASTM Noise: 0.05 pA

Drift: 0.03 pA/hr

Agilent Recommended: <= 0.10 <= 2.50

Status: Pass Pass

Overall Noise and Drift Test Status: Pass

Injection Precision

Tested Combination1: Front SSL / Front FID

Name: 7890A

Setpoint Status: Pass

Injection Volume on Column: 1.0 µL

Area RSD: 0.30 %

Retention Time RSD: 0.63 %

Agilent Recommended: <= 3.00 <= 1.00

Overall Injection Precision Test Status: Pass

Signal to Noise

Date: October 22, 2024 9:27:55 AM

System ID: GC-6_C011401086

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Tested Combination1: Front SSL / Front FID

Injection Tower: 7890

Name: 7890

Setpoint Status: Pass

Signal to Noise: 11078026

Agilent Recommended: <= 300000

Overall Signal to Noise Test Status: Pass

Scouting Run

Tested Combination2: Back SSL / Back FID

Injection Tower: 7890A

Name: 7890A

Setpoint Status: Completed

Injection Volume on Column: 1.0 µL

Overall Scouting Run Status: Completed

Noise and Drift

Tested Combination2: Back SSL / Back FID

Name: 7890

Setpoint Status: Pass

Base Signal: 13.79 pA

ASTM Noise: 0.05 pA

Drift: 0.01 pA/hr

Agilent Recommended: <= 0.10 <= 2.50

Status: Pass Pass

Date: October 22, 2024 9:27:55 AM

System ID: GC-6_C011401086

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Overall Noise and Drift Test Status: Pass

Injection Precision

Tested Combination2: Back SSL / Back FID

Name: 7890A

Setpoint Status: Pass

Injection Volume on Column: 1.0 µL

Area RSD: 1.06 %

Retention Time RSD: 0.93 %

Agilent Recommended: <= 3.00 <= 1.00

Overall Injection Precision Test Status: Pass

Signal to Noise

Tested Combination2: Back SSL / Back FID

Name: 7890

Setpoint Status: Pass

Signal to Noise: 1771221

Agilent Recommended: <= 300000

Overall Signal to Noise Test Status: Pass

Date: October 22, 2024 9:27:55 AM

System ID: GC-6_C011401086

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[illegible]

Date: October 22, 2024 9:27:05 AM
System ID: GC-6_CW11481086

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[illegible]

Date: October 22, 2024 9:27:05 AM
System ID: GC-E_C011481066

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User Name: sawaguchi@nsl				Run Date: 2024-03-14 08:58	
View Document by Resource: LAPTOP-CC2399340				Print Date: 2024-03-14 08:58	
R024_A3_024_C0141608_0206 Testability: Failure					
Time	Transaction	Activity	Type of Transaction	Optional Information	
October 21, 2024 13:39:00	Start	Finished	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	None	
October 21, 2024 13:40:33	AutoR	Done	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	Water Seal Entry	
October 21, 2024 13:46:30	Start	Execution	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	Run Closed: 1	
October 21, 2024 13:46:42	Start	Execution	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	Run Closed: 1	
October 21, 2024 13:50:00	AutoR	Done	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	Normal Stop Entry	
October 21, 2024 13:50:07	AutoR	Execution	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	Run Closed: 1	
October 21, 2024 13:50:33	Start	Execution	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	Run Closed: 1	
October 21, 2024 14:00:15	AutoClosed	None	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	None	
October 21, 2024 14:00:47	AutoR	Execution	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	None	
October 21, 2024 14:00:50	AutoR	Execution	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	None	
October 21, 2024 14:01:02	Start	Execution	QC Over Temperature - 1800 - Temperature - Over: 9 100°C - ± 1.8 - Under: 1 0.8 seconds ± 0.8	None	

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Date: October 22, 2024 9:27:05 AM
System ID: QC-6_C915461086

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[illegible]

Date: October 22, 2024 9:27:05 AM
System ID: OC-6_CN11481068

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[illegible]

Date: October 22, 2024 9:27:05 AM
System ID: GC-6_CN11461066

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Event Name: Nucleon			System ID: CSC-2017-0018	
Report Generated by System: LAPTOP-CSC02009			Print Date: October 12, 2019 3:20 AM	
View ASL , CSC-6 , CSC101000 , CSC000 Transaction by ID:				
Date	Transaction Date	Activity Performed	Type of Transaction	Optional Information
October 12, 2019 00:02:34	End	Execution	Signal to Host: Ignition Trans: Fuel 50, Fuel FID: 1 Detector: FID - 1 = 30000	Run Count: 1
October 12, 2019 00:02:30	Start	Execution	GC Starting Run: Ignition Trans: Back 50, Fuel FID: 1 Fuel of System Preparation - 10 Units accounted	None
October 12, 2019 00:02:30	Auto	Done	GC Starting Run: Ignition Trans: Back 50, Fuel FID: 1 Fuel of System Preparation - 10 Units accounted	Close Path: 2.000000, 0.000000 (2)
October 12, 2019 00:04:03	End	Execution	GC Starting Run: Ignition Trans: Back 50, Fuel FID: 1 Fuel of System Preparation - 10 Units accounted	Run Count: 1
October 12, 2019 00:04:06	Start	Execution	Host and DRI: Back 50 Detector: FID - 1 (Host) = 5.000000, 0.000000 = 1.00 g/min	None
October 12, 2019 00:06:58	Auto	Done	Host and DRI: Back 50 Detector: FID - 1 (Host) = 5.000000, 0.000000 = 1.00 g/min	Close Path: 2.000000, 0.000000 (2)
October 12, 2019 00:08:10	End	Execution	Host and DRI: Back 50 Detector: FID - 1 (Host) = 5.000000, 0.000000 = 1.00 g/min	Run Count: 1
October 12, 2019 00:08:10	Start	Execution	Ignition Prestart: Ignition Trans: Back 50, Fuel FID: 1 Fuel - 1 (Host) = 30000 (1) g/min - 1 (Host) = 100%	None

Date: October 22, 2024 9:27:05 AM
System ID: DC-8_CNN1461066

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Page 1 of 1 Pages

THIS CERTIFICATE OF CALIBRATION MAY NOT BE REPRODUCED EXCEPT IN FULL UNLESS PERMISSION FOR REPRODUCTION HAS BEEN OBTAINED
IN WRITING FROM THE LABORATORY

The Cap government, Unit Under Calibration (UUC) was exercised at 10 m/s for 3 minutes prior to calibration being performed. The standard air velocity 0.3 m/s to 1 m/s was calculated by a standard air velocity transducer which was installed 30 mm away from wall/floor junction and installed 60 mm away from the top of the test section and the standard air velocity 3 m/s to 30 m/s was calculated by a pitot static probe with pressure differential pressure sensor which was installed 36 mm from vent from floor to air flow away from the end of the test section. Air flow measured as a rapid increase in the air velocity of the flow of the air flow in the test section. The calibration was carried out under both rising and falling air velocity in the range of 1 m/s to 30 m/s at calibration interval of 2 m/s. The results of calibration and associated measurement uncertainties are tabulated in the table below.

¹Calibration results only count for the tested circumstances and environment of conditions during which calibration took place

PHOTO OF CALCULATIONS SET 429



Find of Certificate of Calibration
NAC
ISSUANCE: 06/02/2015 07:17:01

Page 5 of 2 Pages

[illegible]

The wind direction sensor was calibrated against standard rotary anemometer by comparison method. During calibration, the measurement was carried out at 45° intervals in clockwise and counterclockwise directions after offset adjustment has been made. The flow speed of wind tunnel (usually 5 m/s) is kept constant while the sensor is rotated around its vertical axis. The results of calibration and associated measurement uncertainties are reported in the table below.

Footnote:
¹ Cellulose results only report for the tested circumstances and environmental conditions during which cellulose tests were performed.
² Direction of standard
³ Direction of test under Calibration

“End of Certificate of Calibration?”



CERTIFICATE OF CALIBRATION

Certificate No.: CPM-007-67 Page 1 of 2 Pages

MEASUREMENT ITEM
MANUFACTURER
MODEL/TYPE
SERIAL NUMBER
ID NUMBER
CONDITION AS RECEIVED
CUSTOMER

Digital barometer
Rexel
Sensor: I30-W5-2100-0
Data logger: I30-W5-2100-0
Sensor: BP-A0912
VMS_P0011
Used item
JAL Laboratory group (Thailand) Co., Ltd.
104 Phatthanasirakul Rd., Phatthanasirakul Rd.,
Klongkum Suburb, Bangkok 10110 Thailand.

Calibration procedure:
The digital barometer was calibrated against digital pressure calibration, the 1st-2nd copy was used as a calibration procedure.

Traceability:
The measurement results are traceable to the International System of Units (SI) through the NIST (National Institute of Standards and Technology) Standard Reference Material (SRM) 680-000-01.

Uncertainty of Measurement:
The reported uncertainty of measurement is based on the standard uncertainty multiplied by a coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty has been determined in accordance with the GUM Evaluation of measurement data - Guide to the expression of uncertainty in measurement.

RECEIVED DATE
MEASUREMENT DATE
ISSUE DATE

10 Jun 2024
26 Jun 2024
26 Jun 2024

CONDITION OF THIS RESULT OF CALIBRATION:

- Reference standard instrument:
Instrument Model Serial No. Certificate No. Due Date
Absolute Pressure Transducer CP12000 31011209 MAP-0009-24 27 Dec 2024
- Calibration effort for calibration reference 9.
- The U.S.C. was installed in vertical orientation above reference standard instrument and center of U.S.C. was used as the reference level.
- Calibration conditions:
4. Conditions: 55 Relative Humidity, 23.0 ± 0.5 °C
5. Pressure transmitting medium: 1.33 N/m²
6. Ambient temperature: 23.0 ± 0.5 °C
7. Humidity: 55 ± 5% RH
8. The certificate is valid only for the item calibrated on date and place of calibration.

Calibrated by: JAL Laboratory Group (Thailand) Co., Ltd.
Approved signature: Mr. Parinya Boonchuan Calibration Department Manager

THIS CERTIFICATE REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL UNLESS PERMISSION FOR REPRODUCTION HAS BEEN OBTAINED IN WRITING FROM THE LABORATORY

CERTIFICATE OF CALIBRATION

Certificate No.: CPM-007-67 Page 1 of 2 Pages

MEASUREMENT RESULTS			
Calibration in the range of: 100 mbar to 1000 mbar			
The results of calibration and associated measurement uncertainties are reported in the table below:			
STD (mbar)	USC (mbar)	Error (mbar)	Uncertainty (mbar)
100.11	99.8	1.8	0.27
170.08	171.2	1.2	0.17
190.00	191.0	0.9	0.17
220.20	221.2	0.9	0.17
1000.00	1000.9	-0.2	0.17
1000.08	1000.1	0.0	0.17

Note: USC = Unit Under Calibration
To convert the result in report unit to Pa, multiply by 100

End of certificate



CERTIFICATE OF CALIBRATION

Certificate No.: CR5-006-67 Page 1 of 2 Pages

MEASUREMENT ITEM
MANUFACTURER
MODEL/TYPE
SERIAL NUMBER
ID NUMBER
CONDITION AS RECEIVED
CUSTOMER

Relative humidity with data logger
Novation
Data logger: I30-W5-2100-0
Sensor: HMP60
Data logger: A0912
Sensor: VMS1247
VMS_P0011
Used item
JAL Laboratory group (Thailand) Co., Ltd.
104 Phatthanasirakul Rd., Phatthanasirakul Rd.,
Klongkum Suburb, Bangkok 10110 Thailand.

Calibration procedure:
The relative humidity and air temperature calibration was done by the gravimetric method as per ISO 17025 and ISO 9001:2015 according to the calibration method with the gravimetric method and standard humidity generator chamber.

Traceability:
The gravimetric method is traceable to the International System of Units (SI) through the NIST (National Institute of Standards and Technology) Standard Reference Material (SRM) 680-000-01.

Uncertainty of Measurement:
The reported uncertainty of measurement is based on the standard uncertainty multiplied by a coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty has been determined in accordance with the GUM Evaluation of measurement data - Guide to the expression of uncertainty in measurement.

RECEIVED DATE
MEASUREMENT DATE
ISSUE DATE

10 Jun 2024
26 Jun 2024
26 Jun 2024

ENVIRONMENTAL CONDITIONS:
Ambient conditions in the laboratory are as follows:
Temperature: 23.0 ± 0.5 °C
Relative humidity: 55.0 ± 5.0 %RH

NOTE: The certificate is valid only for the item calibrated on date and place of calibration.

TABULATION OF RESULTS:
The table on next page gives the measured values.

Calibrated by: JAL Laboratory Group (Thailand) Co., Ltd.
Approved signature: Mr. Parinya Boonchuan Calibration Department Manager

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CERTIFICATE OF CALIBRATION

Certificate No.: CPM-007-67 Page 1 of 2 Pages

MEASUREMENT ITEM
MANUFACTURER
MODEL/TYPE
SERIAL NUMBER
ID NUMBER
CONDITION AS RECEIVED
CUSTOMER

Data logger with Temperature sensor
Novation
Sensor: I30-W5-2100-0
Data logger: I30-W5-2100-0
Sensor: BP-A0912
VMS_P0011
Used item
JAL Laboratory group (Thailand) Co., Ltd.
104 Phatthanasirakul Rd., Phatthanasirakul Rd.,
Klongkum Suburb, Bangkok 10110 Thailand.

Calibration procedure:
The temperature calibration was done by the gravimetric method as per ISO 17025 and ISO 9001:2015 according to the calibration method with the gravimetric method and standard temperature probe. The temperature probe was used as a calibration procedure.

Traceability:
The gravimetric method is traceable to the International System of Units (SI) through the NIST (National Institute of Standards and Technology) Standard Reference Material (SRM) 680-000-01.

Uncertainty of Measurement:
The reported uncertainty of measurement is based on the standard uncertainty multiplied by a coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty has been determined in accordance with the GUM Evaluation of measurement data - Guide to the expression of uncertainty in measurement.

RECEIVED DATE
MEASUREMENT DATE
ISSUE DATE

10 Jun 2024
26 Jun 2024
26 Jun 2024

ENVIRONMENTAL CONDITIONS:
Ambient conditions in the laboratory are as follows:
Temperature: 23.0 ± 0.5 °C
Relative humidity: 55.0 ± 5.0 %RH

NOTE: The certificate is valid only for the item calibrated on date and place of calibration.

TABULATION OF RESULTS:
The table on next page gives the measured values.

Calibrated by: JAL Laboratory Group (Thailand) Co., Ltd.
Approved signature: Mr. Parinya Boonchuan Calibration Department Manager

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Continuation of Certificate of Calibration Number CPM-007-67 Page 2 of 2 Pages

Result of Calibration: ☒ Without Adjustment ☐ With Adjustment
Calibration Range: 20 °C to 40 °C

Function:
Table 1. This equipment was calibrated with temperature sensor (model: HMP60 S/N: 10011247, Dimension: Diameter 22 mm, Length 80 mm).

Immersion Depth (mm)	Standard Reading (°C)	USC Reading (°C)	Error (°C)	Uncertainty (°C)
80	20.06	19.6	-0.5	0.20
80	25.08	24.6	-0.5	0.20
80	30.08	29.7	-0.5	0.20
80	35.03	34.7	-0.4	0.18
80	40.00	39.3	-0.5	0.20

USC = Unit Under Calibration
Remarks: The reported uncertainty of measurement is 0.18, based on standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%.

End of Certificate of Calibration



Continuation of Certificate of Calibration Number CR5-006-67 Page 2 of 2 Pages

Result of Calibration: ☒ Without Adjustment ☐ With Adjustment

Table 1. The results of calibration of relative humidity at 50 °C are reported in table below:
Calibration Range: 20.00 to 80.00

Air Temperature (°C)	Standard Reading (%RH)	USC Reading (%RH)	Error (%RH)	Uncertainty (%RH)
20.00	50.00	49.5	-0.5	0.50
25.00	50.00	49.5	-0.5	0.50
30.00	50.00	49.5	-0.5	0.50

USC = Unit Under Calibration

End of Certificate of Calibration



Calibrated by: JAL Laboratory Group (Thailand) Co., Ltd.
Approved signature: Mr. Parinya Boonchuan Calibration Department Manager

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J NAC
HIRANATEE ASSOCIATES CO., LTD.

Accredited calibration laboratory
ISO/IEC 17025:2017
ACC-100-017
CALIBRATION 0367

Relative humidity and Air Temperature measurement laboratory
Calibration services department

Certificate No. : LRT-003-68 Page 1 of 2 Pages

CERTIFICATE OF CALIBRATION

MEASUREMENT ITEM: Relative humidity with data logger
MANUFACTURER: Anemika
MODEL/TYPE: Data logger: 110 WS-250-0
SERIAL NUMBER: Sensor: AS518
ID NUMBER: Sensor: V150213
CONDITION AS RECEIVED: 40% RH, 25.0°C
CUSTOMER: ACS Laboratory group (Thailand) Co., Ltd.
104 Phatthanaburi 40, Phatthanaburi Rd., Khwaeng Suan Luang,
Khet Suan Luang, Bangkok 10250 Thailand.

RECEIVED DATE: 10 Jan 2025
MEASUREMENT DATE: 18 Jan 2025
ISSUE DATE: 10 Jan 2025

ENVIRONMENTAL CONDITIONS:
Ambient condition in the laboratory are as follows:
Temperature: (20.0 ± 1.0) °C
Relative humidity: (50.0 ± 15.0) %RH

NOTES: The certificate is valid only to the item calibrated on date and place of calibration.

TABULATION OF RESULTS:
The table on next page give the measured values.

Calibration by: J NAC
Approved signature: Mr. Pichay Boonwattana
Calibration Department Manager

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J NAC
HIRANATEE ASSOCIATES CO., LTD.

Accredited calibration laboratory
ISO/IEC 17025:2017
ACC-100-017
CALIBRATION 0367

Pressure measurement laboratory
Calibration services department

Certificate No. : LRT-003-68 Page 2 of 2 Pages

CERTIFICATE OF CALIBRATION

MEASUREMENT RESULTS:
The results of calibration and associated measurement uncertainties are reported in the table below.

Result of Calibration: ☒ Without Adjustment ☐ With Adjustment

Table 1: The results of calibration of relative humidity at 30 °C are reported in table below.
Calibration Range: 20%RH to 80%RH

Air Temperature (°C)	Standard Reading (RH)	UUC Reading (RH)	Error (RH)	Uncertainty (RH)
29.73	13.86	18.1	-1.4	0.79
29.75	13.11	49.0	-2.2	1.1
29.75	42.84	80.0	-2.6	1.1

UUC*: Unit Under Calibration

End of Certificate of Calibration

Calibration by: J NAC
Approved signature: Mr. Pichay Boonwattana
Calibration Department Manager

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J NAC
HIRANATEE ASSOCIATES CO., LTD.

Accredited calibration laboratory
ISO/IEC 17025:2017
ACC-100-017
CALIBRATION 0367

Pressure measurement laboratory
Calibration services department

Certificate No. : LRT-003-68 Page 1 of 2 Pages

CERTIFICATE OF CALIBRATION

MEASUREMENT ITEM: Digital barometer
MANUFACTURER: Headline
MODEL/TYPE: Sensor: 110 WS-250P
SERIAL NUMBER: Data logger: 110 WS-250-0
ID NUMBER: Sensor: BP-0019
CONDITION AS RECEIVED: Used item
CUSTOMER: ACS Laboratory group (Thailand) Co., Ltd.
104 Phatthanaburi 40, Phatthanaburi Rd.,
Khwaeng Suan Luang, Khet Suan Luang,
Bangkok 10250 Thailand.

RECEIVED DATE: 10 Jan 2025
MEASUREMENT DATE: 18 Jan 2025
ISSUE DATE: 10 Jan 2025

ENVIRONMENTAL CONDITIONS:
Ambient condition in the laboratory are as follows:
Temperature: (20.0 ± 1.0) °C
Relative humidity: (50.0 ± 15.0) %RH

NOTES: The certificate is valid only to the item calibrated on date and place of calibration.

TABULATION OF RESULTS:
The table on next page give the measured values.

Calibration by: J NAC
Approved signature: Mr. Pichay Boonwattana
Calibration Department Manager

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J NAC
HIRANATEE ASSOCIATES CO., LTD.

Accredited calibration laboratory
ISO/IEC 17025:2017
ACC-100-017
CALIBRATION 0367

Pressure measurement laboratory
Calibration services department

Certificate No. : LRT-003-68 Page 2 of 2 Pages

CERTIFICATE OF CALIBRATION

MEASUREMENT RESULTS:
The results of calibration and associated measurement uncertainties are reported in the table below.

STD (m/s)	UUC* (m/s)	Error (m/s)	Uncertainty (m/s)
990.11	951.7	1.6	0.38
990.11	971.1	1.0	0.37
990.09	999.0	0.5	0.37
1000.05	1009.0	0.8	0.37
1000.09	1029.5	0.9	0.38
1000.07	1049.0	1.1	0.37

UUC*: Unit Under Calibration
To convert the result in report unit to Pa should be multiply by 100

Calibration by: J NAC
Approved signature: Mr. Pichay Boonwattana
Calibration Department Manager

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J NAC
HIRANATEE ASSOCIATES CO., LTD.

Accredited calibration laboratory
ISO/IEC 17025:2017
ACC-100-017
CALIBRATION 0367

Pressure measurement laboratory
Calibration services department

Certificate No. : LRT-003-68 Page 1 of 2 Pages

CERTIFICATE OF CALIBRATION

MEASUREMENT RESULTS:
The results of calibration and associated measurement uncertainties are reported in the table below.

Temp. wind tunnel (°C)	Temp. room (°C)	UUC* (m/s)	Error (m/s)	Uncertainty (m/s)
1.000	21.06	11.00	0.5	0.31
2.195	21.00	21.00	1.0	0.31
4.072	21.02	31.00	1.0	0.31
4.184	21.00	41.00	0.9	0.31
1.561	21.04	51.00	1.0	0.31
6.03	21.00	61.00	0.9	0.31
1.08	21.06	71.00	1.0	0.31
6.81	21.02	81.00	0.9	0.31
9.07	21.06	91.00	1.1	0.31
20.05	21.00	101.00	0.9	0.31
11.00	21.00	111.00	1.1	0.31
12.06	21.00	121.00	1.1	0.31
10.08	21.00	131.00	1.1	0.31
10.07	21.00	141.00	1.1	0.31
10.01	21.00	151.00	1.1	0.31
10.01	21.00	161.00	1.1	0.31

UUC*: Unit Under Calibration
To convert the result in report unit to Pa should be multiply by 100

Calibration by: J NAC
Approved signature: Mr. Pichay Boonwattana
Calibration Department Manager

THIS CERTIFICATE OF CALIBRATION MAY NOT BE REPRODUCED EXCEPT IN FULL UNLESS PERMISSION FOR REPRODUCTION HAS BEEN OBTAINED IN WRITING FROM THE LABORATORY

J NAC
HIRANATEE ASSOCIATES CO., LTD.

Accredited calibration laboratory
ISO/IEC 17025:2017
ACC-100-017
CALIBRATION 0367

Pressure measurement laboratory
Calibration services department

Certificate No. : LRT-003-68 Page 2 of 2 Pages

CERTIFICATE OF CALIBRATION

MEASUREMENT RESULTS:
The results of calibration and associated measurement uncertainties are reported in the table below.

Temp. wind tunnel (°C)	Temp. room (°C)	UUC* (m/s)	Error (m/s)	Uncertainty (m/s)
1.000	21.06	11.00	0.5	0.31
2.195	21.00	21.00	1.0	0.31
4.072	21.02	31.00	1.0	0.31
4.184	21.00	41.00	0.9	0.31
1.561	21.04	51.00	1.0	0.31
6.03	21.00	61.00	0.9	0.31
1.08	21.06	71.00	1.0	0.31
6.81	21.02	81.00	0.9	0.31
9.07	21.06	91.00	1.1	0.31
20.05	21.00	101.00	0.9	0.31
11.00	21.00	111.00	1.1	0.31
12.06	21.00	121.00	1.1	0.31
10.08	21.00	131.00	1.1	0.31
10.07	21.00	141.00	1.1	0.31
10.01	21.00	151.00	1.1	0.31
10.01	21.00	161.00	1.1	0.31

UUC*: Unit Under Calibration
To convert the result in report unit to Pa should be multiply by 100

Calibration by: J NAC
Approved signature: Mr. Pichay Boonwattana
Calibration Department Manager

THIS CERTIFICATE OF CALIBRATION MAY NOT BE REPRODUCED EXCEPT IN FULL UNLESS PERMISSION FOR REPRODUCTION HAS BEEN OBTAINED IN WRITING FROM THE LABORATORY

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanasirak Rd., Phatthana Rd.,
Phatthana, Suvarnabhumi Bangkok 10510
T +66 2 345 3888 F +66 2 345 3187

Certificate of Calibration

Certificate No. C-021025-RYG_F50208

Air Sampling Pump Detail

Equipment name: Personal Air Sampling Pump
Brand: Oshan
Model/Type: G450 Plus
Equipment ID: RYG_F50208
Serial No.: 20201110099
Calibration Date: 07-Oct-25
Next calibration date: 07-Jan-26

Reference Standard Low Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10/L
Equipment ID: RYG_F50208
Serial No.: 130027
Calibration Date: 27-Jan-26
Due Date: 26-Jan-26


Reference Standard High Flow Meter


Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-M
Equipment ID: BOK_F50614
Serial No.: 131114
Calibration Date: 10-Sep-25
Due Date: 09-Sep-26

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	20.1	19.7	19.8	19.9	5%	19 - 21	Passed
50	51.8	49.8	50.4	50.7	5%	48 - 53	Passed
100	102.8	101.2	100.7	101.6	5%	98 - 105	Passed
200	198.9	201.1	200.5	200.5	5%	190 - 210	Passed
High Flow							
500	504.1	502.5	500.9	504.2	3%	485 - 515	Passed
1000	1003.2	1001.9	1002.8	1002.6	3%	970 - 1030	Passed
2000	2005.7	2007.8	2004.1	2005.9	3%	1940 - 2060	Passed
2500	2505.6	2505.4	2503.0	2504.7	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By:  (Mr. Natchaphon Thawang)
RYG Field Services Scientist (1)

Approved By:  (Mr. Supot Salernin)
Field Services Section Head

Issue date: 07-Oct-25

Page 1 of 1

RSG-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanasirak Rd., Phatthana Rd.,
Phatthana, Suvarnabhumi Bangkok 10510
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Certificate of Calibration

Certificate No. C-021025-RYG_F50209

Air Sampling Pump Detail

Equipment name: Personal Air Sampling Pump
Brand: Oshan
Model/Type: G450 Plus
Equipment ID: RYG_F50209
Serial No.: 20241110177
Calibration Date: 02-Oct-25
Next calibration date: 02-Jan-26

Reference Standard Low Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10/L
Equipment ID: RYG_F50208
Serial No.: 130027
Calibration Date: 27-Jan-26
Due Date: 26-Jan-26


Reference Standard High Flow Meter


Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-M
Equipment ID: BOK_F50614
Serial No.: 131114
Calibration Date: 10-Sep-25
Due Date: 09-Sep-26

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.8	19.9	19.9	19.8	5%	19 - 21	Passed
50	50.9	51.1	50.8	50.9	5%	48 - 53	Passed
100	102.4	101.9	102.3	102.2	5%	98 - 105	Passed
200	200.4	203.3	201.4	201.7	5%	190 - 210	Passed
High Flow							
500	501.6	500.7	498.2	500.5	3%	485 - 515	Passed
1000	1002.2	1001.9	1009.3	1003.1	3%	970 - 1030	Passed
2000	2002.9	1999.8	2004.3	2002.3	3%	1940 - 2060	Passed
2500	2508.8	2504.2	2505.4	2506.3	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By:  (Mr. Natchaphon Thawang)
RYG Field Services Scientist (1)

Approved By:  (Mr. Supot Salernin)
Field Services Section Head

Issue date: 03-Oct-25

Page 1 of 1

RSG-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanasirak Rd., Phatthana Rd.,
Phatthana, Suvarnabhumi Bangkok 10510
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Certificate of Calibration

Certificate No. C-021025-RYG_F50211

Air Sampling Pump Detail

Equipment name: Personal Air Sampling Pump
Brand: Oshan
Model/Type: G450 Plus
Equipment ID: RYG_F50211
Serial No.: 20201110099
Calibration Date: 07-Oct-25
Next calibration date: 07-Jan-26

Reference Standard Low Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10/L
Equipment ID: RYG_F50208
Serial No.: 130027
Calibration Date: 27-Jan-26
Due Date: 26-Jan-26


Reference Standard High Flow Meter


Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-M
Equipment ID: BOK_F50614
Serial No.: 131114
Calibration Date: 10-Sep-25
Due Date: 09-Sep-26

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	20.7	20.7	20.6	20.7	5%	19 - 21	Passed
50	51.6	51.9	51.5	51.7	5%	48 - 53	Passed
100	102.9	101.3	102.8	102.3	5%	98 - 105	Passed
200	199.8	198.9	200.5	200.1	5%	190 - 210	Passed
High Flow							
500	504.3	503.5	504.1	504.0	3%	485 - 515	Passed
1000	1001.6	1003.3	1001.8	1002.2	3%	970 - 1030	Passed
2000	2005.6	2003.8	2005.7	2005.0	3%	1940 - 2060	Passed
2500	2503.0	2508.8	2505.1	2505.6	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By:  (Mr. Natchaphon Thawang)
RYG Field Services Scientist (1)

Approved By:  (Mr. Supot Salernin)
Field Services Section Head

Issue date: 06-Oct-25

Page 1 of 1

RSG-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
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Phatthana, Suvarnabhumi Bangkok 10510
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Certificate of Calibration

Certificate No. C-021025-RYG_F50216

Air Sampling Pump Detail

Equipment name: Personal Air Sampling Pump
Brand: Oshan
Model/Type: G450 Plus
Equipment ID: RYG_F50216
Serial No.: 20201110099
Calibration Date: 07-Oct-25
Next calibration date: 07-Jan-26

Reference Standard Low Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10/L
Equipment ID: RYG_F50208
Serial No.: 130027
Calibration Date: 27-Jan-26
Due Date: 26-Jan-26


Reference Standard High Flow Meter


Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-M
Equipment ID: BOK_F50614
Serial No.: 131114
Calibration Date: 10-Sep-25
Due Date: 09-Sep-26

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	20.1	19.6	19.9	19.9	5%	19 - 21	Passed
50	50.4	50.7	51.6	50.9	5%	48 - 53	Passed
100	101.0	101.5	100.8	101.1	5%	98 - 105	Passed
200	198.7	198.9	199.2	199.6	5%	190 - 210	Passed
High Flow							
500	500.1	500.4	500.0	500.4	3%	485 - 515	Passed
1000	998.7	996.2	994.1	996.3	3%	970 - 1030	Passed
2000	2001.8	2003.9	1997.6	2001.1	3%	1940 - 2060	Passed
2500	2501.5	2491.4	2498.0	2497.0	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By:  (Mr. Chanon Boonchuen)
RYG Field Services Scientist (1)

Approved By:  (Mr. Supot Salernin)
Field Services Section Head

Issue date: 06-Oct-25

Page 1 of 1

RSG-125 Rev.2 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanasirak Rd., Phatthana Rd.,
Phatthana, Suvarnabhumi Bangkok 10510
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Certificate of Calibration

Certificate No. C-021025-RYG_F50201

Air Sampling Pump Detail

Equipment name: Personal Air Sampling Pump
Brand: Oshan
Model/Type: G450 Plus
Equipment ID: RYG_F50201
Serial No.: 20201110101
Calibration Date: 06-Oct-25
Next calibration date: 06-Jan-26

Reference Standard Low Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10/L
Equipment ID: RYG_F50208
Serial No.: 130027
Calibration Date: 27-Jan-26
Due Date: 26-Jan-26


Reference Standard High Flow Meter


Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-M
Equipment ID: BOK_F50614
Serial No.: 131114
Calibration Date: 10-Sep-25
Due Date: 09-Sep-26

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	20.8	20.1	20.6	20.5	5%	19 - 21	Passed
50	51.1	50.9	51.5	51.2	5%	48 - 53	Passed
100	101.9	100.8	102.3	101.7	5%	98 - 105	Passed
200	201.8	202.4	203.1	202.4	5%	190 - 210	Passed
High Flow							
500	504.4	509.2	507.6	507.7	3%	485 - 515	Passed
1000	1004.1	1007.8	1008.1	1006.9	3%	970 - 1030	Passed
2000	2003.3	2002.9	2007.3	2004.5	3%	1940 - 2060	Passed
2500	2507.9	2503.6	2504.1	2505.2	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By:  (Mr. Natchaphon Thawang)
RYG Field Services Scientist (1)

Approved By:  (Mr. Supot Salernin)
Field Services Section Head

Issue date: 07-Oct-25

Page 1 of 1

RSG-125 Rev.3 Issue date 27/03/25

ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanasirak Rd., Phatthana Rd.,
Phatthana, Suvarnabhumi Bangkok 10510
T +66 2 345 3888 F +66 2 345 3187

Certificate of Calibration

Certificate No. C-021025-RYG_F50207

Air Sampling Pump Detail

Equipment name: Personal Air Sampling Pump
Brand: Oshan
Model/Type: G450 Plus
Equipment ID: RYG_F50207
Serial No.: 20201110099
Calibration Date: 07-Oct-25
Next calibration date: 07-Jan-26

Reference Standard Low Flow Meter

Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10/L
Equipment ID: RYG_F50208
Serial No.: 130027
Calibration Date: 27-Jan-26
Due Date: 26-Jan-26


Reference Standard High Flow Meter


Equipment name: Air Flow Meter
Brand: Mettler
Model/Type: Defender F10-M
Equipment ID: BOK_F50614
Serial No.: 131114
Calibration Date: 10-Sep-25
Due Date: 09-Sep-26

Calibration Data

Air Sampling Pump setting (cc/min)	Reference Std. Flow Reading (cc/min)			Avg. (cc/min)	%Error acceptance	Acceptable range (cc/min)	Evaluation (Pass/Fail)
	1	2	3				
Low Flow							
20	19.2	19.2	19.7	19.4	5%	19 - 21	Passed
50	51.0	50.8	51.7	51.2	5%	48 - 53	Passed
100	99.9	100.0	100.2	100.0	5%	98 - 105	Passed
200	198.0	197.9	198.7	198.2	5%	190 - 210	Passed
High Flow							
500	500.9	500.3	503.6	504.3	3%	485 - 515	Passed
1000	1002.8	1003.9	1012.8	1006.5	3%	970 - 1030	Passed
2000	2013.6	2011.6	2016.4	2013.9	3%	1940 - 2060	Passed
2500	2517.5	2514.8	2515.3	2515.9	3%	2425 - 2575	Passed

END OF REPORT

Calibrated By:  (Mr. Chanon Boonchuen)
RYG Field Services Scientist (1)

Approved By:  (Mr. Supot Salernin)
Field Services Section Head

Issue date: 04-Oct-25

Page 1 of 1

RSG-125 Rev.2 Issue date 27/03/25

INNOVATIVE INSTRUMENT CALIBRATION LAB
INNOVATIVE INSTRUMENT CO., LTD. HEAD OFFICE
7109 MOO 13, NOKHINTANAKORN 11 TAMBON BANG KAO,
AMPHUR BANG PHU KHAMET PRAKARN PROVINCE 10140 THAILAND
TEL : 0800-2130-1000 / FAX : 0800-2130-7500

Certificate of Calibration

Customer : ALS Laboratory Group Thailand Co., Ltd.
Name : 104 Soi Phatthanakan 40, Phatthanakan Road, Sam Luang,
Bangkok 10250

Certificate No. : 25-ACT-010
Request No. : Req 2025-0091

Unit Under Calibration Details
Measurement Item : Acoustic Calibrator
Manufacturer : RION
Model : NC-74
Serial Number : 34178121
ID : RYG_F50213

Calibration Environment and Details
Temperature : (23 ± 0.2 °C)
Humidity : (50 ± 20 %RH)
Barometric Pressure : (1013 ± 10.0 hPa)
Received Date : 15 January 2025
Calibration Date : 16 January 2025
Location of Calibration : LAB 1 Acoustic
Calibration Procedure : In-house method CP-ACT-02 based on IEC 60942:2017 Electroacoustics - Sound calibrators

Traceability : This certificate provides traceability of measurement to recognized national standard, and to the realization of the international system of units (SI).

Note : The reported uncertainty is based on standard uncertainty multiplied by the Coverage Factor $k=2$, providing a level of confidence approximately 95 %.

Calibrated By : *[Signature]*
Mr. Supadon Luangrat
Service Calibration Engineer

Approved By : *[Signature]*
Mr. Patch Mahaveer
Calibration Engineer Supervisor

Issue Date : 16 January 2025

The master standard used in the test calibrated. The certificate shall not be reproduced except in full, without written approval of the Issuing Laboratory Co., Ltd.
150-708-ACT-02 Rev.03 issue date 5/24/24

INNOVATIVE INSTRUMENT CALIBRATION LAB
INNOVATIVE INSTRUMENT CO., LTD. HEAD OFFICE
7109 MOO 13, NOKHINTANAKORN 11 TAMBON BANG KAO,
AMPHUR BANG PHU KHAMET PRAKARN PROVINCE 10140 THAILAND
TEL : 0800-2130-1000 / FAX : 0800-2130-7500

Certificate No. : 25-ACT-010
Request No. : Req 2025-0091

Sound pressure level
Calibration Results : Without Adjustment

Calibration Range (dB)	Without Adjustment (dB)		Adjustment (dB)		Uncertainty (± dB)	Acceptance limit Class 1 (± dB)	Result
	Measured	Deviated value	Measured	Deviated value			
94 dB / 1000 Hz	94.1	- 0.1	-	-	0.15	0.25	Pass

Frequency of Sound pressure level
Calibration Results : Without Adjustment

Calibration Range (Hz)	Without Adjustment		Adjustment		Uncertainty (± %)	Acceptance limit Class 1 (± %)	Result
	Measured (Hz)	Deviated	Measured (Hz)	Deviated			
94 dB / 1000 Hz	1000.00	0.00	-	-	0.01	0.50	Pass

Total Harmonic Distortion plus Noise of Sound pressure level (THD+N %)
Calibration Results : Without Adjustment

Calibration Range (Hz)	Without Adjustment		Adjustment		Uncertainty (± %)	Acceptance limit Class 1 (± %)	Result
	Measured (%)	Deviated	Measured (%)	Deviated			
94 dB / 1000 Hz	1.21	-	-	-	0.40	2.5	Pass

Note :
Function : Maximum permitted
Uncertainty of measurement
Sound pressure level : 0.15 dB
Frequency : 0.20 %
Total distortion+noise : 0.50 %
- Acceptance limit was ISO 9002:2017 Class 1
- The calibration results include the calibration process correction
- The calibration results include the measurement volume correction

The master standard used in the test calibrated. The certificate shall not be reproduced except in full, without written approval of the Issuing Laboratory Co., Ltd.
150-708-ACT-02 Rev.03 issue date 5/24/24

INNOVATIVE INSTRUMENT CALIBRATION LAB
INNOVATIVE INSTRUMENT CO., LTD. HEAD OFFICE
7109 MOO 13, NOKHINTANAKORN 11 TAMBON BANG KAO,
AMPHUR BANG PHU KHAMET PRAKARN PROVINCE 10140 THAILAND
TEL : 0800-2130-1000 / FAX : 0800-2130-7500

Certificate No. : 25-ACT-010
Request No. : Req 2025-0091

Decision Rule for Statements of Conformity
The standard decision rule employed for the statements of conformity in each calibration result will be applied using SLAC-009:2019 Guidelines on the Reporting of Conformity with Specifications as following Fig. and equations
Pass = The measurement result that the extended uncertainty with a 95% coverage probability was within the limit
Pass = The measurement result was within the limit. However, a portion of the extended uncertainty of measurement at 95% exceeds the limit
Fail = The measurement result was out of the limit. However, a portion of the expanded uncertainty of measurement at 95% is within the limit
Fail = The measurement result that the extended uncertainty with a 95% coverage probability was outside the limit

End of Calibration

The master standard used in the test calibrated. The certificate shall not be reproduced except in full, without written approval of the Issuing Laboratory Co., Ltd.
150-708-ACT-02 Rev.03 issue date 5/24/24

SITHIPORN ASSOCIATES CO., LTD.
CALIBRATION LABORATORY
401-401/1 Srinakharin Road, Bangkum, Bangkok, 10700 Thailand
Tel : +66 2433 8337 Email : calibration@sithiporn.com

Calibration Certificate

Equipment : SOUND LEVEL METER
Manufacturer : RION
Model : NL-42 / Microphone UC-52 / Preamplifier NH-24
Serial No. : 00873109 / 171842 / 73485
ID No. : RYG_F50384

Condition As Found : GOOD

Customer : ALS LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATTHANAKAN 40, PHATTHANAKAN ROAD,
KHUWANG PHATTHANAKAN, KHUET SUAN LUANG,
BANGKOK, 10250 THAILAND.

Location :
Ambient Temperature : (23.0 ± 0.3) °C
Pressure : (101.3 ± 0.3) kPa
Relative Humidity : (50.0 ± 20) %

Received Date : 23 SEPTEMBER 2024
Calibration Date : 09 OCTOBER 2024
Date of Issue : 09 OCTOBER 2024

Calibrated by : Nathakorn Pitsupisarn

Approved by : *[Signature]*
(Nathakorn Pitsupisarn)

This certificate is issued in accordance with the requirements of ISO/IEC 17025 standard, may not be reproduced other than in full, except with the prior written approval of the head of Calibration Laboratory.

SITHIPORN ASSOCIATES CO., LTD.
CALIBRATION LABORATORY
401-401/1 Srinakharin Road, Bangkum, Bangkok, 10700 Thailand
Tel : +66 2433 8338 Email : calibration@sithiporn.com

Cert. No. : ACL24085
Job No. : YC07ACB164
Pages : 2 of 8

Calibration Procedure : CP-AC-01

Calibration Method :
This equipment was calibrated by follow on IEC-61672-3 (2013) Standard for sound level meter (SLM).
The SLM had tests to Acoustical and Electrical signal term of frequency weighting with Anechoic chamber and Reference Standard Instruments.
For test results of each items were made by observation of each Instruments display and also with SLM's display.

Condition of this result of calibration :
1. Reference Standard Instruments :

Instrument	Model	Serial No.	Cert. No.	Due Date
Waveform Generator	33210A	MY48017076	EF-0009-24	05-FEB-25
Waveform Generator	33511B	MY53202742	EF-0007-24	05-FEB-25
Digital Multimeter	33461A	MY53220104	EEL-BP 21/0267	13-FEB-25
Digital Multimeter	33461A	MY53220076	EEL-BP 20/0267	15-FEB-25
Digital Multimeter	34461A	MY60004273	EEL-BP 22/0267	15-FEB-25
Programmable Attenuator	MAT-1070	62100114	EF-0008-24	05-FEB-25
Condenser Microphone	4180	2977900	AA-1001-24	12-FEB-25
Measuring Amplifier	NA-42KA1	34566495	AA-3001-24	05-FEB-25

2. This result of calibration was found accurate as shown on date and place of calibration for this calibrated item only.
3. This certificate is traceable to the international system of unit maintained at :
3.1 National Institute of Metrology (Thailand).
3.2 Thailand Institute of Scientific and Technological Research (TISTR).

[Signature]

SITHIPORN ASSOCIATES CO., LTD.
CALIBRATION LABORATORY
401-401/1 Srinakharin Road, Bangkum, Bangkok, 10700 Thailand
Tel : +66 2433 8338 Email : calibration@sithiporn.com

Cert. No. : ACL24085
Job No. : YC07ACB164
Pages : 3 of 8

Summary of Measurement Result :

Parameter	Uncertainty (dB)	Maximum-permitted uncertainty of measurement (dB)
1. Absolute sensitivity	0.2	N/A
2. Self-generated noise	0.2	N/A
3. Acoustical signal tests of frequency weightings		
125 Hz	0.3	0.6
1000 Hz	0.3	0.6
8000 Hz	0.3	0.7
4. Electrical signal tests of frequency weightings		
For 10 Hz to 4 kHz	0.3	0.6
For > 4 kHz to 10 kHz	0.3	0.7
For > 10 kHz to 20 kHz	0.3	1.0
5. Frequency and time weightings at 1 kHz	0.2	0.2
6. Long-term stability	0.1	0.1
7. Level linearity on the reference level range	0.2	0.3
8. Level linearity including the level range control	0.2	0.3
9. Tone burst response	0.2	0.3
10. Peak C sound level	0.2	0.35
11. Overload indication	0.2	0.25
12. High level stability	0.1	0.1

[Signature]

SITHIPORN ASSOCIATES CO., LTD.
CALIBRATION LABORATORY

459-459/1 Sirinthon Road, Bangkhumru, Bangkok, 10700 Thailand
Tel: +66 2433 8338 Email: calibration@sithiporn.com



Cert. No. : ACL24305
Job No. : VC67ACB164
Page : 4 of 8

Result of calibration:

1. Absolute sensitivity

Reference Acoustic Signal (dB)	Measured Value (dB)	Deviation (dB)	Acceptance Limits (dB)
93.9 (93.94)	93.9	0.0	±0.3

2. Self-generated noise

2.1 Normal test

Measured Value (dB)
16.1

2.2 The microphone of the sound level meter was replaced by electrical signal input device.

Frequency Weighting	Weighting (dB)
A-weight	13.1
C-weight	19.8
Flat	25.1

3. Acoustical signal tests of frequency weightings

Mean free-field acoustic response at a level of 94 dB

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
125	0.4	0.5	0.5	±1.5
1000	0.0	0.0	0.0	±1.0
8000	-1.4	-1.3	-1.3	±5.0

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CALIBRATION LABORATORY

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Tel: +66 2433 8338 Email: calibration@sithiporn.com



Cert. No. : ACL24305
Job No. : VC67ACB164
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4. Electrical signal tests of frequency weightings

Weighting network response with relative to 1 kHz

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
63	0.0	0.0	0.0	±2.0
125	0.1	0.1	0.0	±1.5
250	0.0	0.0	0.0	±1.5
300	0.0	0.1	0.0	±1.5
1000	0.0	0.0	0.0	±1.0
2000	0.0	0.1	0.0	±2.0
4000	0.0	0.0	0.0	±3.0
8000	0.0	0.1	0.1	±5.0

5. Frequency and time weightings at 1 kHz

5.1 Frequency weightings at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.2
C-weight	94.0	94.0	0.0	±0.2
Flat	94.0	94.0	0.0	±0.2

5.2 Time weighting at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	94.0	94.0	0.0	±0.1
Slow	94.0	94.0	0.0	±0.1
Log	94.0	94.0	0.0	±0.1

6. Long-term stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.3

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Cert. No. : ACL24305
Job No. : VC67ACB164
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7. Level linearity on the reference level range

Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
137.0	137.0	0.0	±1.1
136.0	136.0	0.0	±1.1
135.0	135.0	0.0	±1.1
134.0	134.0	0.0	±1.1
133.0	133.0	0.0	±1.1
132.0	132.0	0.0	±1.1
131.0	131.0	0.0	±1.1
129.0	129.0	0.0	±1.1
124.0	124.0	0.0	±1.1
119.0	119.0	0.0	±1.1
114.0	114.0	0.0	±1.1
109.0	109.0	0.0	±1.1
104.0	104.0	0.0	±1.1
99.0	99.0	0.0	±1.1
94.0	94.0	0.0	±1.1
89.0	89.0	0.0	±1.1
84.0	84.0	0.0	±1.1
79.0	79.0	0.0	±1.1
74.0	74.0	0.0	±1.1
69.0	69.0	0.0	±1.1
64.0	64.0	0.0	±1.1
59.0	59.0	0.0	±1.1
54.0	54.0	0.0	±1.1
49.0	49.0	0.0	±1.1
44.0	44.0	0.0	±1.1
39.0	39.0	0.0	±1.1
34.0	34.0	0.0	±1.1
30.0	30.0	0.0	±1.1
29.0	29.0	0.0	±1.1
28.0	28.1	0.1	±1.1
27.0	27.2	0.2	±1.1
26.0	26.2	0.2	±1.1
25.0	25.2	0.2	±1.1

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Cert. No. : ACL24305
Job No. : VC67ACB164
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8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	94.0	94.0	0.0	±1.1

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	30.0	30.1	0.1	±1.1

9. Tone burst response

Time Weighting	Tone burst duration, Th (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	0.25	1	108.0	107.9	-0.1	1.5 : -5.0
	2	8	117.0	117.0	0.0	1.0 : -2.5
	200	800	134.0	134.1	0.1	±1.0
Slow	2	8	108.0	108.0	0.0	1.5 : -5.0
	200	800	127.6	127.6	0.0	±1.0
	0.25	1	99.0	98.9	-0.1	1.5 : -5.0
SEL	2	8	108.0	108.0	0.0	1.0 : -2.5
	200	800	128.0	128.1	0.1	±1.0

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Job No. : VC67ACB164
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10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value, Lpeak (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±3.0
One	136.4	136.2	-0.2	±3.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±2.0
Positive half cycle	135.4	135.1	-0.3	±2.0
Negative half cycle	135.4	135.1	-0.3	±2.0

11. Overload indication

Measured value (dB)		Deviated Value (dB)	Acceptance Limits (dB)
Positive one-half cycle	Negative one-half cycle	0.1	±1.5
89.5	89.6		

12. High level stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	137.0	137.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k = 2$
or any value following calculation providing a level of confidence of approximately 95 %

End of Calibration Certificate

T. Petch.

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Cert. No. : ACL24307
Page : 1 of 8

Calibration Certificate

Equipment : SOUND LEVEL METER
Manufacturer : RION
Model : NL-42 / Microphone UC-52 / Preamplifier NH-24
Serial No. : 01073423 / 169513 / 73684
ID No. : RYG, F50386

Condition As Found : GOOD

Customer : ALS LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATTANAKAN 40, PHATTANAKAN ROAD,
KHUANG PHATTANAKAN, KHUANG SUAN LUANG,
BANGKOK, 10250 THAILAND.

Location : -
Ambient Temperature : (23.0 ± 3) °C
Pressure : (101.3 ± 3) kPa
Relative Humidity : (50.0 ± 20) %

Received Date : 23 SEPTEMBER 2024
Calibration Date : 09 OCTOBER 2024
Date of Issue : 09 OCTOBER 2024

Calibrated by : Nubakorn Pritpachan

Approved by : *T. Petch.*
(Thanakul Petchum)

This certificate is issued in accordance with the requirements of ISO/IEC 17025 standard, may not be reproduced
other than in full, except with the prior written approval of the head of Calibration Laboratory.

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CALIBRATION LABORATORY

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Cert. No. : ACL24307
Job No. : VC87ACB164
Pages : 2 of 8

Calibration Procedure : CP-AC-01

Calibration Method :

This equipment was calibrated by follow on IEC-61672-3 (2013) Standard for sound level meter (SLM).
The SLM had tests to Acoustical and Electrical signal tests of frequency weighting with Anechoic chamber and Reference Standard Instruments.
For test results of each items were made by observation of each Instruments display and also with SLM's display.

Condition of this result of calibration :

1. Reference Standard Instruments :

Instrument	Model	Serial No.	Cert. No.	Due Date
Waveform Generator	33210A	MY48017076	EF-0009-24	05-FEB-25
Waveform Generator	33511B	MY5320742	EF-0007-24	05-FEB-25
Digital Multimeter	33461A	MY5320104	EEL-BP 210267	13-FEB-25
Digital Multimeter	33461A	MY53220076	EEL-BP 205267	15-FEB-25
Digital Multimeter	34461A	MY60034273	EEL-BP 220267	15-FEB-25
Programmable Attenuator	MAT-1070	62100114	EF-0008-24	05-FEB-25
Condenser Microphone	4130	2977900	AA-1001-24	12-FEB-25
Measuring Amplifier	NA-42KAJ	34560495	AA-3001-24	05-FEB-25

2. This result of calibration was found accurate as shown on date and place of calibration for this calibrated item only.

3. This certificate is traceable to the international system of unit maintained at :

3.1 National Institute of Metrology (Thailand).

3.2 Thailand Institute of Scientific and Technological Research (TISTR).

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Cert. No. : ACL24307
Job No. : VC87ACB164
Pages : 3 of 8

Summary of Measurement Result :

Parameter	Uncertainty (dB)	Maximum-permitted uncertainty of measurement (dB)
1. Absolute sensitivity	0.2	N/A
2. Self-generated noise	0.2	N/A
3. Acoustical signal tests of frequency weightings		
125 Hz	0.2	0.6
1000 Hz	0.2	0.6
8000 Hz	0.2	0.7
4. Electrical signal tests of frequency weightings		
For 10 Hz to 4 kHz	0.3	0.6
For > 4 kHz to 10 kHz	0.3	0.7
For > 10 kHz to 20 kHz	0.3	1.0
5. Frequency and time weightings at 1 kHz	0.2	0.2
6. Long-term stability	0.1	0.1
7. Level linearity on the reference level range	0.2	0.3
8. Level linearity including the level range control	0.2	0.3
9. Tone burst response	0.2	0.3
10. Peak C sound level	0.2	0.35
11. Overload indication	0.2	0.25
12. High level stability	0.1	0.1

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Cert. No. : ACL24307
Job No. : VC87ACB164
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Result of calibration :

1. Absolute sensitivity

Reference Acoustic Signal (dB)	Measured Value (dB)	Deviation (dB)	Acceptance Limit (dB)
93.9 (93.94)	93.9	0.0	±0.1

2. Self-generated noise

2.1 Normal test

Measured Value (dB)
15.7

2.2 The microphone of the sound level meter was replaced by electrical signal input device.

Frequency Weighting	Weighting (dB)
A-weight	14.8
C-weight	21.2
Flat	26.6

3. Acoustical signal tests of frequency weightings

Meter free-field acoustic response at a level of 94 dB

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
125	0.1	0.1	0.1	±1.5
1000	0.0	0.0	0.0	±1.0
8000	0.3	0.4	0.4	±5.0

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Cert. No. : ACL24307
Job No. : VC87ACB164
Pages : 5 of 8

4. Electrical signal tests of frequency weightings

Weighting network response with relative to 1 kHz.

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
63	0.0	0.0	-0.1	±2.0
125	0.0	0.0	0.0	±1.5
250	0.0	0.0	0.0	±1.5
500	0.0	0.0	-0.1	±1.5
1000	0.0	0.0	0.0	±1.0
2000	0.0	0.0	0.0	±2.0
4000	0.0	0.0	0.0	±3.0
8000	0.0	0.1	0.1	±5.0

5. Frequency and time weightings at 1 kHz

5.1 Frequency weightings at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.2
C-weight	94.0	94.0	0.0	±0.2
Flat	94.0	94.0	0.0	±0.2

5.2 Time weighting at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	94.0	94.0	0.0	±0.1
Slow	94.0	94.0	0.0	±0.1
Leq	94.0	94.0	0.0	±0.1

6. Long-term stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.3

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Cert. No. : ACL24307
Job No. : VC87ACB164
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7. Level linearity on the reference level range

Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
137.0	137.0	0.0	±1.1
136.0	136.0	0.0	±1.1
135.0	135.0	0.0	±1.1
134.0	134.0	0.0	±1.1
133.0	133.0	0.0	±1.1
132.0	132.0	0.0	±1.1
131.0	131.0	0.0	±1.1
129.0	129.0	0.0	±1.1
124.0	124.0	0.0	±1.1
119.0	119.0	0.0	±1.1
114.0	114.0	0.0	±1.1
109.0	109.0	0.0	±1.1
104.0	104.0	0.0	±1.1
99.0	99.0	0.0	±1.1
94.0	94.0	0.0	±1.1
89.0	89.0	0.0	±1.1
84.0	84.0	0.0	±1.1
79.0	79.0	0.0	±1.1
74.0	74.0	0.0	±1.1
69.0	69.0	0.0	±1.1
64.0	64.0	0.0	±1.1
59.0	59.0	0.0	±1.1
54.0	54.0	0.0	±1.1
49.0	49.0	0.0	±1.1
44.0	44.0	0.0	±1.1
39.0	39.0	0.0	±1.1
34.0	34.1	0.1	±1.1
30.0	30.0	0.0	±1.1
29.0	29.1	0.1	±1.1
28.0	28.1	0.1	±1.1
27.0	27.2	0.2	±1.1
26.0	26.2	0.2	±1.1
25.0	25.3	0.3	±1.1

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Cert. No. : ACL24307
Job No. : VC87ACB164
Pages : 7 of 8

8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	94.0	94.0	0.0	±1.1

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	30.0	29.9	-0.1	±1.1

9. Tone burst response

Time Weighting	Tone burst duration, T _b (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	0.25	1	108.0	107.9	-0.1	1.5; -5.0
	2	8	117.0	117.0	0.0	1.0; -2.5
	200	800	134.0	134.0	0.0	±1.0
Slow	2	8	108.0	108.0	0.0	1.5; -5.0
	200	800	127.6	127.6	0.0	±1.0
	0.25	1	99.0	98.9	-0.1	1.5; -5.0
SEL	2	8	108.0	108.0	0.0	1.0; -2.5
	200	800	128.0	128.0	0.0	±1.0

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10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value, L _{peak} (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±3.0
One	136.4	136.3	-0.1	±3.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±2.0
Positive half cycle	135.4	135.2	-0.2	±2.0
Negative half cycle	135.4	135.2	-0.2	±2.0

11. Overload indication

Measured value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Positive one-half cycle	Negative one-half cycle	
89.5	89.5	0.0 ±1.5

12. High level stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	137.0	137.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k = 2$
or any value following calculation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

T. Petchum

Calibration Certificate

Equipment : SOUND LEVEL METER
Manufacturer : RION
Model : NL-42 / Microphone UC-52 / Preamplifier NH-24
Serial No. : 01173610 / 143485 / 22619
ID No. : RYQ_F50389

Condition As Found : GOOD

Customer : A.I.S LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATTHANAKAN 40, PHATTHANAKAN ROAD,
KHWAENG PHATTHANAKAN, KHUET SUAN LUANG,
BANGKOK, 10250 THAILAND.

Location :
Ambient Temperature : (23.0 ± 3) °C
Pressure : (101.3 ± 1) kPa
Relative Humidity : (50.0 ± 20) %

Received Date : 14 JANUARY 2025
Calibration Date : 27-29 JANUARY 2025
Date of Issue : 30 JANUARY 2025

Calibrated by : Nethakon Petchum

Approved by : *T. Petchum*
(Thanakul Petchum)

This certificate is issued in accordance with the requirements of ISO/IEC 17025 standard, may not be reproduced
other than in full, except with the prior written approval of the head of Calibration Laboratory.



Summary of Measurement Result :

Parameter	Uncertainty (dB)	Maximum permitted uncertainty of measurement (dB)
1. Absolute sensitivity	0.2	N/A
2. Self-generated noise	0.2	N/A
3. Acoustical signal tests of frequency weightings		
125 Hz	0.3	0.6
1000 Hz	0.3	0.6
8000 Hz	0.3	0.7
4. Electrical signal tests of frequency weightings		
For 10 Hz to 4 kHz	0.3	0.6
For > 4 kHz to 10 kHz	0.3	0.7
For > 10 kHz to 20 kHz	0.3	1.0
5. Frequency and time weightings at 1 kHz	0.2	0.2
6. Long-term stability	0.1	0.1
7. Level linearity on the reference level range	0.2	0.3
8. Level linearity including the level range control	0.2	0.3
9. Time-hunt response	0.2	0.3
10. Peak C sound level	0.2	0.35
11. Overload indication	0.2	0.25
12. High level stability	0.1	0.1

T. Petchum

Result of calibration :

1. Absolute sensitivity

Reference Acoustic Signal (dB)	Measured Value (dB)	Deviation (dB)	Acceptance Limits (dB)
93.9 (93.94)	93.9	0.0	±0.3

2. Self-generated noise

2.1 Normal test

Measured Value (dB)
18.8

2.2 The microphone of the sound level meter was replaced by electrical signal input device.

Frequency Weighting	Weighting (dB)
A-weight	16.3
C-weight	22.1
Flat	28.0

3. Acoustical signal tests of frequency weightings

Meter free-field acoustic response at a level of 84 dB

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
125	0.4	0.4	0.4	± 1.5
1000	0.1	0.1	0.1	± 1.0
8000	-0.2	-0.2	-0.3	± 5.0

T. Petchum

Calibration Procedure : CP-AC-01

Calibration Method :

This equipment was calibrated by follow on IEC-61672-3 (2013) Standard for sound level meter (SLM).
The SLM had tests to Acoustical and Electrical signal tests of frequency weighting with Anechoic chamber and Reference
Standard Instruments.
For tests results of each item were made by observation of each Instruments display and also with SLM's display.

Condition of this result of calibration :

1. Reference Standard Instruments :

Instrument	Model	Serial No.	Cert. No.	Due Date
Waveform Generator	33210A	MY48017076	EF-0009-24	05-FEB-25
Waveform Generator	33511B	MY52302742	EF-0007-24	05-FEB-25
Digital Multimeter	33461A	MY52201014	EEL-BP 210257	13-FEB-25
Digital Multimeter	33461A	MY32020076	EEL-BP 200367	15-FEB-25
Digital Multimeter	34461A	MY60024273	EEL-BP 220267	15-FEB-25
Programmable Attenuator	MAT-1070	62100114	EF-0008-24	05-FEB-25
Condenser Microphone	4180	2977900	AA-1001-24	12-FEB-25
Measuring Amplifier	NA-42KAI	34560995	AA-3001-24	05-FEB-25

2. This result of calibration was found accurate as shown on date and place of calibration for this calibrated item only.

3. This certificate is traceable to the international system of unit maintained at :

3.1 National Institute of Metrology (Thailand).

3.2 Thailand Institute of Scientific and Technological Research (TISTR).

T. Petchum

4. Electrical signal tests of frequency weightings

Weighting network response with relative to 1 kHz.

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
63	0.0	0.1	0.0	±2.0
125	0.0	0.1	0.0	±1.5
250	0.0	0.0	0.0	±1.5
500	0.0	0.1	0.0	±1.5
1000	0.0	0.0	0.0	±1.0
2000	0.0	0.1	0.1	±2.0
4000	0.0	0.1	0.0	±3.0
8000	0.0	0.1	0.1	±5.0

5. Frequency and time weightings at 1 kHz

5.1 Frequency weightings at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.2
C-weight	94.0	94.0	0.0	±0.2
Flat	94.0	94.0	0.0	±0.2

5.2 Time weighting at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	94.0	94.0	0.0	±0.1
Slow	94.0	94.0	0.0	±0.1
Log	94.0	94.0	0.0	±0.1

6. Long-term stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.1	0.1	±0.3

T. Petchum

Cert. No. : ACL25181
Job No. : VCSAC0864
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7. Level linearity on the reference level range

Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
137.0	137.0	0.0	±1.1
136.0	136.0	0.0	±1.1
135.0	135.0	0.0	±1.1
134.0	134.0	0.0	±1.1
133.0	133.0	0.0	±1.1
132.0	132.0	0.0	±1.1
131.0	131.0	0.0	±1.1
129.0	129.0	0.0	±1.1
124.0	124.0	0.0	±1.1
119.0	119.0	0.1	±1.1
114.0	114.0	0.0	±1.1
109.0	109.0	0.0	±1.1
104.0	104.0	0.0	±1.1
99.0	99.0	0.0	±1.1
94.0	94.0	0.0	±1.1
89.0	89.0	0.0	±1.1
84.0	84.0	0.0	±1.1
79.0	79.0	0.0	±1.1
74.0	74.0	0.0	±1.1
69.0	69.0	0.0	±1.1
64.0	64.0	0.0	±1.1
59.0	59.0	0.0	±1.1
54.0	54.0	0.0	±1.1
49.0	49.0	0.0	±1.1
44.0	44.0	0.0	±1.1
39.0	39.0	0.0	±1.1
34.0	34.0	0.0	±1.1
30.0	29.9	-0.1	±1.1
29.0	29.0	0.0	±1.1
28.0	28.0	0.0	±1.1
27.0	26.9	-0.1	±1.1
26.0	26.0	0.0	±1.1
25.0	24.9	-0.1	±1.1

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8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	94.0	94.0	0.0	±1.1

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	29.0	28.9	-0.1	±1.1

9. Tone burst response

Time	Tone burst duration, T _b (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	0.25	1	108.0	108.0	0.0	1.5; -5.0
	2	8	117.0	117.0	0.0	1.0; -2.5
	200	800	134.0	134.1	0.1	±1.0
Slow	2	8	108.0	108.0	0.0	1.5; -5.0
	200	800	127.6	127.6	0.0	±1.0
	0.25	1	99.0	98.9	-0.1	1.5; -5.0
SEL	2	8	108.0	108.0	0.0	1.0; -2.5
	200	800	128.0	128.0	0.0	±1.0

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10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value, L _{peak} (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	130.0	130.0	0.0	±3.0
One	133.4	133.4	0.0	±3.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±2.0
Positive half cycle	135.4	135.1	-0.3	±2.0
Negative half cycle	133.4	135.1	-0.3	±2.0

11. Overload indication

Measured value (dB)		Deviated Value (dB)	Acceptance Limits (dB)
Positive one-half cycle	Negative one-half cycle		
89.6	89.6	0.0	±1.5

12. High level stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	137.1	137.0	0.1	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k = 2$ or any value following calculation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

T. Petchum

479-4581 (dentent) 479-4581 (dentent), Bangkok, Bangkok, 10700 Thailand
Tel : +66 2453 8335 Email : info@sithiporn.comCert. No. : ACL25182
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Calibration Certificate

Equipment : SOUND LEVEL METER
Manufacturer : RION
Model : NR-42 / Microphone UC-52 / Pre-amplifier NH-24
Serial No. : 0029615 / 19119 / 87526
ID No. : RYG_F80432

Condition As Found : GOOD

Customer : ALS LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATTHANAKAN 40, PHATTHANAKAN ROAD,
KIWAENG PHATTHANAKAN, KHET SUAN LUANG,
BANGKOK, 10250 THAILAND.

Location :
Ambient Temperature : (23.0 ± 3) °C
Pressure : (101.3 ± 3) kPa
Relative Humidity : (50.0 ± 20) %

Received Date : 14 JANUARY 2025
Calibration Date : 27-29 JANUARY 2025
Date of Issue : 30 JANUARY 2025

Calibrated by : Nuthorn Poutpisan

Approved by : T. Petchum
(Thanakul Petchum)

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Cert. No. : ACL25182
Job No. : VCSAC0864
Pages : 2 of 8

Calibration Procedure : CP-AC-01

Calibration Method :

This equipment was calibrated by follow on IEC-61672-3 (2013) Standard for sound level meter (SLM).
The SLM had tests to Acoustical and Electrical signal tests of frequency weighting with Acoustic chamber and Reference Standard Instruments.

For test results of each item were made by observation of each Instruments display and also with SLM's display.

Condition of this result of calibration :

1. Reference Standard Instruments :

Instrument	Model	Serial No.	Cert. No.	Due Date
Waveform Generator	33210A	MY48017076	EF-0009-24	05-FEB-25
Waveform Generator	33511B	MY32302742	EF-0001-24	05-FEB-25
Digital Multimeter	33461A	MY32302076	EEL_BP_210267	13-FEB-25
Digital Multimeter	34461A	MY66024273	EEL_BP_220267	15-FEB-25
Programmable Attenuator	MAT-1070	62100114	EF-0008-24	05-FEB-25
Condenser Microphone	4180	2977900	AA-1001-24	12-FEB-25
Measuring Amplifier	NA-42KAJ	34504095	AA-3001-24	05-FEB-25

2. This result of calibration was found accurate as shown on date and place of calibration for this calibrated item only.

3. This certificate is traceable to the international system of unit maintained at :

- 3.1 National Institute of Metrology (Thailand).
- 3.2 Thailand Institute of Scientific and Technological Research (TISTR).

T. Petchum

Cert. No. : ACL25182
Job No. : VCSAC0864
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Summary of Measurement Result :

Parameter	Uncertainty (dB)	Maximum-permitted uncertainty of measurement (dB)
1. Absolute sensitivity	0.2	N/A
2. Self-generated noise	0.2	N/A
3. Acoustical signal tests of frequency weightings		
125 Hz	0.3	0.6
1000 Hz	0.3	0.6
8000 Hz	0.3	0.7
4. Electrical signal tests of frequency weightings		
For 10 Hz to 4 kHz	0.3	0.6
For > 4 kHz to 10 kHz	0.3	0.7
For > 10 kHz to 20 kHz	0.3	1.0
5. Frequency and time weightings at 1 kHz	0.2	0.2
6. Long-term stability	0.1	0.1
7. Level linearity on the reference level range	0.2	0.3
8. Level linearity including the level range control	0.2	0.3
9. Tone burst response	0.2	0.3
10. Peak C sound level	0.2	0.35
11. Overload indication	0.2	0.25
12. High level stability	0.1	0.1

T. Petchum

Cert. No. : ACL25102
Job No. : VCMAC0064
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Result of calibration :

1. Absolute sensitivity

Reference Acoustic Signal (dB)	Measured Value (dB)	Deviation (dB)	Acceptance Limit (dB)
93.9 (93.94)	93.9	0.0	±0.3

2. Self-generated noise

2.1 Normal test

Measured Value (dB)
14.2

2.2 The microphone of the sound level meter was replaced by electrical signal input device.

Frequency Weighting	Weighting (dB)
A-weight	10.8
C-weight	17.3
Flat	23.0

3. Acoustical signal tests of frequency weightings

Motor free field acoustic response at a level of 84 dB

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
125	0.2	0.2	0.2	±1.5
1000	0.0	0.0	0.0	±1.0
8000	0.2	0.2	0.2	±5.0

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4. Electrical signal tests of frequency weightings

Weighting network response with relative to 1 kHz.

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
63	-0.1	-0.1	-0.1	±2.0
125	0.0	0.0	0.0	±1.5
250	0.0	0.0	0.0	±1.5
500	0.0	0.0	0.0	±1.5
1000	0.0	0.0	0.0	±1.0
2000	0.0	0.0	0.0	±2.0
4000	0.0	0.0	0.0	±3.0
8000	0.0	0.1	0.1	±5.0

5. Frequency and time weightings at 1 kHz

5.1 Frequency weightings at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.2
C-weight	94.0	94.0	0.0	±0.2
Flat	94.0	94.0	0.0	±0.2

5.2 Time weighting at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	94.0	94.0	0.0	±0.1
Slow	94.0	94.0	0.0	±0.1
Eq	94.0	94.0	0.0	±0.1

6. Long-term stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.3

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Job No. : VCMAC0064
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8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	94.0	94.0	0.0	±1.1

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	29.0	28.8	-0.2	±1.1

9. Tone burst response

Time Weighting	Tone burst duration, T _b (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	0.25	1	108.0	107.9	-0.1	1.5; -5.0
	2	8	117.0	117.0	0.0	1.0; -2.5
	200	800	134.0	134.0	0.0	±1.0
Slow	0.25	1	108.0	108.0	0.0	1.5; -5.0
	2	8	127.6	127.6	0.0	±1.0
	200	800	128.0	128.0	0.0	±1.0

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10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value, L _{peak} (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	130.0	130.0	0.0	±3.0
One	133.4	133.3	-0.1	±3.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±2.0
Positive half cycle	135.4	135.2	-0.2	±2.0
Negative half cycle	135.4	135.2	-0.2	±2.0

11. Overload indication

Measured value (dB)		Deviated Value (dB)	Acceptance Limits (dB)
Positive one-half cycle	Negative one-half cycle		
89.5	89.5	0.0	±1.5

12. High level stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	137.0	137.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k = 2$
or any value following calculation, providing a level of confidence of approximately 95 %.

End of Calibration Certificate

T. Petch.

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Job No. : VCMAC0064
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7. Level linearity on the reference level range.

Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
137.0	137.0	0.0	±1.1
136.0	136.0	0.0	±1.1
135.0	135.0	0.0	±1.1
134.0	134.0	0.0	±1.1
133.0	133.0	0.0	±1.1
132.0	132.0	0.0	±1.1
131.0	131.0	0.0	±1.1
129.0	129.0	0.0	±1.1
124.0	124.0	0.0	±1.1
119.0	119.0	0.0	±1.1
114.0	114.0	0.0	±1.1
109.0	109.0	0.0	±1.1
104.0	104.0	0.0	±1.1
99.0	99.0	0.0	±1.1
94.0	94.0	0.0	±1.1
89.0	89.0	0.0	±1.1
84.0	84.0	0.0	±1.1
79.0	79.0	0.0	±1.1
74.0	74.0	0.0	±1.1
69.0	69.0	0.0	±1.1
64.0	64.0	0.0	±1.1
59.0	59.0	0.0	±1.1
54.0	53.9	-0.1	±1.1
49.0	49.0	0.0	±1.1
44.0	44.0	0.0	±1.1
39.0	38.9	-0.1	±1.1
34.0	33.9	-0.1	±1.1
30.0	29.9	-0.1	±1.1
29.0	28.9	-0.1	±1.1
28.0	27.9	-0.1	±1.1
27.0	26.9	-0.1	±1.1
26.0	25.9	-0.1	±1.1
25.0	24.9	-0.1	±1.1

T. Petch.

409-4051 (Government House, Bangkok) 409-4051 (Bangkok)
Tel: +66 2420 8558 Email: calibration@sithiporn.com

Cert. No. : ACL25102
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Calibration Certificate

Equipment : SOUND LEVEL METER
Manufacturer : RION
Model : NL-42 / Microphone UC-52 / Pre-amplifier NF1-24
Serial No. : 00296516 / 180412 / 88182
ID No. : RYO_F50433

Condition As Found : GOOD

Customer : ALS LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATTANAKAN 40, PHATTANAKAN ROAD,
KHWAENG PHATTANAKAN, KJIBET SUAN LUANG,
BANGKOK, 10250 THAILAND.

Location :
Ambient Temperature : (23.0 ± 3) °C
Pressure : (101.3 ± 3) kPa
Relative Humidity : (50.0 ± 20) %

Received Date : 14 JANUARY 2025
Calibration Date : 27-29 JANUARY 2025
Date of Issue : 30 JANUARY 2025

Calibrated by :

Nahakorn Pinpaibon

Approved by :

T. Petch.
(Thanakul Petchum)

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other than in full, except with the prior written approval of the head of Calibration Laboratory.

Cert. No. : ACL25183
Job No. : VCSAC0864
Pages : 2 of 8

Calibration Procedure : CP-AC-01

Calibration Method :

This equipment was calibrated by follow on IEC-61672-3 (2013) Standard for sound level meter (SLM).
The SLM had tests to Acoustical and Electrical signal tests of frequency weighting with anechoic chamber and Reference Standard Instruments.

For tests results of each item were made by observation of each Instruments display and also with SLM's display.

Condition of this result of calibration :

1. Reference Standard Instruments :

Instrument	Model	Serial No.	Cert. No.	Due Date
Waveform Generator	33210A	MY48017076	EF-0009-24	05-FEB-25
Waveform Generator	33511B	MY5302742	EF-0007-24	05-FEB-25
Digital Multimeter	34461A	MY53220104	EEL-RP 21-0047	13-FEB-25
Digital Multimeter	34461A	MY53220078	EEL-RP 20-0057	15-FEB-25
Digital Multimeter	34461A	MY6004273	EEL-RP 22-0207	15-FEB-25
Programmable Attenuator	MA3-1070	62100114	EF-0008-24	05-FEB-25
Condenser Microphone	4180	2977900	AA-1001-24	12-FEB-25
Measuring Amplifier	NA-42KAJ	34560495	AA-3001-24	05-FEB-25

2. This result of calibration was found accurate as shown on date and place of calibration for this calibrated item only.

3. This certificate is traceable to the international system of unit maintained at :

3.1 National Institute of Metrology (Thailand).

3.2 Thailand Institute of Scientific and Technological Research (TISTR).

*T. Petch.*Cert. No. : ACL25183
Job No. : VCSAC0864
Pages : 3 of 8

Summary of Measurement Result :

Parameter	Uncertainty (dB)	Maximum-permitted uncertainty of measurement (dB)
1. Absolute sensitivity	0.2	N/A
2. Self-generated noise	0.2	N/A
3. Acoustical signal tests of frequency weightings		
125 Hz	0.3	0.6
1000 Hz	0.3	0.6
8000 Hz	0.3	0.7
4. Electrical signal tests of frequency weightings		
For 10 Hz to 4 kHz	0.3	0.6
For > 4 kHz to 10 kHz	0.3	0.7
For > 10 kHz to 20 kHz	0.3	1.0
5. Frequency and time weightings at 1 kHz	0.2	0.2
6. Long-term stability	0.1	0.1
7. Level linearity on the reference level range	0.2	0.3
8. Level linearity including the level range control	0.2	0.3
9. Tone burst response	0.2	0.3
10. Peak C sound level	0.2	0.35
11. Overload indication	0.2	0.25
12. High level stability	0.1	0.1

*T. Petch.*Cert. No. : ACL25183
Job No. : VCSAC0864
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Result of calibration :

1. Absolute sensitivity

Reference Acoustic Signal (dB)	Measured Value (dB)	Deviation (dB)	Acceptance Limit (dB)
93.9 (93.94)	93.9	0.0	±0.3

2. Self-generated noise

2.1 Normal test

Measured Value (dB)
14.2

2.2 The microphone of the sound level meter was replaced by electrical signal input device.

Frequency Weighting (dB)	Weighting (dB)
A-weight	16.8
C-weight	17.3
Flat	22.9

3. Acoustical signal tests of frequency weightings

Meter free-field acoustic response at a level of 94 dB

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
125	0.3	0.3	0.3	±1.5
1000	0.0	0.0	0.0	±1.0
8000	1.0	1.0	1.0	±5.0

*T. Petch.*Cert. No. : ACL25183
Job No. : VCSAC0864
Pages : 5 of 8

4. Electrical signal tests of frequency weightings

Weighting network response with relative to 1 kHz.

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
63	0.0	-0.1	0.0	±2.0
125	0.0	0.0	0.0	±1.5
250	0.0	0.0	-0.1	±1.5
500	0.0	0.0	-0.1	±1.5
1000	0.0	0.0	0.0	±1.0
2000	0.0	0.0	0.0	±2.0
4000	0.0	0.0	0.0	±3.0
8000	0.0	0.1	0.1	±5.0

5. Frequency and time weightings at 1 kHz

5.1 Frequency weightings at 1 kHz

Frequency Weighting (dB)	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.2
C-weight	94.0	94.0	0.0	±0.2
Flat	94.0	94.0	0.0	±0.2

5.2 Time weighting at 1 kHz

Frequency Weighting (dB)	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	94.0	94.0	0.0	±0.1
Slow	94.0	94.0	0.0	±0.1
Leq	94.0	94.0	0.0	±0.1

6. Long-term stability

Frequency Weighting (dB)	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.3

*T. Petch.*Cert. No. : ACL25183
Job No. : VCSAC0864
Pages : 6 of 8

7. Level linearity on the reference level range

Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
137.0	137.0	0.0	±1.1
136.0	136.0	0.0	±1.1
135.0	135.0	0.0	±1.1
134.0	134.0	0.0	±1.1
133.0	132.9	-0.1	±1.1
132.0	131.9	-0.1	±1.1
131.0	130.9	-0.1	±1.1
129.0	129.0	0.0	±1.1
128.0	128.0	0.0	±1.1
119.0	119.9	0.9	±1.1
114.0	114.0	0.0	±1.1
109.0	109.0	0.0	±1.1
104.0	104.0	0.0	±1.1
99.0	99.0	0.0	±1.1
94.0	94.0	0.0	±1.1
89.0	89.0	0.0	±1.1
84.0	84.0	0.0	±1.1
79.0	79.0	0.0	±1.1
74.0	74.0	0.0	±1.1
69.0	69.0	0.0	±1.1
64.0	64.0	0.0	±1.1
59.0	59.0	0.0	±1.1
54.0	54.0	0.0	±1.1
49.0	49.0	0.0	±1.1
44.0	44.0	0.0	±1.1
39.0	39.0	0.0	±1.1
34.0	34.0	0.0	±1.1
30.0	29.9	-0.1	±1.1
29.0	28.9	-0.1	±1.1
28.0	27.9	-0.1	±1.1
27.0	26.9	-0.1	±1.1
26.0	25.9	-0.1	±1.1
25.0	24.8	-0.2	±1.1

*T. Petch.*Cert. No. : ACL25183
Job No. : VCSAC0864
Pages : 7 of 8

8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	94.0	94.0	0.0	±1.1

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	29.0	28.9	-0.1	±1.1

9. Tone burst response

Time	Tone burst duration, Tb (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	0.25	1	106.0	107.9	-0.1	1.5 ; -5.0
	2	8	117.0	117.0	0.0	1.0 ; -2.5
	200	800	134.0	134.0	0.0	±3.0
Slow	2	8	108.0	108.0	0.0	1.5 ; -5.0
	200	800	127.6	127.6	0.0	±1.0
	0.25	1	99.0	98.9	-0.1	1.5 ; -5.0
SEL	2	8	108.0	108.0	0.0	1.0 ; -2.5
	200	800	128.0	128.0	0.0	±1.0

T. Petch.

Cert. No. : ACL25183
Job No. : VCBAC0064
Pages : 8 of 8

10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value, Leqpk (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	130.0	130.0	0.0	±3.0
One	133.4	133.4	0.0	±3.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±2.0
Positive half cycle	135.4	135.1	-0.3	±2.0
Negative half cycle	135.4	135.2	-0.2	±2.0

11. Overload indication

Measured value (dB)		Deviated Value (dB)	Acceptance Limits (dB)
Positive one half cycle	Negative one half cycle	0.0	±1.5
89.5	89.5		

12. High level stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	137.0	137.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k = 2$
or any value following calculation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

401-403 Sathorn Road, Bangkok, Thailand, 10120 Thailand
Tel: +66 2433 8331 Email: calibration@sithiporn.comCert. No. : ACC25042
Pages : 1 of 3

Calibration Certificate

Equipment : SOUND CALIBRATOR
Manufacturer : RION
Model : NC-74
Serial No. : 34178124
ID No. : RYG_F30216



Condition As Found : GOOD

Customer : ALS LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATTANAKAN 40, PHATTANAKAN ROAD,
KHUANG PHATTANAKAN, KHUANG SUAN LUANG,
BANGKOK, 10250 THAILAND.

Location :
Ambient Temperature : (23.0 ± 3) °C
Pressure : (101.3 ± 7) kPa
Relative Humidity : (50.0 ± 20) %

Received Date : 04 AUGUST 2025
Calibration Date : 19 AUGUST 2025
Date of Issue : 20 AUGUST 2025

Calibrated by : Nathakon Petchum

Approved by :
(Wichok Ekpengdrit)

This certificate is issued in accordance with the requirements of ISO/IEC 17025 standard, may not be reproduced
other than in full, except with the prior written approval of the head of Calibration Laboratory.

Cert. No. : ACC25042
Job No. : VCBAC0162
Pages : 3 of 3

Result of calibration :

1. Sound pressure level

Specified sound pressure level (dB)	Measured value (dB)	Deviated value (dB)	Uncertainty (dB)	Acceptance limit (dB)
94	94.17	0.17	0.14	0.40

2. Frequency

Specified Frequency (Hz)	Measured value (Hz)	Deviated value (%)	Uncertainty (%)	Acceptance limit (%)
1000	1001.3	0.1	0.1	1.0

3. Total distortion

Measured value (%)	Uncertainty (%)	Acceptance limit (%)
2.07	0.10	3.0

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k = 2$
or any value following calculation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

401-403 Sathorn Road, Bangkok, Thailand, 10120 Thailand
Tel: +66 2433 8331 Email: calibration@sithiporn.comCert. No. : ACL25071
Pages : 1 of 8

Calibration Certificate

Equipment : SOUND LEVEL METER
Manufacturer : RION
Model : NL-42 / Microphone UC-52 / Preamplifier NH-24
Serial No. : 01122579 / 172172 / 74022
ID No. : RYG_F30018

Condition As Found : GOOD

Customer : ALS LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATTANAKAN 40, PHATTANAKAN ROAD,
KHUANG PHATTANAKAN, KHUANG SUAN LUANG,
BANGKOK, 10250 THAILAND.

Location :
Ambient Temperature : (23.0 ± 3) °C
Pressure : (101.3 ± 3) kPa
Relative Humidity : (50.0 ± 20) %

Received Date : 07 JANUARY 2025
Calibration Date : 21 - 23 JANUARY 2025
Date of Issue : 24 JANUARY 2025



Calibrated by : Nathakon Petchum

Approved by :
(Thanakul Petchum)

This certificate is issued in accordance with the requirements of ISO/IEC 17025 standard, may not be reproduced
other than in full, except with the prior written approval of the head of Calibration Laboratory.

Cert. No. : ACC25042
Job No. : VCBAC0162
Pages : 2 of 3

Calibration Procedure : CP-AC-03

Calibration Method :

This equipment was calibrated by follow on IEC-60942:2003 Standard.
The sound pressure level, frequency and total distortion of the sound calibrator was measured using the reference
microphone.

Condition of this result of calibration :

1. Reference Standard Instruments :

Instrument	Model	Serial No.	Cert. No.	Due Date
Waveform Generator	33511B	MY52302742	EF-0012-25	11-FEB-26
Digital Multimeter	33461A	MY53201014	EEL_BP 24/02/26	22-APR-26
Digital Multimeter	33461A	MY53200076	EEL_BP 23/02/26	22-APR-26
Digital Multimeter	33461A	MY60002273	CAN2512002A	19-MAR-26
Programmable Attenuator	MAT-1070	62100114	EF-0006-25	11-FEB-26
Condenser Microphone	4180	2977900	AA-1002-25	19-FEB-26
Measuring Amplifier	NA-42KA1	34560495	AA-3002-25	19-FEB-26
Audio Analyzer	AVR-3500A	V7446069	EF-0013-25	13-FEB-26

2. This result of calibration was found accurate as shown on date and place of calibration for this calibrated item only.

3. This certificate is traceable to the international system of unit maintained at :

3.1 National Institute of Metrology (Thailand).

3.2 Thailand Institute of Scientific and Technological Research (TISTR).

3.3 Electrical And Electronics Institute (EEI).

Cert. No. : ACC25042
Job No. : VCBAC0162
Pages : 3 of 3

Result of calibration :

1. Sound pressure level

Specified sound pressure level (dB)	Measured value (dB)	Deviated value (dB)	Uncertainty (dB)	Acceptance limit (dB)
94	94.17	0.17	0.14	0.40

2. Frequency

Specified Frequency (Hz)	Measured value (Hz)	Deviated value (%)	Uncertainty (%)	Acceptance limit (%)
1000	1001.3	0.1	0.1	1.0

3. Total distortion

Measured value (%)	Uncertainty (%)	Acceptance limit (%)
2.07	0.10	3.0

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k = 2$
or any value following calculation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

Cert. No. : ACL25071
Job No. : VCBAC0059
Pages : 2 of 8

Calibration Procedure : CP-AC-01

Calibration Method :

This equipment was calibrated by follow on IEC-61672-3 (2013) Standard for sound level meter (SLM).
The SLM had tests to Acoustical and Electrical signal tests of frequency weighting with Anechoic chamber and Reference
Standard Instruments.

For test results of each item were made by observation of each instrument display and also with SLM's display.

Condition of this result of calibration :

1. Reference Standard Instruments :

Instrument	Model	Serial No.	Cert. No.	Due Date
Waveform Generator	33210A	MY48017076	EF-0009-24	05-FEB-25
Waveform Generator	33511B	MY52302742	EF-0007-24	05-FEB-25
Digital Multimeter	33461A	MY53201014	EEL_BP 21/02/26	13-FEB-25
Digital Multimeter	33461A	MY53200076	EEL_BP 20/02/26	15-FEB-25
Digital Multimeter	33461A	MY60002273	EEL_BP 22/02/26	15-FEB-25
Programmable Attenuator	MAT-1070	62100114	EF-0008-24	05-FEB-25
Condenser Microphone	4180	2977900	AA-1001-24	12-FEB-25
Measuring Amplifier	NA-42KA1	34560495	AA-3001-24	05-FEB-25

2. This result of calibration was found accurate as shown on date and place of calibration for this calibrated item only.

3. This certificate is traceable to the international system of unit maintained at :

3.1 National Institute of Metrology (Thailand).

3.2 Thailand Institute of Scientific and Technological Research (TISTR).

Cert. No. : ACL25071
Job No. : VCBAC0059
Pages : 3 of 8

Summary of Measurement Result :

Parameter	Uncertainty (dB)	Maximum-permitted uncertainty of measurement (dB)
1. Absolute sensitivity	0.2	N/A
2. Self-generated noise	0.2	N/A
3. Acoustical signal tests of frequency weightings		
125 Hz	0.3	0.6
1000 Hz	0.3	0.6
8000 Hz	0.3	0.7
4. Electrical signal tests of frequency weightings		
For 10 Hz to 4 kHz	0.3	0.6
For > 4 kHz to 10 kHz	0.3	0.7
For > 10 kHz to 20 kHz	0.3	1.0
5. Frequency and time weightings at 1 kHz	0.2	0.2
6. Long-term stability	0.1	0.1
7. Level linearity on the reference level range	0.2	0.3
8. Level linearity including the level range control	0.2	0.3
9. Tone burst response	0.2	0.3
10. Peak C sound level	0.2	0.35
11. Overload indication	0.2	0.25
12. High level stability	0.1	0.1

T. Petch.

Cert. No. : ACL25071
Job No. : VCBAC0059
Page : 4 of 8

Result of calibration :

1. Absolute sensitivity

Reference Acoustic Signal (dB)	Measured Value (dB)	Deviation (dB)	Acceptance Limit (dB)
93.9 (93.94)	93.9	0.0	±0.3

2. Self-generated noise

2.1 Normal test

Measured Value (dB)
14.3

2.2 The microphone of the sound level meter was replaced by electrical signal input device.

Frequency Weighting	Weighting (dB)
A-weight	12.0
C-weight	18.3
Flat	24.0

3. Acoustical signal tests of frequency weightings

Meter free-field acoustic response at a level of 94 dB

Frequency (Hz)	Flat	C-weight	A-weight	Acceptance Limits
125	0.3	0.3	0.3	±1.3
1000	0.1	0.1	0.1	±1.0
8000	1.1	1.1	1.1	±5.0

T. Petch.

Cert. No. : ACL25071
Job No. : VCBAC0059
Pages : 5 of 8

4. Electrical signal tests of frequency weightings

Weighting network response with relative to 1 kHz.

Frequency (Hz)	Flat	C-weight	A-weight	Acceptance Limits
63	0.0	0.0	0.0	±2.0
125	0.0	0.0	0.0	±1.5
250	0.0	0.0	0.0	±1.5
500	0.0	0.0	0.0	±1.0
1000	0.0	0.0	0.0	±2.0
2000	0.0	0.0	0.0	±3.0
4000	0.0	0.0	0.0	±5.0
8000	0.0	0.1	0.1	±5.0

5. Frequency and time weightings at 1 kHz

5.1 Frequency weightings at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.2
C-weight	94.0	94.0	0.0	±0.2
Flat	94.0	94.0	0.0	±0.2

5.2 Time weighting at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	94.0	94.0	0.0	±0.1
Slow	94.0	94.0	0.0	±0.1
Log	94.0	94.0	0.0	±0.1

6. Long-term stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.3

T. Petch.

Cert. No. : ACL25071
Job No. : VCBAC0059
Pages : 6 of 8

7. Level linearity on the reference level range

Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
137.0	137.0	0.0	±1.1
136.0	136.0	0.0	±1.1
135.0	135.0	0.0	±1.1
134.0	134.0	0.0	±1.1
133.0	133.0	0.0	±1.1
132.0	132.0	0.0	±1.1
131.0	131.0	0.0	±1.1
129.0	129.0	0.0	±1.1
124.0	124.0	0.0	±1.1
119.0	119.0	0.0	±1.1
114.0	114.0	0.0	±1.1
109.0	109.0	0.0	±1.1
104.0	104.0	0.0	±1.1
99.0	99.0	0.0	±1.1
94.0	94.0	0.0	±1.1
89.0	89.0	0.0	±1.1
84.0	84.0	0.0	±1.1
79.0	78.9	-0.1	±1.1
74.0	74.0	0.0	±1.1
69.0	69.0	0.0	±1.1
64.0	63.9	-0.1	±1.1
59.0	59.0	0.0	±1.1
54.0	53.9	-0.1	±1.1
49.0	48.9	-0.1	±1.1
44.0	43.9	-0.1	±1.1
39.0	38.9	-0.1	±1.1
34.0	33.9	-0.1	±1.1
30.0	30.0	0.0	±1.1
29.0	28.9	-0.1	±1.1
28.0	28.0	0.0	±1.1
27.0	27.0	0.0	±1.1
26.0	26.0	0.0	±1.1
25.0	25.1	0.1	±1.1

T. Petch.

Cert. No. : ACL25071
Job No. : VCBAC0059
Pages : 7 of 8

8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	94.0	94.0	0.0	±1.1

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	29.0	29.0	0.0	±1.1

9. Tone burst response

Time Weighting	Tone burst duration, Th (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	0.25	1	108.0	107.9	-0.1	1.5 ; -5.0
	2	8	117.0	117.0	0.0	1.0 ; -2.5
	200	800	134.0	134.0	0.0	±1.0
Slow	2	8	108.0	108.0	0.0	1.5 ; -5.0
	200	800	127.6	127.6	0.0	±1.0
	0.25	1	99.0	98.9	-0.1	1.5 ; -5.0
SEL	2	8	108.0	108.0	0.0	1.0 ; -2.5
	200	800	128.0	128.1	0.1	±1.0

T. Petch.

Cert. No. : ACL25071
Job No. : VCBAC0059
Pages : 8 of 8

10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value, Lpeak (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	130.0	130.0	0.0	±3.0
One	133.4	133.3	-0.1	±3.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	131.0	131.0	0.0	±2.0
Positive half cycle	135.4	135.2	-0.2	±2.0
Negative half cycle	135.4	135.2	-0.2	±2.0

11. Overload indication

Measured value (dB)		Deviated Value (dB)	Acceptance Limits (dB)
Positive one-half cycle	Negative one-half cycle		
89.5	89.6	0.1	±1.5

12. High level stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	137.0	137.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor k = 2 or any value following calculation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

T. Petch.

Cert. No. : ACL25072
Job No. : VC8AC0859
Pages : 7 of 8

8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	94.0	94.0	0.0	±1.1

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	79.0	79.0	0.0	±1.1

9. Tone burst response

Time Weighting	Tone burst duration, T _b (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	0.25	1	108.0	108.0	0.0	1.5 ; -5.0
	2	8	117.0	117.0	0.0	1.0 ; -2.5
	200	800	134.0	134.1	0.1	±1.0
Slow	2	8	108.0	108.1	0.1	1.5 ; -5.0
	200	800	127.6	127.7	0.1	±1.0
SEL	0.25	1	99.0	98.9	-0.1	1.5 ; -5.0
	2	8	108.0	108.0	0.0	1.0 ; -2.5
	200	800	128.0	128.1	0.1	±1.0

Cert. No. : ACL25072
Job No. : VC8AC0859
Pages : 8 of 8

10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value, L _{peak} (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	130.0	130.0	0.0	±3.0
One	133.4	133.4	0.0	±3.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±2.0
Positive half cycle	135.4	135.1	-0.3	±2.0
Negative half cycle	135.4	135.1	-0.3	±2.0

11. Overload indication

Measured value (dB)		Deviated Value (dB)	Acceptance Limits (dB)
Positive one-half cycle	Negative one-half cycle	0.0	±1.5
89.5	89.5	0.0	±1.5

12. High level stability

Frequency Weighting	SILM Display at initial (dB)	SILM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	137.0	137.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k = 2$
or any value following calculation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

TECHNOLOGY PROMOTION ASSOCIATION (THAILAND-JAPAN)
CORPORATE SERVICE & EQUIPMENT CALIBRATION AND TESTING SERVICES
154/4 PLOT 5 SARABAY ROAD (BOX 16, BANGKALANG, BANGKOK 10520)
TEL. 0-2715-8882 EXT. FAX 0-2715-8444Cert. No. : 24CH96
Page : 1 of 3

Certificate of Calibration

Equipment : pH Meter
Manufacturer : Mettler Toledo
Model : SevenCompact 5220
Serial No. : C104059480
ID No. : RYD_EN0183
Condition As-Received : Used Item
Received Date : 19 January 2024
Calibration Date : 19 January 2024
Reference : 2401-0570SC-2
Submitted by : ALS Laboratory Group (Thailand) Co., Ltd. (Paying Branch)
616/10 Moo 5, T. Maenam Khui, A. Phukdang, Rayong 21140, Thailand

REVIEW BY: *N. Sathaporn*
APPROVED BY: *P. Pongpan*
NEXT CAL. DATE: 19 JAN 25
10404 000001 0A

Ambient Temperature : (25 ± 2.5) °C
Relative Humidity : (50 ± 15) %
Calibration Procedure : In-house method
- CP-CH by direct measurement with standard voltage calibrator and direct measurement with certified reference material (CRM)
- CP-CH by comparison with temperature standard

Calibrated by : Warakorn Lamgeethalul

Approved by : *Sathaporn*
Approved Signatory(✓) Sathaporn Meangmai
(✓) Warakorn Lamgeethalul
(✓) Pongpan PongpanIssue Date : 24 January 2024
The Uncertainty are for a confidence probability of approximately 95 %This certificate is for the equipment only and does not include the user's own equipment.
Approval of the Head of Calibration Service : Pongpan Pongpan, Calibration and Testing Services

A 0052854

Cert. No. : 24CH96
Page : 2 of 3

Condition of this calibration result

1. Reference Standard Instrument

Instrument	Serial No.	ID No.	Cert. No.	Due Date
1) Document Process Calibrator	54030049	130RC118	23E2802	27 Aug 2024
2) Ref. Standard Thermometer	4882054	110RC044	23R08	26 July 2024

This certification is traceable to the International System of Unit maintained through:
- Technology Promotion Association (Thailand-Japan)

2. Certified Reference Materials : The measurement results are traceable to SI through CPA item List, ANRI-ASQ National Accreditation Board, Accredited No. AN-1835

Buffer Solution	Manufacturer	Lot No.	Exp. date
pH 4.008	CPA chem	840102	27 Nov 2025
pH 6.860	CPA chem	840104	02 Nov 2024
pH 9.997	CPA chem	840106	02 Nov 2024

3. This certificate is valid only to the item calibrated on date and place of calibration.

Calibration Results

Function : mV Measurement

Performing standard curve by Fluke at pH (4.7, 10)

Unit Under Calibration	Nominal Value		Standard Voltage Input		Actual Reading		Uncertainty of Measurement (mV)	Coverage factor k
	pH	mV	mV	pH	mV	pH		
pH Meter S/N: C104059480	4.000	177.48	177.4	4.000	0.058	2.00	0.058	2.00
	7.000	0.00	0.0	7.000	0.058	2.00		
	10.000	-177.48	-177.5	10.000	0.058	2.00		

Cert. No. : 24CH96
Page : 3 of 3

Calibration Results

Function : pH Measurement

Performing three buffers standard curve by using buffer nominal pH (4.01, 7.00, 10.01)

Unit Under Calibration	Standard pH Buffer Solution	Actual pH Reading	Actual mV Reading (mV)	Uncertainty of pH Measurement (pH)	Coverage factor k
pH Electrode S/N: 3225387	4.008	4.013	176.0	0.0054	2.07
	6.860	6.863	2.2	0.0064	2.00
	9.997	9.996	-174.1	0.0065	2.00

Function : Temperature Measurement

(*) Without adjustment

This equipment was connected with Temperature Probe:

- Model : HiLabExpert Pro-ISM

- Serial No. : 3225387

Dimension of probe

- Length : 120 mm

- Diameter : 12 mm

- Immersion Depth : 100 mm

Calibration Point (°C)	Standard Temperature (°C)	UUC* Reading (°C)	Error (°C)	Uncertainty of measurement (± °C)	Coverage factor k
25.0	25.001	25.2	0.199	0.15	2.00

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor k , providing a level of confidence of approximately 95 %

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TECHNOLOGY PROMOTION ASSOCIATION (THAILAND-JAPAN)
CORPORATE SERVICE & EQUIPMENT CALIBRATION AND TESTING SERVICES
154/4 PLOT 5 SARABAY ROAD (BOX 16, BANGKALANG, BANGKOK 10520)
TEL. 0-2715-8882 EXT. FAX 0-2715-8444Certificate No. : 24CH96
Page : 1 of 2

Certificate of Calibration

Equipment : pH Meter
Manufacturer : Mettler Toledo
Model : SevenCompact 5220
Serial No. : C104059480
ID No. : RYD_EN0182
Condition As-Received : Used Item
Received Date : 19 January 2024
Calibration Date : 23 January 2024
Reference : 2401-0570SC-2
Submitted by : ALS Laboratory Group (Thailand) Co., Ltd. (Paying Branch)
616/10 Moo 5, T. Maenam Khui, A. Phukdang, Rayong 21140, Thailand

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Ambient Temperature : (25 ± 1) °C
Relative Humidity : (50 ± 15) %

Procedure used: Calibration were conducted using calibration procedure No. CP-E17 According to EURAMET cp-15

Condition of this result of calibration

1. Reference standards instruments

Instrument	Model	Serial No.	Certificate No.	Due Date
1) Multi-Product Calibrator	5660A	8310111	1302300006	29 May 2024

2. This result of calibration was made on requested at the point specified by customer.

3. This certificate is valid only to the item calibrated on date and place of calibration.

4. This Certification is traceable to the International System of Unit maintained through:

NA Calibration Co., Ltd. ANRI Accredited No. Calibration AC-2888

Calibrated by : Warakorn Lamgeethalul
Issue Date : 24 January 2024Approved Signatory : *P. Pongpan*
(✓) Pongpan Pongpan
(✓) Warakorn Lamgeethalul
(✓) Pongpan Pongpan

0333298



Cert. No.: 24C289
Page: 2 of 2

Result of calibration:- (*) Without adjustment () After adjustment

Function:	DC voltage measurement	Range:	2000 mV	
	Standard Value	UUC* Reading	Error	Uncertainty
	(mV)	(mV)	(mV)	(±µV)
	-200.0000	-200.0	0.0	88
	-150.0000	-150.0	0.0	65
	-100.0000	-100.0	0.0	63
	-50.0000	-50.0	0.0	61
	0.0000	0.0	0.0	58
	50.0000	50.0	0.0	61
	100.0000	99.9	-0.1	63
	150.0000	149.8	-0.2	65
	200.0000	199.8	-0.2	68

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95 %.

UUC* = Unit Under Calibration.

-000-

11198963



Cert.No.: 25C1847
Page: 3 of 3

Calibration Results

Function: pH Measurement

Performing three buffers standard curve by using buffer nominal pH (4.7,10)

Unit Under Calibration	Standard pH Buffer Solution	Actual pH Reading	Actual mV Reading	Uncertainty of pH Measurement (t)	Coverage factor k
pH Electrode S/N: 5240006	4.007 6.965 10.010	4.008 6.966 10.009	184.6 10.2 -184.9	0.0044 0.0084 0.0095	2.00 2.00 2.00

Function: Temperature Measurement

(*) Without adjustment

This equipment was connected with Temperature Probe:

- Model: INLabExpert Pro-ISM

- Serial No.: 5242606

- Dimensions of probe:

- Length: 120 mm.

- Diameter: 12 mm.

- Immersion Depth: 100 mm.

Calibration Point (°C)	Standard Temperature (°C)	UUC* Reading (°C)	Error (°C)	Uncertainty of measurement (±°C)	Coverage factor k
25.0	25.001	25.0	-0.001	0.13	2.00

Remark: - UUC* = Unit Under Calibration

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95 %.

-000-



TECHNOLOGY PROMOTION ASSOCIATION (THAILAND-JAPAN)
CORPORATE SERVICES 3: EQUIPMENT CALIBRATION AND TESTING SERVICES
534/8 PATTANAKARN ROAD SOI 18, SUANLUANG, SUANLUANG BANGKOK 10250
TEL. 0-2717-3000-29 FAX. 0-2719-9484



Certificate of Calibration

Cert.No.: 25CH47
Page: 1 of 3

Equipment: pH Meter
Manufacturer: Mettler-Toledo
Model: SevenCompact S220
Serial No.: C104059480
ID No.: RYO-EN0183
Condition As-Received: Used Item
Received Date: 17 July 2025
Calibration Date: 18 July 2025
Reference: 2507-0561DSC-3
Submitted by: ALS Laboratory Group (Thailand) Co., Ltd.
Rajong Branch
616/10 Moo 5, T.Maezan Khu, A.Phuakdiang, Rayong 21140, Thailand
(25 ± 2.5) °C
(50 ± 15) %
In-house method:
- CP-CH6 by direct measurement with DC voltage standard and direct measurement with certified reference material (CRM)
- CP-CH6 by comparison with temperature standard
Ambient Temperature:
Relative Humidity:
Calibration Procedure:
Calibrated by: Watsak Srinthan
Approved by: Sathap
Approved Signatory:
() Chakrit Waeewarjua
() Ponpan Papiam
(✓) Sathap Meangmai
Issue Date: 21 July 2025

The Uncertainties are for a confidence probability of approximately 95%

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TECHNOLOGY PROMOTION ASSOCIATION (THAILAND-JAPAN)
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TEL. 0-2717-3000-29 FAX. 0-2719-9484



Certificate of Calibration

Certificate No.: 25E2372
Page: 1 of 2

Equipment: pH Meter
Manufacturer: Mettler-Toledo
Model: SevenCompact S220
Serial No.: C104059480
ID No.: RYO-EN0183
Condition As-Received: Used Item
Received Date: 17 July 2025
Calibration Date: 22 July 2025
Reference: 2507-0561DSC-3
Submitted by: ALS Laboratory Group (Thailand) Co., Ltd. Rayong Branch
616/10 Moo 5, T.Maezan Khu, A.Phuakdiang, Rayong 21140, Thailand
Ambient Temperature: (25 ± 2) °C
Relative Humidity: (50 ± 10) %

Procedure used: Calibration was conducted using calibration procedure No. CP-E17 according to EURAMET cg-15.

Condition of this result of calibration

1. Reference standards instruments:

Instrument	Model	Serial No.	Certificate No.	Due Date
1) Multi-Product Calibrator	5500A	6210011	25E1627	19 May 2028

2. This result of calibration was made on requested at the point specified by customer.

3. This certificate is valid only to the item calibrated on date and place of calibration.

4. This measurement result is traceable to the International System of Unit maintained through:

- Technology Promotion Association (Thailand-Japan), NSC-ONSC Accredited No. Calibration 0008

Calibrated by: Nopachonk Prasomsoont
Issue Date: 22 July 2025

Approved Signatory:
() Pholasee Pholaprasit
() Nontawat Khanchai
(✓) Pongpang Boonayong



Cert.No.: 25CH47
Page: 2 of 3

Condition of this calibration result

1. Reference Standard Instrument

Instrument	Serial No.	ID No.	Cert. No.	Due Date
1) Document Process Calibrator	54030049	130RC116	24E2759	25 Aug 2025
2) Ref. Standard Thermometer	3240076	60RC033	25D94	01 Apr 2026

- This measurement result is traceable to SI through Technology Promotion Association (Thailand - Japan)

2. Certified Reference Materials: - The measurement results are traceable to SI through CPA chem Ltd., ANSB ASQ National Accreditation Board, Accredited No. AN-1836

Buffer Solution	Manufacturer	Lot No.	Exp. date
pH 4.007	CPA chem	1066665	18 Jan 2027
pH 6.965	CPA chem	1066667	18 Jan 2026
pH 10.010	CPA chem	1114385	08 June 2026

3. This certificate is valid only to the item calibrated on date and place of calibration.

Calibration Results

Function: mV Measurement

Performing standard curve by Document Process Calibrator at pH (4.7,10)

Unit Under Calibration	Nominal Value	Standard Voltage Input	Actual Reading		Uncertainty of Measurement (mV)	Coverage factor k
	pH	mV	mV	pH		
pH Meter S/N: C104059480	4.000	177.48	177.3	4.000	0.058	2.00
	7.000	0.00	-0.2	7.000	0.058	2.00
	10.000	-177.48	-177.6	10.000	0.058	2.00

Accredited by NSC-TISI-TIS 17025 Calibration 0426

Calibration certificate Calibration Certificate No. 258KL0002

Object Electronic non-automatic weighing instrument

Manufacturer Sartorius

Type MCE224S-2500-U

Serial / QM Ident. no. 38101399 / RYG_EN0163

Customer ALS Laboratory Group (Thailand) Co., Ltd. (Rayong Branch)

Order no. 2230

Date of calibration 20 Feb 2025

This calibration certificate may not be reproduced other than in full except with the permission of NSC-TISI-TIS-17025 and the issuing laboratory. Calibration certificates without signature are not valid. The user is obliged to have the object recalibrated at appropriate intervals.

Date 06 Mar 2025 Approval of the Calibration Certificate Person in charge

Sartorius (Thailand) Co., Ltd. 129 Rama 9 Road, Huaykiewang 10310 Bangkok

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Interpretation of measurement results | Appendix to the calibration certificate

Uncertainty of measurement in use

Device adjusted before measurement Yes

Temperature deviation considered 1.5 K (ISO CAL active)

Temperature coefficient considered 1 - 10 °K

Uncertainty of the weighing result $U_p(W)$ $U_p(W) = 0.00013 \text{ g} + 1.16 \cdot 10^{-4} \cdot R$

Reference note: The stated uncertainty of measurement is calculated by entering of the reading R into this formula. In relation to this, there is no need for a correction of the indicator error. The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied with an expansion factor of 2, determined in accordance with the European Calibration Guideline EURAMET-17 p. 18, v4.0. There is a 95 % probability that the value of the measured will be in the assigned value range.

Indication in % from mass load	Net indication	Uncertainty $U_p(W)$	Uncertainty relative $U_p(W)/W$
1 %	2.0000 g	0.00018 g	0.0091 %
25 %	35.0000 g	0.00077 g	0.0022 %
50 %	110.0000 g	0.0014 g	0.0013 %
75 %	165.0000 g	0.0020 g	0.0012 %
100 %	220.0000 g	0.0027 g	0.0012 %

Graphic realization of the relative uncertainty of measurement | process accuracy

Displayed example

Process accuracy 1.00 %

Safety factor 3

Minimum sample weight 0.0381 g

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Calibration certificate No. 258KL0002 Calibration Certificate

Calibration object

Single range instrument

Model MCE224S-2500-U

Serial Number 38101399

QM Ident. no. / Inventory no. RYG_EN0163 / —

Maximum capacity (Max. load) 220 0000 g

Measured range 220 0000 g

Scale interval 0.0001 g

Place of calibration

Address According to page 1

Department / Cost center Laboratory Department / —

Building / Floor — / 1st Floor

Room Balance Room

Maximum temperature variation at place of calibration 5 K

Calibration procedure EURAMET-17 p. 18, v4.0 - Guidelines on the Calibration of Non-Automatic Weighing Instruments

Test equipment

Test equipment type Test equipment ID Valid until

Thermometer MHB-3625D snB011342 Traceable to SI unit through DKSH 21 Aug 2025

Test weight set OIML R111 E2 Certificate No M2306197S_E2(Traceable to SI unit through TCS) 23 Aug 2025

Sartorius (Thailand) Co., Ltd. 129 Rama 9 Road, Huaykiewang 10310 Bangkok

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Metrology Center SCI ECO Services Company Limited

51 Moo 8, Tubkiewang, Kaeng Khoi, Saraburi, Thailand 18260

Bangkok Tel : +668 1805 9851, +669 81924 0289

Saraburi Tel : +669 8047 2360

Website : www.sceco.co.th E-Mail : calibrate@scg.co.th

Certificate No. T251530 Page 1 of 3

Certificate of Calibration

Equipment : Chamber (Oven)

Manufacturer : MEMMERT

Model : UF 110

Serial No. : B416.2420

Customer Code : RYG_EN0012

ID No. : T6444A5

Customer : ALS Laboratory Group (Thailand) Co., Ltd. (Rayong Branch)

616/10 Moo 5 T.Maemamkoo, A.Pinkdaeng, Rayong 21140

Customer Location : ENVIRONMENT LABORATORY

Date of Receipt : 3 September 2025

Calibrated By : Sujjar Naknakred (Site Calibration Manager)

Approved By : Boonchai Suriyawong (Site Calibration Manager)

Date of Issue : 17 SEP 2025

The uncertainties are for a confidence probability of approximately 95%.

This Certificate is issued in accordance with the conditions of accreditation granted by the Thai Laboratory Accreditation Scheme which has assessed the measurement capability of the laboratory and its traceability to recognized national standards and to the units of measurement realized at the corresponding national standard laboratory. This certificate may not be reproduced other than in full except with the prior written approval of the Metrological Center.

FM-TL07 302/27-03-08

Calibration certificate No. 258KL0002 Calibration Certificate

Adjustment Status

The measuring device was internally adjusted before the calibration.

Environmental and measuring conditions

Date of calibration 20 Feb 2025

Temperature at place of calibration | Temp. diff 24.4 °C | 0.6 K

Weights - Tjaac

Measuring conditions The installation site is suitable. The device was leveled. Balance was loaded up to Max before test.

Humidity 58.0 %RH

Comments

Measurement results | Measurement uncertainties

Repeatability

Test load (nominal): 10 g 200 g	10 g	200 g
1	10.0000 g	200.0000 g
2	10.0000 g	200.0000 g
3	10.0000 g	200.0000 g
4	9.9999 g	200.0000 g
5	9.9999 g	200.0000 g
6	10.0000 g	200.0000 g
7	10.0000 g	200.0000 g
8	10.0000 g	200.0000 g
9	9.9999 g	200.0000 g
10	10.0000 g	200.0000 g

$s = 0.0005 \text{ g}$ $s = 0.0005 \text{ g}$

Centricity

Test load (nominal): 100 g	100 g
Center	100.0000 g
Front left	100.0000 g
Back left	100.0000 g
Back right	100.0000 g
Front right	99.9999 g

Maximum deviation from centric loading indication $U_{\text{dev}}/W_{\text{max}} = 0.0001 \text{ g}$

Error of indication

Testload	Indication	Error	Expansion factor	Uncertainty $U_p(W)$	Uncertainty relative $U_p(W)/W$
0.0100 g	0.0100 g	0.0000 g	2.00	0.00013 g	1.3 %
0.1000 g	0.1000 g	0.0000 g	2.00	0.00013 g	0.13 %
0.5000 g	0.5000 g	0.0000 g	2.00	0.00013 g	0.026 %
1.0000 g	1.0000 g	0.0000 g	2.00	0.00013 g	0.013 %
5.0000 g	5.0000 g	0.0000 g	2.00	0.00013 g	0.0026 %
10.0000 g	9.9999 g	-0.0001 g	2.00	0.00013 g	0.0013 %
20.0000 g	20.0000 g	0.0000 g	2.00	0.00014 g	0.00068 %
50.0000 g	50.0001 g	0.0001 g	2.00	0.00015 g	0.00029 %
100.0000 g	100.0000 g	0.0000 g	2.00	0.00016 g	0.00016 %
200.0000 g	200.0000 g	0.0000 g	2.00	0.00020 g	0.00014 %
220.0000 g	220.0000 g	0.0000 g	2.00	0.00032 g	0.00015 %

Maximum error of indication $U_{\text{max}} = 0.0001 \text{ g}$

Uncertainty of measurement in use: The uncertainty of measurement (U) is stated only if it is considered. This will find reference notes in the Reference note. The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the documented Expansion factor, determined in accordance with the European Calibration Guideline EURAMET-17 p. 18, v4.0. There is a 95 % probability that the value of the measured will be in the assigned value range.

End of calibration certificate

Sartorius (Thailand) Co., Ltd. 129 Rama 9 Road, Huaykiewang 10310 Bangkok

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Metrology Center SCI ECO Services Company Limited

51 Moo 8, Tubkiewang, Kaeng Khoi, Saraburi, Thailand 18260

Certificate No. T251530 Page 2 of 3

Calibration Report

Equipment : Chamber (Oven)

Date of Calibration : 10 September 2025

Environment : Temperature : 35.7-36.6 °C

Line Voltage : 226.8-233.7 V

Relative Humidity : 55 - 65 %RH

Condition of this results of calibration :

1. This equipment was calibrated by insert nine resistance thermometer detectors into its chamber , the other one resistance thermometer detector use for ambient temperature measurement. The calibration was done in according to W3-T20 (based on ASTM E145-94 (Reapproved 2019) and AS2853-1986). All data show below were final values and the initial data from customer request . The temperature scale used was based on ITS - 90 .

2. Reference Standard Instrument :

Instrument	Instrument No.	Certificate No.	Due Date
RTD	100 also	36-(CH11-10)	T242203 9 November 2025
DATA LOGGER	34970A	147	T242203 9 November 2025

3. This certificate is traceable to : National Institute of Metrology (Thailand) through Metrological Center (NSC-TIS-TIS 17025 CALIBRATION 0244 .

4. Condition of calibrated item : good

Equipment Description :

Time Constant : 3 Hour 29 Minute At 104 °C

Fresh Air Thermo : ☒ Open ☒ Man ☐ Medium ☐ Max

Chac : ☐ Not Available

5. Adjustment : () without adjustment (X) after adjustment

Approved By : Boonchai Suriyawong

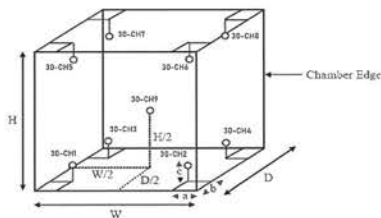
FM-TL07 302/27-03-08



Certificate No. T251530

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Calibration Report



Remark 1: Internal Dimensions of Chamber: W (Width) = 96 cm, H (Height) = 48 cm and D (Depth) = 40 cm.
Size of installed Standard sensor number 30-CH1 to number 30-CH8: a = 3 cm, b = 3 cm and c = 5 cm.
Size of installed Standard sensor number 30-CH9: W3 = 54 cm, H2 = 48 cm, D2 = 40 cm, D2 = 40 cm, D2 = 40 cm.

Measurement Results

Average Standard Reading at each position [°C]								
Calibration Point	30-CH1	30-CH2	30-CH3	30-CH4	30-CH5	30-CH6	30-CH7	30-CH8
154	154.02	153.70	154.01	154.18	154.11	154.08	154.33	153.81
180	180.47	179.78	180.38	179.95	179.10	180.37	180.98	181.04

Chamber (Open)		Temperature Distribution				
Bathing °C	Heating (°C)	Average (°C)	Stability (p °C)	Uniformity (°C)	Uncertainty (p °C)	Coverage Factor k
	Min., Max					
154.0	153.9, 154.1	154.0	0.04	0.61	0.42	2.00
180.0	179.9, 180.1	180.0	0.21	0.55	0.52	2.00

* The quoted uncertainty exclude "uniformity"

The calibration result apply only the above calibrated item.

The result of test was found accurate as shown on plate and place of test only.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k which for a t-distribution, providing a level of confidence of approximately 95 %.

End of Certificate

Approved By:

FM-EL07 0027-40-68

Calibration certificate No. 25BK0003
Calibration Certificate

Adjustment Status

The measuring device was internally adjusted before the calibration.

Environmental and measuring conditions

Date of calibration

20 Feb 2025

Temperature at place of calibration | Temp. diff.

24.7 °C | 0.3 K

Weights - Tissue

The installation site is suitable. The device was leveled. Balance was loaded up to Max before test.

Measuring conditions

Humidity 62.3 %RH

Comments

Measurement results | Measurement uncertainties

Repeatability		Eccentricity	
Test load (nominal): 10 g 200 g		Test load (nominal): 100 g	
10 g	200 g	Center	100.0000 g
1 10.0000 g	200.0000 g	Front left	100.0000 g
2 10.0000 g	200.0000 g	Back left	100.0001 g
3 9.9999 g	200.0000 g	Back right	99.9999 g
4 10.0000 g	200.0000 g	Front right	99.9999 g
5 10.0000 g	200.0000 g		
6 9.9999 g	200.0000 g		
7 10.0000 g	200.0000 g		
8 10.0000 g	200.0000 g		
9 10.0000 g	200.0000 g		
10 10.0000 g	200.0000 g		
s = 0.00004 g		s = 0.00005 g	

Error of indication

Testload	Indication	Error	Expansion factor	Uncertainty	Uncertainty relative
0.0100 g	0.0100 g	0.0000 g	2.00	0.00010 g	1.2 %
0.1000 g	0.1000 g	0.0000 g	2.00	0.00010 g	0.10 %
0.5000 g	0.5000 g	0.0000 g	2.00	0.00010 g	0.020 %
1.0000 g	1.0000 g	0.0000 g	2.00	0.00010 g	0.010 %
5.0000 g	5.0000 g	0.0000 g	2.00	0.00010 g	0.0020 %
10.0000 g	10.0000 g	0.0000 g	2.00	0.00010 g	0.0010 %
20.0000 g	20.0000 g	0.0000 g	2.00	0.00014 g	0.0008 %
50.0000 g	50.0000 g	0.0000 g	2.00	0.00015 g	0.0003 %
100.0000 g	100.0000 g	0.0000 g	2.00	0.00016 g	0.00016 %
200.0000 g	200.0000 g	0.0000 g	2.00	0.00020 g	0.00014 %
220.0000 g	220.0000 g	0.0000 g	2.00	0.00020 g	0.00015 %

Maximum error of indication: ± 0.00010 g

Level of confidence of 95 % is based on the coverage factor k = 2.00. The uncertainty of measurement is based on the relative uncertainty of the reference standard. This will find reference value on the laboratory site. The uncertainty of measurement is based on the relative uncertainty of the reference standard. This will find reference value on the laboratory site. The uncertainty of measurement is based on the relative uncertainty of the reference standard. This will find reference value on the laboratory site.

End of calibration certificate



Accredited by

NSC-TISI-TIS 17025
Calibration 0426

Calibration certificate

Calibration Certificate No. 259KL003

Object	Electronic non-automatic weighing instrument	This calibration certificate documents the traceability to national standards.
Manufacturer	Sartorius	Uncertainties of measurements are taken into account when only statements of compliance are made.
Type	MSU224S-100-CU	This certificate was prepared by Sartorius Corporation in accordance to the current ISO/IEC 17025:2017 standard and Sartorius Work Instruction (Method) SOP-VI-08.
Serial / QM Ident. no.	31706552 RYG_EN0003	This certificate relate and apply this equipment only.
Customer	ALS Laboratory Group (Thailand) Co., Ltd. (Rayong Branch)	
	616/10 Moo 5 T Maenam Khu, A Pluak Daeng Rayong 21140, Thailand	
Order no.	2230	
Number of pages	4	
Date of calibration	20 Feb 2025	

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Date: 06 Mar 2025 Approval of the Calibration Certificate

Person in charge

Mr. Chonchai Inthana

Kachen Lathe

Sartorius (Thailand) Co., Ltd.
129 Rama 9 Road, Huaykiewang
10310 Bangkok

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Version 6.5

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Calibration certificate No. 25BK0003
Calibration Certificate

Calibration object

Single range instrument

Model: MSU224S-100-CU
Serial Number: 31706552
QM Ident. no | Inventory no: RYG_EN0003 | ...

Maximum capacity (Max. load): 220.0000 g
Measured range: 220.0000 g
Scale interval: 0.0001 g

Place of calibration

Address: According to page 1
Department | Cost center: Laboratory Department | ...
Building | Floor: ... | 1st Floor
Room: Balance Room
Maximum temperature variation at place of calibration: 5 K

Calibration procedure

EURAMET cg-18, V4.0 - Guidelines on the Calibration of Non-Automatic Weighing Instruments

Test equipment

Test equipment type	Test equipment ID	Valid until
Thermometer	MH3-362SD vH8011342 Traceable to SI unit through DKSH	21 Aug 2025
Test weight set OIML R111 E2	Certificate No M23081978_E2 (Traceable to SI unit through TCIS)	23 Aug 2025

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129 Rama 9 Road, Huaykiewang
10310 Bangkok

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Certificate No. T242075

Page 1 of 3

Certificate of Calibration

Equipment	: Liquid Bath (Water)
Manufacturer	: Memmert
Model	: WNE29
Serial No.	: L623.0105
Customer Code	: RYG_EN0220
ID No.	: T5650A5
Customer	: ALS Laboratory Group (Thailand) Co., Ltd. (Rayong Branch) 616/10 Moo 5 T.Maenam Khu, A.Plukdaeng, Rayong 21140
Customer Location	: Wet Chemistry Lab
Date of Receipt	: 11 December 2024
Calibrated By	: Atsiphong Rongrat (Technician)
Approved By	: [Signature] / Boonchai Suriyawong (Site Calibration Manager)
Date of Issue	: 26 DEC 2024

The uncertainties are for a confidence probability of approximately 95%.

This Certificate is issued in accordance with the conditions of accreditation granted by the Thai Laboratory Accreditation Scheme which has assessed the measurement capability of the laboratory and its traceability to recognized national standards and to the units of measurement realized at the corresponding national standard laboratory. This certificate may not be reproduced other than in full except with the prior written approval of the Metrology.

Certificate No. T242075

Page 2 of 3

Calibration Report

Equipment : Liquid Bath (Water)
Date of Calibration : 19 December 2024
Environment : Temperature : 25.3-25.9 °C
Line Voltage : 221.4-225.4 V
Relative Humidity : 55-65 %RH

Condition of this results of calibration :

- This equipment was calibrated by insert five resistance thermometer detectors into its water bath, the other one thermocouple type T use for ambient temperature measurement. The calibration was done in according to W-136 (based on ASTM E715-80 (Reapproved 2001)). All data show below were final values and the initial data from customer request. The temperature scale used, was based on ITS-90.
- Reference Standard Instrument :

Instrument	Model	Instrument No.	Certificate No.	Due Date
RTD	100 OHM	M34 (CH1-CH5)	T240400	18 March 2025
DATA LOGGER	34870A	T193	T240400	18 March 2025
- This certificate is traceable to : National Institute of Metrology (Thailand) through Metrological Center (NSC-TIS-105-17025 CALIBRATION 0244).
- Condition of calibrated item : good
Equipment Description :
Time Constant : 1 Hour 30 Minute At 63 °C
- Adjustment :
(X) without adjustment () after adjustment

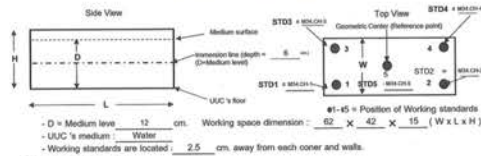
Approved By: 

PM-L15 11818-08-66

Certificate No. T242075

Page 3 of 3

Calibration Report



Measurement Results:

Calibration Point	Average Standard Reading at each position (°C)				
	M34-CH-1	M34-CH-2	M34-CH-3	M34-CH-4	M34-CH-5
63	62.87	63.00	62.88	62.96	63.22
85	84.70	85.14	84.88	85.07	85.24

Setting (°C)	Temperature Distribution					
	Reading (°C)	Average	Stability	Uniformity	Uncertainty	Coverage
	Min, Max	Average	(±°C)	(±°C)	(±°C)	Factor k
63.0	-	63.0	0.07	0.25	0.23	2.00
85.0	-	85.0	0.13	0.35	0.26	2.00

The calibration result apply only the above calibrated item.

The result of test was found accurate as shown on date and place of test only.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k which for a t-distribution, providing a level of confidence of approximately 95 %.

Approved By: 

PM-L15 11818-08-66

Certificate No. T252169

Page 2 of 3

Calibration Report

Equipment : Liquid Bath (Water)
Date of Calibration : 27 November 2025
Environment : Temperature : 25.5-25.7 °C
Line Voltage : 221.8-225.5 V
Relative Humidity : 55-65 %RH

Condition of this results of calibration :

- This equipment was calibrated by insert five resistance thermometer detectors into its water bath, the other one thermocouple type T use for ambient temperature measurement. The calibration was done in according to W-136 (based on ASTM E715-80 (Reapproved 2002)). All data show below were final values and the initial data from customer request. The temperature scale used was based on ITS-90.
- Reference Standard Instrument :

Instrument	Model	Instrument No.	Certificate No.	Due Date
RTD	100 OHM	M18 (CH1-CH5)	T251758	17 October 2026
DATA LOGGER	34970A	T261	T251758	17 October 2026
- This certificate is traceable to : National Institute of Metrology (Thailand) through Metrological Center (NSC-TIS-TIS 17025 CALIBRATION 0244).
- Condition of calibrated item : good
Equipment Description :
Time Constant : 1 Hour 3 Minute At 63 °C
- Adjustment :
(X) without adjustment () after adjustment

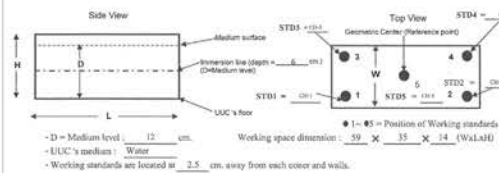
Approved By: 

PM-TL07 20227-03-68

Certificate No. T252169

Page 3 of 3

Calibration Report



Measurement Results:

Calibration Point	Average Standard Reading at each position (°C)				
	CH-1	CH-2	CH-3	CH-4	CH-5
63	62.93	63.13	62.94	63.10	63.09
85	85.15	85.33	85.21	85.43	85.20

Setting (°C)	Temperature Distribution					
	Reading (°C)	Average	Stability	Uniformity	Uncertainty	Coverage
	Min, Max	Average	(±°C)	(±°C)	(±°C)	Factor k
63.0	62.9, 63.1	63.0	0.08	0.17	0.27	2.00
85.0	84.8, 85.2	85.0	0.13	0.24	0.43	2.25

* The quoted uncertainty exclude "uniformity"

The calibration result apply only the above calibrated item.

The result of test was found accurate as shown on date and place of test only.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k which for a t-distribution, providing a level of confidence of approximately 95 %.

End of Certificate.

Approved By: 

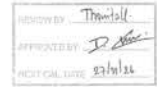
PM-TL07 20227-03-68

Certificate No. T252169

Page 1 of 3

Certificate of Calibration


Equipment : Liquid Bath (Water)
Manufacturer : Memmert
Model : WNE29
Serial No. : L623.0105
Customer Code : RYG_EN0220
ID No. : T5650A5
Customer : ALS Laboratory Group (Thailand) Co.,Ltd. (Rayong Branch)
616/10 Moo 5 T.Maenamkoo,
A.Phuakdaeng, Rayong 21140



Customer Location : Wet Chemistry Lab

Date of Receipt : 19 November 2025

Calibrated By : Sujjar Nakanred (Site Calibration Manager)

Approved By :  / Boonchai Suriyawong (Site Calibration Manager)

Date of Issue : 11 DEC 2025

The uncertainties are for a confidence probability of approximately 95%.

This Certificate is issued in accordance with the conditions of accreditation granted by the Thai Laboratory Accreditation Scheme which has assessed the measurement capability of the laboratory and its traceability to recognized national standards and to the units of measurement realized at the corresponding national standard laboratory. This certificate may not be reproduced other than in full except with the prior written approval of the Metrological Center.

PM-TL08 20227-03-68

Certificate of Calibration

Cert. No.: 25LM10
Page: 1 of 2

Equipment : DO Meter with Sensor
Manufacturer : YSI
Model : 5000-115V
Serial No. : 15E102796
ID No. : RYG_EN0032
Submitted by : ALS Laboratory Group (Thailand) Co.,Ltd.
(Rayong Branch)
616/10 Moo 5 T. Maenam Khu, A. Phuakdaeng,
Rayong 21140 Thailand
Location : TPA On Site Calibration Laboratory
Received Order : 17 January 2025
Calibrated Date : 20 January 2025
Ambient Temperature : (26 ± 10) °C
Relative Humidity : (50 ± 30) %
AC Line Voltage : (220 ± 22) V
Calibrated by : Warakorn Lempeetrakul

REVIEW BY: APPROVED BY: 

NEXT CAL DATE : 20/07/26

Approved by: 
Approved Signatory

() Chakrit Waiwanjira
(x) Suwit Injai
() Kunchit Promrat

Issue Date : 23 January 2025

The Uncertainties are for a confidence probability of approximately 95%

This certificate may not be reproduced other than in full, except with the prior written approval of the head of Corporate Services 3: Equipment Calibration and Testing Services.



Equipment : DO Meter with Sensor
Condition As-Received : Used Item
Reference : 2301-0600DSC-2
Cert. No.: 25LM10
Page: 2 of 2

Procedure Used :-

Calibration were conducted using in-house calibration procedure CP-OT01 according to comparison with Industrial Platinum Resistance Thermometer (IPRT) into Temperature Bath.
The temperature scale used was based on ITS-90.

Condition of this result of calibration

1. Reference standard instrument-

Instrument	Serial No.	Cert. No.	Traceable	Due Date
1) Digital Thermometer	2168080	2411022	TPA	17 Sep 2025

2. This certificate is valid only to the item calibrated on date and place of calibration.

3. This certification is traceable to the International System of Unit.

Remark : TPA : Technology Promotion Association (Thailand - Japan)

Result of Calibration :- (*) Without Adjustment

Function : Temperature measurement.

This instrument was connected with temperature sensor, S/N : 15E100464

Calibration Point (°C)	Immersion Depth (mm)	Standard Temperature (°C)	UUC [*] Reading (°C)	Error (°C)	Uncertainty (± °C)	Coverage Factor K
20.00	80	20.002	19.81	-0.192	0.15	2.00

UUC^{*} : Unit Under Calibration

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor K, providing a level of confidence of approximately 95 %.

-o-o-



TECHNOLOGY PROMOTION ASSOCIATION (THAILAND-JAPAN)
CORPORATE SERVICES 3 : EQUIPMENT CALIBRATION AND TESTING SERVICES
534/4 PATTANAKARN ROAD SOI 18, SUANLIANG, SUANLIANG BANGKOK 10250
TEL: 0-2717-3000 FAX: 0-2719-9484

Certificate of Testing

Cert.No.: 25TW15
Page: 1 of 2

Equipment : DO Meter
Manufacturer : YSI
Model : 5000-115V
Serial No. : 15E102706
ID No. : RYG-EN0032
Received Date : 17 January 2025
Test Date : 20 January 2025
Reference : 2501-0600DSC-1
Submitted by : ALS Laboratory Group (Thailand) Co.,Ltd.
(Rayong Branch)
816/10 Moo 5, T.Maenam Khu, A.Pluakdaeng,
Rayong 21140, Thailand

Laboratory Condition : Temperature (25 ± 5) °C
Humidity (50 ± 20) %
In-house method : CP-OT01
by Comparison Technique with Azide Modification Method

Tested by : Walailak Sirthean

Approved by :
Approved Signatory

() Pornthiphe Tameyakul
() Pongpan Paipim
(✓) Sathip Meangmai

Issue Date : 21 January 2025



Cert.No.: 25TW15
Page: 2 of 2

Condition of this result of calibration

1. Reference Standard Instruments :

This certification is traceable to the International System of Unit through the reference standards laboratory of Industrial Calibration Center, Technology Promotion Association (Thailand-Japan).

Instruments	Serial No.	ID No.	Certificate No.	Due Date
1. Burette	14233821	1308919	23CG1172	22 Mar 2025
2. Balance	1150RC001	24MM131	24MM131	04 July 2025

2. Standard Material :-

Material	Manufacturer	Lot No.	Assay
Sodium Thiosulfate 5-Hydrate AR	KEMALUS	2203182447	99.8%

Result : Dissolved Oxygen Meter Adjustment With Air 100 %
Dissolved Oxygen Probe No.: 15E100464

Titration Method (Azide Modification Method) (mg/L)	DO Meter Reading (mg/L)	Standard Deviation (mg/L)
8.20	8.20	0.0084

This report was certified only for the instrument we tested. It is allowable to use for study
Intend to use for advertising and referral purpose is prohibited. This report may not be reproduced
other in full, without written approval of the laboratory.

-o-o-



TECHNOLOGY PROMOTION ASSOCIATION (THAILAND-JAPAN)
CORPORATE SERVICES 3 : EQUIPMENT CALIBRATION AND TESTING SERVICES
534/4 PATTANAKARN ROAD SOI 18, SUANLIANG, SUANLIANG BANGKOK 10250
TEL: 0-2717-3000-29 FAX: 0-2719-9484



Certificate of Calibration

Cert. No.: 24TM1663
Page : 1 of 3

Equipment : Low Temp. Incubator
Manufacturer : Memmert
Model : IP7750
Serial No. : VB18-0094
ID No. : RYG-EN0154
Submitted by : ALS Laboratory Group (Thailand) Co.,Ltd. Rayong Branch
816/10 Moo 5, T.Maenam Khu,
A.Pluakdaeng,
Rayong 21140, Thailand
Location : BOD Room
Received Order : 01 November 2024
Calibration Date : 01 November 2024
Ambient Temperature : (25 ± 10) °C
Relative Humidity : (50 ± 30) %
AC Line Voltage : (220 ± 2) V

Calibrated by :
Approved by :
Approved Signatory
() Pongpan Paipim
() Suwit Injai
(✓) Kunchit Promprat

Issue Date : 07 November 2024

The Uncertainties are for a confidence probability of approximately 95%

This certificate may not be reproduced other than in full, except with the prior written
Approval of the Head of Corporate Services 3 : Equipment Calibration and Testing Services.



Equipment : Low Temp. Incubator
Condition As-Received : Used Item
Reference : 2411-0002OC-1
Cert. No.: 24TM1663
Page : 2 of 3

Procedure Used :-

Calibration were conducted using calibration procedure CP-OT02 based on TLAS G-20 according to direct measurement method with Data Acquisition which connected with Resistance Temperature Detector (RTD).
The temperature scale used was based on ITS-90.

Condition of this result of calibration

1. Reference standard instrument-

Instrument	Serial No.	Cert. No.	Traceable	Due Date
1) Data Acquisition	MY44073381	24LM73	TPA	18 May 2025

2. This certificate is valid only to the item calibrated on date and place of calibration.

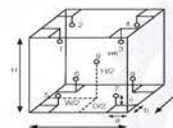
3. This certification is traceable to the International System of Unit.

Remark : TPA : Technology Promotion Association (Thailand - Japan)

Result of Calibration :- (*) Without Adjustment

Function of UUC^{*} : Temperature Source

Fresh air setting : Close



Probe Installation Details :
a = 10 cm
b = 10 cm
c = 10 cm
Dimension of Chamber :
D = 0.60 m
W = 1.0 m
H = 1.2 m
Capacity = 0.72 m³

Environment during calibration	
	Beginning
Temp. (°C)	24
REL.Humid. (%)	55
AC Supply (Vol)	220

Position	Ref. Std. ID No.
1	1RTD-21
2	1RTD-22
3	22-01RTD-03
4	1RTD-24
5	1RTD-25
6	1RTD-26
7	23-01RTD-07
8	1RTD-28
9 (ref.)	23-01RTD-09



Equipment : Low Temp. Incubator
Condition As-Received : Used Item
Reference : 2411-0002OC-1
Cert. No.: 24TM1663
Page : 3 of 3

Procedure Used :-

Calibration were conducted using calibration procedure CP-OT02 based on TLAS G-20 according to direct measurement method with Data Acquisition which connected with Resistance Temperature Detector (RTD).
The temperature scale used was based on ITS-90.

Calibration Point (°C)	UUC [*] Setting (°C)	UUC [*] Reading (°C)	Temperature stability (± °C)	Temperature uniformity (°C)	Overall Variation (°C)	Coverage Factor K
20.0	20.0	20.0	0.026	0.26	0.53	2

Calibration		Measured Temperature (°C)									Uncertainty
Point (°C)		Position									(± °C)
20.0		1	2	3	4	5	6	7	8	9 (ref.)	
		20.021	19.919	20.273	20.179	19.977	19.782	20.096	20.028	20.020	0.30

Average^{*} : The average of 30 values in each position.

Temperature stability : One-half of the greatest maximum difference of measured temperature at any one sensor.

Temperature uniformity : The maximum difference of measured temperatures at any sensors and the measured temperature at the reference location which are observed at the same time or at as close an observation time as possible to determine the temperature pattern or homogeneity within the chamber under steady-state conditions.

Overall Variation : The Difference of the maximum and minimum measured temperatures throughout observation.

UUC^{*} : Unit Under Calibration

Note : The reported uncertainty of measurement was included stability and excluded uniformity.

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor K, providing a level of confidence of approximately 95 %.

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Calibration Results:
Without Adjustment

Wavelength	Standard absorbance	Unit Under Calibration	Correction	Uncertainty
235 nm	0.0000	0.000	0.0000	0.0080
	0.7355	0.738	-0.0025	0.0080
257 nm	0.0000	0.000	0.0000	0.0080
	0.8574	0.857	0.0004	0.0080
313 nm	0.0000	0.000	0.0000	0.0080
	0.2864	0.290	-0.0036	0.0080
350 nm	0.0000	0.000	0.0000	0.0080
	0.6374	0.637	0.0004	0.0080

Spectral light *

Standard: cut-off	UUC: Wavelength (nm)	UUC: Transmission (NT)	Absorbance (A)
250.62 +/- 0.11 nm	260.6	1.7	1.770
391.44 +/- 0.11 nm	391.4	1.4	1.854

Spectral Resolution *

Nominal Concentration 0.02 % v/v	Peak	Trough	Ratio	SRW
Standard Wavelength (nm)	268.66	264.69	1.38	2.00
UUC: Wavelength (nm)	268.2	266.2		
Std Absorbance (A)	0.4566	0.2780		
UUC: Absorbance (A)	0.413	0.299		

* Calibration Marked "Not TIS Accredited" in this Certificate have been included for completeness.

The End of Certificate

DKSH Resonance and Calibration
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Phone: +66 2028 7000 Email: info@dksh.com Website: www.dksh.com

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CAL-PH-C06-16: 11 Mar 2024

ใบตรวจสอบสภาพเครื่องวัดสิ่งแวดล้อม

เลขที่ใบตรวจ: WO-0004379

ตรวจโดย (ปี)		รายการตรวจเช็ค		หมายเลขเครื่อง: 1627945	
18 Mar 2025		รายการตรวจเช็ค		18 Mar 2025	
ผ่าน	ไม่ผ่าน	ผ่าน	ไม่ผ่าน	ผ่าน	ไม่ผ่าน
General					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1. ความแม่นยำของเครื่อง	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2. ความสะอาด (ของวัดตัวอย่าง, ภายใน-นอกเครื่อง)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3. สวิตช์ On - ปิด เครื่อง (On-Off Switch)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4. ปุ่มกด (Keypad)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5. หน้าจอ (Display, Screen Contrast)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Spectrophotometer					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6. แบตเตอรี่สำรอง (Battery Backup) >= 2.5 VDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7. การควบคุมความยาวคลื่น (Wavelength Control)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	8. การตรวจสอบความยาวคลื่น (Wavelength Check)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	*
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	9. เวลาการวัดแสง (UV < 3,000 hour)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	13.5 Hours
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10. เวลาการวัดแสง (Visible < 5,000 hour)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	893.0 Hours
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11. ช่องใส่ตัวอย่าง (Carousel Module)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
pH Meter and Conductivity Meter					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12. อิเล็กโทรด (Electrode and Connection Cable)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	13. ระดับการละลายอิเล็กโทรด (Level KCl)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	14. ฝาปิดป้องกันอิเล็กโทรด (Dust Protection Hood)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	15. ขาตั้งอิเล็กโทรด (Stand)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Turbidimeter					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	16. ตัวอย่างที่ใส่ (No Sample)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	17. ระดับการละลายอิเล็กโทรด (>= 2.5 เท่า 3.0)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Automatic Diluter					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	18. ขาตั้ง Piston Burettes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	19. Function Rinsing and Dosing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	20. ระบบท่อจ่ายน้ำและดูดน้ำกลับ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

* 656.1nm ± 0.6nm
* 486.0nm ± 0.6nmMr. Preecha Phoonrai
Service Engineer

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CAL-PH-R01-03: 20 Jul 2022

Certificate of Calibration

Represent to Certificate of Calibration No.: C29240017

Equipment:	Block Digestion Unit	Certificate No.: C29240011
Model:	KT-20s	Issued Date: 22 March 2024
Serial No. (or ID.):	5720210098/5770200073	Job No.: WO-00020429
Manufacturer:	Gerhardt	Page: 1 of 4
Condition:	In Condition	Digestion Block: 20 holes

Customer: ALS Laboratory Group (Thailand) Co., Ltd. (Rayong Branch)
616/10 Moo 5 T.Maenam Khu, A.Phaikdaeng, Rayong 21140, Thailand.Environment Condition: Temperature: 25 °C ± 0.7 °C
Humidity: 54 %RH ± 4.1 %RH
Voltage: 225 VAC ± 1.7 VACREVIEW BY: [Signature]
APPROVED BY: [Signature]
NEXT CAL DATE: 11 Mar 2025Calibration Place: ALS Laboratory Group (Thailand) Co., Ltd. (Rayong Branch)
(Wet Chemistry Lab)
616/10 Moo 5 T.Maenam Khu, A.Phaikdaeng, Rayong 21140, Thailand.Calibration By: Mr. Thanathorn Phunook
Calibration Date: 17 March 2024
The Method used: In house method, based on by comparison with standard
Traceability: This certificate is traceable to the SI Units maintained by National Institute of Metrology (NIMT), Thailand through N.M. Technical Center Laboratory (NTL) Certificate No.: TC22/0080[Signature] (Mr. Thanathorn Phunook)
Person in charge
[Signature] (Mr. Udon Sirichana)
Authorized signatoryThis certificate is based on the units of measurement according to the International System of Units (SI). It provides traceability of measurement to international or national standards or other recognized national standard laboratories.
The measurement uncertainty stated in this certificate is based on the standard uncertainty multiplied by the coverage factor (k=2) to provide a level of confidence of approximately 95%. It is determined in accordance with the Guide to Expression of Uncertainty in Measurement (GUM).
These results may be affected by deviations from specified conditions. The results may vary in the same batch, calibration or rework. This report shall not be reproduced except in full without approval of DKSH Technology Limited.

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CAL-PH-C29-07: 20 Jul 2022

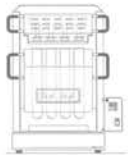
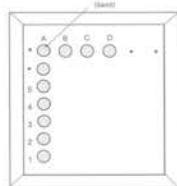


Fig. 1: Front view



Location of standard

Fig. 2: Digestion block

Definitions

Indicating Temperature: The average reading of indicating device which forms the integral part of the Digestion block.

Measured Temperature: The average reading of working standard at any positions in location.

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CAL-PH-C29-07: 20 Jul 2022

Calibration Results:
Pre Calibration

Locations	Desired (°C)	Setting (°C)	Indicating (°C)	Measured Temperature (°C)	Correction at UUC (°C)	Uncertainty (± °C)
A1				401.5	21.5	1.5
A2				401.2	21.2	1.5
A3				399.1	19.1	1.5
A4				397.8	17.8	1.5
A5				396.1	16.1	1.5
B1				396.8	16.8	1.5
B2				396.1	16.1	1.5
B3				395.9	15.9	1.5
B4				391.8	11.8	1.5
B5				390.7	10.7	1.5
C1	380	385	380	395.3	15.3	1.5
C2				395.8	15.8	1.5
C3				393.8	13.8	1.5
C4				393.7	13.7	1.5
C5				390.3	10.3	1.5
D1				397.6	17.6	1.5
D2				390.6	10.6	1.5
D3				395.0	15.0	1.5
D4				394.2	14.2	1.5
D5				393.8	13.8	1.5

DKSH Resonance and Calibration
DKSH Technology Limited
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2513 Sukhumvit Road, Bangkok, Thailand 10160
Phone: +66 2028 7000 Email: info@dksh.com Website: www.dksh.com

Delivering Growth - in Asia and Beyond.

CAL-PH-C29-07: 20 Jul 2022

Calibration Results:
Without adjustment

Locations	Desired (°C)	Setting (°C)	Indicating (°C)	Measured Temperature (°C)	Correction at UUC (°C)	Uncertainty (± °C)
A1				392.5	17.5	1.5
A2				382.4	7.4	1.5
A3				382.1	7.1	1.5
A4				378.7	3.7	1.5
A5				378.3	3.3	1.5
B1				380.1	15.1	1.5
B2				380.1	15.1	1.5
B3				378.5	13.5	1.5
B4				378.3	13.3	1.5
B5				378.1	13.1	1.5
C1	380	385	385	380.1	15.1	1.5
C2				385.1	15.1	1.5
C3				378.8	13.8	1.5
C4				378.2	13.2	1.5
C5				377.3	12.3	1.5
D1				385.5	15.5	1.5
D2				380.8	15.8	1.5
D3				378.1	13.1	1.5
D4				378.7	13.7	1.5
D5				377.7	12.7	1.5

The End of Certificate

DKSH Resonance and Calibration
DKSH Technology Limited
2513 Innovalley Park, Bangkok, Thailand 10160
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CAL-PH-C29-07: 20 Jul 2022

[illegible]EN-1164 8227-01-68FM-71.05 (07-27-09)-A8PM-TR-05 10277-03-08

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Unit Under Calibration	Nominal Value	Standard Voltage Input	Actual Reading		Uncertainty of Measurement (mV)	Coverage factor k
			pH	mV		
pH Meter S/N: S634291445	4.000	177.48	177.3	4.000	0.058	2.00
	7.000	0.00	-0.1	7.000	0.058	2.00
	10.000	-177.48	-177.5	10.000	0.058	2.00



Cert.No.: 25CH709/1
Page.: 3 of 3

Calibration Results

Function: pH Measurement

Performing three buffers standard curve by using buffer nominal pH (4.7,10)

Unit Under Calibration	Standard pH Buffer Solution	Actual pH Reading	Actual mV Reading	Uncertainty of pH Measurement (±)	Coverage factor k
pH Electrode SN: 5211504	4.007 7.000 10.010	4.006 7.000 10.007	181.1 7.000 -170.6	0.0044 0.0054 0.0096	2.00 2.00 2.00

Function: Temperature Measurement

(*) Without adjustment

This equipment was connected with Temperature Probe:

- Model: INLabExpert Pro-ISM
- Serial No.: 5211504

Dimension of probe

- Length: 120 mm.
- Diameter: 12 mm.
- Immersion Depth: 100 mm.

Calibration Point (°C)	Standard Temperature (°C)	UUC* Reading (°C)	Error (°C)	Uncertainty of measurement (± °C)	Coverage factor k
25.0	25.001	25.1	0.099	0.13	2.00

Remark: - UUC* = Unit Under Calibration

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor k, providing a level of confidence of approximately 95 %.

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TECHNOLOGY PROMOTION ASSOCIATION (THAILAND-JAPAN)
CORPORATE SERVICES & EQUIPMENT CALIBRATION AND TESTING SERVICES
194/1 PATTANAKARN ROAD SOI 18, SUANLIANG, SUANLIANG, BANGKOK 10250
TEL. 0-2717-3000 FAX. 0-2719-9484



Certificate of Calibration

Certificate No.: 25E1979/1
Page: 1 of 2

This Certificate was issued to replace to the Certificate No. 25E1979

Equipment: pH Meter
Manufacturer: Metro Toledo
Model: SevenExcellence
Serial No.: 8834291445
ID No.: RYG_0N0152
Condition As-Received: Used Item
Received Date: 12 June 2025
Calibration Date: 18 June 2025
Reference: 2506-040705C
Ambient Temperature: (23 ± 2) °C
Relative Humidity: (50 ± 10) %

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Submitted by: ALS Laboratory Group (Thailand) Co.,Ltd. Rayong Branch

616/10 Moo 5, T.Maeam Khu, A.Pluakdaeng,
Rayong 21140, Thailand

Procedure used: Calibration were conducted using calibration procedure No. CP-E17 According to EURAMET up 15

Condition of this result of calibration

1. Reference standards instruments:

Instrument	Model	Serial No.	Certificate No.	Due Date
1) Multi Product Calibrator	5000A	6310011	25E1627	19 May 2026

2. This result of calibration was made on requested at the point specified by customer

3. This certificate is valid only to the item calibrated on date and place of calibration.

4. This measurement result is traceable to the International System of Unit maintained through:

- Technology Promotion Association (Thailand-Japan); NIST-ONS Accredited No. Calibration 0008

Calibrated by: Wutthachon Pongthong
Issue Date: 01 July 2025

Approved Signatory: [Signature]
[Signature]
[Signature]
[Signature]



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Certificate of Calibration

Cert.No.: 25CH458
Page.: 1 of 3

Equipment: pH Meter
Manufacturer: Metro Toledo
Model: SevenGo S2
Serial No.: C221115514
ID No.: RYG_F90596
Condition As-Received: Used Item
Received Date: 24 June 2025
Calibration Date: 25 June 2025
Reference: 2506-0782DSC-4
Submitted by: ALS Laboratory Group (Thailand) Co.,Ltd. Rayong Branch
616/10 Moo 5, T.Maeam Khu, A.Pluakdaeng,
Rayong 21140, Thailand

REVIEW BY: Pithaya T.
APPROVED BY: [Signature]
NEXT CAL DATE: 25/06/26

Ambient Temperature: (25 ± 2.5) °C
(50 ± 15) %
Relative Humidity: In-house method
Calibration Procedure: - CP-GHS by direct measurement with DC voltage standard and direct measurement with certified reference material (CRM)
- CP-GHS by comparison with temperature standard

Calibrated by: Waleak Srintham

Approved by: [Signature]
Approved Signatory

() Chakrit Wanwanjua
() Porpan Palom
() Sathip Meangma

Issue Date: 26 June 2025

The Uncertainties are for a confidence probability of approximately 95%

This certificate may not be reproduced other than in full, except with the prior written approval of the head of Corporate Services & Equipment Calibration and Testing Services.



Cert.No.: 25CH458
Page.: 2 of 3

Condition of this calibration result

1. Reference Standard Instrument

Instrument	Serial No.	ID No.	Cert. No.	Due Date
1) Document Process Calibrator	54700049	130RC116	24E2759	25 Aug 2025
2) Ref. Standard Thermometer	4982054	110RC044	24E757	14 July 2025

- This measurement result is traceable to SI through Technology Promotion Association (Thailand - Japan)

2. Certified Reference Materials: - The measurement results are traceable to SI through CPA chem Ltd., ANSL-ASQ National Accreditation Board, Accredited No. AN-1655

Buffer Solution	Manufacturer	Lot No.	Exp. date
pH 4.007	CPA chem	1066660	18 Jan 2027
pH 6.965	CPA chem	1066667	18 Jan 2026
pH 10.010	CPA chem	1114385	08 June 2026

3. This certificate is valid only to the item calibrated on date and place of calibration.

Calibration Results

Function: mV Measurement

Performing standard curve by Document Process Calibrator at pH (4.7,10)

Unit Under Calibration	Nominal Value		Standard Voltage Input		Actual Reading	Uncertainty of Measurement (± mV)	Coverage factor k
	pH	mV	mV	pH			
pH Meter SN: C221115514	4.00	177.45	178	4.00	0.58	2.00	
	7.00	0.00	0	7.00	0.58	2.00	
	10.00	-177.48	-178	10.00	0.58	2.00	



Cert. No.: 25E1979/1
Page: 2 of 2

Result of calibration: (*) Without adjustment () After adjustment

Function: DC voltage measurement

Standard Value (mV)	UUC* Reading (mV)	Range	2000 mV	Error (mV)	Uncertainty (± μV)
-200.0000	-199.9			0.1	68
-150.0000	-150.0			0.0	65
-100.0000	-100.0			0.0	63
-50.0000	-50.0			0.0	61
0.0000	0.0			0.0	58
50.0000	50.0			0.0	61
100.0000	100.0			0.0	63
150.0000	149.9			-0.1	65
200.0000	199.9			-0.1	68

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor k = 2, providing a level of confidence of approximately 95 %.

UUC* = Unit Under Calibration.

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Cert.No.: 25CH458
Page.: 3 of 3

Calibration Results

Function: pH Measurement

Performing three buffers standard curve by using buffer nominal pH (4.7,10)

Unit Under Calibration	Standard pH Buffer Solution	Actual pH Reading	Actual mV Reading	Uncertainty of pH Measurement (±)	Coverage factor k
pH Electrode SN: 3293232	4.007 6.965 10.010	4.01 6.99 10.00	163 -10 -185	0.0079 0.011 0.0092	2.00 2.00 2.00

Function: Temperature Measurement

(*) Without adjustment

This equipment was connected with Temperature Probe:

- Model: INLabExpert Go-ISM
- Serial No.: 3293232

Dimension of probe

- Length: 120 mm.
- Diameter: 12 mm.
- Immersion Depth: 100 mm.

Calibration Point (°C)	Standard Temperature (°C)	UUC* Reading (°C)	Error (°C)	Uncertainty of measurement (± °C)	Coverage factor k
25.0	25.002	25.1	0.098	0.13	2.00
45.0	45.001	45.2	0.199	0.13	2.00

Remark: - UUC* = Unit Under Calibration

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor k, providing a level of confidence of approximately 95 %.

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ภาคผนวก จ

สำเนาหนังสือใบอนุญาตขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

- 3mm

เอกสารแนบท้ายหนังสือรับข้ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
บริษัท เอแอลเอส แลบลอราทอรี กรุ๊ป (ประเทศไทย) จำกัด เลขทะเบียน ๖-๒๐๔
ที่ ออก ๐๓๓๐(๑)/ ๑๖ ๑ ๖ ๘ ลงวันที่ ๒๐ พฤศจิกายน ๒๕๖๖

ข. เจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๑๘๑ ราย

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๒๕) ว่าที่ร้อยตรีหญิง พรรณิภา ขำเจริญ	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๒๕
๒๖) นายจิตตา คำแก้ว	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๒๖
๒๗) นางสาวอรวรรณ รักยง	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๒๗
๒๘) นางสาวนพรัตน์ แยมกรานต์	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๒๘
๒๙) นายจุลเดช วรินทร์	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๒๙
๓๐) นางสาวดาญรัตน์ ร้องคำ	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๓๐
๓๑) นายพรมณ์ ศรีบัตเนตร	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๓๑
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วิทย์

๓๖) นางสาวจุฑารัตน์...

๓๖) นางสาวจุฑารัตน์ โอนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๓๖
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๕๑) นายธนาณัติ เอนก	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๕๑
๕๒) นายอภิวัฒน์ ทุมหนู	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๕๒
๕๓) นางสาวสุภาวัญ มาก	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๕๓
๕๔) นางสาวทตพร ขวาลสมบุรณ์	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๕๔
๕๕) นางสาวธิดิมา บุญเพ็ง	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๕๕
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๕๗) นางสาวอุไรรัตน์ ทิงสร้างแป้น	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๕๗
๕๘) นายธีรวัฒน์ ปวงสุข	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๕๘
๕๙) นายอิทธิพล ยะโส	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๕๙
๖๐) นายประพจน์ วรรณชูชัย	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๖๐
๖๑) นายชยธร พงษ์ทิพย์	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๖๑
๖๒) นางสาวกนกวรรณ จันทบาล	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๖๒
๖๓) นายสิทธิโชค ธงเงิน	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๖๓
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๗๓) นายอัสนี นามบุรี	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๗๓
๗๔) นายอัศวรุต จ่อสาว	ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๗๔

วิทย์

๗๕) นายประเสริฐ...

๗๕) นายประเสริฐ สุระขันธ
๗๖) นายบุญล จันทรเนียม
๗๗) นายพิรพงษ์ ทองกุลปรีดา
๗๘) นายณฤพล ทองบุษ
๗๙) นายอนุวัฒน์ ม่วงแพ
๘๐) นายเจตศราวุฒิ ปิตตะมะ
๘๑) นายกฤษณะ สายวรรณ
๘๒) นายพิชัย บุญยงค์
๘๓) นายภาณุพงศ์ โอเมวงศ์
๘๔) นายสามารถ คัมปลี
๘๕) นายสัญญา โกศรีนาม
๘๖) นายณัฐวุฒิ ศรีประเสริฐ
๘๗) นายชลธิช นาคพรม
๘๘) นายพงษ์ธร ชัยทิพย์
๘๙) นายสิทธิโชค ทาสิดา
๙๐) นายธนากร อินสุตา
๙๑) นางสาววรรณิษา ขาดีวันชัย
๙๒) นางสาวพิมพ์ตะวัน มีนากุล
๙๓) นางสาวเพชรรัตน์ สิงห์สมบุญ
๙๔) นางสาวชญาณีน พรหมจันทร์
๙๕) นายกรีติ ทวีราช
๙๖) นายจักริน หมั่นวิชา
๙๗) นายฉัตรชัย สุขเปีย
๙๘) นายณรรนท เตชะทองคำ
๙๙) นายศุภยพล สมนอก
๑๐๐) นายทักษ์ดนัย อุบลศรี
๑๐๑) นายธนศร นามะกณณา
๑๐๒) นายฉัตรพงศ์ บัวแดง
๑๐๓) นายณนทชัย อุปลัมภ์
๑๐๔) นายณัฐพล คุณสุทธิ
๑๐๕) นายณัฏฐวัฒน์ สาริน
๑๐๖) นายปิยะนัฐ พลมะศรี
๑๐๗) นายพงศ์สิริ โสมเขียว
๑๐๘) นายพีรพัฒน์ กำคำ
๑๐๙) นายภาณุพงศ์ มานิตย์
๑๑๐) นายมงคล ผลาพิพย์
๑๑๑) นายสิรินันท์ ทองอิน
๑๑๒) นายอนเนชา พันสมัย
๑๑๓) นายอดิศักดิ์ ฝมไผ

ทะเบียนเลขที่ ว-๒๐๔-จ-๐๐๗๕
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ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๓

วิมล

๑๑๔) นายอนันตชัย...

๑๑๔) นายอนันตชัย วิสม
๑๑๕) นายวรวิธ คีนัก
๑๑๖) นายแสงตะวัน นະตะสัด
๑๑๗) นายยุทธพงศ์ รัตนะ
๑๑๘) นายชัยวุฒิ ไชยชนะนิจ
๑๑๙) นายวิศรุต ศรีธรรมมา
๑๒๐) นายนนทกร เผือกผ่อง
๑๒๑) นายกำชัย สุทธะ
๑๒๒) นางสาวณัฐภรณ์ บุญตะนัย
๑๒๓) นางสาวพัชรินทร์ แสนสร้อย
๑๒๔) นายไพรัชย์ เปรียมพิมาย
๑๒๕) นางสาวศุภมาส ทองมาก
๑๒๖) นางสาวลลิตา จิตรสว่าง
๑๒๗) นางสาวไมพร เล็กภูเขียว
๑๒๘) นางสาวกฤติมาพร คำมีแก่น
๑๒๙) นางสาวสกุลรัตน์ ภาคภูมิ
๑๓๐) นางสาวไพรินทร์ ศรีรูปี
๑๓๑) นางสาวทิพนตร ผุยปัญญา
๑๓๒) นางสาวสาธิตา ปานทอง
๑๓๓) นางสาวอริสา ทองนวล
๑๓๔) นางสาวอรยา คำคลอง
๑๓๕) นางสาวชุตติภรณ์ สุนทรสนาน
๑๓๖) นางสาวอัญชลี คำจันทร์
๑๓๗) นายบุญฤทธิ์ เอี่ยมเทศ
๑๓๘) นางสาวศุภรดา ปันมยุรา
๑๓๙) นางสาวพาศิ คุณนาน
๑๔๐) นางสาวจิราเจต พองดา
๑๔๑) นางสาวอารยา มีชัย
๑๔๒) นางสาววิษุตา นาคผจญ
๑๔๓) นางสาวนันทิยา จันทะสุน
๑๔๔) นายกิตติพงศ์ แซ่ลี
๑๔๕) นายอนุวัติ ภูถวิล
๑๔๖) นายธีรพล แสงทอง
๑๔๗) นายศักดิ์พิพัฒน์ บุญมัน
๑๔๘) นายจิตติวัตร เอมอุไร
๑๔๙) นายชัยณรงค์ ศรีบุรินทร์
๑๕๐) นางสาวอัจฉราวรรณ สวนสนอง
๑๕๑) นางสาวณัฐพร สิงหา
๑๕๒) นายกัมมรศ แหมมโต

ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๔
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ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๕๒

วิมล

๑๕๓) นางสาวอุบล...

๑๕๓) นางสาวอุบล เด็กศิริ
๑๕๔) นางสาวมโนรัตน์ ทองบุตร
๑๕๕) นายภาคภูมิ แทนไทย
๑๕๖) นางสาวสุภาณัฐ เมธพิวง
๑๕๗) นางสาวพรทิศา สาตาขันธ์
๑๕๘) นายเอกวิทย์ วันทะนา
๑๕๙) นายไตรมณฑล ทิพย์วรรณ
๑๖๐) นายจิรเมธ ประเสริฐศิริพงศ์
๑๖๑) นายจิรายุส เกษมสุข
๑๖๒) นายจิรศักดิ์ ศรีวิชัย
๑๖๓) นายณัฐฤกษ์ สะพานแก้ว
๑๖๔) นายบุรณศักดิ์ ปะที
๑๖๕) นายปิ่นณวิทย์ เสมอทรัพย์
๑๖๖) นายพิษณุพงษ์ ไชยา
๑๖๗) นายภัทรพงษ์ มณฑาทอง
๑๖๘) นายสันต์ ตรีนกุล
๑๖๙) นายภาณุเดช เพชรสุด
๑๗๐) นายอนุกุล วิลแสง
๑๗๑) นายภัทรพงษ์ มีสุข
๑๗๒) นางสาวนุชรี ลีละทีป
๑๗๓) นางสาวสุภาวดี โกศรีนาม
๑๗๔) นางสาวอรณิศา เทียนคำ
๑๗๕) นางสาวพรเพ็ญ ขอบสอน
๑๗๖) นางสาววันวิสา ขอนพิกุล
๑๗๗) นางสาวอรรณณ เถาว์ทอง
๑๗๘) นางสาวอัยยิณ เมอร์วินณ์
๑๗๙) นางสาววิสรา ค่อยครอง
๑๘๐) นายวุฒิกร ศิริวรรณ
๑๘๑) นางสาวจรรวณ กระจำพันธุ์

ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๕๓
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Signature

เอกสารแนบท้ายหนังสือรับต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด เลขทะเบียน ว-๒๐๔
ที่ อก ๐๓๑๐(๑)/ ๑๖ ๑ ๖ ๘ ลงวันที่ ๒๐ พฤศจิกายน ๒๕๖๖

ค. ขอบข่ายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๓๗๔ รายการ

น้ำเสีย จำนวน 60 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aldicarb	High-Performance Liquid Chromatographic Method ⁽⁴⁾
2	Aldicarb Sulfone	High-Performance Liquid Chromatographic Method ⁽⁴⁾
3	Aldicarb Sulfoxide	High-Performance Liquid Chromatographic Method ⁽⁴⁾
4	Aldrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
5	Arsenic	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
6	Barium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
7	α-BHC	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
8	β-BHC	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
9	δ-BHC	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
10	γ-BHC	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
11	Biochemical Oxygen Demand	1) 5-Day BOD Test, Azide Modification Method ⁽⁴⁾ 2) 5-Day BOD Test, Membrane Electrode Method ⁽⁴⁾
12	Carbaryl	High-Performance Liquid Chromatographic Method ⁽⁴⁾
13	Carbofuran	High-Performance Liquid Chromatographic Method ⁽⁴⁾
14	Cadmium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
15	Chemical Oxygen Demand	1) Closed Reflux, Colorimetric Method ⁽⁴⁾ 2) Closed Reflux, Titrimetric Method ⁽⁴⁾
16	Chlordane	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
17	Chromium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
18	Color	ADMI Weighted-Ordinate Spectrophotometric Method ⁽⁴⁾

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
19	Copper	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
20	Cyanide	Distillation, Colorimetric Method ⁽⁴⁾
21	2,4'-DDD	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
22	4,4'-DDD	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
23	2,4'-DDE	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
24	4,4'-DDE	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
25	2,4'-DDT	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
26	4,4'-DDT	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
27	Dieldrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
28	Endosulfan Sulfate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
29	Endosulfan I	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
30	Endosulfan II	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
31	Endrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
32	Endrin Aldehyde	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
33	Formaldehyde	Distillation, Colorimetric Method ⁽³⁾
34	Free Chlorine	1) DPD Ferrous Titrimetric Method ⁽⁴⁾ 2) DPD Colorimetric Method ⁽⁴⁾
35	Heptachlor	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
36	Heptachlor Epoxide	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
37	Hexavalent Chromium	Colorimetric Method ⁽⁴⁾
38	3-Hydroxycarbofuran	High-Performance Liquid Chromatographic Method ⁽⁴⁾
39	Lead	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾

40 Manganese...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
40	Manganese	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
41	Mercury	1) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass spectrometric Method ⁽⁴⁾
42	Methiocarb	High-Performance Liquid Chromatographic Method ⁽⁴⁾
43	Methoxychlor	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
44	Methomyl	High-Performance Liquid Chromatographic Method ⁽⁴⁾
45	Nickel	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
46	Oil & Grease	1) Liquid-Liquid, Partition-Gravimetric Method ⁽⁴⁾ 2) Soxhlet Extraction Method ⁽⁴⁾
47	Oxamyl	High-Performance Liquid Chromatographic Method ⁽⁴⁾
48	Propoxur	High-Performance Liquid Chromatographic Method ⁽⁴⁾
49	pH	Electrometric Method ⁽⁴⁾
50	Phenols	1) Distillation, Chloroform Extraction Method ⁽⁴⁾ 2) Distillation, Direct Photometric Method ⁽⁴⁾
51	Selenium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
52	Sulfide	Iodometric Method ⁽⁴⁾
53	Temperature	Laboratory and Field Methods ⁽⁴⁾
54	Total Dissolved Solids	Dried at 180 °C ⁽⁴⁾
55	Total Kjeldahl Nitrogen	Semi-Micro Kjeldahl Method ⁽⁴⁾
56	Total Phosphorous	Digestion, Colorimetric Method ⁽⁴⁾
57	Total Suspended Solids	Dried from 103-105 °C ⁽⁴⁾
58	Toxaphene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
59	Trivalent Chromium	1) Digestion, Inductively Coupled Plasma Method; Colorimetric Method; Calculation ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method; Colorimetric Method; Calculation ⁽⁴⁾
60	Zinc	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁽⁴⁾

น้ำได้ดิน...

น้ำไดคติน จำนวน 126 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Acenaphthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
2	Acetone	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
3	Aldrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
4	Anthracene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
5	Antimony	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
6	Arsenic	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
7	Atrazine	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
8	Barium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
9	Benz(a)anthracene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
10	Benzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
11	Benzo(b)fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
12	Benzo(k)fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
13	Benzoic Acid	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
14	Benzo(a)pyrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
15	Benzo[g,h,i]perylene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
16	Beryllium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
17	Bis(2-chloroethyl)ether	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾

18 Bis(2-ethylhexyl)phthalate...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
18	Bis(2-ethylhexyl)phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
19	Bromodichloromethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
20	Bromoform	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
21	Butanol	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
22	Butyl benzyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
23	Cadmium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
24	Carbazole	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
25	Carbon disulfide	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
26	Carbon tetrachloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
27	Chlordane	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
28	p-Chloroaniline	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
29	Chlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
30	Chlorodibromomethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
31	Chloroform	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
32	2-Chlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
33	Chromium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
34	Chromium (III)	1) Digestion, Inductively Coupled Plasma Method; Colorimetric Method; Calculation ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method; Colorimetric Method; Calculation ⁽⁴⁾
35	Chromium (VI)	Colorimetric Method ⁽⁴⁾

36 Chrysene...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
36	Chrysene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
37	Cyanide	Distillation, Colorimetric Method ⁽⁴⁾
38	2,4-D	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
39	DDD	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
40	DDE	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
41	DDT	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
42	Dibenz(a,h)anthracene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
43	Di-n-Butyl Phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
44	1,2-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
45	1,3-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
46	1,4-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
47	3,3-Dichlorobenzidine	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
48	1,1-Dichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
49	1,2-Dichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
50	1,1-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
51	cis-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
52	trans-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
53	2,4-Dichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
54	1,2-Dichloropropane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
55	1,3-Dichloropropane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾

56 1,3-Dichloropropene...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
56	1,3-Dichloropropene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
57	Dieldrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
58	Diethyl Phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
59	2,4-Dimethylphenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
60	2,4-Dinitrophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
61	2,4-Dinitrotoluene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
62	2,6-Dinitrotoluene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
63	Di-n-octyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
64	Endosulfan	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
65	Endrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
66	Ethylbenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
67	Fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
68	Fluorene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
69	Heptachlor	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
70	Heptachlor epoxide	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
71	Hexachlorobenzene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
72	Hexachloro-1,3-butadiene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
73	n-Hexane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
74	α-HCH	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
75	β-HCH	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾

76 γ-HCH...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
76	γ-HCH	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
77	Hexachlorocyclopentadiene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
78	Hexachloroethane	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
79	Indeno(1,2,3-cd)pyrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
80	Isophorone	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
81	Lead	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
82	Manganese	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
83	Mercury	1) Digestion, Cold Vapor Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
84	Methanol	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
85	Methoxychlor	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
86	Methyl bromide	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
87	Methylene chloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
88	2-Methylphenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
89	2-Methylnaphthalene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
90	Methyl tert-butyl Ether	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
91	Naphthalene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
92	Nickel	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
93	Nitrobenzene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾

94 N-Nitrosodiphenylamine...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
94	N-Nitrosodiphenylamine	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
95	N-Nitrosodi-n-Propylamine	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
96	Polychlorinated Biphenyls - PCB 1016 - PCB 1221 - PCB 1232 - PCB 1242 - PCB 1248 - PCB 1254 - PCB 1260	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
97	Pentachlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
98	pH	Electrometric Method ⁽⁴⁾
99	Phenanthrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
100	Phenol	1) Distillation, Chloroform Extraction Method ⁽⁴⁾ 2) Distillation, Direct Photometric Method ⁽⁴⁾ 3) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
101	Pyrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
102	Selenium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
103	Silver	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
104	Styrene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
105	1,1,2,2-Tetrachloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
106	Tetrachloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
107	Toluene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
108	Toxaphene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
109	TPH (C ₅ -C ₈)	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(14,25)

110 TPH (C₉-C₁₆)...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
110	TPH (C ₈ -C ₁₆)	Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[9,22]
111	TPH (C ₁₆ -C ₃₅)	Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[9,22]
112	1,2,4-Trichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
113	1,1,1-Trichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
114	1,1,2-Trichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
115	Trichloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
116	2,4,5-Trichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
117	2,4,6-Trichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
118	1,3,5-Trimethylbenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
119	Vanadium	1) Digestion, Inductively Coupled Plasma Method ^[4] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4]
120	Vinyl acetate	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
121	Vinyl chloride	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
122	m-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
123	o-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
124	p-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
125	Xylene (Total)	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[4]
126	Zinc	1) Digestion, Inductively Coupled Plasma Method ^[4] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4]

อากาศเสีย...

อากาศเสีย (ปล่อยระบาย) จำนวน 28 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Antimony	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
2	Arsenic	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
3	Beryllium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
4	Cadmium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
5	Carbon Monoxide	1) Instrumental Analyzer Method ^[5] 2) Sampling Bag Non-Dispersive Infrared Method ^[5]
6	Chlorine	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
7	Chromium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
8	Cobalt	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
9	Copper	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
10	Cresol	Adsorption Sampling, Gas Chromatographic Method ^[5]
11	Dioxins	Isokinetic Sampling ^[5]
12	Hydrogen Chloride	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
13	Hydrogen Fluoride	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
14	Hydrogen Sulfide	Absorption Sampling, Iodometric Method ^[5]

15 Lead...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
15	Lead	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
16	Manganese	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
17	Mercury	1) Isokinetic Sampling, Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[5] 2) Isokinetic Sampling, Digestion, Cold-Vapor Atomic Fluorescence Spectrometric Method ^[5]
18	Nickel	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
19	Opacity	Ringelmann's Method ^[2]
20	Oxides of Nitrogen	1) Absorption Sampling, Phenoldisulfonic Acid Method ^[5] 2) Absorption Sampling, Alkaline Permanganate/Colorimetric Method ^[5] 3) Instrumental Analyzer Method ^[5]
21	Selenium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
22	Sulfur Dioxide	1) Absorption Sampling, Barium-Thorin Titrimetric Method ^[5] 2) Instrumental Analyzer Method ^[5]
23	Sulfuric Acid	Isokinetic Sampling, Barium-Thorin Titrimetric Method ^[5]
24	Tellurium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
25	Tin	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
26	Total Suspended Particulate	1) Isokinetic Sampling, Gravimetric Method ^[5] 2) Paired Train, Isokinetic Sampling, Gravimetric Method ^[5]

27 Vanadium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
27	Vanadium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[5]
28	Xylene	Adsorption Sampling, Gas Chromatographic Method ^[5]

สิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว จำนวน 35 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aldrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,9,26] 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26] 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,26]
2	Antimony	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,16] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,6,17] 3) Digestion, Inductively Coupled Plasma Method ^[7,16] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[7,17]
3	Arsenic	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,16] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,6,17] 3) Digestion, Inductively Coupled Plasma Method ^[7,16] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[7,17]
4	Barium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,16] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,6,17] 3) Digestion, Inductively Coupled Plasma Method ^[7,16] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[7,17]

5 Beryllium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
5	Beryllium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
6	Cadmium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
7	Chlordane	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,26)
8	Chromium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
9	Chromium (III)	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method; Waste Extraction, Colorimetric Method; Calculation Method ^(1,6,16,19) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method; Waste Extraction, Colorimetric Method; Calculation Method ^(1,6,17,19) 3) Digestion, Inductively Coupled Plasma Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^(7,8,16,19) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^(7,8,17,19)

10 Chromium (VI)...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
10	Chromium (VI)	1) Waste Extraction, Colorimetric Method ^(1,6,19) 2) Alkaline Digestion, Colorimetric Method ^(8,19)
11	Cobalt	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
12	Copper	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
13	2,4-D	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,26)
14	DDD	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,26)
15	DDE	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,26)
16	DDT	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26)

2) Soxhlet...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
17	Dieldrin	2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26) 1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
18	Endrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
19	Heptachlor	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
20	Lead	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
21	Lindane	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
22	Mercury	1) Waste Extraction, Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^(1,6,20) 2) Waste Extraction, Digestion, Cold-Vapor Atomic Fluorescence Spectrometric Method ^(1,6,30) 3) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁽²⁰⁾ 4) Digestion, Cold-Vapor Atomic Fluorescence Spectrometric Method ⁽³⁰⁾ 5) Thermal Decomposition Amalgamation and Atomic Absorption Spectrometric Method ⁽²¹⁾
23	Methoxychlor	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic /Mass Spectrometric Method ^(11,26)
24	Mirex	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic /Mass Spectrometric Method ^(11,26)
25	Molybdenum	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
26	Nickel	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
27	Polychlorinated biphenyls (PCBs) - Aroclor 1016 - Aroclor 1221 - Aroclor 1232 - Aroclor 1242 - Aroclor 1248 - Aroclor 1254 - Aroclor 1260	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic Method ^(11,26)

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
28	<ul style="list-style-type: none"> - 2-Chlorobiphenyl - 2,3-Dichlorobiphenyl - 2,2',5-Trichlorobiphenyl - 2,4',5-Trichlorobiphenyl - 2,2',3,5'-Tetrachlorobiphenyl - 2,2',5,5'-Tetrachlorobiphenyl - 2,3',4,4'-Tetrachlorobiphenyl - 2,2',3,4,5'-Pentachlorobiphenyl - 2,2',4,5,5'-Pentachlorobiphenyl - 2,3,3',4',6-Pentachlorobiphenyl - 2,2',3,4,4',5'-Hexachlorobiphenyl - 2,2',3,4,5,5'-Hexachlorobiphenyl - 2,2',3,5,5',6-Hexachlorobiphenyl - 2,2',4,4',5,5'-Hexachlorobiphenyl - 2,2',3,3',4,4',5-Heptachlorobiphenyl - 2,2',3,4,4',5,5'-Heptachlorobiphenyl - 2,2',3,4,4',5,6-Heptachlorobiphenyl - 2,2',3,4',5,5',6-Heptachlorobiphenyl - 2,2',3,4',5,5',6-Heptachlorobiphenyl - 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl - Pentachlorophenol 	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,26) Electrometric Method ^(23,24) 1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
29	pH	
30	Selenium	

31 Silver...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
31	Silver	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
32	Thallium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
33	Toxaphene	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,26) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,26) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,26)
34	Vanadium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
35	Zinc	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,6,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)

ดิน...

ดิน จำนวน 125 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Acenaphthene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
2	Acetone	1) Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25) 2) Equilibrium Headspace, Gas Chromatographic/ Mass Spectrometric Method ⁽¹³⁾
3	Aldrin	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
4	Anthracene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
5	Antimony	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
6	Arsenic	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
7	Atrazine	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
8	Barium	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
9	Benz(a)anthracene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
10	Benzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)

11 Benzo(b)fluoranthene

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
11	Benzo(b)fluoranthene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
12	Benzo(k)fluoranthene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
13	Benzoic acid	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
14	Benzo(a)pyrene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
15	Benzo(g,h,i)perylene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
16	Beryllium	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
17	Bis(2-chloroethyl)ether	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
18	Bis(2-ethylhexyl)phthalate	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
19	Bromodichloromethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
20	Bromoform	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
21	Butanol	Equilibrium Headspace, Gas Chromatographic/ Mass Spectrometric Method ^(13,25)
22	Butyl Benzyl Phthalate	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)

23 Cadmium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
23	Cadmium	1) Digestion, Inductively Coupled Plasma Method ^[7,16] 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[7,17]
24	Carbazole	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
25	Carbon Disulfide	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[15,25]
26	Carbon tetrachloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[15,25]
27	Chlordane	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
28	p-Chloroaniline	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
29	Chlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[15,25]
30	Chlorodibromomethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[15,25]
31	Chloroform	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[15,25]
32	2-Chlorophenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
33	Chromium	1) Digestion, Inductively Coupled Plasma Method ^[7,16] 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[7,17]
34	Chromium (III)	1) Digestion, Inductively Coupled Plasma Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^[7,8,16,19] 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^[7,8,17,19]
35	Chromium (VI)	Alkaline Digestion, Colorimetric Method ^[8,19]

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
36	Chrysene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
37	Cyanide	Extraction, Distillation, Colorimetric Method ^[27,28,29]
38	2,4-D	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
39	DDD	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
40	DDE	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
41	DDT	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
42	Dibenz(a,h)anthracene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
43	Di-n-Butyl Phthalate	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
44	1,2-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[15,25]
45	1,3-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[15,25]
46	1,4-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[15,25]
47	3,3-Dichlorobenzidine	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
48	1,1-Dichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[15,25]

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
49	1,2-Dichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
50	1,1-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
51	cis-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
52	trans-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
53	2,4-Dichlorophenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
54	1,2-Dichloropropane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
55	1,3-Dichloropropane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
56	1,3-Dichloropropene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
57	Dieldrin	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
58	Diethyl Phthalate	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
59	2,4-Dimethylphenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
60	2,4-Dinitrophenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
61	2,4-Dinitrotoluene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
62	2,6-Dinitrotoluene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
63	Di-n-Octyl Phthalate	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
64	Endosulfan	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
65	Endrin	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
66	Ethylbenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
67	Fluoranthene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
68	Fluorene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
69	Heptachlor	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
70	Heptachlor epoxide	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
71	Hexachlorobenzene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
72	Hexachloro-1,3-butadiene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
73	n-Hexane	1) Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25) 2) Equilibrium Headspace, Gas Chromatographic/ Mass Spectrometric Method ⁽¹³⁾

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
74	α-HCH	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
75	β-HCH	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
76	γ-HCH	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
77	Hexachlorocyclopentadiene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
78	Hexachloroethane	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
79	Indeno(1,2,3-cd)pyrene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
80	Isophorone	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
81	Lead	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
82	Manganese	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
83	Mercury	1) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁽²⁰⁾ 2) Thermal Decomposition, Amalgamation, and Atomic Absorption Spectrophotometry ⁽²¹⁾ 3) Digestion, Cold-Vapor Atomic Fluorescence Spectrometric Method ⁽²⁰⁾

84 Methanol...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
84	Methanol	1) Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25) 2) Equilibrium Headspace, Gas Chromatographic/ Mass Spectrometric Method ^(13,25)
85	Methoxychlor	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
86	Methyl Bromide	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
87	Methylene Chloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
88	2-methylphenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
89	2-Methylnaphthalene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
90	Methyl tert-Butyl Ether	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
91	Naphthalene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
92	Nickel	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
93	Nitrobenzene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
94	N-Nitrosodiphenylamine	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
95	N-Nitrosodi-n-propylamine	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)

96 Polychlorinated biphenyls (PCBs)

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
96	Polychlorinated biphenyls (PCBs) - Aroclor 1016 - Aroclor 1221 - Aroclor 1232 - Aroclor 1242 - Aroclor 1248 - Aroclor 1254 - Aroclor 1260 - 2-Chlorobiphenyl - 2,2',3,5'-Tetrachlorobiphenyl - 2,2',5,5'-Tetrachlorobiphenyl - 2,3',4,4'-Tetrachlorobiphenyl - 2,2',3,4,5'-Pentachlorobiphenyl - 2,2',4,5,5'-Pentachlorobiphenyl - 2,3,3',4,6'-Pentachlorobiphenyl - 2,2',3,4,4',5'-Hexachlorobiphenyl - 2,2',3,4,5,5'-Hexachlorobiphenyl - 2,2',3,5,5',6-Hexachlorobiphenyl - 2,2',4,4',5,5'-Hexachlorobiphenyl - 2,2',3,3',4,4',5-Heptachlorobiphenyl - 2,2',3,4,4',5,5'-Heptachlorobiphenyl - 2,2',3,4,4',5,6-Heptachlorobiphenyl - 2,2',3,3',4,4',5,6-Heptachlorobiphenyl - 2,2',3,3',4,4',5,6-Nonachlorobiphenyl	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
97	Pentachlorophenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
98	Phenanthrene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)

99 Phenol...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
99	Phenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
100	Pyrene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
101	Selenium	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
102	Silver	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
103	Styrene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
104	1,1,2,2-Tetrachloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
105	Tetrachloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
106	Toluene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
107	Toxaphene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
108	TPH (C ₅ -C ₈)	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
109	TPH (C ₈ -C ₁₆)	1) Automate Extraction, Gas Chromatographic Method ^(11,22) 2) Solvent Extraction, Gas Chromatographic Method ^(12,22) 3) Ultrasonic Extraction, Gas Chromatographic Method ^(22,31)
110	TPH (C ₁₆ - C ₃₅)	1) Automate Extraction, Gas Chromatographic Method ^(11,22) 2) Solvent Extraction, Gas Chromatographic Method ^(12,22) 3) Ultrasonic Extraction, Gas Chromatographic Method ^(22,31)
111	1,2,4-Trichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
112	1,1,1-Trichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
113	1,1,2-Trichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
114	Trichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)

115 2,4,5-Trichlorophenol...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
115	2,4,5-Trichlorophenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
116	2,4,6-Trichlorophenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,26)
117	1,3,5-Trimethylbenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
118	Vanadium	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
119	Vinyl Acetate	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
120	Vinyl Chloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
121	m-Xylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
122	o-Xylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
123	p-Xylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
124	Xylene (Total)	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
125	Zinc	1) Digestion, Inductively Coupled Plasma Method ^(7,16) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)

อีก ๗

เอกสารอ้างอิง

- กระทรวงอุตสาหกรรม. ประกาศกระทรวงอุตสาหกรรม, พ.ศ. 2566. เรื่อง การจัดการสิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว. ราชกิจจานุเบกษา. 31 พฤษภาคม 2566. เล่มที่ 140 ตอนพิเศษ 126 ง.
- กระทรวงอุตสาหกรรม. ประกาศกระทรวงอุตสาหกรรม, พ.ศ. 2549. เรื่อง กำหนดค่าปริมาณเขม่าควันที่เจือปนในอากาศที่ระบายออกจากปล่องของหม้อน้ำโรงสีข้าวที่ใช้กลบเป็นเชื้อเพลิง. ราชกิจจานุเบกษา. 4 ธันวาคม 2549. เล่มที่ 123 ตอนพิเศษ 125 ง.
- สมาคมวิศวกรรมสิ่งแวดล้อมแห่งประเทศไทย. คู่มือวิเคราะห์น้ำเสีย. พิมพ์ครั้งที่ 4. กรุงเทพฯ: เรือนแก้วการพิมพ์, 2547.
- APHA, AWWA, WEF. Standard Methods for the Examination of Water and Wastewater. 24th ed. Washington, DC: APHA, 2023.

5. United States...

- United States Environmental Protection Agency. Standards of Performance for New Stationary Sources. 40 CFR 60. Appendix A, 2023.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. SW-846, 2014.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Acid Digestion of Sludges and Sediments and Soils. SW-846 Method 3050B, 1996.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Alkaline Digestion for Hexavalent Chromium. SW-846 Method 3060A, 1996.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Separatory Funnel Liquid-Liquid Extraction. SW-846 Method 3510C, 1996.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Soxhlet Extraction. SW-846 Method 3540C, 1996.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Automated Soxhlet Extraction. SW-846 Method 3541, 1994.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Microscale Solvent Extraction (MSE). SW-846 Method 3570, 2002.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Volatile Organic Compounds (VOCs) in Various Sample Matrices Using Equilibrium Headspace Analysis. SW-846 Method 5021A, 2014.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Purge-and-Trap for Aqueous Samples. SW-846 Method 5030B, 1996.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples. SW-846 Method 5035, 1996.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Inductively Coupled Plasma-Atomic Emission Spectrometry. SW-846 Method 6010B, 1996.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Inductively Coupled Plasma-Mass Spectrometry. SW-846 Method 6020A, 2007.
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Antimony and Arsenic (Atomic Absorption, Borohydride Reduction). SW-846 Method 7062, 1994. เพิ่มใหม่
- United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Chromium, Hexavalent (Colorimetric). SW-846 Method 7196A, 1992.

อีก ๗

20. United States...

20. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique). SW-846 Method 7471B, 2007.

21. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Mercury in Solids and Solutions by Thermal Decomposition, Amalgamation, and Atomic Absorption Spectrophotometry. SW-846 Method 7473, 2007.

22. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Nonhalogenated Organics by Gas Chromatography. SW-846 Method 8015C, 2007.

23. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. pH Electrometric Measurement. SW-846 Method 9040C, 2004.

24. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Soil and Waste pH. SW-846 Method 9045D, 2004.

25. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS). SW-846 Method 8260D, 2018.

26. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS). SW-846 Method 8270E, 2018.

27. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Total and Amenable Cyanide: Distillation SW-846 Method 9010B, 1996.

28. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Cyanide Extraction Procedure for Solids and Oil. SW-846 Method 9013A, 1996.

29. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Cyanide in Waters and Extracts Using Titrimetric and Manual Spectrophotometric Procedures. SW-846 Method 9014, 2014.

30. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Mercury in Sediment and Tissue Samples by Atomic Fluorescence Spectrometry. SW-846 Method 7474, 2007.

31. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Ultrasonic Extraction. SW-846 Method 3550C, 2007.

Signature



ที่ อก ๐๓๑๐(๑)/ ๔๑ ๒๑

กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๔๐๐

๒๕ เมษายน ๒๕๖๓

เรื่อง เปลี่ยนแปลงบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๒๕ มีนาคม ๒๕๖๒

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ว-๒๐๔ สถานที่ตั้งเลขที่ ๑๐๔ ซอยพัฒนาการ ๔๐ ถนนพัฒนาการ แขวงพัฒนาการ
เขตสวนหลวง กรุงเทพมหานคร ขอเปลี่ยนแปลงบุคลากร ความละเอียดแจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว มีความเห็นดังนี้

๑. ให้ยกเลิกเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๓ ราย

- | | |
|--------------------------|----------------------------|
| ๑) นางสาวพรณิศา พุ่มคง | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๐๖๕ |
| ๒) นายกำชัย สุทธิระ | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๒๑ |
| ๓) นางสาวศุภรดา ปันมยุรา | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๘ |

๒. ให้เพิ่มเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน จำนวน ๑๒ ราย

- | | |
|-----------------------------|----------------------------|
| ๑) นางสาวฐานิดา กลิ่นเขียว | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๒ |
| ๒) นางสาวกัญญภัตสร สายคำ | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๓ |
| ๓) นางสาวณัฐนันท์ กันทะวงศ์ | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๔ |
| ๔) นายอำนาจ วงษาเคน | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๕ |
| ๕) นายฤทธิพล ปัญญาวงศ์ | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๖ |
| ๖) นายณชากร หารธา | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๗ |
| ๗) นายวิชรินทร์ ผ่องสามสวน | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๘ |
| ๘) นายณัฐพงศ์ โสภา | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๑๙ |
| ๙) นายศักรินทร์ ปานเพ็ง | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๒๐ |
| ๑๐) นายณัฐพล ชุ่มชื่น | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๒๑ |
| ๑๑) นายธนา สุพาพันธ์ | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๒๒ |
| ๑๒) นายณรรธ แก้วพงษ์ชา | ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๒๓ |

อนึ่ง หนังสือฉบับนี้...

อนึ่ง หนังสือฉบับนี้จะหมดอายุพร้อมหนังสือต่ออายุรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
ในวันที่ ๒ กันยายน ๒๕๖๔

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ


(นายพรยศ กลั่นกรอง)
รองอธิบดี ปฏิบัติราชการแทน
อธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษโรงงาน
กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ
โทร. ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๐๓-๕
โทรสาร ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๑๔
ไปรษณีย์อิเล็กทรอนิกส์ saraban@diw.mail.go.th



ที่ อก ๐๓๑๐(๑)/ ๑๒๓๖ ๘ /

กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๔๐๐

๑๔ ธันวาคม ๒๕๖๗

เรื่อง ยกเลิกบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท แอลแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๒ ธันวาคม ๒๕๖๗

ตามคำขอที่อ้างถึง บริษัท แอลแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ว-๒๐๔ สถานที่ตั้งเลขที่ ๑๐๔ ซอยพัฒนาการ ๔๐ ถนนพัฒนาการ แขวงพัฒนาการ
เขตสวนหลวง กรุงเทพมหานคร ขอยกเลิกบุคลากร ความละเอียดแจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้ยกเลิกเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์
จำนวน ๘ ราย ได้แก่

๑) นายประพนธ์ วรรณชูชัย	ทะเบียนเลขที่ ว-๒๐๔-จ-๐๐๖๐
๒) นายจิรณัฐ ขวละออ	ทะเบียนเลขที่ ว-๒๐๔-จ-๐๐๗๒
๓) นายพีรพัฒน์ กำคำ	ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๐๘
๔) นางสาวอรุยา คำคลอง	ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๓๔
๕) นายกิตติพงศ์ แซ่ลี	ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๔๔
๖) นายจิรเมธ ประเสริฐศิริพงศ์	ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๖๐
๗) นายภัทรพงษ์ มณฑาทอง	ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๖๗
๘) นางสาวจาวรวรรณ กระจำพินธุ์	ทะเบียนเลขที่ ว-๒๐๔-จ-๐๑๘๑

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ


(นายอิทธิรัตน์ อิศรางกูร ณ อยุธยา)
รองอธิบดี ปฏิบัติราชการแทน
อธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษโรงงาน
กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ
โทร. ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๐๓-๕
โทรสาร ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๑๔
ไปรษณีย์อิเล็กทรอนิกส์ saraban@diw.mail.go.th



ที่ อก ๐๓๑๐(๑)/ ๓๑ ๔ ๐



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๔๐๐

๑๐ เมษายน ๒๕๖๘

เรื่อง ยกเลิกบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๒ เมษายน ๒๕๖๘

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ๖-๒๐๔ สถานที่ตั้งเลขที่ ๑๐๔ ซอยพัฒนาการ ๔๐ ถนนพัฒนาการ แขวงพัฒนาการ
เขตสวนหลวง กรุงเทพมหานคร ขอยกเลิกบุคลากร ความละเอียดแจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้ยกเลิกเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์
จำนวน ๒ ราย ได้แก่

- | | |
|------------------------|----------------------------|
| ๑) นายอิทธิพงศ์ บัวแดง | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๑๐๒ |
| ๒) นายมงคล ผลาพิพย์ | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๑๑๐ |

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายธีรทัศน์ อิศรางกูร ณ อยุธยา)

รองอธิบดี ปฏิบัติราชการแทน
อธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษโรงงาน

กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ

โทร. ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๐๓-๕

โทรสาร ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๔๙

ไปรษณีย์อิเล็กทรอนิกส์ saraban@diw.mail.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



ที่ อก ๐๓๑๐(๑)/ ๔๖ ๗ ๓



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๔๐๐

๐๕ มิถุนายน ๒๕๖๘

เรื่อง เปลี่ยนแปลงบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๗ พฤษภาคม ๒๕๖๘

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ๖-๒๐๔ สถานที่ตั้งเลขที่ ๑๐๔ ซอยพัฒนาการ ๔๐ ถนนพัฒนาการ แขวงพัฒนาการ
เขตสวนหลวง กรุงเทพมหานคร ขอเปลี่ยนแปลงบุคลากร ความละเอียดแจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้เพิ่มเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน
จำนวน ๑๑ ราย ได้แก่

- | | |
|-----------------------------------|----------------------------|
| ๑) นายคุณากร มั่นชื่น | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๑๔๔ |
| ๒) นายชัยมงคล แสนมาตร | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๑๔๕ |
| ๓) นายเอกรินทร์ บุตลักที | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๑๔๖ |
| ๔) นายพิชานนท์ อินปริง | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๑๔๗ |
| ๕) นายศตวรรษ แก้วกันหา | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๑๔๘ |
| ๖) นายวิกรม มีศิริ | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๑๔๙ |
| ๗) นายภคนันท์ คำจันทร์ราช | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๒๐๐ |
| ๘) นายศิริวิทย์ มีโพธิ์ | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๒๐๑ |
| ๙) นายธีรพงษ์ ศรีคำแหง | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๒๐๒ |
| ๑๐) นายอภิสิทธิ์ ศรีคงแก้ว | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๒๐๓ |
| ๑๑) ว่าที่ร้อยตรี ภาณุพงศ์ แสนศรี | ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๒๐๔ |

อนึ่ง หนังสือฉบับนี้จะสิ้นสุดอายุพร้อมหนังสือต่ออายุรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
ในวันที่ ๒ กันยายน ๒๕๖๙

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายธีระ จันทน์เจ็ด)

นักวิทยาศาสตร์เชี่ยวชาญ วิชาการการแทน

ผู้อำนวยการกองวิจัยและเตือนภัยมลพิษโรงงาน

ปฏิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษโรงงาน

กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ

โทร. ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๐๓-๕

โทรสาร ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๔๙

ไปรษณีย์อิเล็กทรอนิกส์ saraban@diw.mail.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



ที่ อก ๐๓๑๐(๑)/ ๒๕๐ ๘



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๒๑ สิงหาคม ๒๕๖๕

เรื่อง เปลี่ยนแปลงสารมลพิษที่วิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๒๗ มิถุนายน ๒๕๖๕

สิ่งที่ส่งมาด้วย เอกสารแนบท้ายหนังสือเปลี่ยนแปลงสารมลพิษที่วิเคราะห์
บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด จำนวน ๖ แผ่น

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ว-๒๐๕ สถานที่ตั้งเลขที่ ๑๐๕ ซอยพัฒนาการ ๕๐ ถนนพัฒนาการ แขวงพัฒนาการ
เขตสวนหลวง กรุงเทพมหานคร ขอเปลี่ยนแปลงสารมลพิษที่วิเคราะห์ ต่อกรมโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด
เพิ่มขอขยายชนิดสารมลพิษที่วิเคราะห์ในน้ำได้ดิน สิ่งปฏิกูลและวัสดุที่ไม่ใช้แล้ว และดิน ตามสิ่งที่ส่งมาด้วย

อนึ่ง หนังสือฉบับนี้จะสิ้นสุดอายุพร้อมหนังสือต่ออายุรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
ในวันที่ ๒ กันยายน ๒๕๖๕

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นางสาวปัทมวรรณ คุณประเสริฐ)

ผู้อำนวยการกองวิจัยและเฝ้าระวังมลพิษโรงงาน
ปฏิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเฝ้าระวังมลพิษโรงงาน

กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ

โทร. ๐ ๒๕๓๐ ๖๓๑๒ ต่อ ๒๑๐๓-๕

โทรสาร ๐ ๒๕๓๐ ๖๓๑๒ ต่อ ๒๑๕๔

ไปรษณีย์อิเล็กทรอนิกส์ saraban@diw.mail.go.th



“อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว”



เอกสารแนบท้ายหนังสือเปลี่ยนแปลงสารมลพิษที่วิเคราะห์

บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด เลขทะเบียน ว-๒๐๕

ที่ อก ๐๓๑๐(๑)/ ๒๕๐ ๘ ลงวันที่ ๒๑ สิงหาคม ๒๕๖๕

ขอขยายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๔๐ รายการ

น้ำได้ดิน จำนวน ๔ รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aluminum	Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[2]
2	Copper	Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[2]
3	Iron	Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[2]
4	Molybdenum	Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[2]

สิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว จำนวน 17 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Antimony	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[4,7]
2	Arsenic	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[4,7]
3	Barium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[4,7]

Beryllium

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
4	Beryllium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
5	Cadmium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
6	Chromium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
7	Chromium (III)	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method; Waste Extraction, Colorimetric Method; Calculation Method ^[1,3,6,8] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method; Waste Extraction, Colorimetric Method; Calculation Method ^[1,3,7,8] 3) Digestion, Inductively Coupled Plasma Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^[4,5,6,8] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^[4,5,7,8]
8	Cobalt	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7]

อนุมัติ

3) Digestion...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
9	Copper	3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7] 1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
10	Lead	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
11	Molybdenum	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
12	Nickel	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
13	Selenium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]

อนุมัติ

14 Silver...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
14	Silver	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
15	Thallium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
16	Vanadium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
17	Zinc	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,3,6] 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[1,3,7] 3) Digestion, Inductively Coupled Plasma Method ^[4,6] 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]

ดิน จำนวน 19 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aluminum	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
2	Antimony	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
3	Arsenic	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
4	Barium	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
5	Beryllium	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
6	Cadmium	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
7	Chromium	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
8	Chromium (III)	1) Digestion, Inductively Coupled Plasma Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^[4,5,6,8] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^[4,5,7,8]
9	Copper	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
10	Iron	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
11	Lead	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
12	Manganese	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
13	Molybdenum	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]
14	Nickel	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^[4,7]

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
15	pH	Electrometric Method ^[9]
16	Selenium	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[4,7]
17	Silver	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[4,7]
18	Vanadium	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[4,7]
19	Zinc	1) Digestion, Inductively Coupled Plasma Method ^[4,6] 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^[4,7]

เอกสารอ้างอิง

- กระทรวงอุตสาหกรรม. ประกาศกระทรวงอุตสาหกรรม, พ.ศ. 2566. เรื่อง การจัดการสิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว. **ราชกิจจานุเบกษา**. 31 พฤษภาคม 2566. เล่มที่ 140 ตอนพิเศษ 126 ง.
- APHA, AWWA, WEF. **Standard Methods for the Examination of Water and Wastewater**. 24th ed. Washington, DC: APHA, 2023.
- United States Environmental Protection Agency. **Test Methods for Evaluating Solid Waste Physical/Chemical Methods**. SW-846.
- United States Environmental Protection Agency. **Test Methods for Evaluation Solid Waste Physical/Chemical Methods. Acid Digestion of Sediments, Sludges, and Soils**. SW-846 Method 3050B, 1996.
- United States Environmental Protection Agency. **Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Alkaline Digestion for Hexavalent Chromium**. SW-846 Method 3060A, 1996.
- United States Environmental Protection Agency. **Test Methods for Evaluation Solid Waste Physical/Chemical Methods. Inductively Coupled Plasma-Optical Emission Spectrometry**. SW-846 Method 6010D, 2018.
- United States Environmental Protection Agency. **Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Inductively Coupled Plasma-Mass Spectrometry**. SW-846 Method 6020B, 2014.
- United States Environmental Protection Agency. **Test Methods for Evaluating Solid Waste Physical/Chemical Methods. Chromium, Hexavalent (Colorimetric)**. SW-846 Method 7196A, 1992.
- United States Environmental Protection Agency. **Test Methods for Evaluation Solid Waste Physical/Chemical Methods. Soil and Waste pH**. SW-846 Method 9045D, 2004.

งามวิ



ที่ อก ๐๓๑๐(๑)๘๐ ๑๑

กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๒๖ กันยายน ๒๕๖๘

เรื่อง เปลี่ยนแปลงบุคลากร ชื่อตัวและชื่อสกุลของบุคลากร

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๒๑ สิงหาคม ๒๕๖๘

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัดห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ๖-๒๐๔ สถานที่ ตั้งเลขที่ ๑๐๔ ขอยพัฒนาการ ๔๐ ถนนพัฒนาการ
แขวงพัฒนาการ เขตสวนหลวง กรุงเทพมหานคร ขอเปลี่ยนแปลงบุคลากร ชื่อตัวและชื่อสกุลของบุคลากร
ต่อกรมโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว มีความเห็นดังนี้

๑. ให้ยกเลิกเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๒ ราย

๑) นางสาวพาฤดี คุณนาน ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๑๓๔

๒) นางสาวอรณิศา เทียนคำ ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๑๓๔

๒. ให้เปลี่ยนชื่อตัวและชื่อสกุลของเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จากเดิม
นายอาทิตย์ ศรีเสน เป็น นายรัฐธีร ทวีกิจวรพจน์ ทะเบียนเลขที่ ๖-๒๐๔-จ-๐๐๘๘

อนึ่ง หนังสือฉบับนี้จะส่งอายุพร้อมหนังสือต่ออายุรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
ในวันที่ ๒ กันยายน ๒๕๖๘

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

๒

(นางสาวปัทมวรรณ คุณประเสริฐ)

ผู้อำนวยการกองวิจัยและเตือนภัยมลพิษโรงงาน
ปฏิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษโรงงาน

กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ

โทร. ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๐๓-๕

โทรสาร ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๔๔

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“อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว”



ที่ อก ๐๓๒๐/ ๗ ๔ ๓ ๘



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๔๐๐

๐๔ สิงหาคม ๒๕๖๗

เรื่อง ต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์
เอกชน ลงวันที่ ๒๗ พฤษภาคม ๒๕๖๗

สิ่งที่ส่งมาด้วย เอกสารแนบท้ายหนังสือต่ออายุรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
บริษัท เอแอลเอส แลบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด จำนวน ๓ แผ่น

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ขอต่ออายุ
หนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ว-๓๒๓ สถานที่ตั้งเลขที่ ๖๑๖/๑๐ หมู่ที่ ๕
ตำบลแม่ไม้คู่ อำเภอบางแค จังหวัดระยอง ต่อกรมโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้บริษัท เอแอลเอส แลบอราทอรี กรุ๊ป (ประเทศไทย)
จำกัด ต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน โดยมีองค์ประกอบดังนี้

ก. ผู้ควบคุมห้องปฏิบัติการวิเคราะห์เอกชน

- | | |
|--------------------------|----------------------------|
| ๑) นายเดช ช้างชน | ทะเบียนเลขที่ ว-๓๒๓-ค-๐๐๐๑ |
| ๒) นายวิลาวัลย์ บริรักษ์ | ทะเบียนเลขที่ ว-๓๒๓-ค-๐๐๐๒ |
| ๓) นายสุพจน์ สลามเต๊ะ | ทะเบียนเลขที่ ว-๓๒๓-ค-๐๐๐๓ |

ข. เจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน

- | | |
|--------------------------------|----------------------------|
| ๑) นายณัฐพงษ์ เพ็ชชานา | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๐๑ |
| ๒) นางสาวกัลยทรรศน์ รักดี | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๐๒ |
| ๓) นางสาวจุฑารัตน์ สิททองกลาง | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๐๓ |
| ๔) นางสาวจิตสุภา ประเทืองสุข | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๐๔ |
| ๕) นายสรเสริญ ค่อยยศ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๐๕ |
| ๖) นายณัฐวุฒิ ออมพรมราช | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๐๖ |
| ๗) นายจิตรกร สีวะสา | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๐๗ |
| ๘) นายสิทธิบัญญัติ สุวรรณรัตน์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๐๘ |
| ๙) นายสิทธิพันธ์ เสนาชีว | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๐๙ |
| ๑๐) นายอนุคน เดมา | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๑๐ |
| ๑๑) นายสุรวิทย์ นราพงษ์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๑๑ |
| ๑๒) นายณัฐพล เจียงวรีวงศ์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๑๓ |
| ๑๓) นายชานน บุญชื่น | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๑๔ |
| ๑๔) นายณัฐกรนต์ วงศ์อินทร์อยู่ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๑๕ |
| ๑๕) นายอานนท์ โพธิ์พระทอง | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๑๖ |

๑๖) นายณัฏฐ...

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- | | |
|-----------------------------------|----------------------------|
| ๑๖) นายณัฏฐ... | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๑๗ |
| ๑๗) นายคุณัฐ พิชัยพันธ์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๑๘ |
| ๑๘) นายวสันต์ คินันติ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๑๙ |
| ๑๙) นายวรัญญู ฉิมพาลี | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๒๐ |
| ๒๐) นายคุณัฐ สุกุลกิตติมงคล | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๒๑ |
| ๒๑) นายเอกชัย ถิ่นทอง | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๒๒ |
| ๒๒) นายพงษ์เทพ สิริเสนา | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๒๓ |
| ๒๓) นายทินกร กุมภาชี | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๒๔ |
| ๒๔) นางสาวนันทยา บุญจันทร์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๒๕ |
| ๒๕) นายสิทธิชัย ยันพิมาย | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๒๖ |
| ๒๖) นางสาวภาณิน หลอดทอง | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๒๗ |
| ๒๗) นางสาวพจนา สีดา | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๒๘ |
| ๒๘) นางสาวธิดา กุลศิริวงศ์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๒๙ |
| ๒๙) นายพิทยา ทองแดง | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๓๐ |
| ๓๐) นางสาวชลธิชา สูงงาช | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๓๑ |
| ๓๑) ว่าที่ร้อยตรี รณชัย ม่วงมา | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๓๒ |
| ๓๒) นายวราวุฒิ พับพา | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๓๓ |
| ๓๓) นายศักดิ์นรินทร์ จรัสกาย | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๓๔ |
| ๓๔) นายสุรศักดิ์ สาจีน | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๓๕ |
| ๓๕) นายสถาพร ภาแก้ว | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๓๖ |
| ๓๖) นายสุทธิดำรง โชคปิตินันท์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๓๗ |
| ๓๗) นายวิมล หันไชยเนาว์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๓๘ |
| ๓๘) นางสาววนาลี เจริญบุตรกุล | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๓๙ |
| ๓๙) นายธนสิทธิ์ วงศ์ไชย | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๔๐ |
| ๔๐) นายชัยนุสรณ์ เลิศนันทกุลชัย | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๔๑ |
| ๔๑) นายสัจจา เพ็ชรแสง | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๔๒ |
| ๔๒) นายกัณตภณ มณีสัมพันธ์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๔๓ |
| ๔๓) นายธารินทร์ อ็อกจินดา | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๔๔ |
| ๔๔) นายสุกชัย วงศ์สุริย์ฉาย | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๔๕ |
| ๔๕) นายไสว ดันโพธิ์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๔๖ |
| ๔๖) นางสาวกิตติยา สันญญาอริยาภรณ์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๔๗ |
| ๔๗) นางสาวธิดารัตน์ ศิริมงคลโร | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๔๘ |
| ๔๘) นายพิพัฒน์ นิกิทธิเศรษฐ์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๔๙ |
| ๔๙) นายศิริวิทย์ เรืองสม | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๕๐ |
| ๕๐) นายปารามศ สัตยาคุณ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๕๑ |
| ๕๑) นายณนุภาพ ธรรมะโร | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๕๒ |
| ๕๒) นางสาวศุภรัตน์ โสจันทร์ | ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๕๓ |

๕๒) นายพชร...

๕๒) นายพชรกร เจริญ	ทะเบียนเลขที่ ๖-๓๒๓-จ-๐๐๕๔
๕๓) นายทิวากร เชื้อมาก	ทะเบียนเลขที่ ๖-๓๒๓-จ-๐๐๕๕
๕๔) นายอนุรักษ์ ทองขจรศักดิ์	ทะเบียนเลขที่ ๖-๓๒๓-จ-๐๐๕๖
๕๕) นายอภิชาติ วิลาศ	ทะเบียนเลขที่ ๖-๓๒๓-จ-๐๐๕๗
๕๖) นายจรัสระวี ศรีรักษา	ทะเบียนเลขที่ ๖-๓๒๓-จ-๐๐๕๘
๕๘) นายประสาธมิตร เชื้อนเพชร	ทะเบียนเลขที่ ๖-๓๒๓-จ-๐๐๕๙
๕๙) นายภาณุวัฒน์ วัชรบง	ทะเบียนเลขที่ ๖-๓๒๓-จ-๐๐๖๐
๖๐) นายสันติ ชัยชนะ	ทะเบียนเลขที่ ๖-๓๒๓-จ-๐๐๖๑
๖๑) นายทินกร กุลชาติ	ทะเบียนเลขที่ ๖-๓๒๓-จ-๐๐๖๒

ค. ขอบข่ายชนิดสารมลพิษที่ได้รับขึ้นทะเบียนให้วิเคราะห์ในน้ำเสีย น้ำใต้ดิน อากาศเสีย ตามสิ่งที่ส่งมาด้วย

หนังสือฉบับนี้จะหมดอายุในวันที่ ๒๘ มิถุนายน ๒๕๖๑ หากประสงค์จะต่ออายุหนังสือ รับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน ให้ยื่นคำขอต่ออายุพร้อมเอกสารประกอบคำขอต่อกรมโรงงานอุตสาหกรรมภายใน ๖๐ วัน ก่อนวันสิ้นสุดของหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ


(นายพยศ กลั่นกรอง)
รองอธิบดี ปฏิบัติราชการแทน
อธิบดีกรมโรงงานอุตสาหกรรม

ศูนย์วิจัยและเตือนภัยมลพิษโรงงานภาคตะวันออก

โทร. ๐ ๓๓๑๓ ๖๐๕๔ ต่อ ๕๐๐๑-๒

ไปรษณีย์อิเล็กทรอนิกส์ airw@dlw.mail.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



เอกสารแนบท้ายหนังสือเปลี่ยนแปลงสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด เลขทะเบียน ๖-๓๒๓
ที่ ๐๓๒๐/ ๗ ๙ ๓ ๘ ลงวันที่ ๐๔ สิงหาคม ๒๕๖๗

ขอบข่ายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๒๕ รายการ
น้ำเสีย จำนวน ๑๔ รายการ

ลำดับ ที่	สารมลพิษ	วิธีวิเคราะห์
1	Biochemical Oxygen Demand	1) 5-Day BOD Test, Membrane Electrode Method ^[2] 2) 5-Day BOD Test, Azide Modification Method ^[2]
2	Chemical Oxygen Demand	1) Open Reflux, Titrimetric Method ^[2] 2) Closed Reflux, Colorimetric Method ^[2] 3) Closed Reflux, Titrimetric Method ^[2]
3	Color	ADMI Weighted-Ordinate Spectrophotometric Method ^[2]
4	Cyanide	Distillation, Colorimetric Method ^[2]
5	Formaldehyde	Distillation, Colorimetric Method ^[1]
6	Free Chlorine	DPD Ferrous Titrimetric Method ^[2]
7	Oil and Grease	Liquid-Liquid, Partition-Gravimetric Method ^[2]
8	pH	Electrometric Method ^[2]
9	Phenols	1) Distillation, Chloroform Extraction Method ^[2] 2) Distillation, Direct Photometric Method ^[2]
10	Sulfide	ZnS Precipitation, Iodometric Method ^[2]
11	Temperature	Field Method ^[2]
12	Total Dissolved Solids	Dried at 180 °C ^[2]
13	Total Kjeldahl Nitrogen	Semi-Macro Kjeldahl Method ^[2]
14	Total Suspended Solids	Dried at 103-105 °C ^[2]

น้ำใต้ดิน จำนวน 3 รายการ

ลำดับ ที่	สารมลพิษ	วิธีวิเคราะห์
1	Cyanide	Distillation, Colorimetric Method ^[2]
2	pH	Electrometric Method ^[2]
3	Phenols	Distillation, Direct Photometric Method ^[2]

อากาศเสีย...

อากาศเสีย (ปล่องระบาย) จำนวน 7 รายการ

ลำดับ ที่	สารมลพิษ	วิธีวิเคราะห์
1	Carbon Monoxide	1) Sampling Bag, Non-Dispersive Infrared Method ^[5] 2) Instrumental Analyzer Method ^[9]
2	Hydrogen Sulfide	Absorption Sampling, Iodometric Method ^[5]
3	Opacity	Ringelmann's Method ^[3,4]
4	Oxide of Nitrogen	1) Absorption Sampling, Phenoldisulfonic Acid Method ^[8] 2) Instrumental Analyzer Method ^[10]
5	Sulfur Dioxide	1) Absorption Sampling, Barium-Thorin Titrimetric Acid Method ^[5] 2) Instrumental Analyzer Method ^[11]
6	Sulfuric Acid	Isokinetic Sampling, Barium – Titrimetric Method ^[6]
7	Total Suspended Particulate	Isokinetic Sampling, Gravimetric Method ^[7]

เอกสารอ้างอิง

1. ธงชัย พรธนะสวัสดิ์ และวิบูลย์ลักษณ์ วิสุมธิดีกิตติ์, บรรณาธิการ. (2547) คู่มือวิเคราะห์น้ำเสีย. พิมพ์ครั้งที่ 4. กรุงเทพฯ: สมาคมวิศวกรรมสิ่งแวดล้อมแห่งประเทศไทย.
2. APHA, AWWA, WEF. Standard Methods for the Examination of Water and Wastewater. 24th ed. Washington, DC : APHA, 2023
3. กระทรวงอุตสาหกรรม. ประกาศกระทรวงอุตสาหกรรม, พ.ศ. 2549. เรื่อง กำหนดค่าปริมาณเขม่าควันที่เจือปนในอากาศที่ระบายออกจากปล่องของหม้อน้ำโรงสีข้าวที่ใช้แก๊สเป็นเชื้อเพลิง. ราชกิจจานุเบกษา. 4 ธันวาคม 2549. เล่มที่ 123 ตอนพิเศษ 125ง
4. กระทรวงอุตสาหกรรม. ประกาศกระทรวงอุตสาหกรรม, พ.ศ. 2549. เรื่อง กำหนดค่าปริมาณเขม่าควันที่เจือปนในอากาศที่ระบายออกจากปล่องของหม้อน้ำของโรงงาน. ราชกิจจานุเบกษา. 4 ธันวาคม 2549. เล่มที่ 123 ตอนพิเศษ 125ง
5. United States Environmental Protection Agency. Standards of Performance for New Stationary Sources. 40 CFR 60. Appendix A, 2017.
6. United States Environmental Protection Agency. Standards of Performance for New Stationary Sources. 40 CFR 60. Appendix A, 2019.

7. United States...

7. United States Environmental Protection Agency. Standards of Performance for New Stationary Sources. 40 CFR 60. Appendix A, 2020.

8. United States Environmental Protection Agency. Standards of Performance for New Stationary Sources. 40 CFR 60. Appendix A, 2023.

9. United States Environmental Protection Agency. Determination of Carbon Monoxide Emission from Stationary Sources; Instrumental Analyzer Procedure. 40 CFR 60. Appendix A Method 10, 2017.

10. United States Environmental Protection Agency. Determination of Oxide of Nitrogen Emission from Stationary Sources; Instrumental Analyzer Procedure. 40 CFR 60. Appendix A Method 7E, 2023.

11. United States Environmental Protection Agency. Determination of Sulfur dioxide Emission from Stationary Sources; Instrumental Analyzer Procedure. 40 CFR 60. Appendix A Method 6C, 2017.



ที่ อก ๐๓๒๐/ ๑๐๐๕ ๕



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๐๕ ตุลาคม ๒๕๖๗

เรื่อง แก้อิสรายชื่อเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง หนังสือ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด เลขที่ Env 2024/005
ลงวันที่ ๓๐ สิงหาคม ๒๕๖๗

ตามหนังสือที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ว-๓๒๓ สถานที่ตั้งเลขที่ ๖๑๖/๑๐ หมู่ที่ ๕ ตำบลแม่น้ำคู้ อำเภอปลวกแดง
จังหวัดระยอง ขอแก้ไขชื่อเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน เนื่องจากมีความคลาดเคลื่อน ความละเอียด
แจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรม ได้รับทราบและดำเนินการแก้ไขรายชื่อเจ้าหน้าที่ห้องปฏิบัติการ
วิเคราะห์เอกชน จำนวน ๕ ราย ตามที่แจ้งเรียบร้อยแล้ว เป็นดังนี้

ลำดับที่ ๒๗ นางพจนา สีดดา
ลำดับที่ ๒๘ นางสาวธนิศา กุลสุริวงศ์
ลำดับที่ ๓๐ นางชลธิชา สุนงกษ
ลำดับที่ ๓๖ นายสุทธิดำรงค์ โชคปิตินันท์
ลำดับที่ ๔๒ นายกันตภณ มณีสัมพันธ์

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ


(นายพรยศ กลั่นกรอง)
รองอธิบดี ปฏิบัติราชการแทน
อธิบดีกรมโรงงานอุตสาหกรรม

ศูนย์วิจัยและเตือนภัยมลพิษโรงงานภาคตะวันออก
โทร. ๐ ๓๓๑๓ ๖๐๕๔ ต่อ ๕๐๐๑-๒
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ที่ อก ๐๓๑๐(๓)/ ๕๒๔ ๖



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๒๐ พฤษภาคม ๒๕๖๘

เรื่อง ยกเลิกบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารเคมีของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๑๐ เมษายน ๒๕๖๘

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ว-๓๒๓ สถานที่ตั้งเลขที่ ๖๑๖/๑๐ หมู่ที่ ๕ ตำบลแม่น้ำคู้ อำเภอปลวกแดง
จังหวัดระยอง ขอยกเลิกบุคลากร ความละเอียดแจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้ยกเลิกเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน
จำนวน ๑ ราย ได้แก่ นายปารามศ สัตยาคุณ ทะเบียนเลขที่ ว-๓๒๓-จ-๐๐๕๑

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ



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ปฏิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

ศูนย์วิจัยและเตือนภัยมลพิษโรงงานภาคตะวันออก

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ที่ อก ๐๓๑๐(๓)/ ๕๕๐๕



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๒๗ พฤษภาคม ๒๕๖๘

เรื่อง เปลี่ยนแปลงชื่อ-สกุลบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๑๕ พฤษภาคม ๒๕๖๘

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ๖-๓๒๓ สถานที่ตั้งเลขที่ ๖๑๖/๑๐ หมู่ที่ ๕ ตำบลแม่น้ำคู้ อำเภอลวกแดง
จังหวัดระยอง ขอเปลี่ยนแปลงชื่อ-สกุลบุคลากร ความละเอียดแจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้เปลี่ยนแปลงชื่อ-สกุลบุคลากร จำนวน ๑ ราย
จากนายธนະสิทธิ์ วงศ์ไชย เป็น นายอมลวิชัย วงศ์ไชย

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายประสม ดำรงพงษ์)

ผู้อำนวยการกองวิจัยและเตือนภัยมลพิษโรงงาน
ปฏิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

ศูนย์วิจัยและเตือนภัยมลพิษโรงงานภาคตะวันออก

โทร. ๐ ๓๓๑๓ ๖๐๕๔ ต่อ ๕๐๐๑-๒

ไปรษณีย์อิเล็กทรอนิกส์ eirw@diw.mail.go.th



“อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว”



ที่ อก ๐๓๑๐(๓)/ ๕๗๖๔



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๐๒ ธันวาคม ๒๕๖๘

เรื่อง เปลี่ยนแปลงสารมลพิษที่วิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๓๑ ตุลาคม ๒๕๖๘

สิ่งที่ส่งมาด้วย เอกสารแนบท้ายหนังสือเปลี่ยนแปลงสารมลพิษที่วิเคราะห์

บริษัท เอแอลเอส แลบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด จำนวน ๒ แผ่น

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ๖-๓๒๓ สถานที่ตั้งเลขที่ ๖๑๖/๑๐ หมู่ที่ ๕ ตำบลแม่น้ำคู้ อำเภอลวกแดง
จังหวัดระยอง ขอเปลี่ยนแปลงสารมลพิษที่วิเคราะห์ ต่อกรมโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้บริษัท เอแอลเอส แลบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด
เพิ่มขอบข่ายชนิดสารมลพิษที่วิเคราะห์ในน้ำเสีย และน้ำใต้ดิน ตามสิ่งที่ส่งมาด้วย

อนึ่ง หนังสือฉบับนี้จะส่งอายุพร้อมหนังสือต่ออายุรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
ในวันที่ ๒๘ มิถุนายน ๒๕๗๑

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นางสาวปัทมวรรณ คุณประเสริฐ)

ผู้อำนวยการกองวิจัยและเตือนภัยมลพิษโรงงาน
ปฏิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษโรงงาน

ศูนย์วิจัยและเตือนภัยมลพิษโรงงานภาคตะวันออก

โทร. ๐ ๓๓๑๓ ๖๐๕๔ ต่อ ๕๐๐๑-๒

ไปรษณีย์อิเล็กทรอนิกส์ eirw@diw.mail.go.th



“อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว”



เอกสารแนบท้ายหนังสือเปลี่ยนแปลงสารมลพิษที่วิเคราะห์

บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด เลขทะเบียน ว-๓๒๓

ที่ อก ๐๓๑๐(๓)/ ๕๗๖๔ ลงวันที่ ๐๒ ธันวาคม ๒๕๖๔

ขอขายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๒๓ รายการ

น้ำเสีย จำนวน 13 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Arsenic	Digestion, Inductively Coupled Plasma Method
2	Barium	Digestion, Inductively Coupled Plasma Method
3	Cadmium	Digestion, Inductively Coupled Plasma Method
4	Chromium	Digestion, Inductively Coupled Plasma Method
5	Copper	Digestion, Inductively Coupled Plasma Method
6	Hexavalent Chromium	Colorimetric Method
7	Lead	Digestion, Inductively Coupled Plasma Method
8	Manganese	Digestion, Inductively Coupled Plasma Method
9	Mercury	Digestion, Cold-Vapor Atomic Absorption Spectrometric Method
10	Nickel	Digestion, Inductively Coupled Plasma Method
11	Selenium	Digestion, Inductively Coupled Plasma Method
12	Trivalent Chromium	Calculation
13	Zinc	Digestion, Inductively Coupled Plasma Method

น้ำใต้ดิน จำนวน 20 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aluminum	Digestion, Inductively Coupled Plasma Method
2	Antimony	Digestion, Inductively Coupled Plasma Method
3	Arsenic	Digestion, Inductively Coupled Plasma Method
4	Barium	Digestion, Inductively Coupled Plasma Method
5	Beryllium	Digestion, Inductively Coupled Plasma Method
6	Cadmium	Digestion, Inductively Coupled Plasma Method
7	Chromium	Digestion, Inductively Coupled Plasma Method
8	Chromium (III)	Calculation
9	Chromium (VI)	Colorimetric Method
10	Copper	Digestion, Inductively Coupled Plasma Method

11 Lead ...

-๒-

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
11	Iron	Digestion, Inductively Coupled Plasma Method
12	Lead	Digestion, Inductively Coupled Plasma Method
13	Manganese	Digestion, Inductively Coupled Plasma Method
14	Mercury	Digestion Cold-Vapor Atomic Absorption Spectrometric Method
15	Molybdenum	Digestion, Inductively Coupled Plasma Method
16	Nickel	Digestion, Inductively Coupled Plasma Method
17	Selenium	Digestion, Inductively Coupled Plasma Method
18	Silver	Digestion, Inductively Coupled Plasma Method
19	Vanadium	Digestion, Inductively Coupled Plasma Method
20	Zinc	Digestion, Inductively Coupled Plasma Method

เอกสารอ้างอิง

APHA, AWWA, WEF. Standard Methods for the Examination of Water and Wastewater. 24th ed. Washington, DC: APHA, 2023.



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