

ภาคผนวก ง

ใบรับรองผลการติดตามตรวจสอบคุณภาพสิ่งแวดล้อม

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ทิศทางและความเร็วลม



## Meteorological Monitoring Results : Wind Rose MTR-PTTGC-LDPE Plant

Location : East Fence of Project Site

Monitor period : 01-08 Jul 2025

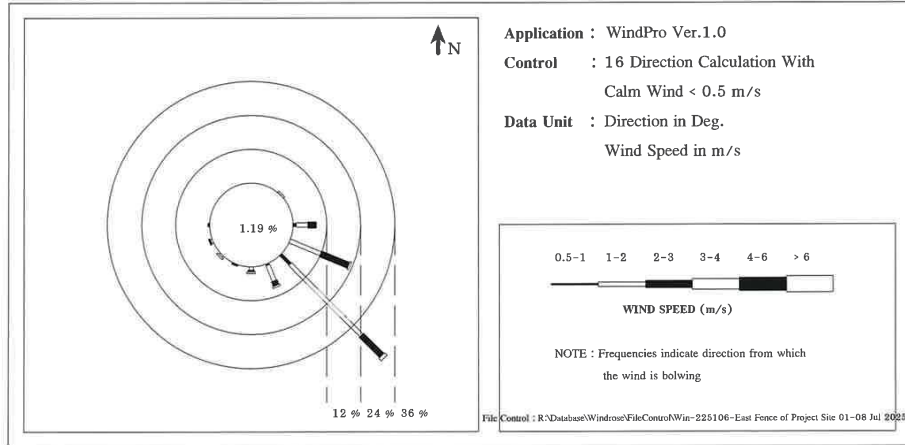
Wind Speed Model : Novalynx WS-25

Serial No : A5086

Wind Direction Model : Novalynx WS-25

Serial No : A5086

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.0000	0.0000	0.0000	0.0060	0.0000	0.0000	0.0060
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0119	0.0417	0.0298	0.0000	0.0000	0.0000	0.0833
ESE	0.0000	0.1190	0.1071	0.0060	0.0000	0.0000	0.2321
SE	0.0476	0.3571	0.1012	0.0119	0.0000	0.0000	0.5179
SSE	0.0060	0.0595	0.0179	0.0060	0.0000	0.0000	0.0893
S	0.0000	0.0119	0.0060	0.0060	0.0000	0.0000	0.0238
SSW	0.0000	0.0000	0.0060	0.0000	0.0000	0.0000	0.0060
SW	0.0000	0.0060	0.0000	0.0060	0.0000	0.0000	0.0119
WSW	0.0000	0.0060	0.0060	0.0000	0.0000	0.0000	0.0119
W	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.0119						



(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

(Miss Preeda Somjai)  
Technical Management Team



## Meteorological Monitoring Results : Wind Rose MTR-PTTGC-LDPE Plant

Location : East Fence of Project Site

Monitor period : 01-08 Jul 2025

Wind Speed Model : Novalynx WS-25

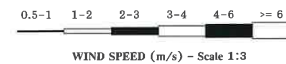
Serial No : A5086

Wind Direction Model : Novalynx WS-25

Serial No : A5086

Time	01-02 Jul 2025		02-03 Jul 2025		03-04 Jul 2025		04-05 Jul 2025	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
10:00 - 11:00	1.4	WSW	2.0	SE	1.4	SE	2.8	ESE
11:00 - 12:00	1.5	SW	3.5	SE	1.6	SE	2.7	ESE
12:00 - 13:00	1.0	S	1.7	E	1.0	ESE	3.2	ESE
13:00 - 14:00	1.4	S	1.5	SE	2.2	ESE	2.0	E
14:00 - 15:00	3.7	S	1.8	SE	0.8	SE	1.6	SE
15:00 - 16:00	2.0	S	0.7	E	1.4	SE	2.2	ESE
16:00 - 17:00	1.9	SSE	2.0	SE	2.2	ESE	2.7	ESE
17:00 - 18:00	2.8	ESE	2.0	ESE	1.4	ESE	3.0	SE
18:00 - 19:00	0.8	SSE	1.3	SE	1.2	ESE	1.4	SE
19:00 - 20:00	3.6	SW	1.5	ESE	1.6	ESE	2.1	ESE
20:00 - 21:00	2.9	WSW	1.2	SE	2.1	ESE	2.2	SE
21:00 - 22:00	0.7	W	1.1	SE	2.3	SE	1.3	ESE
22:00 - 23:00	0.3	SE	1.7	SE	1.3	SE	2.0	SE
23:00 - 24:00	1.0	ESE	0.7	SE	0.9	SE	1.5	SE
00:00 - 01:00	1.2	ESE	1.6	SE	1.5	SE	2.4	SE
01:00 - 02:00	1.2	SE	1.5	SE	0.8	SE	1.2	SE
02:00 - 03:00	0.3	SE	1.3	SE	2.0	SSE	1.4	SE
03:00 - 04:00	1.2	SE	1.6	SSE	0.9	SE	1.7	SE
04:00 - 05:00	0.6	SE	1.6	SSE	1.6	SE	1.4	SE
05:00 - 06:00	1.2	ESE	1.1	SSE	1.4	SSE	2.6	SE
06:00 - 07:00	1.6	SE	1.3	SE	2.0	SE	1.4	SSE
07:00 - 08:00	1.4	SE	2.1	SE	1.6	SSE	1.7	ESE
08:00 - 09:00	1.7	SE	1.8	SE	1.1	SE	1.8	ESE
09:00 - 10:00	2.3	SE	1.5	SE	2.9	SE	2.3	SSW

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-225106-East Fence of Project Site 01-08 Jul 2025

(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

(Miss Preeda Somjai)  
Technical Management Team



## Meteorological Monitoring Results : Wind Rose MTR-PTTGC-LDPE Plant

Location : East Fence of Project Site

Monitor period : 01-08 Jul 2025

Wind Speed Model : Novalynx WS-25

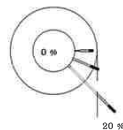
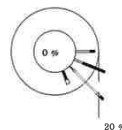
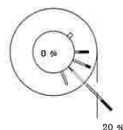
Serial No : A5086

Wind Direction Model : Novalynx WS-25

Serial No : A5086

Time	05-06 Jul 2025		06-07 Jul 2025		07-08 Jul 2025		
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	
10:00 - 11:00	2.7	SE	2.9	ESE	1.0	SE	
11:00 - 12:00	1.0	ESE	2.5	ESE	1.6	ESE	
12:00 - 13:00	2.4	SE	1.9	ESE	1.6	E	
13:00 - 14:00	2.2	E	3.0	SSE	2.8	ESE	
14:00 - 15:00	3.0	NE	1.6	SE	1.8	E	
15:00 - 16:00	1.8	E	1.9	SE	2.9	ESE	
16:00 - 17:00	1.6	SE	2.2	E	1.8	SE	
17:00 - 18:00	1.4	SE	1.4	SE	2.2	SE	
18:00 - 19:00	1.6	ESE	1.4	SE	1.3	ESE	
19:00 - 20:00	1.5	SE	1.3	E	1.3	ESE	
20:00 - 21:00	2.3	SE	0.9	SE	1.0	SE	
21:00 - 22:00	1.7	SE	2.6	SSE	1.4	SE	
22:00 - 23:00	1.1	SSE	2.3	ESE	1.0	SE	
23:00 - 24:00	1.2	SE	1.2	SE	1.1	SE	
00:00 - 01:00	1.4	SSE	1.2	SE	1.2	SE	
01:00 - 02:00	0.8	SE	1.7	E	1.6	ESE	
02:00 - 03:00	1.0	SE	2.3	ESE	1.4	SE	
03:00 - 04:00	1.5	SE	1.5	SE	0.9	E	
04:00 - 05:00	1.6	SSE	2.6	ESE	1.9	SE	
05:00 - 06:00	1.6	SE	2.4	SE	1.7	SE	
06:00 - 07:00	1.1	SE	2.0	SSE	2.8	SE	
07:00 - 08:00	1.3	ESE	1.8	SE	2.6	E	
08:00 - 09:00	2.5	ESE	1.5	ESE	1.6	SE	
09:00 - 10:00	2.7	E	1.5	E	1.5	SE	

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-225106-East Fence of Project Site 01-08 Jul 2025

(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

(Miss Preeda Somjai)  
Technical Management Team



## Meteorological Monitoring Results : Wind Rose MTR-PTTGC-LDPE Plant

Location : Wat Nong Feab

Monitor period : 01-08 Jul 2025

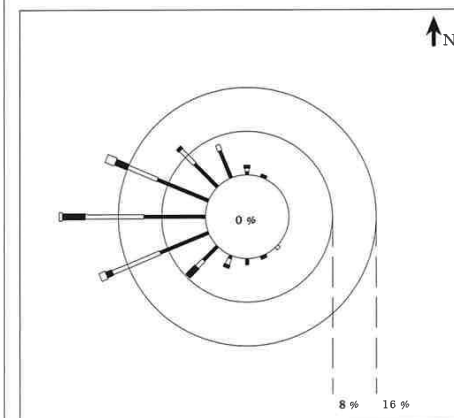
Wind Speed Model : Novalynx WS-25

Serial No : A5092

Wind Direction Model : Novalynx WS-25

Serial No : A5092

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0060	0.0060	0.0060	0.0000	0.0000	0.0000	0.0179
NNE	0.0000	0.0000	0.0060	0.0000	0.0000	0.0000	0.0060
NE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0060
SSE	0.0000	0.0000	0.0060	0.0000	0.0000	0.0000	0.0060
S	0.0119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0119
SSW	0.0060	0.0119	0.0060	0.0000	0.0000	0.0000	0.0238
SW	0.0357	0.0179	0.0238	0.0000	0.0000	0.0000	0.0774
WSW	0.0952	0.0952	0.0119	0.0119	0.0000	0.0000	0.2143
W	0.1131	0.1071	0.0417	0.0060	0.0000	0.0000	0.2679
WNW	0.1012	0.0595	0.0238	0.0179	0.0000	0.0000	0.2024
NW	0.0595	0.0357	0.0060	0.0000	0.0000	0.0000	0.1012
NNW	0.0536	0.0119	0.0000	0.0000	0.0000	0.0000	0.0655
CALM	0.0000						



Application : WindPro Ver.1.0

Control : 16 Direction Calculation With  
Calm Wind < 0.5 m/sData Unit : Direction in Deg.  
Wind Speed in m/sNOTE : Frequencies indicate direction from which  
the wind is blowing

File Control : R:\Database\Windrose\FileControl\Win-225106-Wat Nong Feab 01-08 Jul 2025

(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

(Miss Preeda Somjai)  
Technical Management Team



## Meteorological Monitoring Results : Wind Rose MTR-PTTGC-LDPE Plant

Location : Wat Nong Feab

Monitor period : 01-08 Jul 2025

Wind Speed Model : Novalynx WS-25

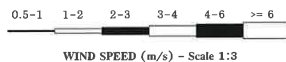
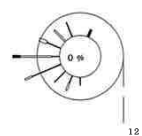
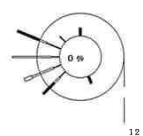
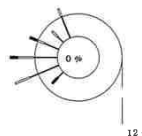
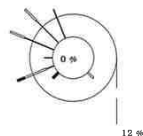
Serial No : A5092

Wind Direction Model : Novalynx WS-25

Serial No : A5092

Time	01-02 Jul 2025		02-03 Jul 2025		03-04 Jul 2025		04-05 Jul 2025	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
15:00 - 16:00	1.6	WSW	1.7	W	3.0	WSW	1.4	SSW
16:00 - 17:00	1.5	WSW	1.3	WSW	1.0	W	1.0	WSW
17:00 - 18:00	0.8	W	0.6	SW	1.0	WSW	0.5	WNW
18:00 - 19:00	0.5	NW	2.5	WNW	2.8	WNW	0.7	SW
19:00 - 20:00	0.7	NNW	0.9	WSW	2.3	SW	0.8	SSW
20:00 - 21:00	0.8	NNW	0.9	WSW	0.8	WSW	0.8	WSW
21:00 - 22:00	0.7	NW	1.4	NW	2.6	SSE	0.6	S
22:00 - 23:00	0.8	WNW	0.7	W	1.5	SW	0.9	SW
23:00 - 24:00	1.0	NW	0.6	W	1.0	W	1.5	W
00:00 - 01:00	1.0	WNW	0.6	WSW	2.5	WNW	3.9	WNW
01:00 - 02:00	0.7	WNW	0.8	W	0.9	NW	1.5	NW
02:00 - 03:00	0.7	NW	1.8	W	0.8	WNW	1.1	W
03:00 - 04:00	0.8	NW	0.7	NW	1.2	WSW	0.6	WSW
04:00 - 05:00	0.9	NNW	0.7	NNW	2.2	WNW	1.0	W
05:00 - 06:00	0.8	NNW	0.8	NNW	0.7	WNW	1.0	W
06:00 - 07:00	2.5	WSW	0.8	NNW	0.6	SW	1.2	NW
07:00 - 08:00	0.5	WNW	1.0	NNW	1.2	W	2.8	NNE
08:00 - 09:00	1.8	WSW	2.8	SW	1.4	WNW	0.7	NNW
09:00 - 10:00	1.0	NW	0.8	WSW	2.2	N	0.8	NNW
10:00 - 11:00	2.1	SW	1.9	WSW	2.5	SW	0.9	WNW
11:00 - 12:00	0.8	WSW	2.0	W	1.5	W	2.0	W
12:00 - 13:00	1.4	WNW	1.0	WNW	1.4	W	0.9	WSW
13:00 - 14:00	0.7	WNW	0.7	WNW	1.2	WSW	0.9	WSW
14:00 - 15:00	1.4	SE	0.9	WNW	0.6	W	0.8	W

Wind Rose



WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-225106-Wat Nong Feab 01-08 Jul 2025

(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

Preeda S.  
(Miss Preeda Somjai)  
Technical Management Team



## Meteorological Monitoring Results : Wind Rose MTR-PTTGC-LDPE Plant

Location : Wat Nong Feab

Monitor period : 01-08 Jul 2025

Wind Speed Model : Novalynx WS-25

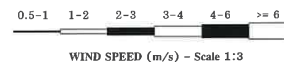
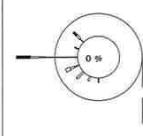
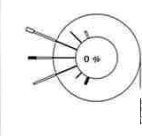
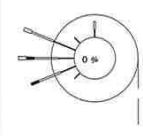
Serial No : A5092

Wind Direction Model : Novalynx WS-25

Serial No : A5092

Time	05-06 Jul 2025		06-07 Jul 2025		07-08 Jul 2025	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
15:00 - 16:00	1.2	N	0.8	WSW	0.7	WNW
16:00 - 17:00	2.6	WSW	0.7	SW	1.4	SW
17:00 - 18:00	1.0	W	3.0	WNW	0.7	WSW
18:00 - 19:00	0.9	WNW	0.8	NW	0.8	W
19:00 - 20:00	0.8	WNW	0.8	NW	2.1	W
20:00 - 21:00	1.0	WNW	0.7	WNW	0.8	W
21:00 - 22:00	0.9	N	1.1	WSW	0.9	W
22:00 - 23:00	1.3	WNW	0.7	W	1.7	NW
23:00 - 24:00	0.9	NW	0.7	WNW	0.9	NW
00:00 - 01:00	1.9	WSW	0.7	W	1.3	WSW
01:00 - 02:00	0.7	WSW	1.7	WSW	2.7	W
02:00 - 03:00	2.7	W	0.9	WSW	0.9	W
03:00 - 04:00	1.3	WSW	1.1	W	0.8	W
04:00 - 05:00	3.0	W	0.7	WSW	0.8	W
05:00 - 06:00	0.9	WNW	1.3	WNW	2.2	W
06:00 - 07:00	0.9	W	2.1	W	3.8	WSW
07:00 - 08:00	0.8	W	0.8	W	1.0	W
08:00 - 09:00	0.9	SW	1.3	WNW	1.6	W
09:00 - 10:00	1.1	WNW	1.0	WSW	0.6	S
10:00 - 11:00	1.7	W	2.4	SSW	0.8	W
11:00 - 12:00	3.3	WNW	0.6	WNW	1.0	SSW
12:00 - 13:00	1.7	WSW	1.1	WNW	2.1	NW
13:00 - 14:00	1.1	W	1.0	W	0.8	W
14:00 - 15:00	0.6	WSW	1.3	NNW	1.6	SW

Wind Rose



WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-225106-Wat Nong Feab 01-08 Jul 2025

(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

Preeda S.  
(Miss Preeda Somjai)  
Technical Management Team

---

## คุณภาพอากาศในบรรยากาศ



บริษัท ซีคอต จำกัด  
SECOT CO., LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพฯ 10800

239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND

TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 225106-Ambient-2505-0051  
(Branch 11 : LDPE)  
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 01-07/07/2025  
RECEIVED DATE : 11/07/2025 ANALYTICAL DATE : 19/07/2025  
REPORT DATE : 19/07/2025 SAMPLE CONDITION : Normal  
INSTUMENT : Sampling Bag SITE OPERATOR : Mr. Siwanon Kulawong  
LOCATION DESCRIPTION : 1. East Fence of Project Site  
2. Wat Nong Feab

PARAMETER	SAMPLING DATE	UNIT	ND (Non-detectable)	RESULT		STANDARD	REFERENCE METHOD
				1	2		
Ethylene	01/07/2025	ppm	<0.01	ND	ND	-	Intersociety
	02/07/2025	ppm	<0.01	ND	ND		Committee Method 101
	03/07/2025	ppm	<0.01	ND	ND		
	04/07/2025	ppm	<0.01	ND	ND		
	05/07/2025	ppm	<0.01	ND	ND		
	06/07/2025	ppm	<0.01	ND	ND		
	07/07/2025	ppm	<0.01	ND	ND		

Sudaporn S.

(Miss Sudaporn Soonthorn)

Analyst

Miss Narisa Poowasanetch

(Miss Narisa Poowasanetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. - No Standard.

4. The natural condition was normal during sampling period.



Ambient Air Monitoring Results : Nitrogen dioxide  
MTR-PTTGC-LDPE Plant

Location : East Fence of Project Site Monitor Period : 01-08 Jul 2025  
Analyzer Model : API 200A Station No : Mobile 18  
Serial No : 2387 Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Teledyne 700E Serial No : 587  
Calibration Gas Cylinder I.D.: EB0102326  
Certified Date : 08 Jan 2025 Cal Concentration (ppb) : 0,100,200,400  
Expire Date : 07 Jan 2026

Time	NO2 Concentration (ppb)						
	01-02 Jul 2025	02-03 Jul 2025	03-04 Jul 2025	04-05 Jul 2025	05-06 Jul 2025	06-07 Jul 2025	07-08 Jul 2025
09:00 - 10:00	3.6	7.3	7.3	4.4	11.8	2.5	5.6
10:00 - 11:00	4.0	5.5	4.6	3.6	9.9	4.7	7.0
11:00 - 12:00	9.7	8.1	3.8	8.0	8.0	5.7	7.3
12:00 - 13:00	7.3	10.9	3.0	5.5	4.7	7.8	7.0
13:00 - 14:00	11.4	9.5	4.4	4.2	5.7	2.6	8.1
14:00 - 15:00	11.8	4.5	5.2	8.0	6.6	2.8	4.4
15:00 - 16:00	4.8	4.9	7.1	3.7	5.1	4.6	9.2
16:00 - 17:00	9.3	5.1	3.8	3.9	6.3	4.4	4.2
17:00 - 18:00	11.5	9.9	10.1	2.3	5.8	4.0	9.7
18:00 - 19:00	12.4	4.2	9.2	5.7	9.8	7.3	3.7
19:00 - 20:00	8.3	10.7	8.3	8.1	2.8	8.3	7.4
20:00 - 21:00	8.4	9.0	5.9	6.7	3.9	5.4	8.6
21:00 - 22:00	4.9	3.3	3.5	4.4	3.7	9.1	6.4
22:00 - 23:00	5.6	5.5	8.7	2.3	10.0	8.3	9.3
23:00 - 00:00	4.1	3.4	3.8	5.5	4.2	7.5	4.1
00:00 - 01:00	10.5	9.1	3.6	4.8	3.7	12.8	10.7
01:00 - 02:00	5.0	11.1	3.1	11.2	7.9	8.0	7.1
02:00 - 03:00	4.9	7.7	9.3	8.3	5.6	9.7	9.3
03:00 - 04:00	12.1	3.1	7.6	8.3	9.8	3.4	2.9
04:00 - 05:00	11.5	9.6	2.5	2.7	5.0	10.5	11.6
05:00 - 06:00	6.5	9.6	4.1	7.8	9.9	4.8	4.4
06:00 - 07:00	5.8	7.3	9.3	3.7	11.0	8.0	11.0
07:00 - 08:00	10.9	4.7	8.3	7.5	8.1	9.2	7.6
08:00 - 09:00	5.1	4.2	2.4	4.0	7.1	10.9	9.5
Average-24Hr*	7.9	7.0	5.8	5.6	6.9	6.8	7.3
Max-1Hr	12.4	11.1	10.1	11.2	11.8	12.8	11.6
Min-1Hr	3.6	3.1	2.4	2.3	2.8	2.5	2.9
Standard-1Hr	170 ppb(320 ug/cu.m)						
Standard-24Hr	-						

Remark : \* Average time between 09:00-09:00

(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

Preeda S.  
(Miss Preeda Somjai)  
Technical Management Team





Ambient Air Monitoring Results : Nitrogen dioxide  
MTR-PTTGC-LDPE Plant

Location : Wat Nong Feab		Monitor Period : 01-08 Jul 2025	
Analyzer Model : API 200A		Station No : SECOT-19	
Serial No : 1505		Site Operator : Mr. Siwanon Kulawong	
Calibrator Model : Teledyne 700E		Serial No : 587	
Calibration Gas Cylinder I.D.: EB0102326			
Certified Date : 08 Jan 2025		Cal Concentration (ppb) : 0,100,200,400	
Expire Date : 07 Jan 2026			

Time	NO2 Concentration (ppb)						
	01-02 Jul 2025	02-03 Jul 2025	03-04 Jul 2025	04-05 Jul 2025	05-06 Jul 2025	06-07 Jul 2025	07-08 Jul 2025
15:00 - 16:00	5.6	4.9	9.3	6.4	9.5	2.9	8.6
16:00 - 17:00	4.6	5.1	4.0	9.0	6.6	5.9	5.5
17:00 - 18:00	4.3	6.4	7.4	6.7	5.9	6.9	9.9
18:00 - 19:00	4.7	8.5	10.6	8.7	3.4	6.3	6.9
19:00 - 20:00	3.5	4.6	10.3	4.0	5.4	9.3	8.9
20:00 - 21:00	11.4	9.7	4.8	5.2	5.2	5.0	6.0
21:00 - 22:00	6.8	5.6	6.5	6.3	5.2	6.0	9.7
22:00 - 23:00	9.3	9.3	9.0	6.4	7.6	2.5	4.5
23:00 - 00:00	5.4	8.1	7.8	5.9	3.4	9.6	6.6
00:00 - 01:00	7.2	9.0	6.8	3.2	9.7	3.8	3.7
01:00 - 02:00	5.6	8.7	8.2	2.6	4.6	5.0	3.8
02:00 - 03:00	4.4	9.7	6.5	7.0	4.3	3.6	4.0
03:00 - 04:00	12.2	6.6	3.3	7.8	8.9	8.7	5.3
04:00 - 05:00	3.2	4.5	4.6	4.5	3.1	11.0	7.7
05:00 - 06:00	8.3	11.3	3.1	5.1	3.9	4.6	8.1
06:00 - 07:00	9.3	9.2	4.4	3.2	5.6	7.0	5.0
07:00 - 08:00	4.6	4.0	3.8	3.6	6.3	6.2	10.4
08:00 - 09:00	4.8	7.9	4.7	7.1	9.0	11.8	8.1
09:00 - 10:00	9.1	5.5	3.4	2.9	5.5	5.7	4.7
10:00 - 11:00	6.7	5.9	8.6	4.5	7.3	9.4	12.5
11:00 - 12:00	3.5	6.8	10.2	4.4	8.7	5.1	10.7
12:00 - 13:00	7.1	12.0	4.2	5.3	3.1	9.6	5.5
13:00 - 14:00	4.2	8.2	5.0	5.8	4.2	5.2	4.3
14:00 - 15:00	9.4	3.3	8.5	4.2	6.9	6.5	6.0
Average-24Hr*	6.5	7.3	6.5	5.4	6.0	6.6	6.9
Max-1Hr	12.2	12.0	10.6	9.0	9.7	11.8	12.5
Min-1Hr	3.2	3.3	3.1	2.6	3.1	2.5	3.7
Standard-1Hr	170 ppb(320 ug/cu.m)						
Standard-24Hr	-						

Remark : \* Average time between 15:00-15:00

  
(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

  
(Miss Preeda Somjai)  
Technical Management Team



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## คุณภาพอากาศจากแหล่งกำเนิด



บริษัท ซีคอต จำกัด  
SECOT CO.,LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพฯ 10800

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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 225106-CEMs-2507-0050  
(Branch 11 : LDPE)  
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 03/07/2025  
RECEIVED DATE : 04/07/2025 ANALYTICAL DATE : 09/07/2025  
REPORT DATE : 14/07/2025 SAMPLE CONDITION : Good  
STACK LOCATION : RTO SITE OPERATOR : Mr.Supakit Tamooka  
SOURCE DESCRIPTION : Combustion FUEL TYPE : Natural Gas

STACK DESCRIPTION

Height : 35.0 m Gas Velocity : 15.9 m/s  
Diameter : 1.10 m Flow rate\* : 623 Ncu.m/min  
Temperature : 106.6 °C Excess Oxygen : 20.0 %  
Moisture : 11.6 %

PARAMETER	UNIT	ND (Non-detectable)	RESULT		STANDARD <sup>1/</sup>		REFERENCE METHOD
			20.0%O <sub>2</sub>	g/s	20.0%O <sub>2</sub>	g/s	
Ethylene	ppm	<0.01	ND	<0.0001	25	0.28	US. EPA Method 18

Sudaporn S.

(Miss Sudaporn Soonthorn)

Analyst

Narisa Poowasanpetch

(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. \*At standard pressure of 760 mm.Hg and temperature of 25 °C, dry basis.

4. <sup>1/</sup>The value was assigned in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 225106-CEMs-2507-0050  
(Branch 11 : LDPE)  
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 03/07/2025  
RECEIVED DATE : 08/07/2025 ANALYTICAL DATE : 09-17/07/2025  
REPORT DATE : 18/07/2025 SAMPLE CONDITION : Good  
STACK LOCATION : RTO SITE OPERATOR : Mr. Kittipong Thakoengsuk  
SOURCE DESCRIPTION : Combustion FUEL TYPE : Natural Gas

STACK DESCRIPTION

Height : 35.0 m Gas Velocity : 15.9 m/s  
Diameter : 1.10 m Flow rate\* : 623 Ncu.m/min  
Temperature : 106.6 °C Excess Oxygen : 20.0 %  
Moisture : 11.6 %

PARAMETER	UNIT	RESULT		STANDARD <sup>1/</sup>		REFERENCE METHOD
		20.0%O <sub>2</sub>	g/s	20.0%O <sub>2</sub>	g/s	
Oxides of Nitrogen	ppm	0.91	0.018	200 <sup>2/</sup> / 20 <sup>3/</sup>	0.37 <sup>3/</sup>	US.EPA. Method 7E

Katesarin Vorradetwittaya

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 2-239-ก-0006

Preeda S.

(Miss Preeda Somjai)

Technical Management Team

REG. NO. 2-239-ก-0006

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. \*At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. <sup>1/</sup> Air emission with fuel combustion is open system, reported as concentrations at the reference condition of 1 atm  
(or 760 mmHg), 25°C, dry basis and actual percent oxygen.

5. <sup>2/</sup> Notification of Ministry of Industry B.E.2549(2006) and Notification of Ministry of Natural Resources  
and Environment B.E.2549(2006).

6. <sup>3/</sup> The value was assigned in EIA report.

**The Monitoring Result of Emission Concentration**  
**RTO**  
**PTT Global Chemical Public Co., Ltd. (LDPE)**  
**July 3, 2025**

Run Number	Oxygen content (%by Vol)		Oxide of Nitrogen (ppmvd)	
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2
1	20.04	19.99	0.97	0.92
2	20.11	20.05	0.97	0.92
3	20.15	20.08	0.96	0.90
Average	20.10	20.04	0.97	0.91

**PTT Global Chemical Public Co., Ltd. (LDPE)**  
**EMISSION TEST RESULT**

Date: July 3, 2025  
Start time: 10:50 AM  
O<sub>2</sub> instrument Model: AMI 70  
NO<sub>x</sub> instrument Model: API 200 AH  
Fuel Type : Natural Gas

Run #: 1  
Location : RTO  
Finish time : 11:10 AM  
Serial No.: 121121-10  
Serial No.: 441  
Test Operator : Kittipong T.

Time, min	O <sub>2</sub> (%by Vol)	NO <sub>x</sub> (ppmvd@ActualO <sub>2</sub> )
10:50 AM	20.28	0.95
10:51 AM	20.29	0.80
10:52 AM	20.31	0.84
10:53 AM	20.27	0.86
10:54 AM	19.94	0.87
10:55 AM	19.91	0.92
10:56 AM	19.91	0.93
10:57 AM	19.92	0.97
10:58 AM	19.91	0.98
10:59 AM	19.91	1.01
11:00 AM	19.91	1.04
11:01 AM	19.91	1.03
11:02 AM	19.97	1.04
11:03 AM	20.01	0.98
11:04 AM	20.03	1.04
11:05 AM	20.03	1.04
11:06 AM	20.03	1.04
11:07 AM	20.05	1.04
11:08 AM	20.06	1.00
11:09 AM	20.08	0.98
11:10 AM	20.08	0.98
Average	20.04	0.97

Signature   
( Miss Katesarin Vorradetwittaya )  
Environmental Scientist

**PTT Global Chemical Public Co., Ltd. (LDPE)**  
**EMISSION TEST RESULT**

**Date:** July 3, 2025  
**Start time:** 11:11 AM  
**O<sub>2</sub> instrument Model:** AMI 70  
**NO<sub>x</sub> instrument Model:** API 200 AH  
**Fuel Type :** Natural Gas

**Run # :** 2  
**Location :** RTO  
**Finish time :** 11:31 AM  
**Serial No.:** 121121-10  
**Serial No.:** 441  
**Test Operator :** Kittipong T.

Time, min	O <sub>2</sub> (%by Vol)	NOx (ppmvd@ActualO <sub>2</sub> )
11:11 AM	20.08	0.99
11:12 AM	20.08	0.98
11:13 AM	20.08	0.97
11:14 AM	20.10	0.97
11:15 AM	20.11	0.97
11:16 AM	20.11	0.97
11:17 AM	20.11	0.97
11:18 AM	20.11	0.96
11:19 AM	20.11	0.96
11:20 AM	20.11	0.97
11:21 AM	20.12	0.97
11:22 AM	20.13	0.98
11:23 AM	20.12	0.97
11:24 AM	20.12	0.95
11:25 AM	20.12	0.98
11:26 AM	20.12	0.98
11:27 AM	20.12	0.95
11:28 AM	20.12	0.95
11:29 AM	20.12	0.98
11:30 AM	20.12	0.96
11:31 AM	20.12	0.96
<b>Average</b>	20.11	0.97

Signature

( Miss Katesarin Vorradetwittaya )

Environmental Scientist

**PTT Global Chemical Public Co., Ltd. (LDPE)**  
**EMISSION TEST RESULT**

**Date:** July 3, 2025  
**Start time:** 11:32 AM  
**O<sub>2</sub> instrument Model:** AMI 70  
**NO<sub>x</sub> instrument Model:** API 200 AH  
**Fuel Type :** Natural Gas

**Run # :** 3  
**Location :** RTO  
**Finish time :** 11:52 AM  
**Serial No.:** 121121-10  
**Serial No.:** 441  
**Test Operator :** Kittipong T.

Time, min	O <sub>2</sub> (%by Vol)	NOx (ppmvd@ActualO <sub>2</sub> )
11:32 AM	20.12	0.97
11:33 AM	20.12	0.98
11:34 AM	20.11	0.98
11:35 AM	20.11	0.98
11:36 AM	20.11	0.98
11:37 AM	20.11	0.98
11:38 AM	20.11	0.98
11:39 AM	20.11	0.98
11:40 AM	20.11	0.98
11:41 AM	20.12	0.98
11:42 AM	20.13	0.98
11:43 AM	20.13	0.98
11:44 AM	20.13	0.98
11:45 AM	20.13	0.98
11:46 AM	20.13	0.98
11:47 AM	20.13	0.97
11:48 AM	20.13	0.96
11:49 AM	20.13	0.85
11:50 AM	20.13	0.85
11:51 AM	20.31	0.89
11:52 AM	20.47	0.93
<b>Average</b>	20.15	0.96

Signature

( Miss Katesarin Vorradetwittaya )

Environmental Scientist

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คุณภาพน้ำทิ้ง



บริษัท ซีคอต จำกัด  
SECOT CO., LTD.

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TEL. (662) 959-3600 FAX (662) 959-3535 Website: secot.co.th E-mail: envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd (LDPE)	REQUEST SERVICE No.	: 1226/68
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 03/07/2025	SAMPLING TIME	: 09:30
RECEIVED DATE	: 04/07/2025	ANALYTICAL DATE	: 04-11/07/2025
REPORT DATE	: 11/07/2025	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
SAMPLE CONDITION	: Normal	FILE CODE	: 225106_WW_July

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD <sup>1/</sup>
				บริเวณบ่อพักน้ำเสียของโรงงาน	
Temperature	°C	2550 B	< 0.5	32.5	≤ 40
pH	-	4500-H <sup>+</sup> B	< 0.10	7.11	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	258	≤ 38,080 <sup>2/</sup>
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
BOD <sub>5</sub>	mg/l	5210 B	< 1.0	1.5	≤ 20
COD	mg/l	5220 C	< 15.00	36.13	≤ 120

REFERENCE: STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23<sup>rd</sup> ED. 2017 (AWWA, APHA, WEF)

*Khemchuda Insorn*

(Miss Khemchuda Insorn)

Analyst

REG. NO. ๖-239-ก-0005

*Araya Tipparuk*

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. ๖-239-ก-0004

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. <sup>1/</sup> Notification of Ministry of Natural Resources and Environment, B.E.2559 (2016) and  
Notification of Ministry of Industry, B.E.2560 (2017).

<sup>2/</sup> The standard value is not more than 5,000 mg/l exceed TDS of receiving water  
(TDS value in the last month add 5,000 mg/l from klongbangburd = 33,080 mg/l).

4. - Not available.



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239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND  
TEL. (662) 959-3600 FAX (662) 959-3535 Website: secot.co.th E-mail: envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd (LDPE)	REQUEST SERVICE No.	: 1456/68
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 07/08/2025	SAMPLING METHOD	: Grab
RECEIVED DATE	: 08/08/2025	SAMPLING TIME	: 15:00
ANALYTICAL DATE	: 08-18/08/2025	SITE OPERATOR	: Mr. Chitpon Somprasong
REPORT DATE	: 18/08/2025		: ๖-239-ก-0008
SAMPLE CONDITION	: เหลือใส	FILE CODE	: 225106_WW_August

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD <sup>1/</sup>
				บริเวณบ่อพักน้ำเสียของโรงงาน	
Temperature	°C	2550 B	< 0.5	36.7	≤ 40
pH	-	4500-H <sup>+</sup> B	< 0.10	7.70	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	362	≤ 37,540 <sup>2/</sup>
Total Suspended Solids	mg/l	2540 D	< 2.5	3.0	≤ 50
BOD <sub>5</sub>	mg/l	5210 B	< 1.0	2.4	≤ 20
COD	mg/l	5220 C	< 15.00	23.94	≤ 120

REFERENCE: STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23<sup>rd</sup> ED. 2017 (AWWA, APHA, WEF)

*Khemchuda Insorn*

(Miss Khemchuda Insorn)

Analyst

REG. NO. ๖-239-ก-0005

*Araya Tipparuk*

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. ๖-239-ก-0004

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. <sup>1/</sup> Notification of Ministry of Natural Resources and Environment, B.E.2559 (2016) and  
Notification of Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).

<sup>2/</sup> The standard value is not more than 5,000 mg/l exceed TDS of receiving water  
(TDS value in the last month add 5,000 mg/l from klongbangburd = 32,540 mg/l).

4. - Not available.



**บริษัท ซีคอต จำกัด**  
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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

**WATER AND WASTEWATER ANALYSIS REPORT**

CLIENT NAME	: PTT Global Chemical Public Co., Ltd (LDPE)	REQUEST SERVICE No.	: 1814/68
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 25/09/2025	SAMPLING METHOD	: Grab
RECEIVED DATE	: 26/09/2025	SAMPLING TIME	: 09:50
ANALYTICAL DATE	: 26/09/2025-02/10/2025	SITE OPERATOR	: Mr.Tanachot Changlor
REPORT DATE	: 03/10/2025		: 7-239-ท-0020
SAMPLE CONDITION	: เหลืองใส	FILE CODE	: 225106_WW_September

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD <sup>1/</sup>
				บริเวณบ่อกักน้ำเสียของโรงงาน	
Temperature	°C	2550 B	< 0.5	37.2	≤ 40
pH	-	4500-H <sup>+</sup> B	< 0.10	7.15	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	436	≤ 42,680 <sup>2/</sup>
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
BOD <sub>5</sub>	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	< 15.00	≤ 120

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23<sup>rd</sup> ED. 2017 (AWWA, APHA, WEF)

*Khemchuda Insorn*

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ท-0005

*Araya Tipparuk*

(Mrs. Araya Tipparuk )

Technical Management Team

REG. NO. 7-239-ท-0004

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3. <sup>1/</sup> Notification of Ministry of Natural Resources and Environment, B.E.2559 (2016) and  
Notification of Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).

<sup>2/</sup> The standard value is not more than 5,000 mg/l exceed TDS of receiving water  
(TDS value in the last month add 5,000 mg/l from klongbangburd = 37,680 mg/l).

4. - Not available.



**บริษัท ซีคอต จำกัด**  
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**WATER AND WASTEWATER ANALYSIS REPORT**

CLIENT NAME	: PTT Global Chemical Public Co., Ltd (LDPE)	REQUEST SERVICE No.	: 1864/68
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 02/10/2025	SAMPLING METHOD	: Grab
RECEIVED DATE	: 03/10/2025	SAMPLING TIME	: 09:19
ANALYTICAL DATE	: 02-09/10/2025	SITE OPERATOR	: Mr. Jeerawat Khothamhan
REPORT DATE	: 10/10/2025		: 7-239-ท-0025
SAMPLE CONDITION	: เหลืองใส	FILE CODE	: 225106_WW_October

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD <sup>1/</sup>
				บริเวณบ่อกักน้ำเสียของโรงงาน	
Temperature	°C	2550 B	< 0.5	36.1	≤ 40
pH	-	4500-H <sup>+</sup> B	< 0.10	6.96	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	518	≤ 39,820 <sup>2/</sup>
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
BOD <sub>5</sub>	mg/l	5210 B	< 1.0	1.2	≤ 20
COD	mg/l	5220 C	< 15.00	34.78	≤ 120

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23<sup>rd</sup> ED. 2017 (AWWA, APHA, WEF)

*Khemchuda Insorn*

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ท-0005

*Araya Tipparuk*

(Mrs. Araya Tipparuk )

Technical Management Team

REG. NO. 7-239-ท-0004

**Remark :** 1. Reported analysis refers to submitted sample only.

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3. <sup>1/</sup> Notification of Ministry of Natural Resources and Environment, B.E.2559 (2016) and  
Notification of Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).

<sup>2/</sup> The standard value is not more than 5,000 mg/l exceed TDS of receiving water  
(TDS value in the last month add 5,000 mg/l from klongbangburd = 34,820 mg/l).

4. - Not available.



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**WATER AND WASTEWATER ANALYSIS REPORT**

CLIENT NAME	: PTT Global Chemical Public Co., Ltd (LDPE)	REQUEST SERVICE No.	: 2134/68
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 10/11/2025	SAMPLING METHOD	: Grab
RECEIVED DATE	: 11/11/2025	SAMPLING TIME	: 09:32
ANALYTICAL DATE	: 11-17/11/2025	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 17/11/2025		: 7-239-จ-0010
SAMPLE CONDITION	: ใส	FILE CODE	: 225106_WW_November

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION บริเวณบ่อกักน้ำเสียของโรงงาน	STANDARD <sup>1/</sup>
Temperature	°C	2550 B	< 0.5	38.2	≤ 40
pH		4500-H B	< 0.10	6.70	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	143	≤ 39,120 <sup>2/</sup>
Total Suspended Solids	mg/l	2540 D	< 2.5	3.7	≤ 50
BOD <sub>5</sub>	mg/l	5210 B	< 1.0	4.0	≤ 20
COD	mg/l	5220 C	< 15.00	16.74	≤ 120

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24<sup>th</sup> ED. 2023 (AWWA APHA WEF)

*Khemchuda Insorn*

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ท-0005

*Araya Tipparuk*

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 7-239-ท-0004

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Notification of Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).

<sup>2/</sup> The standard value is not more than 5,000 mg/l exceed TDS of receiving water  
(TDS value in the last month add 5,000 mg/l from klongbangburd = 34,120 mg/l).

4. - Not available.



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**WATER AND WASTEWATER ANALYSIS REPORT**

CLIENT NAME	: PTT Global Chemical Public Co., Ltd (LDPE)	REQUEST SERVICE No.	: 2319/68
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 04/12/2025	SAMPLING METHOD	: Grab
RECEIVED DATE	: 05/12/2025	SAMPLING TIME	: 14:12
ANALYTICAL DATE	: 05-12/12/2025	SITE OPERATOR	: Mr. Jeerawat Khothamhan
REPORT DATE	: 12/12/2025		: 7-239-จ-0025
SAMPLE CONDITION	: เหลืองมีตะกอน	FILE CODE	: 225106_WW_December

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION บริเวณบ่อกักน้ำเสียของโรงงาน	STANDARD <sup>1/</sup>
Temperature	°C	2550 B	< 0.5	37.0	≤ 40
pH		4500-H B	< 0.10	7.41	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	260	≤ 37,640 <sup>2/</sup>
Total Suspended Solids	mg/l	2540 D	< 2.5	25	≤ 50
BOD <sub>5</sub>	mg/l	5210 B	< 1.0	3.4	≤ 20
COD	mg/l	5220 C	< 15.00	34.99	≤ 120

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24<sup>th</sup> ED. 2023 (AWWA APHA WEF)

*Khemchuda Insorn*

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ท-0005

*Araya Tipparuk*

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 7-239-ท-0004

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Notification of Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).

<sup>2/</sup> The standard value is not more than 5,000 mg/l exceed TDS of receiving water  
(TDS value in the last month add 5,000 mg/l from klongbangburd = 32,640 mg/l).

4. - Not available.



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**SOIL SAMPLES ANALYSIS REPORT**

CLIENT NAME	: PTT Global Chemical Public Co., Ltd (LDPE)	REQUEST SERVICE No.	: 2087/68
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 03/11/2025	SAMPLING METHOD	: Hand Auger
RECEIVED DATE	: 04/11/2025	SAMPLING TIME	: 09:39
ANALYTICAL DATE	: 04-13/11/2025	SITE OPERATOR	: Mr. Jeerawat Khotamhan
REPORT DATE	: 18/11/2025		: 7-239-0-0025
SAMPLE CONDITION	: ดินเหนียวปนทรายสีน้ำตาล	FILE CODE	: 225105_Soil_November

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW03 (LDPE)	STANDARD <sup>1/</sup>
pH	-	9045 D	-	6.90	-
<b>Total Petroleum Hydrocarbons</b>					
- TPH (C <sub>5</sub> - C <sub>8</sub> )	mg/kg	5035 A / 8260 D	< 0.003	ND	≤ 25
- Pentane					
- Benzene					
- Toluene					
- m,p-Xylene					
- o-Xylene					
- Ethylbenzene					
- TPH (C <sub>8</sub> - C <sub>16</sub> )	mg/kg	3540 C / 8015 D	< 0.25	0.28	≤ 25
- n-Nonane					
- n-Decane					
- n-Dodecane					
- n-Tetradecane					
- n-Hexadecane					
- TPH (C <sub>16</sub> - C <sub>35</sub> )	mg/kg	3540 C / 8015 D	< 1.85	ND	≤ 8
- n-Octadecane					
- n-Eicosane					
- n-Docosane					
- n-Tetracosane					
- n-Hexacosane					
- n-Octacosane					
- n-Triacontane					
- n-Dotriacontane					
- n-Tetracontane					
- Pentatriacontane					

Reference method: Test Methods of Evaluating Solid Waste - Physical/Chemical Methods SW-846, 3<sup>rd</sup> edition, U.S.EPA 2020.

**Sudaporn S.**

(Miss Sudaporn Soonthorn)

Analyst

REG. NO. 7-239-0-0001

**Araya**

(Mrs. Araya Tipparuk)

Technical Management Team

REG.NO.7-239-0-0004

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3. <sup>1/</sup> Notification of the Ministry of Industry, B.E.2559 (2016) : Criteria on contamination in soil and groundwater, the examination of soil and groundwater quality, information including making the report of the result of soil and groundwater quality examination.

4. - Not available.



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**SOIL SAMPLES ANALYSIS REPORT**

CLIENT NAME	: PTT Global Chemical Public Co., Ltd (LDPE)	REQUEST SERVICE No.	: 2087/68
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 03/11/2025	SAMPLING METHOD	: Hand Auger
RECEIVED DATE	: 04/11/2025	SAMPLING TIME	: 10:09
ANALYTICAL DATE	: 04-13/11/2025	SITE OPERATOR	: Mr. Jeerawat Khotamhan
REPORT DATE	: 18/11/2025		: 7-239-0-0025
SAMPLE CONDITION	: ดินเหนียวปนทรายสีน้ำตาล	FILE CODE	: 225105_Soil_November

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW08 (LDPE)	STANDARD <sup>1/</sup>
pH	-	9045 D	-	7.68	-
<b>Total Petroleum Hydrocarbons</b>					
- TPH (C <sub>5</sub> - C <sub>8</sub> )	mg/kg	5035 A / 8260 D	< 0.003	ND	≤ 25
- Pentane					
- Benzene					
- Toluene					
- m,p-Xylene					
- o-Xylene					
- Ethylbenzene					
- TPH (C <sub>8</sub> - C <sub>16</sub> )	mg/kg	3540 C / 8015 D	< 0.25	0.37	≤ 25
- n-Nonane					
- n-Decane					
- n-Dodecane					
- n-Tetradecane					
- n-Hexadecane					
- TPH (C <sub>16</sub> - C <sub>35</sub> )	mg/kg	3540 C / 8015 D	< 1.85	2.08	≤ 8
- n-Octadecane					
- n-Eicosane					
- n-Docosane					
- n-Tetracosane					
- n-Hexacosane					
- n-Octacosane					
- n-Triacontane					
- n-Dotriacontane					
- n-Tetracontane					
- Pentatriacontane					

Reference method: Test Methods of Evaluating Solid Waste - Physical/Chemical Methods SW-846, 3<sup>rd</sup> edition, U.S.EPA 2020.

**Sudaporn S.**

(Miss Sudaporn Soonthorn)

Analyst

REG. NO. 7-239-0-0001

**Araya**

(Mrs. Araya Tipparuk)

Technical Management Team

REG.NO.7-239-0-0004

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4. - Not available.



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SOIL SAMPLES ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd (LDPE)	REQUEST SERVICE No.	: 2087/68
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 03/11/2025	SAMPLING METHOD	: Hand Auger
RECEIVED DATE	: 04/11/2025	SAMPLING TIME	: 10:39
ANALYTICAL DATE	: 04-13/11/2025	SITE OPERATOR	: Mr. Jeerawat Khothamhan
REPORT DATE	: 18/11/2025		: 7-239-8-0025
SAMPLE CONDITION	: ดินเหนียวปนทรายสีน้ำตาล	FILE CODE	: 225105_Soil_November

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD <sup>1/</sup>
				MW09 (LDPE)	
pH	-	9045 D	-	6.82	-
<b>Total Petroleum Hydrocarbons</b>					
- TPH (C <sub>6</sub> - C <sub>9</sub> )	mg/kg	5035 A / 8260 D	< 0.003	ND	≤ 25
- Pentane					
- Benzene					
- Toluene					
- m,p-Xylene					
- o-Xylene					
- Ethylbenzene					
- TPH (C <sub>8</sub> - C <sub>16</sub> )	mg/kg	3540 C / 8015 D	< 0.25	ND	≤ 25
- n-Nonane					
- n-Decane					
- n-Dodecane					
- n-Tetradecane					
- n-Hexadecane					
- TPH (C <sub>16</sub> - C <sub>35</sub> )	mg/kg	3540 C / 8015 D	< 1.85	ND	≤ 8
- n-Octadecane					
- n-Eicosane					
- n-Docosane					
- n-Tetracosane					
- n-Hexacosane					
- n-Octacosane					
- n-Triacontane					
- n-Dotriacontane					
- n-Tetatriacontane					
- Pentatriacontane					

Reference method Test Methods of Evaluating Solid Waste Physical/Chemical Methods SW-846 3<sup>rd</sup> edition, U.S.EPA 2020

*Sudaporn S.*

(Miss Sudaporn Soonthorn)

Analyst

REG. NO. 7-239-8-0001

*Araya*

(Mrs. Araya Tipparuk)

Technical Management Team

REG.NO.7-239-8-0004

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  3. <sup>1/</sup> Notification of the Ministry of Industry, B.E.2559 (2016) : Criteria on contamination in soil and groundwater, the examination of soil and groundwater quality, information including making the report of the result of soil and groundwater quality examination.
  4. - Not available .

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คุณภาพน้ำใต้ดิน



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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No	: 1252/68
	(Branch 11 : LDPE)	SAMPLING METHOD	: Pneumatic Bladder Pump
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 11:32-11:45
SAMPLING DATE	: 04/07/2025	ANALYTICAL DATE	: 07-14/07/2025
RECEIVED DATE	: 05/07/2025	SITE OPERATOR	: Mr. Aniwat Pimwanna
REPORT DATE	: 15/07/2025	FILE CODE	: 224106_GW_July
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-03	STANDARD <sup>1/</sup>
<b>Total Petroleum Hydrocarbons</b>					
- TPH (C <sub>5</sub> - C <sub>9</sub> )	mg/l	5030 C / 8260 D	< 0.003	ND	≤ 1.4
- Pentane					
- Benzene					
- Toluene					
- m,p-Xylene					
- o-Xylene					
- Ethylbenzene					
- TPH (C <sub>8</sub> - C <sub>16</sub> )	mg/l	3510 C / 8015 D	< 0.025	ND	≤ 1.7
- n-Nonane					
- n-Decane					
- n-Dodecane					
- n-Tetradecane					
- n-Hexadecane					
- TPH (C <sub>16</sub> - C <sub>35</sub> )	mg/l	3510 C / 8015 D	< 0.050	ND	≤ 0.1
- n-Octadecane					
- n-Eicosane					
- n-Docosane					
- n-Tetracosane					
- n-Hexacosane					
- n-Octacosane					
- n-Triacontane					
- n-Dotriacontane					
- n-Tetracontane					
- Pentatriacontane					

REFERENCE : US EPA SW 846 TEST METHODS FOR EVALUATING WATER AND SOLID WASTE, 1<sup>st</sup> ED., 2020

Sudaporn S.

(Miss Sudaporn Soonthorn)

Analyst

REG. NO. 7-239-9-0001

AR

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 7-239-9-0004

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3. <sup>1/</sup> Notification of the Ministry of Industry, B.E.2559 (2016).



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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1514/68
	(Branch 11 : LDPE)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 15/08/2025	SAMPLING METHOD	: Pneumatic Bladder Pump
RECEIVED DATE	: 16/08/2025	SAMPLING TIME	: 14:14-14:20
ANALYTICAL DATE	: 18-23/08/2025	SITE OPERATOR	: Mr. Jeerawat Khothamhan
REPORT DATE	: 28/08/2025		: 7-239-9-0025
SAMPLE CONDITION	: เหลือขุ่น	FILE CODE	: 225106_GW_August

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-08	STANDARD <sup>1/</sup>
<b>Total Petroleum Hydrocarbons</b>					
- TPH (C <sub>5</sub> - C <sub>9</sub> )	mg/l	5030 C / 8260 D	< 0.003	ND	≤ 1.4
- Pentane					
- Benzene					
- Toluene					
- m,p-Xylene					
- o-Xylene					
- Ethylbenzene					
- TPH (C <sub>8</sub> - C <sub>16</sub> )	mg/l	3510 C / 8015 D	< 0.025	ND	≤ 1.7
- n-Nonane					
- n-Decane					
- n-Dodecane					
- n-Tetradecane					
- n-Hexadecane					
- TPH (C <sub>16</sub> - C <sub>35</sub> )	mg/l	3510 C / 8015 D	< 0.050	ND	≤ 0.1
- n-Octadecane					
- n-Eicosane					
- n-Docosane					
- n-Tetracosane					
- n-Hexacosane					
- n-Octacosane					
- n-Triacontane					
- n-Dotriacontane					
- n-Tetracontane					
- Pentatriacontane					

REFERENCE : US EPA SW 846 TEST METHODS FOR EVALUATING WATER AND SOLID WASTE, 1<sup>st</sup> ED., 2020

Sudaporn S.

(Miss Sudaporn Soonthorn)

Analyst

REG. NO. 7-239-9-0001

AR

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 7-239-9-0004

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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 11 : LDPE)	REQUEST SERVICE No	: 1252/68
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Pneumatic Bladder Pump
SAMPLING DATE	: 04/07/2025	SAMPLING TIME	: 10:31-10:40
RECEIVED DATE	: 05/07/2025	ANALYTICAL DATE	: 07-14/07/2025
REPORT DATE	: 15/07/2025	SITE OPERATOR	: Mr. Aniwat Pimwanna
SAMPLE CONDITION	: Normal	FILE CODE	: 224106_GW_July

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-09	STANDARD <sup>1/</sup>
<b>Total Petroleum Hydrocarbons</b>					
- TPH (C <sub>7</sub> - C <sub>8</sub> )	mg/l	5030 C / 8260 D	< 0.003	ND	≤ 1.4
- Pentane					
- Benzene					
- Toluene					
- m,p-Xylene					
- o-Xylene					
- Ethylbenzene					
- TPH (C <sub>9</sub> - C <sub>16</sub> )	mg/l	3510 C / 8015 D	< 0.025	ND	≤ 1.7
- n-Nonane					
- n-Decane					
- n-Dodecane					
- n-Tetradecane					
- n-Hexadecane					
- TPH (C <sub>18</sub> - C <sub>35</sub> )	mg/l	3510 C / 8015 D	< 0.050	ND	≤ 0.1
- n-Octadecane					
- n-Eicosane					
- n-Docosane					
- n-Tetracosane					
- n-Hexacosane					
- n-Octacosane					
- n-Triacontane					
- n-Dotriacontane					
- n-Tetracontane					
- Pentatriacontane					

REFERENCE : US EPA SW 846 TEST METHODS FOR EVALUATING WATER AND SOLID WASTE, 3<sup>rd</sup> ED., 2020

Sudaporn S.

(Miss Sudaporn Soonthorn)

Analyst

REG. NO. ๖-239-๑-0001

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. ๖-239-๓-0004

**Remark :** 1. Reported analysis refers to submitted sample only.  
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3. <sup>1/</sup> Notification of the Ministry of Industry, B.E.2559 (2016).

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ระดับเสียง



## Noise Monitoring Result : Community Noise MTR-PTTGC-LDPE Plant


Location : South Fence of Project Site      Monitor Period : 01-08 Jul 2025  
SLM Model : Cirrus CR162B      Serial No : G300990  
Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Cirrus CR:515      Serial No : 97097  
Calibration Ref dB(A) : 94.0      Certified Date : 02 Oct 2024  
SLM Reading / Adjust dB(A) : 93.3/0.4      Expire Date : 01 Oct 2025  
Cal Sheet No.: CR-515-2025-162

Time	Equivalent Sound Pressure Level (dB(A))						
	01-02 Jul 2025	02-03 Jul 2025	03-04 Jul 2025	04-05 Jul 2025	05-06 Jul 2025	06-07 Jul 2025	07-08 Jul 2025
15:00 - 16:00	63.8	64.7	64.5	64.0	63.9	64.0	64.2
16:00 - 17:00	64.6	65.4	65.9	65.9	64.6	64.6	64.7
17:00 - 18:00	68.0	66.4	65.9	65.6	64.7	63.8	65.9
18:00 - 19:00	67.0	65.5	64.9	65.2	65.0	64.3	65.2
19:00 - 20:00	65.9	65.1	64.6	65.5	63.9	63.7	64.6
20:00 - 21:00	65.4	63.5	63.8	64.2	63.2	62.8	63.4
21:00 - 22:00	64.6	62.3	62.9	62.8	62.9	64.5	63.2
22:00 - 23:00	63.8	62.8	62.8	62.6	62.6	66.9	62.4
23:00 - 00:00	63.1	62.4	62.6	62.5	62.6	62.3	62.0
00:00 - 01:00	63.7	62.3	63.2	62.8	62.6	62.9	62.1
01:00 - 02:00	62.6	62.4	62.8	62.2	62.6	61.9	61.5
02:00 - 03:00	62.4	61.5	62.4	62.5	62.3	61.8	61.3
03:00 - 04:00	62.1	61.8	62.4	62.1	62.4	61.9	61.3
04:00 - 05:00	62.2	62.4	62.3	62.1	62.6	62.1	61.5
05:00 - 06:00	62.6	62.4	61.8	61.8	62.0	62.2	60.9
06:00 - 07:00	67.0	65.8	65.7	65.4	64.2	65.6	65.7
07:00 - 08:00	68.1	68.0	68.5	67.0	65.5	67.7	67.5
08:00 - 09:00	66.1	66.5	66.2	65.0	63.8	65.7	65.9
09:00 - 10:00	63.8	64.5	64.5	63.6	64.4	63.9	63.7
10:00 - 11:00	63.3	66.3	63.6	63.6	63.2	63.3	64.1
11:00 - 12:00	67.4	65.5	64.4	64.7	63.7	63.8	64.2
12:00 - 13:00	63.4	65.1	64.4	63.9	63.0	63.6	64.1
13:00 - 14:00	65.4	64.3	64.3	63.6	63.5	63.4	64.4
14:00 - 15:00	63.8	64.2	64.0	63.5	63.4	63.5	65.5
Leq(24)*	65.0	64.6	64.4	64.1	63.5	64.0	64.1
Ldn	70.3	69.7	69.8	69.5	69.3	70.0	69.2
Lmax **	95.8	96.8	90.2	87.8	86.7	98.1	92.2
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : \* Average time between 15:00-15:00

\*\* Maximum Sound Pressure Level between 15:00-15:00

  
(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

  
(Miss Preeda Somjai)  
Technical Management Team



## Noise Monitoring Result : Background Noise MTR-PTTGC-LDPE Plant

Location : South Fence of Project Site      Monitor Period : 01-08 Jul 2025  
SLM Model : Cirrus CR162B      Serial No : G300990  
Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Cirrus CR:515      Serial No : 97097  
Calibration Ref dB(A) : 94.0      Certified Date : 02 Oct 2024  
SLM Reading / Adjust dB(A) : 93.3/0.4      Expire Date : 01 Oct 2025  
Cal Sheet No.: CR-515-2025-162

Time	L90 (dB(A))						
	01-02 Jul 2025	02-03 Jul 2025	03-04 Jul 2025	04-05 Jul 2025	05-06 Jul 2025	06-07 Jul 2025	07-08 Jul 2025
15:00 - 16:00	60.4	61.4	61.4	61.0	61.0	61.3	60.8
16:00 - 17:00	60.8	61.5	62.2	61.4	62.3	61.5	61.1
17:00 - 18:00	62.2	62.1	62.4	61.8	61.0	60.5	61.7
18:00 - 19:00	63.0	61.2	61.1	61.5	61.5	61.3	61.3
19:00 - 20:00	63.0	61.3	60.9	61.0	60.2	61.2	60.0
20:00 - 21:00	63.7	61.1	61.2	61.3	61.5	61.3	61.4
21:00 - 22:00	63.1	60.8	61.1	61.2	61.6	61.3	61.7
22:00 - 23:00	62.2	61.0	61.4	61.2	61.7	61.3	61.1
23:00 - 00:00	62.2	61.0	61.5	61.4	61.8	61.4	61.1
00:00 - 01:00	62.3	61.1	61.8	61.9	61.9	61.5	60.9
01:00 - 02:00	62.0	61.1	61.9	61.4	61.9	61.5	60.7
02:00 - 03:00	62.0	60.9	61.9	61.5	61.9	61.4	60.8
03:00 - 04:00	61.7	61.3	61.9	61.6	62.1	61.4	60.8
04:00 - 05:00	61.6	61.6	61.6	61.5	62.2	61.5	60.8
05:00 - 06:00	60.9	60.9	59.9	60.2	60.3	59.6	57.9
06:00 - 07:00	61.9	61.4	61.7	61.7	61.0	61.5	60.5
07:00 - 08:00	64.2	64.4	64.4	62.5	61.3	63.9	63.7
08:00 - 09:00	61.4	62.0	62.1	61.8	61.3	61.3	61.4
09:00 - 10:00	60.4	61.0	61.7	61.2	61.3	60.6	60.4
10:00 - 11:00	60.4	61.2	59.2	60.9	61.0	60.4	60.8
11:00 - 12:00	60.7	61.5	61.0	60.9	61.1	60.4	60.6
12:00 - 13:00	60.2	61.3	61.5	61.1	58.9	60.3	60.6
13:00 - 14:00	61.0	61.1	61.1	61.0	61.3	60.0	60.5
14:00 - 15:00	60.9	61.1	61.1	61.0	61.1	60.2	60.4
L90(avg)*	61.9	61.5	61.6	61.4	61.4	61.2	61.0

Remark : \* Average time between 15:00-15:00

  
(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

  
(Miss Preeda Somjai)  
Technical Management Team



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## คุณภาพอากาศในพื้นที่ปฏิบัติงาน



## บริษัท ซีคอต จำกัด SECOT CO., LTD.

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239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND  
TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

### ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1615/68
For	: PTT Global Chemical Public Co., Ltd. ( Branch 11 : LDPE Plant )	Sampling Date	: 29/08/2025
Address	: 8 Padang Road , Padang Industrial Estate , Tambon Mab Ta Phut , Amphoe Muang, Rayong 21150	Received Date	: 01/09/2025
Tel/Fax	: 0-3868-7123 ext. 6666 / 0-3868-7128	Test Date	: 01/09/2025
		Report Date	: 11/09/2025

### SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sampling Bag
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
Compressor area	29/08/2025 15:05-15:20	Ethylene	Modif. Intersociety Committee 101/GC FID	< 0.01	ND	200
Etruder and pellet dryer	29/08/2025 14:38-14:53	Ethylene	Modif. Intersociety Committee 101/GC FID	< 0.01	ND	200
Bagging Area (Silo)	29/08/2025 14:20-14:35	Ethylene	Modif. Intersociety Committee 101/GC FID	< 0.01	ND	200

Analyst By : Sudaporn S.  
( Miss Sudaporn Soonthorn )

Approved By : Narisa Poowasanpetch  
( Miss Narisa Poowasanpetch )  
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

### ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1615/68
For	: PTT Global Chemical Public Co., Ltd. ( Branch 11 : LDPE Plant )	Sampling Date	: 29/08/2025
Address	: 8 Padang Road , Padang Industrial Estate , Tambon Mab Ta Phut , Amphoe Muang, Rayong 21150	Received Date	: 01/09/2025
Tel/Fax	: 0-3868-7123 ext. 6666 / 0-3868-7128	Test Date	: 06/09/2025
		Report Date	: 11/09/2025

### SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sorbent Adsorption
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
บริเวณถังกักเก็บ	29/08/2025 14:00-16:00	Propionic aldehyde	NIOSH 2539/GC FID	< 0.03	ND	20
บริเวณส่วนการผลิต	29/08/2025 14:22-16:22	Propionic aldehyde	NIOSH 2539/GC FID	< 0.03	ND	20

Analyst By : Sudaporn S.  
( Miss Sudaporn Soonthorn )

Approved By : Narisa Poowasanpetch  
( Miss Narisa Poowasanpetch )  
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1615/68
For	: PTT Global Chemical Public Co., Ltd. ( Branch 11 : LDPE Plant )	Sampling Date	: 29/08/2025
Address	: 8 Padang Road , Padang Industrial Estate , Tambon Mab Ta Phut , Amphoe Muang, Rayong 21150	Received Date	: 01/09/2025
Tel/Fax	: 0-3868-7123 ext. 6666 / 0-3868-7128	Test Date	: 09/09/2025
		Report Date	: 11/09/2025

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Filtration
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
บริเวณถังกักเก็บ	29/08/2025 14:00-16:00	Organic peroxide as Hydrogen peroxide	HPLC	< 0.007	ND	-
บริเวณส่วนการผลิต	29/08/2025 14:22-16:22	Organic peroxide as Hydrogen peroxide	HPLC	< 0.007	ND	-

Analyst By : Jutarat Jaemruen  
( Miss Jutarat Jaemruen )

Approved By : Maia Poowasanpetch  
( Miss Narisa Poowasanpetch )  
Technical Management Team

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ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1615/68
For	: PTT Global Chemical Public Co., Ltd. ( Branch 11 : LDPE Plant )	Sampling Date	: 29/08/2025
Address	: 8 Padang Road , Padang Industrial Estate , Tambon Mab Ta Phut , Amphoe Muang, Rayong 21150	Received Date	: 01/09/2025
Tel/Fax	: 0-3868-7123 ext. 6666 / 0-3868-7128	Test Date	: 05/09/2025
		Report Date	: 11/09/2025

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sorbent Adsorption
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
บริเวณถังกักเก็บ	29/08/2025 14:00-16:00	Isododecane	NIOSH 1500/GC FID	< 0.01	ND	-
บริเวณส่วนการผลิต	29/08/2025 14:22-16:22	Isododecane	NIOSH 1500/GC FID	< 0.01	ND	-

Analyst By : Sudaporn S.  
( Miss Sudaporn Soonthorn )

Approved By : Maia Poowasanpetch  
( Miss Narisa Poowasanpetch )  
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1615/68
For	: PTT Global Chemical Public Co., Ltd. ( Branch 11 : LDPE Plant )	Sampling Date	: 29/08/2025
Address	: 8 Padang Road , Padang Industrial Estate , Tambon Mab Ta Phut , Amphoe Muang, Rayong 21150	Received Date	: 01/09/2025
		Test Date	: 06/09/2025
Tel/Fax	: 0-3868-7123 ext. 6666 / 0-3868-7128	Report Date	: 11/09/2025

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sampling Bag
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
บริเวณถังกักเก็บ	29/08/2025	Total Hydrocarbon	THC Analyzer / FID	< 0.10	3.07	-
	14:00-14:15	NMHC	THC Analyzer / FID	< 0.05	0.51	-
บริเวณส่วนการผลิต	29/08/2025	Total Hydrocarbon	THC Analyzer / FID	< 0.10	3.20	-
	15:25-15:40	NMHC	THC Analyzer / FID	< 0.05	0.52	-

Analyst By : Sudaporn S.  
( Miss Sudaporn Soonthorn )

Approved By : Maing Poowasanpetch  
( Miss Narisa Poowasanpetch )  
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2125/68
For	: PTT Global Chemical Public Co., Ltd. ( Branch 11 : LDPE Plant )	Sampling Date	: 07/11/2025
Address	: 8 Padang Road , Padang Industrial Estate , Tambon Mab Ta Phut , Amphoe Muang, Rayong 21150	Received Date	: 10/11/2025
		Test Date	: 17/11/2025
Tel/Fax	: 0-3868-7123 ext. 6666 / 0-3868-7128	Report Date	: 17/11/2025

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sampling Bag
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
Compressor area	07/11/2025	Ethylene	Modif. Intersociety Committee 101/GC FID	< 0.01	ND	200
	09:40-09:55					
Etruder and pellet dryer	07/11/2025	Ethylene	Modif. Intersociety Committee 101/GC FID	< 0.01	ND	200
	10:00-10:15					
Bagging Area (Silo)	07/11/2025	Ethylene	Modif. Intersociety Committee 101/GC FID	< 0.01	ND	200
	10:20-10:35					

Analyst By : Sudaporn S.  
( Miss Sudaporn Soonthorn )

Approved By : Maing Poowasanpetch  
( Miss Narisa Poowasanpetch )  
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2125/68
For	: PTT Global Chemical Public Co., Ltd. ( Branch 11 : LDPE Plant )	Sampling Date	: 07/11/2025
Address	: 8 Padang Road , Padang Industrial Estate , Tambon Mab Ta Phut , Amphoe Muang, Rayong 21150	Received Date	: 10/11/2025
Tel/Fax	: 0-3868-7123 ext. 6666 / 0-3868-7128	Test Date	: 13/11/2025
		Report Date	: 17/11/2025

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sorbent Adsorption
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
บริเวณถังกักเก็บ	07/11/2025 10:35-14:35	Propionic aldehyde	NIOSH 2539/GC FID	< 0.03	ND	20
บริเวณส่วนการผลิต	07/11/2025 10:55-14:55	Propionic aldehyde	NIOSH 2539/GC FID	< 0.03	ND	20

Analyst By: Sudaporn S.  
( Miss Sudaporn Soonthorn )

Approved By: Maina Poowasanpetch  
( Miss Narisa Poowasanpetch )  
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2125/68
For	: PTT Global Chemical Public Co., Ltd. ( Branch 11 : LDPE Plant )	Sampling Date	: 07/11/2025
Address	: 8 Padang Road , Padang Industrial Estate , Tambon Mab Ta Phut , Amphoe Muang, Rayong 21150	Received Date	: 10/11/2025
Tel/Fax	: 0-3868-7123 ext. 6666 / 0-3868-7128	Test Date	: 11/11/2025
		Report Date	: 17/11/2025

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Filtration
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
บริเวณถังกักเก็บ	07/11/2025 10:35-14:35	Organic peroxide as Hydrogen peroxide	HPLC	< 0.007	ND	-
บริเวณส่วนการผลิต	07/11/2025 10:55-14:55	Organic peroxide as Hydrogen peroxide	HPLC	< 0.007	ND	-

Analyst By: Jutarat Jaemruen  
( Miss Jutarat Jaemruen )

Approved By: Maina Poowasanpetch  
( Miss Narisa Poowasanpetch )  
Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.
3. ND = non-detectable.
4. - No Standard.



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SECOT CO., LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร 10800  
239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND  
TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2125/68
For	: PTT Global Chemical Public Co., Ltd. ( Branch 11 : LDPE Plant )	Sampling Date	: 07/11/2025
Address	: 8 Padang Road , Padang Industrial Estate , Tambon Mab Ta Phut , Amphoe Muang, Rayong 21150	Received Date	: 10/11/2025
		Test Date	: 12/11/2025
Tel/Fax	: 0-3868-7123 ext. 6666 / 0-3868-7128	Report Date	: 17/11/2025

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sorbent Adsorption
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
บริเวณถังกักเก็บ	07/11/2025 10:35-12:15	Isododecane	NIOSH 1500/GC FID	< 0.01	ND	-
บริเวณส่วนการผลิต	07/11/2025 10:55-12:35	Isododecane	NIOSH 1500/GC FID	< 0.01	ND	-

Analyst By: Sudaporn S.  
( Miss Sudaporn Soonthorn )

Approved By: Mairisa Poowasanpetch  
( Miss Narisa Poowasanpetch )  
Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2125/68
For	: PTT Global Chemical Public Co., Ltd. ( Branch 11 : LDPE Plant )	Sampling Date	: 07/11/2025
Address	: 8 Padang Road , Padang Industrial Estate , Tambon Mab Ta Phut , Amphoe Muang, Rayong 21150	Received Date	: 10/11/2025
		Test Date	: 10/11/2025
Tel/Fax	: 0-3868-7123 ext. 6666 / 0-3868-7128	Report Date	: 17/11/2025

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sampling Bag
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
บริเวณถังกักเก็บ	07/11/2025 10:35-10:50	Total Hydrocarbon	THC Analyzer / FID	< 0.10	3.84	-
		NMHC	THC Analyzer / FID	< 0.05	0.24	-
บริเวณส่วนการผลิต	07/11/2025 10:55-11:10	Total Hydrocarbon	THC Analyzer / FID	< 0.10	4.12	-
		NMHC	THC Analyzer / FID	< 0.05	0.41	-

Analyst By: Sudaporn S.  
( Miss Sudaporn Soonthorn )

Approved By: Mairisa Poowasanpetch  
( Miss Narisa Poowasanpetch )  
Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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3. ND = non-detectable.
4. - No Standard.

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## ระดับเสียงเฉลี่ยตลอดระยะเวลาการทำงาน



## Noise Monitoring Result : Working Noise

### MTR-LDPE

LOCATION	: Control room	MEASUREMENT DATE	: 08/08/2025
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 821082
SITE OPERATOR	: Miss Salisa Ainree		

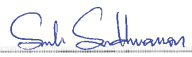
CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 97097
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 02/10/2024
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 01/10/2025
CAL SHEET No.	: CAL-2508-0066-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	08/08/2025	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	56.0	
09:00 - 10:00	56.6	
10:00 - 11:00	57.3	
11:00 - 12:00	58.1	
12:00 - 13:00	53.4	
13:00 - 14:00	52.3	
14:00 - 15:00	52.7	
15:00 - 16:00	52.9	
16:00 - 17:00	53.2	
17:00 - 18:00	53.0	
18:00 - 19:00	52.7	
19:00 - 20:00	52.9	
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		

Leq(12)	54.8
Lmax	91.0
Standard	85 *, 90 ** dB(A)
Standard-Max	140 dB(A)

Remark : \* The value was assigned in EIA report.  
\*\* Notification of Ministry of Industry, B.E.2546

  
(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

  
(Miss Sununta Sirawuttinanon)  
Technical Management Team



## Noise Monitoring Result : Working Noise

### MTR-LDPE

LOCATION	: Compressor area	MEASUREMENT DATE	: 08/08/2025
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 820731
SITE OPERATOR	: Miss Salisa Ainree		


CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 97097
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 02/10/2024
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 01/10/2025
CAL SHEET No.	: CAL-2508-0066-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	08/08/2025	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	84.7	
09:00 - 10:00	84.5	
10:00 - 11:00	84.6	
11:00 - 12:00	84.8	
12:00 - 13:00	85.0	
13:00 - 14:00	85.0	
14:00 - 15:00	85.0	
15:00 - 16:00	85.0	
16:00 - 17:00	84.8	
17:00 - 18:00	84.9	
18:00 - 19:00	84.9	
19:00 - 20:00	84.9	
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		

Leq(12)	84.8
Lmax	93.7
Standard	85 *, 90 ** dB(A)
Standard-Max	140 dB(A)

Remark : \* The value was assigned in EIA report.  
\*\* Notification of Ministry of Industry, B.E.2546

  
(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

  
(Miss Sununta Sirawuttinanon)  
Technical Management Team





## Noise Monitoring Result : Working Noise

### MTR-LDPE


LOCATION	: Extruder and pellet dryer	MEASUREMENT DATE	: 08/08/2025
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 820730
SITE OPERATOR	: Miss Salisa Ainree		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 97097
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 02/10/2024
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 01/10/2025
CAL SHEET No.	: CAL-2508-0066-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	08/08/2025	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	82.7	
09:00 - 10:00	82.7	
10:00 - 11:00	82.8	
11:00 - 12:00	82.7	
12:00 - 13:00	82.6	
13:00 - 14:00	82.6	
14:00 - 15:00	82.6	
15:00 - 16:00	82.6	
16:00 - 17:00	82.6	
17:00 - 18:00	82.6	
18:00 - 19:00	82.6	
19:00 - 20:00	82.6	
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(12)	82.6	
Lmax	94.7	
Standard	85 *, 90 ** dB(A)	
Standard-Max	140 dB(A)	

Remark : \* The value was assigned in EIA report.  
\*\* Notification of Ministry of Industry, B.E.2546

  
(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

  
(Miss Sununta Sirawuttinanon)  
Technical Management Team



## Noise Monitoring Result : Working Noise

### MTR-LDPE


LOCATION	: Admin Building	MEASUREMENT DATE	: 08/08/2025
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 821080
SITE OPERATOR	: Miss Salisa Ainree		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 97097
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 02/10/2024
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 01/10/2025
CAL SHEET No.	: CAL-2508-0066-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	08/08/2025	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	51.0	
09:00 - 10:00	51.2	
10:00 - 11:00	50.3	
11:00 - 12:00	52.0	
12:00 - 13:00	53.4	
13:00 - 14:00	50.5	
14:00 - 15:00	52.4	
15:00 - 16:00	54.2	
16:00 - 17:00		
17:00 - 18:00		
18:00 - 19:00		
19:00 - 20:00		
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(8)	52.1	
Lmax	79.7	
Standard	85 *, 90 ** dB(A)	
Standard-Max	140 dB(A)	

Remark : \* The value was assigned in EIA report.  
\*\* Notification of Ministry of Industry, B.E.2546

  
(Miss Katesarin Vorradetwittaya)  
Environmental Scientist

  
(Miss Sununta Sirawuttinanon)  
Technical Management Team

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ระดับเสียงสะสมที่ถูกจ้างได้รับเฉลี่ยตลอดระยะเวลา  
การทำงานในแต่ละวัน (TWA)



บริษัท ซีคอต จำกัด

SECOT CO.,LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพฯ 10800

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TEL : +66(0) 2959-3600 FAX : +66(0) 2595-3535 E-mail : envserv@secot.co.th

### NOISE MEASUREMENT REPORT : NOISE DOSE

**CLIENT NAME** : PTT Global Chemical Public Co., Ltd. **REFERENCE NO.** : 225106-Noise Dose-2508-0067  
(Branch 11 : LDPE)  
**MEASUREMENT BY** : SECOT Co., Ltd. **INSTRUMENT** : Noise Dosimeter  
**MEASUREMENT DATE** : 08/08/2025 **CALIBRATOR TYPE** : Pulsar Model 22R  
**MEASUREMENT LOCATION** : LDPE Plant **SERIAL NO.** : 79781  
**SITE OPERATOR** : Miss Salisa Ainree **CALIBRATOR REF.** : 114 dB @ 1kHz

OPERATION ID	AREA/PLANT	TIME	SOUND PRESSURE LEVEL (dB(A))		
			%Dose	TWA (12-hr)	STANDARD*
ID : 26003649	Compressor	07:58-19:00	46.1	79.9	83.0
ID : 26003648	Extruder and Pellet Dryer	07:58-19:00	58.6	80.9	83.0

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Sununta Sirawuttinanon)

Technical Management Team

- Remark :**
1. Reported analysis refers to submitted sample only.
  2. This report shall not be reproduced, except in full, without official approval.
  3. \* Notification of the Department of Labour Protection and Welfare B.E.2561 (2018).
  4. TWA means Time Weighted Average.

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## ความร้อนภายในสถานที่ทำงาน



บริษัท ซีคอต จำกัด  
SECOT CO., LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพฯ 10800

239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND

TEL : (662) 959-3600 FAX : (662) 959-3535 E-mail : envserv@secot.co.th

### HEAT STRESS MEASUREMENT REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 225106\_Heat/Apr  
(Branch 11 : LDPE)  
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : Area Heat Stress Monitor  
MEASUREMENT DATE : 21/04/2025 MODEL NO. : JT2011-E2A  
MEASUREMENT LOCATION : Pellet Dryer SERIAL NO. : 3522210175  
SITE OPERATOR : Miss Salisa Ainree

LOCATION	TIME	MEASURED TEMPERATURE (°C)					STANDARD (°C) *
		NWB	DB	GT	WBGT <sub>In</sub>	WBGT <sub>Avg</sub>	WBGT
Pellet Dryer	10:26-10:56	28.6	33.3	34.3	30.3	31.0	34.0
	10:56-11:26	29.3	33.9	34.1	30.7		
	11:26-11:56	30.1	33.9	34.2	31.3		
	11:56-12:26	30.5	34.0	34.2	31.6		

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Sununta Sirawuttinanon)

Technical Management Team

**Remark :** 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. \*WBGT Standard was notified by the Ministerial of Labor B.E.2559 (2016).

NWB = Natural Wet Bulb Temperature

DB = Dry Bulb Temperature

GT = Globe Temperature

WBGT = Wet Bulb Globe Temperature

Work Load : Light work load = 34.0 °C, Moderate work load = 32.0 °C and Heavy work load = 30.0 °C

ภาคผนวก จ

ใบแสดงการตรวจเทียบเครื่องมือ

## CERTIFICATE OF ANALYSIS

### Grade of Product: EPA Protocol

Part Number: E04NI99E15AC084 Reference Number: 82-401409170-1  
Cylinder Number: EB0102326 Cylinder Volume: 144.4 CF  
Laboratory: 124 - Riverton (SAP) - NJ Cylinder Pressure: 2015 PSIG  
PGVP Number: B52019 Valve Outlet: 660  
Gas Code: CO,NO,NOX,SO2,BALN Certification Date: Feb 05, 2019

Expiration Date: Feb 05, 2027

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	50.00 PPM	51.01 PPM	G1	+/- 0.9% NIST Traceable	01/28/2019, 02/05/2019
NITRIC OXIDE	50.00 PPM	50.86 PPM	G1	+/- 0.9% NIST Traceable	01/28/2019, 02/05/2019
SULFUR DIOXIDE	50.00 PPM	50.87 PPM	G1	+/- 1.0% NIST Traceable	01/28/2019, 02/05/2019
CARBON MONOXIDE	0.5000 %	0.5050 %	G1	+/- 0.7% NIST Traceable	01/31/2019
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13060206	CC401947	4950 PPM CARBON MONOXIDE/NITROGEN	+/- 0.4%	Feb 15, 2019
PRM	12367	APEX1099237	9.82 PPM NITROGEN DIOXIDE/AIR	+/- 2.0%	Jun 02, 2017
NTRM	12010724	KAL004497	50.03 PPM NITRIC OXIDE/NITROGEN	+/- 0.8%	Mar 12, 2024
GMIS	1114201601	CC506710	4.971 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Nov 14, 2019
NTRM	14010327	KAL004376	49.08 PPM SULFUR DIOXIDE/NITROGEN	+/- 1.0%	Apr 17, 2024

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Siemens Ultramat 6 J3-599 COHIGH	NDIR	Jan 18, 2019
Nicolet 6700 APW1100391 NO	FTIR	Jan 10, 2019
Nicolet 6700 APW1100391 NO2	FTIR	Jan 10, 2019
Nicolet 6700 APW1100391 SO2	FTIR	Jan 10, 2019

#### Triad Data Available Upon Request

PERMANENT NOTES: PRODUCED IN ACCORDANCE WITH ISO17025 REQUIREMENTS

#### NOTES:

Gross Weight: 27806.3 grams

Net Weight: 4733.2 grams

This calibration std. has been certified in accordance with the May 2012 EPA Traceability Protocol, Document EPA-600/R-12/531. All testing processes and measurements conform to the requirements of ISO/IEC 17025 and to Airgas ISO 9001:2008 and relate only to items identified on this certificate. All items are certified to be NIST Traceable with total uncertainty as detailed under Analytical Uncertainty. This document shall not be reproduced in full without written approval of the issuer.



TESTING CERT No. 3082.05

*[Signature]*  
Approved for Release



## CONTROL UNIT CALIBRATION

(Metric units, mm)

Date 8 Jan 25

Initial Final Average  
Barometric press, Pb 759 759 759 mmHg

#### Dry Gas Meter Data

Console No. M50-08

Metering System ID

DGM Number 975906

DGM Model ES-110

Calibrated by : Montri P.

#### Reference Dry Gas Meter Data

Serial No. 358794

Model S110

Correction factor (Yr) 1.0077

Last Calibration Date 25 Oct 24

Orifice manometer setting, ΔH mm H2O	Ref. DGM Volume V <sub>r</sub> Liters	DGM Volume V <sub>m</sub> Liters	Temperature (°C)				Time Θ min	DGM Correction factor (Y)	ΔH@ mm
			Ref DGM T <sub>r</sub>	Dry Gas Meter					
				Inlet T <sub>i</sub>	Outlet T <sub>o</sub>	Avg T <sub>m</sub>			
12.5	100.1	100.6	25	25	24	24.5	8.83	0.9999	44.1498
25.0	100.1	100.6	25	25	24	24.5	6.17	0.9985	43.0855
50.0	100.2	101.0	25	25	24	24.5	4.22	0.9941	40.1536
76.0	100.1	100.9	25	25	24	24.5	3.48	0.9910	41.7921
100.0	100.0	100.5	25	25	24	24.5	3.48	0.9917	40.8171
150.0	100.0	100.3	25	25	24	24.5	2.48	0.9893	41.9313

Average 0.9941 41.9882

Approved by :

*[Signature]*



## PITOT TUBE CALIBRATION REPORT

Calibration Location: SECOT

Calibration Date : 04-01-2025

Calibration Duct No.: CD-0123

Calibration Standard Pitot tube data

Pitot No. : Std-02

Coefficient (Cp) : 0.99

Type S Pitot No. : LL10-01

Calibrated by : Mr. Montri P.

## A Side Calibration

Run No.	$\Delta P_{std}$ (mm H <sub>2</sub> O)	$\Delta P_s$ (mm H <sub>2</sub> O)	Cp(s)	Deviation, $\delta$ Cp(s) - Cp(A)
1	15.0	21.0	0.8367	-0.0068
2	15.0	20.5	0.8468	0.0034
3	15.0	20.5	0.8468	0.0034

C<sub>P(A),avg</sub> 0.8435

## B Side Calibration

Run No.	$\Delta P_{std}$ (mm H <sub>2</sub> O)	$\Delta P_s$ (mm H <sub>2</sub> O)	Cp(s)	Deviation, $\delta$ Cp(s) - Cp(B)
1	15.0	20.5	0.8468	0.0034
2	15.0	21.0	0.8367	-0.0068
3	15.0	20.5	0.8468	0.0034

C<sub>P(B),avg</sub> 0.8435

|CP(A)-CP(B)| = 0.0000

C<sub>P(Avg)</sub> = 0.8435Approved by : 

\*\*\*  $\delta$  must be  $\leq 0.01$  for the test to be acceptable \*\*\*  
 \*\*\* | Cp(A)-Cp(B) | must also be  $< 0.01$  if average of Cp(A) and Cp(B) is not to be used \*\*\*

THE LINDE GROUP

Linde

Certificate Of Analysis  
Special Gases Mixture

## Customer Details

Name:  
Secot Co., Ltd.Address:  
239 Rimklongpropa Rd. Bangsue Khet Bangsue  
Bangkok 10800

Customer Tag No.:

## Certificate Details

Number:	0484/23	Date of Issue:	22-Feb-2023	Expiry date:	21-Feb-2027
Material Details					
Production Order:	90176403	Material Code:	478100-J-62	Cylinder No.:	12360
Gas content:	6.520 M <sup>3</sup> (nominal)	Filling pressure:	145 bar (g)	Valve:	CGA 590 BRASS
Cylinder Owner:	LINDE	Cylinder Material:	STEEL	Cylinder Size:	47 L

## Laboratory Report

Component	Normal Concentration	Analysis Result <sup>1</sup>	Uncertainty <sup>2</sup>	Method of Analysis <sup>3</sup>
Oxygen	8.00%	7.94%	$\pm 2\%$ relative	(1) SG-O-01
In Nitrogen				

## Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.

Storage condition: Keep in well ventilation and secure area.

## Comments

## Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Sukanya Parinyasoontorn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

Page 1 of 1

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PB-002/F004

Iss:K/2, 15 Oct 2021

## บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

เลขทะเบียนพาณิชย์ 010737000785

ชั้น 15 อาคารทาวเวอร์ เอ 2/3 หมู่ 14 ถนนรามวงศาพัฒนา กม. 6.5 แขวงบาง

กุ่มเตี้ย อ.บางพลีใหญ่ จ.สมุทรปราการ 10540 โทรศัพท์ (66) 2338-6100 โทรสาร (66) 2338-6333

โรงงานเวลโกรว์ : 105 หมู่ 5 แขวงบางโพง อ.บางพลีใหญ่ จ.สมุทรปราการ 24180

โทรศัพท์ (66) 38.570-479-93

โทรสาร (66) 38.570-323

## Linde (Thailand) Public Company Limited

PLC Registration No. 010737000785

15<sup>th</sup> Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6.5 Road, Bangkaew

Bangplee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant : 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93

Fax (66) 38.570-323



Certificate Of Analysis  
Special Gases Mixture

## Customer Details

Name: Secot Co., Ltd. Address: 239, Rimklongprapa Rd., Bangsue, Bangkok 10800 Customer Tag No.:

## Certificate Details

Number: 0528/23 Date of Issue: 8-Mar-2023 Expiry date: 8-Mar-2026  
Material Details  
Production Order: 90176406 Material Code: 511600-SK-34 Cylinder No.: A007225K  
Gas content: 5.20 M<sup>3</sup> Filling pressure: 137.0 bar Valve: CGA 660 SS  
Cylinder Owner: LINDE Cylinder Material: Spectra seal Cylinder Size: 40 L

## Laboratory Report

## Analytical Result

Component	Normal Concentration	Analysis Result <sup>1</sup>	Uncertainty <sup>2</sup>	Method of Analysis <sup>3</sup>	Assay Date
Nitric Oxide	40.0 ppm	39.6 ppm	± 1% relative	(6) I-PB-352	1-Mar & 8-Mar-23
Other NOx impurity		Less than 1.9 ppm			
Carbon Monoxide in Nitrogen	40.0 ppm	41.9 ppm	± 1% relative	(6) I-PB-352	1-Mar-2023

## Reference Standard used in Assay

Reference Standard	Cylinder number	Concentration	Expiry date:
Nitric Oxide	1332615G	25.61 ± 0.13 ppm	6-May-2023
Carbon Monoxide in Nitrogen	ND52320	25.03 ± 0.13 ppm	7-Oct-2023

## Analytical Instruments used in Assay

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
FTIR Spectrometers Nicolet iSSO	FTIR-NO	28-Feb-2023
FTIR Spectrometers Nicolet iSSO	FTIR-CO	25-Feb-2023

## Recommend usage condition

Minimum utilization: 5% of actual content or before expiry date whichever comes first.

Storage condition: Keep in well ventilation and secure area.

## Comments

When reordering, please quote the material number

## Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this Standard has been performed in accordance with the EPA Traceability Protocol EPA-600/R-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%.
- The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Sukanya Parinyasontorn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

PB-002/F006

Linde (Thailand) Public Company Limited Iss:K/2, 15 Oct 2021

P.L.C. Registration no. 0107537000785

15<sup>th</sup> Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6.5 Road, Bangkaew

Bangplee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant: 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180



## SOUND LEVEL METER CALIBRATION

Calibration Location: SECOT

Calibration Date: Jul 1, 25

## ACOUSTIC CALIBRATOR

Brand	Model	Serial No.	Frequency (Hz)	Ref.Calibrated (dB)	Eff.Calibrated (dB)
Cirrus	CR:515	97097	1000.00	94.0	93.7

No.	Brand	Model	Serial No.	Reading (dB)	dB Adjust
19	Cirrus	CR162B	G300990	93.3	0.4

Calibrated by :

Approved by :

Preeda S.



THAILAND INSTITUTE OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH (TISTR)

Mechanical Engineering Standards Laboratory Soi 1, Bangpoo Industrial Estate, Muang, Samutprakan 10280, Thailand.

Request No.23-68/0279

MTC.No.23-68/0279-01

Number of page(s) 2

## CALIBRATION CERTIFICATE

### Nomenclature : DRYCAL

Manufacturer : Mesa Labs

Serial No.: 160100

Model : Defender 520-L

Scale range : 5 ml/min to 500 ml/min

Subdivision : ( 0.001, 0.01) ml/min

Submitted by : SECOT CO.,LTD.

239, Rimklongprapa Road, Bangsue,

Bangkok 10800, Thailand.

Received date : 13 February 2025 Condition of measured item : Normal

Calibration date : 24 February 2025

### Standard :

Standard	Certificate No.	Date due	Traceability
RTD Thermometer	PSL-T 0811/67	3-Jul-26	TISTR
Molbox/Pressure Transducer/UpStream	MP-0076-23	2-Apr-25	NIMT
Primary Flow Calibrator S/N 117982	MW-0034-23	11-Jun-25	NIMT

Calibrated by : Terasak Panna

(Mr.Terasak Panna)

Approved by :

(Ms.Kirana Luanghirun)

Director

Mechanical Engineering Standards Laboratory

Ref. 2013268021300656001

Issued Date 28 February 2025

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FM.BL.MTC.002 Rev.5

### Head Office

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(66) 08 3219 9440  
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### Office

196 Phahonyothin Road, Ladyao, Chatuchak,  
Bangkok 10900, Thailand  
Tel. (66) 0 2579 1121-30 ext. 5219, 5225, 5217  
(66) 08 1889 6827



THAILAND INSTITUTE OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH (TISTR)

Mechanical Engineering Standards Laboratory Soi 1, Bangpoo Industrial Estate, Muang, Samutprakan 10280, Thailand.

Request No.23-68/0279

2/2

MTC.No.23-68/0279-01

Calibration point : (20, 50, 100, 200, 400) ml/min

Ambient condition : Temperature ( 23 ± 3 ) °C , Relative humidity ( 55 ± 15 ) %

Atmospheric pressure ( 1010±13) hPa

Calibration method : The flowmeter (UUC) was calibrated by comparison method with  
standard flowmeter according to CP-370.01.

The reported value is the value that converted to value at reference condition  
within pressure and temperature of the actual gas entering the UUC

### Measurement data :

UUC Value (ml/min)	Standard Value (ml/min)	Temperature (°C)	Pressure (hPa)	Deviation (%)	Uncertainty (%)
20.473*	20.340	24.275	1011.42	+0.65	0.94
49.952	50.732	24.057	1011.52	-1.54	0.95
99.449	99.622	24.102	1011.62	-0.17	0.93
200.34	199.94	24.133	1011.77	+0.20	0.93
401.89	397.98	24.140	1012.07	+0.98	0.93

The reported expanded uncertainties are based on standard uncertainties multiplied by  
a coverage factor  $k=2$ , which provides a level of confidence of approximately 95%.

\* : The calibration point is not the scope of accreditation.

The end of calibration certificate.

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THAILAND INSTITUTE OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH (TISTR)

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Request No.23-68/0279

MTC.No.23-68/0279-02

Number of page(s) 2

## CALIBRATION CERTIFICATE

**Nomenclature : DRYCAL**

Manufacturer : Mesa Labs

Serial No.: 114069

Model : Defender 520-H

Scale range : 300 ml/min to 30,000 ml/min

Subdivision : ( 0.0001, 0.001 ) L/min

**Submitted by : SECOT CO.,LTD.**

239, Rimklongprapa Road, Bangsue,

Bangkok 10800, Thailand.

**Received date :** 13 February 2025 **Condition of measured item :** Normal

**Calibration date :** 25 February 2025

**Standard :**

Standard	Certificate No.	Date due	Traceability
RTD Thermometer	PSL-T 0811/67	3-Jul-26	TISTR
Molbox/PressureTransducer/UpStream	MP-0076-23	2-Apr-25	NIMT
Primary Flow Calibrator S/N 119216	MW-0035-23	31-May-25	NIMT

**Calibrated by :** Terasak Panna

(Mr.Terasak Panna)

**Approved by :** Kirana Luanghirun

(Ms.Kirana Luanghirun)

Director

Mechanical Engineering Standards Laboratory

Ref. 2013268021300656002

Issued Date 28 February 2025

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**Head Office**

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THAILAND INSTITUTE OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH (TISTR)

Mechanical Engineering Standards Laboratory Soi 1, Bangpoo Industrial Estate, Muang, Samutprakan 10280, Thailand.

Request No.23-68/0279

2/2

MTC.No.23-68/0279-02

**Calibration point :** (1.5, 5.0, 10, 15, 25) l/min

**Ambient condition :** Temperature ( 23 ± 3 ) °C , Relative humidity ( 55 ± 15 ) %

Atmospheric pressure ( 1010±13 ) hPa

**Calibration method :** The flowmeter (UUC) was calibrated by comparison method with  
standard flowmeter according to CP-370.01.

The reported value is the value that converted to value at reference condition  
within pressure and temperature of the actual gas entering the UUC

**Measurement data :**

UUC Value (L/min)	Standard Value (L/min)	Temperature (°C)	Pressure (hPa)	Deviation (%)	Uncertainty (%)
1.5010	1.4862	24.354	1011.40	+0.99	0.91
5.0202	4.9882	24.364	1013.95	+0.64	0.89
9.9989	9.9228	24.319	1020.22	+0.77	0.89
15.033	14.819	24.342	1030.37	+1.44	0.89
25.136	24.152	24.331	1061.30	+4.08	0.89

The reported expanded uncertainties are based on standard uncertainties multiplied by  
a coverage factor  $k=2$ , which provides a level of confidence of approximately 95%.

The end of calibration certificate.

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(66) 08 1889 6827



## SOUND LEVEL METER CALIBRATION

Calibration Location: SECOT

Calibration Date: 08/08/2025

## ACOUSTIC CALIBRATOR

Brand	Model	Serial No.	Frequency (Hz)	Ref.Calibrated (dB)	Eff.Calibrated (dB)
Cirrus	CR:515	97097	1000.00	94.0	93.8

No.	Brand	Model	Serial No.	Reading (dB)	dB Adjust
1	SCARLET TECH	ST-21D	821082	93.8	0.0
2	SCARLET TECH	ST-21D	820731	93.8	0.0
3	SCARLET TECH	ST-21D	820730	93.8	0.0
4	SCARLET TECH	ST-21D	821080	93.8	0.0

Calibrated by :

Approved by :

## CERTIFICATE OF CALIBRATION

ISSUED BY Noisemeters

DATE OF ISSUE 02 April 2025

CERTIFICATE NUMBER 237347

Noisemeters

Noisemeters  
Acoustic House  
Bridlington Road  
Hunmanby  
YO14 0PH  
United Kingdom  
www.noisemeters.com

Page 1 of 2

Approved signatory  
N.Smith  
Electronically signed:

## doseBadge Reader : IEC 60942:2003

## Instrument information

Manufacturer: Pulsar Instruments

Notes:

Model: Model 22R

Serial number: 79781

Class: 2

## Test summary

Date of calibration: 01 April 2025

The doseBadge reader detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942\_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

The doseBadge Reader has been shown to conform to the Class 2 requirements for periodic testing, described in Annex B of IEC 60942:2003 for the sound pressure level(s) and frequency(ies) stated, for the environmental conditions under which the tests were performed.

However, as public evidence was not available, from a testing organisation responsible for pattern approval, to demonstrate that the model of doseBadge Reader conformed to the requirements for pattern evaluation described in Annex A of IEC 60942:2003, no general statement or conclusion can be made about conformance of the doseBadge Reader to the requirements of IEC 60942:2003.

Notes:

This certificate provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results within this certificate relate only to the items calibrated. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%.

# CERTIFICATE OF CALIBRATION

Certificate Number:  
**237347**

Page 2 of 2

## Environmental conditions

The following conditions were recorded at the time of the test:

**Before** Pressure: 102.23 kPa Temperature: 22.3 °C Humidity: 34.7 %  
**After** Pressure: 102.23 kPa Temperature: 22.3 °C Humidity: 35 %

## Test equipment

Equipment	Manufacturer	Model	Serial number
Distortion Meter	Keithley	2015	1053426
Environmental Monitor	Comet	T7510	21962628

## Initial Acoustic Results

	Expected	Sample 1	Sample 2	Sample 3	Average	Deviation	Tolerance	Uncertainty
Level (dB)	114.00	114.07	114.07	114.06	<b>114.07</b>	0.07	±0.75	0.11 dB
Distortion (%)	< 4.00	0.50	0.50	0.49	<b>0.50</b>	0.50	+4.00	0.13 %
Frequency (Hz)	1000.0	998.9	998.9	998.9	<b>998.9</b>	-1.1	±20.0	0.1 Hz

The measured quantities or deviations (as applicable), extended by the expanded combined uncertainty of measurement, must not exceed the corresponding tolerance.

## Adjusted Acoustic Results

	Expected	Sample 1	Sample 2	Sample 3	Average	Deviation	Tolerance	Uncertainty
Level (dB)	114.00	113.99	113.99	114.00	<b>113.99</b>	-0.01	±0.75	0.11 dB
Distortion (%)	< 4.00	0.49	0.49	0.49	<b>0.49</b>	0.49	+4.00	0.13 %
Frequency (Hz)	1000.0	998.9	998.9	998.9	<b>998.9</b>	-1.1	±20.0	0.1 Hz

## Functionality Results

Function	Result
Keypad	Pass
Battery Power	Pass
Display	Pass
Communication	Pass
2 way IR link	Pass
Clock	Pass

End of results

# Calibration Certificate

BEIJING J.T TECHNOLOGY CO., LTD.  
www.jttech.com  
www.jttech.com

## Instrument information

Name	WET BULB GLOBE TEMPERATURE (WBGT)METER
Series No	3522210175
Type	JT2011-E2A
Customer	SECOT CO., LTD.
Address	239 Rim Klong Prapa Road, Bang Sue, Bang Sue, Bangkok 10800

## Integrity check of instrument

Appearance	✓
Parts integrity	✓
Screen display or touch	✓
Instrument button	✓
Power supply	✓
battery	✓
Data storage and export	✓
Deviation degree of comparison test with standard instrument	✓

## Calibration Results

UUC Sensor	Standard Temperature ( °C )	UUC Reading ( °C )	Correction ( °C )	Uncertainty ( ±°C )
WET	25.0	25.1	-0.1	0.2
	30.0	30.1	-0.1	0.2
	35.0	34.8	0.2	0.2
	40.0	39.9	0.1	0.2
	45.0	44.8	0.2	0.2
DRY	25.0	25.1	-0.1	0.2
	30.0	30.2	-0.2	0.2
	35.0	34.9	0.1	0.2
	40.0	39.8	0.2	0.2
	45.0	45.1	-0.1	0.2
GLOBE	25.0	24.9	0.1	0.2
	30.0	30.1	-0.1	0.2
	35.0	34.9	0.1	0.2
	40.0	40.1	-0.1	0.2
	45.0	45.1	-0.1	0.2

Environmental conditions: temperature: 26 °C ±2°C, relative humidity: 30% RH ± 10RH%

Reference Standard : Standard Mercury Thermometers, Manufacturer: BGRI, Model: STA, SN : 2-56,  
Calibrated Date : 20 February 2023, Calibration Certificate No. : RA21H-AB1000009

This Certificate is traceable to NCMT North China, Certificate No.: RA20J-AK000073

Calibration Engineer : \_\_\_\_\_

Date : January 15, 2025

