

ภาคผนวก ค

ใบรับรองผลการตรวจวิเคราะห์คุณภาพสิ่งแวดล้อม

ภาคผนวก ค-1

คุณภาพอากาศจากแหล่งกำเนิด



Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543325

Date Received : May 13, 2025
Date Reported : May 21, 2025
Report Number: 3301551-1

Page 1 of 1

Sample Number 2543325-1
Sampled Date May 13, 2025
Sample Description Emission from Stationary Source
Location ปล่อง Reformer Furnace
Date Analysis Commenced May 14, 2025
Condition of Sample Extracted into two 2-L collection flasks

Stack Description

Ambient Pressure	754	mmHg	Diameter	0.55	m	Oxygen	3.8	%
Ambient Temperature	29.0	°C	Shape	Circle		Carbon Dioxide	9.8	%
Type of Process	Combustion		Stack Temperature	162	°C	Gas Velocity	8.7	m/s
Type of Fuel	Natural Gas		Moisture	8.54	%	Flow Rate (Actual O2)	4651	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 %O ₂	Guideline Limit	Method	Testing Location
Air Testing								
Oxides of Nitrogen	11:10 AM - 11:20 AM	ppm	-	1.06	107	200	U.S. Environmental Protection Agency, EPA Method 7	Rayong

Guideline : Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)

Sampling By : Tinnakorn Kulchart ทะเบียนเลขที่ ว-323-จ-0062

Remark :

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

Technical Management

Thanita K.

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

Approved by

D. Changchon

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

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory.
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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543328

Date Received : May 13, 2025
Date Reported : May 21, 2025
Report Number: 3301552-1

Page 1 of 1

Sample Number 2543328-1
Sampled Date May 13, 2025
Sample Description Emission from Stationary Source
Location ปล่อง Boiler
Date Analysis Commenced May 14, 2025
Condition of Sample Extracted into two 2-L collection flasks

Stack Description

Ambient Pressure	754	mmHg	Diameter	0.48	m	Oxygen	5.8	%
Ambient Temperature	29.0	°C	Shape	Circle		Carbon Dioxide	8.6	%
Type of Process	Combustion		Stack Temperature	152	°C	Gas Velocity	9.6	m/s
Type of Fuel	Natural Gas		Moisture	9.32	%	Flow Rate (Actual O2)	3950	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 %O ₂	Guideline Limit	Method	Testing Location
Air Testing								
Oxides of Nitrogen	10:40 AM - 10:50 AM	ppm	-	1.06	40.2	200	U.S. Environmental Protection Agency, EPA Method 7	Rayong

Guideline : Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)

Sampling By : Tinnakorn Kulchart ทะเบียนเลขที่ ว-323-จ-0062

Remark :

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

Technical Management

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ทะเบียนเลขที่ ว-323-จ-0029

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Dej Changchon
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ภาคผนวก ค-2

คุณภาพน้ำ



Analysis / Test Report

TESTING

No.0042

Lot ID: 259651

Date Received : Jan 30, 2025

Date Reported : Feb 06, 2025

Report Number : 3223716-1

Client : Linde HyCO Limited

10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location :

Page 1 of 1

Sample Number	259651-1						
Sampled Date	Jan 30, 2025 10:40 AM						
Sample Description	Wastewater						
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)						
Date Analysis Commenced	Jan 30, 2025						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	27	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	27.0	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	440	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	42	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

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

Remark :

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

Technical Management

Photchana S.

Photchana Seeda

Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Changchon.

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-0001

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Analysis / Test Report

TESTING

No.0042

Lot ID: 259653

Date Received : Feb 14, 2025

Date Reported : Feb 21, 2025

Report Number : 3223717-1

Client : Linde HyCO Limited

10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150

P/O : 9104015116

Project Name : Environmental Monitoring

Project Location :

Page 1 of 1

Sample Number	259653-1						
Sampled Date	Feb 14, 2025 10:50 AM						
Sample Description	Wastewater						
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)						
Date Analysis Commenced	Feb 14, 2025						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	29.4	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	400	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	15	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

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

Remark :

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

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Photchana Seeda

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Approved by

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2517671

Date Received : Mar 14, 2025

Date Reported : Mar 21, 2025

Report Number : 3242612-1

Client : Linde HyCO Limited

10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150

P/O : 9104015116

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2517671-1
Sampled Date	Mar 14, 2025 10:42 AM
Sample Description	Wastewater
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)
Date Analysis Commenced	Mar 14, 2025
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	6.1	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	35	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	31.2	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	412	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

Remark :

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

Technical Management

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Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

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Analysis / Test Report

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10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2517671
Date Received : Mar 14, 2025
Date Reported : Mar 21, 2025
Report Number : 3242612-1

Page 2 of 2

Technical Management

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Photchana Seeda
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ทะเบียนเลขที่ ว-323-จ-0028

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2530756

Date Received : Apr 11, 2025

Date Reported : Apr 22, 2025

Report Number : 3271477-1

Client : Linde HyCO Limited

10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150

P/O : 9104015116

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2530756-1
Sampled Date	Apr 11, 2025 10:25 AM
Sample Description	Wastewater
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)
Date Analysis Commenced	Apr 11, 2025
Condition of Sample	Contained in one amber glass bottle, two glass vials and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	34	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	31.0	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	480	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Sansoen Khuiyoksui ทะเบียนเลขที่ ว-323-จ-0005

Remark :

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

Technical Management

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Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

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Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-0001

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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2530756
Date Received : Apr 11, 2025
Date Reported : Apr 22, 2025
Report Number : 3271477-1

Page 2 of 2

Technical Management

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Photchana Seeda
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ทะเบียนเลขที่ ว-323-จ-0028

Approved by

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ทะเบียนเลขที่ ว-323-ค-0001

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2536792

Date Received : May 26, 2025

Date Reported : Jun 02, 2025

Report Number : 3286212-1

Client : Linde HyCO Limited

10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150

P/O : 9104015116

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2536792-1						
Sampled Date	May 26, 2025 10:40 AM						
Sample Description	Wastewater						
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)						
Date Analysis Commenced	May 26, 2025						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	2.7	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	34	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	32.1	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	376	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	39	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Nattawut Athomprommarat ทะเบียนเลขที่ ว-323-จ-0006

Remark :

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- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

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Scientist (4)

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Approved by

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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2536792
Date Received : May 26, 2025
Date Reported : Jun 02, 2025
Report Number : 3286212-1

Page 2 of 2

Technical Management

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Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-0001

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

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Life Sciences

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RIGHT SOLUTIONS RIGHT PARTNER



Analysis / Test Report

TESTING

No.0042

Lot ID: 2547082

Date Received : Jun 13, 2025

Date Reported : Jun 20, 2025

Report Number : 3309716-1

Client : Linde HyCO Limited

10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150

P/O : 9104015116

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2547082-1
Sampled Date	Jun 13, 2025 2:58 PM
Sample Description	Wastewater
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)
Date Analysis Commenced	Jun 13, 2025
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	30.2	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	150	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Chainusorn Lertnanthakunchai ทะเบียนเลขที่ ว-323-จ-0041

Remark :

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

Technical Management

Photchana S.

Photchana Seeda

Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Changchon.

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-0001

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

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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2547082
Date Received : Jun 13, 2025
Date Reported : Jun 20, 2025
Report Number : 3309716-1

Page 2 of 2

Technical Management

Photchana S.

Photchana Seeda
Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Chumson.

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-0001

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

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ภาคผนวก ค-3

ระดับเสียงโดยทั่วไป



Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315727-1

Page 1 of 1

Sample Number 2543322-1
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน) (GPS 47P 0733650, 1404821)
Measurement Date May 13 - May 14, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 296517

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	59.2	82.6	58.1
10:00 AM - 11:00 AM	58.9	72.1	58.1
11:00 AM - 12:00 PM	58.1	69.6	57.2
12:00 PM - 01:00 PM	58.3	67.4	57.2
01:00 PM - 02:00 PM	58.3	69.0	57.5
02:00 PM - 03:00 PM	58.1	71.1	57.2
03:00 PM - 04:00 PM	58.4	68.2	57.6
04:00 PM - 05:00 PM	58.8	69.3	57.9
05:00 PM - 06:00 PM	59.0	69.7	58.0
06:00 PM - 07:00 PM	59.4	68.3	58.1
07:00 PM - 08:00 PM	59.0	67.7	58.2
08:00 PM - 09:00 PM	59.6	83.2	58.2
09:00 PM - 10:00 PM	58.8	64.4	58.1
10:00 PM - 11:00 PM	59.7	71.2	58.1
11:00 PM - 12:00 AM	63.2	89.1	58.2
12:00 AM - 01:00 AM	58.4	62.5	57.8
01:00 AM - 02:00 AM	58.2	63.0	57.6
02:00 AM - 03:00 AM	58.2	78.3	57.5
03:00 AM - 04:00 AM	58.1	63.8	57.5
04:00 AM - 05:00 AM	58.3	71.0	57.4
05:00 AM - 06:00 AM	58.7	74.2	57.7
06:00 AM - 07:00 AM	58.7	79.5	57.3
07:00 AM - 08:00 AM	58.4	68.2	57.4
08:00 AM - 09:00 AM	68.7	85.2	57.7

Leq Average 24 hrs. (dB(A)) 60.3
Lmax (dB(A)) 89.1
L90 (dB(A)) 57.7
Ldn (dB(A)) 66.0

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315728-1

Page 1 of 1

Sample Number 2543322-2
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน) (GPS 47P 0733650, 1404821)
Measurement Date May 14 - May 15, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 296517

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	59.4	70.0	57.9
10:00 AM - 11:00 AM	58.9	71.8	57.4
11:00 AM - 12:00 PM	58.8	76.0	57.5
12:00 PM - 01:00 PM	64.5	78.6	58.0
01:00 PM - 02:00 PM	75.2	92.0	60.5
02:00 PM - 03:00 PM	59.2	70.6	58.2
03:00 PM - 04:00 PM	60.5	76.9	59.0
04:00 PM - 05:00 PM	59.2	69.6	58.5
05:00 PM - 06:00 PM	59.6	71.1	58.1
06:00 PM - 07:00 PM	60.0	70.1	58.6
07:00 PM - 08:00 PM	63.2	74.9	59.1
08:00 PM - 09:00 PM	73.7	83.6	61.4
09:00 PM - 10:00 PM	63.8	84.5	60.1
10:00 PM - 11:00 PM	66.9	74.0	61.4
11:00 PM - 12:00 AM	60.3	72.5	59.1
12:00 AM - 01:00 AM	59.6	66.5	58.9
01:00 AM - 02:00 AM	59.7	68.8	58.8
02:00 AM - 03:00 AM	60.4	75.8	58.7
03:00 AM - 04:00 AM	62.2	87.3	58.9
04:00 AM - 05:00 AM	59.8	67.9	58.9
05:00 AM - 06:00 AM	59.9	76.3	58.8
06:00 AM - 07:00 AM	60.6	78.7	59.2
07:00 AM - 08:00 AM	59.2	71.7	57.9
08:00 AM - 09:00 AM	61.3	77.4	58.1

Leq Average 24 hrs. (dB(A)) 65.6
Lmax (dB(A)) 92.0
L90 (dB(A)) 58.8
Ldn (dB(A)) 69.4

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315729-1

Page 1 of 1

Sample Number 2543322-3
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน) (GPS 47P 0733650, 1404821)
Measurement Date May 15 - May 16, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 296517

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	60.1	82.2	57.3
10:00 AM - 11:00 AM	57.9	70.1	56.8
11:00 AM - 12:00 PM	57.3	69.1	56.4
12:00 PM - 01:00 PM	59.3	70.3	56.8
01:00 PM - 02:00 PM	58.1	66.6	56.9
02:00 PM - 03:00 PM	58.1	72.7	57.2
03:00 PM - 04:00 PM	58.0	75.4	57.1
04:00 PM - 05:00 PM	58.0	67.6	57.3
05:00 PM - 06:00 PM	58.6	76.3	57.4
06:00 PM - 07:00 PM	58.3	65.9	57.5
07:00 PM - 08:00 PM	58.2	67.3	57.5
08:00 PM - 09:00 PM	58.9	79.9	57.5
09:00 PM - 10:00 PM	58.4	66.0	57.8
10:00 PM - 11:00 PM	58.8	70.9	57.7
11:00 PM - 12:00 AM	58.2	63.4	57.6
12:00 AM - 01:00 AM	58.2	76.2	57.5
01:00 AM - 02:00 AM	58.5	70.2	57.5
02:00 AM - 03:00 AM	68.4	88.0	58.2
03:00 AM - 04:00 AM	59.4	76.0	58.6
04:00 AM - 05:00 AM	59.9	73.8	58.4
05:00 AM - 06:00 AM	61.3	90.6	58.7
06:00 AM - 07:00 AM	60.6	84.6	58.1
07:00 AM - 08:00 AM	58.3	72.7	57.2
08:00 AM - 09:00 AM	58.0	67.9	57.1

Leq Average 24 hrs. (dB(A)) 60.1
Lmax (dB(A)) 90.6
L90 (dB(A)) 57.5
Ldn (dB(A)) 68.0

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315730-1

Page 1 of 1

Sample Number 2543322-4
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน) (GPS 47P 0733650, 1404821)
Measurement Date May 16 - May 17, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 296517

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	59.1	84.1	57.1
10:00 AM - 11:00 AM	57.8	73.9	56.6
11:00 AM - 12:00 PM	57.1	68.4	56.4
12:00 PM - 01:00 PM	57.2	69.1	56.3
01:00 PM - 02:00 PM	58.5	82.6	56.7
02:00 PM - 03:00 PM	57.8	72.5	56.9
03:00 PM - 04:00 PM	58.1	72.5	57.0
04:00 PM - 05:00 PM	58.2	72.9	57.1
05:00 PM - 06:00 PM	58.7	78.1	57.3
06:00 PM - 07:00 PM	58.2	67.5	57.6
07:00 PM - 08:00 PM	58.5	66.2	57.8
08:00 PM - 09:00 PM	59.6	81.8	58.0
09:00 PM - 10:00 PM	59.0	72.4	58.3
10:00 PM - 11:00 PM	59.2	78.0	58.3
11:00 PM - 12:00 AM	71.4	83.6	58.3
12:00 AM - 01:00 AM	59.9	84.2	58.5
01:00 AM - 02:00 AM	61.2	82.2	58.8
02:00 AM - 03:00 AM	59.4	71.7	58.7
03:00 AM - 04:00 AM	59.4	70.1	58.8
04:00 AM - 05:00 AM	59.7	73.3	59.0
05:00 AM - 06:00 AM	60.2	74.9	59.3
06:00 AM - 07:00 AM	60.2	82.5	58.1
07:00 AM - 08:00 AM	58.4	77.8	57.5
08:00 AM - 09:00 AM	58.0	66.6	57.1

Leq Average 24 hrs. (dB(A)) 61.2
Lmax (dB(A)) 84.2
L90 (dB(A)) 57.6
Ldn (dB(A)) 69.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315731-1

Page 1 of 1

Sample Number 2543322-5
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน) (GPS 47P 0733650, 1404821)
Measurement Date May 17 - May 18, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 296517

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	59.0	81.2	57.5
10:00 AM - 11:00 AM	57.9	70.1	57.0
11:00 AM - 12:00 PM	57.2	75.1	56.4
12:00 PM - 01:00 PM	57.4	64.7	56.6
01:00 PM - 02:00 PM	57.9	66.4	57.1
02:00 PM - 03:00 PM	58.0	70.0	57.2
03:00 PM - 04:00 PM	58.1	74.6	57.2
04:00 PM - 05:00 PM	58.3	73.4	57.4
05:00 PM - 06:00 PM	58.4	73.1	57.3
06:00 PM - 07:00 PM	58.6	68.4	57.5
07:00 PM - 08:00 PM	59.5	67.8	58.6
08:00 PM - 09:00 PM	60.2	81.0	58.9
09:00 PM - 10:00 PM	59.4	72.7	58.4
10:00 PM - 11:00 PM	59.9	70.5	58.6
11:00 PM - 12:00 AM	58.7	73.5	58.0
12:00 AM - 01:00 AM	58.9	73.1	58.3
01:00 AM - 02:00 AM	61.1	80.7	58.3
02:00 AM - 03:00 AM	59.6	74.5	58.6
03:00 AM - 04:00 AM	59.6	71.9	58.9
04:00 AM - 05:00 AM	59.8	74.0	59.0
05:00 AM - 06:00 AM	59.6	77.4	58.4
06:00 AM - 07:00 AM	60.3	84.5	57.5
07:00 AM - 08:00 AM	58.0	79.4	57.1
08:00 AM - 09:00 AM	58.3	74.2	56.9

Leq Average 24 hrs. (dB(A)) 59.0
Lmax (dB(A)) 84.5
L90 (dB(A)) 57.5
Ldn (dB(A)) 66.0

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315732-1

Page 1 of 1

Sample Number 2543322-6
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน) (GPS 47P 0733650, 1404821)
Measurement Date May 18 - May 19, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 296517

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	58.4	81.8	56.7
10:00 AM - 11:00 AM	57.7	71.9	56.8
11:00 AM - 12:00 PM	57.3	66.9	56.4
12:00 PM - 01:00 PM	57.3	71.8	56.5
01:00 PM - 02:00 PM	57.1	65.4	56.3
02:00 PM - 03:00 PM	57.3	66.3	56.5
03:00 PM - 04:00 PM	57.8	71.4	56.8
04:00 PM - 05:00 PM	57.6	77.7	56.9
05:00 PM - 06:00 PM	58.1	65.6	57.1
06:00 PM - 07:00 PM	57.8	67.8	57.1
07:00 PM - 08:00 PM	58.2	71.8	57.3
08:00 PM - 09:00 PM	59.0	80.4	57.5
09:00 PM - 10:00 PM	58.9	75.8	57.5
10:00 PM - 11:00 PM	63.2	90.1	57.9
11:00 PM - 12:00 AM	57.8	76.4	57.2
12:00 AM - 01:00 AM	57.7	61.9	57.1
01:00 AM - 02:00 AM	57.8	66.3	57.3
02:00 AM - 03:00 AM	58.1	75.7	57.5
03:00 AM - 04:00 AM	58.4	73.9	57.8
04:00 AM - 05:00 AM	58.4	68.5	57.7
05:00 AM - 06:00 AM	58.7	72.6	57.5
06:00 AM - 07:00 AM	60.0	81.9	58.4
07:00 AM - 08:00 AM	64.0	94.5	59.0
08:00 AM - 09:00 AM	61.0	82.1	59.3

Leq Average 24 hrs. (dB(A)) 59.1
Lmax (dB(A)) 94.5
L90 (dB(A)) 57.2
Ldn (dB(A)) 65.7

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315733-1

Page 1 of 1

Sample Number 2543322-7
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน) (GPS 47P 0733650, 1404821)
Measurement Date May 19 - May 20, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 296517

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	59.8	70.7	58.8
10:00 AM - 11:00 AM	62.0	84.4	57.2
11:00 AM - 12:00 PM	57.4	69.9	56.6
12:00 PM - 01:00 PM	57.6	69.3	56.6
01:00 PM - 02:00 PM	57.6	74.6	56.5
02:00 PM - 03:00 PM	57.3	64.8	56.5
03:00 PM - 04:00 PM	57.6	68.6	56.8
04:00 PM - 05:00 PM	57.7	69.3	56.7
05:00 PM - 06:00 PM	58.0	77.8	57.0
06:00 PM - 07:00 PM	58.2	68.1	57.4
07:00 PM - 08:00 PM	58.5	73.8	57.6
08:00 PM - 09:00 PM	60.6	80.5	57.7
09:00 PM - 10:00 PM	59.2	78.0	57.9
10:00 PM - 11:00 PM	58.6	71.4	57.7
11:00 PM - 12:00 AM	58.0	73.5	57.3
12:00 AM - 01:00 AM	58.3	63.0	57.7
01:00 AM - 02:00 AM	58.7	63.5	58.0
02:00 AM - 03:00 AM	58.9	64.1	58.2
03:00 AM - 04:00 AM	58.4	63.7	57.8
04:00 AM - 05:00 AM	58.9	81.5	58.0
05:00 AM - 06:00 AM	58.6	77.7	57.4
06:00 AM - 07:00 AM	66.6	81.1	57.3
07:00 AM - 08:00 AM	75.9	82.1	57.2
08:00 AM - 09:00 AM	74.8	83.2	57.0

Leq Average 24 hrs. (dB(A)) 65.7
Lmax (dB(A)) 84.4
L90 (dB(A)) 57.3
Ldn (dB(A)) 68.8

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315734-1

Page 1 of 1

Sample Number 2543322-8
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1) (GPS 47P 0733599, 1405064)
Measurement Date May 13 - May 14, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472126

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	64.1	81.8	60.3
10:00 AM - 11:00 AM	63.2	82.5	59.6
11:00 AM - 12:00 PM	63.5	85.4	59.5
12:00 PM - 01:00 PM	62.4	78.5	58.9
01:00 PM - 02:00 PM	63.0	81.8	59.2
02:00 PM - 03:00 PM	62.1	79.6	59.0
03:00 PM - 04:00 PM	61.8	75.6	58.3
04:00 PM - 05:00 PM	62.5	79.3	58.4
05:00 PM - 06:00 PM	63.2	81.5	58.9
06:00 PM - 07:00 PM	63.7	87.7	59.1
07:00 PM - 08:00 PM	62.6	81.9	59.4
08:00 PM - 09:00 PM	62.4	78.3	59.1
09:00 PM - 10:00 PM	61.4	80.8	58.6
10:00 PM - 11:00 PM	61.2	74.6	58.8
11:00 PM - 12:00 AM	62.2	74.7	59.3
12:00 AM - 01:00 AM	60.6	70.8	59.1
01:00 AM - 02:00 AM	60.4	78.1	58.7
02:00 AM - 03:00 AM	60.4	71.7	58.7
03:00 AM - 04:00 AM	60.2	70.0	58.7
04:00 AM - 05:00 AM	61.0	76.5	58.6
05:00 AM - 06:00 AM	62.9	78.8	58.7
06:00 AM - 07:00 AM	64.2	86.8	60.0
07:00 AM - 08:00 AM	63.3	77.7	59.4
08:00 AM - 09:00 AM	64.2	89.5	58.6

Leq Average 24 hrs. (dB(A)) 62.5
Lmax (dB(A)) 89.5
L90 (dB(A)) 58.9
Ldn (dB(A)) 68.3

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315735-1

Page 1 of 1

Sample Number 2543322-9
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1) (GPS 47P 0733599, 1405064)
Measurement Date May 14 - May 15, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472126

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	62.8	79.5	58.1
10:00 AM - 11:00 AM	64.0	80.7	59.7
11:00 AM - 12:00 PM	63.8	84.0	59.2
12:00 PM - 01:00 PM	63.3	81.8	59.7
01:00 PM - 02:00 PM	63.5	84.4	59.5
02:00 PM - 03:00 PM	65.6	85.9	61.6
03:00 PM - 04:00 PM	62.9	78.7	59.3
04:00 PM - 05:00 PM	73.9	106.2	60.2
05:00 PM - 06:00 PM	63.7	80.0	59.9
06:00 PM - 07:00 PM	64.1	83.6	60.2
07:00 PM - 08:00 PM	63.8	83.4	60.1
08:00 PM - 09:00 PM	62.8	78.2	60.0
09:00 PM - 10:00 PM	65.6	86.8	60.8
10:00 PM - 11:00 PM	62.6	82.6	60.3
11:00 PM - 12:00 AM	63.0	83.7	61.2
12:00 AM - 01:00 AM	61.9	72.3	60.0
01:00 AM - 02:00 AM	61.8	75.2	59.9
02:00 AM - 03:00 AM	61.8	75.3	59.7
03:00 AM - 04:00 AM	61.6	70.5	59.7
04:00 AM - 05:00 AM	61.7	74.0	59.5
05:00 AM - 06:00 AM	63.8	79.3	60.8
06:00 AM - 07:00 AM	65.3	86.2	60.9
07:00 AM - 08:00 AM	65.3	83.1	61.5
08:00 AM - 09:00 AM	64.6	85.0	60.1

Leq Average 24 hrs. (dB(A)) 65.1
Lmax (dB(A)) 106.2
L90 (dB(A)) 60.0
Ldn (dB(A)) 69.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315736-1

Page 1 of 1

Sample Number 2543322-10
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1) (GPS 47P 0733599, 1405064)
Measurement Date May 15 - May 16, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472126

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	62.1	79.1	58.2
10:00 AM - 11:00 AM	61.8	79.8	58.1
11:00 AM - 12:00 PM	62.2	80.1	57.8
12:00 PM - 01:00 PM	61.7	82.2	57.2
01:00 PM - 02:00 PM	62.2	82.6	57.9
02:00 PM - 03:00 PM	61.5	80.8	58.1
03:00 PM - 04:00 PM	61.7	72.8	58.4
04:00 PM - 05:00 PM	62.4	78.9	58.2
05:00 PM - 06:00 PM	62.7	74.5	59.2
06:00 PM - 07:00 PM	64.2	83.6	59.7
07:00 PM - 08:00 PM	62.2	75.6	59.3
08:00 PM - 09:00 PM	62.6	79.8	59.4
09:00 PM - 10:00 PM	61.4	78.0	58.7
10:00 PM - 11:00 PM	61.4	77.1	58.4
11:00 PM - 12:00 AM	61.2	79.1	58.3
12:00 AM - 01:00 AM	60.6	75.7	58.2
01:00 AM - 02:00 AM	60.3	74.1	57.9
02:00 AM - 03:00 AM	60.2	72.5	58.0
03:00 AM - 04:00 AM	62.0	83.6	58.3
04:00 AM - 05:00 AM	60.8	77.1	58.4
05:00 AM - 06:00 AM	62.7	78.4	58.4
06:00 AM - 07:00 AM	63.9	78.3	59.6
07:00 AM - 08:00 AM	65.4	86.4	60.6
08:00 AM - 09:00 AM	63.6	82.7	59.3

Leq Average 24 hrs. (dB(A)) 62.3
Lmax (dB(A)) 86.4
L90 (dB(A)) 58.3
Ldn (dB(A)) 68.2
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322
Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315737-1

Page 1 of 1

Sample Number 2543322-11
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1) (GPS 47P 0733599, 1405064)
Measurement Date May 16 - May 17, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472126

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	62.6	84.5	58.3
10:00 AM - 11:00 AM	62.3	82.2	57.6
11:00 AM - 12:00 PM	62.1	84.0	57.0
12:00 PM - 01:00 PM	60.6	77.5	56.4
01:00 PM - 02:00 PM	60.8	76.8	56.6
02:00 PM - 03:00 PM	61.3	77.7	56.8
03:00 PM - 04:00 PM	62.0	81.3	57.4
04:00 PM - 05:00 PM	62.5	81.5	57.9
05:00 PM - 06:00 PM	62.9	80.0	58.4
06:00 PM - 07:00 PM	63.1	84.2	58.3
07:00 PM - 08:00 PM	61.7	82.9	58.1
08:00 PM - 09:00 PM	62.5	79.0	58.7
09:00 PM - 10:00 PM	62.3	84.2	58.7
10:00 PM - 11:00 PM	62.6	75.8	59.2
11:00 PM - 12:00 AM	62.0	81.0	59.4
12:00 AM - 01:00 AM	64.2	87.2	58.6
01:00 AM - 02:00 AM	61.6	83.8	58.6
02:00 AM - 03:00 AM	60.8	72.9	58.4
03:00 AM - 04:00 AM	60.7	71.9	58.3
04:00 AM - 05:00 AM	63.1	81.3	59.1
05:00 AM - 06:00 AM	63.1	81.9	59.2
06:00 AM - 07:00 AM	65.2	86.7	61.0
07:00 AM - 08:00 AM	64.5	81.9	60.6
08:00 AM - 09:00 AM	62.7	86.1	58.4

Leq Average 24 hrs. (dB(A)) 62.5
Lmax (dB(A)) 87.2
L90 (dB(A)) 58.4
Ldn (dB(A)) 69.2
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315738-1

Page 1 of 1

Sample Number 2543322-12
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1) (GPS 47P 0733599, 1405064)
Measurement Date May 17 - May 18, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472126

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	61.8	82.0	57.6
10:00 AM - 11:00 AM	63.6	80.0	58.0
11:00 AM - 12:00 PM	61.6	81.0	57.2
12:00 PM - 01:00 PM	60.2	86.6	56.1
01:00 PM - 02:00 PM	60.8	78.6	56.3
02:00 PM - 03:00 PM	60.8	79.3	56.9
03:00 PM - 04:00 PM	61.1	78.3	56.4
04:00 PM - 05:00 PM	62.4	79.3	57.7
05:00 PM - 06:00 PM	61.9	78.1	57.7
06:00 PM - 07:00 PM	63.1	84.6	57.9
07:00 PM - 08:00 PM	62.5	77.2	58.1
08:00 PM - 09:00 PM	63.5	84.4	59.7
09:00 PM - 10:00 PM	63.4	79.4	59.8
10:00 PM - 11:00 PM	62.6	82.7	59.4
11:00 PM - 12:00 AM	62.0	82.3	59.3
12:00 AM - 01:00 AM	60.6	75.7	58.5
01:00 AM - 02:00 AM	60.5	72.8	58.7
02:00 AM - 03:00 AM	61.2	71.6	58.9
03:00 AM - 04:00 AM	61.5	71.3	59.4
04:00 AM - 05:00 AM	63.1	70.8	60.6
05:00 AM - 06:00 AM	62.4	73.2	60.1
06:00 AM - 07:00 AM	64.9	86.1	60.6
07:00 AM - 08:00 AM	63.7	78.9	59.3
08:00 AM - 09:00 AM	61.6	78.9	57.3

Leq Average 24 hrs. (dB(A)) 62.3
Lmax (dB(A)) 86.6
L90 (dB(A)) 58.1
Ldn (dB(A)) 68.7
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315739-1

Page 1 of 1

Sample Number 2543322-13
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1) (GPS 47P 0733599, 1405064)
Measurement Date May 18 - May 19, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472126

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	60.8	76.4	56.9
10:00 AM - 11:00 AM	61.0	78.6	56.4
11:00 AM - 12:00 PM	60.9	78.9	56.3
12:00 PM - 01:00 PM	60.1	76.7	56.1
01:00 PM - 02:00 PM	60.4	84.3	55.8
02:00 PM - 03:00 PM	59.8	78.2	55.7
03:00 PM - 04:00 PM	60.0	73.9	55.9
04:00 PM - 05:00 PM	62.0	81.3	57.1
05:00 PM - 06:00 PM	61.3	77.9	56.9
06:00 PM - 07:00 PM	60.9	74.7	57.0
07:00 PM - 08:00 PM	61.1	83.1	56.9
08:00 PM - 09:00 PM	61.5	83.6	56.7
09:00 PM - 10:00 PM	60.8	81.8	56.7
10:00 PM - 11:00 PM	61.1	78.6	57.4
11:00 PM - 12:00 AM	61.3	73.9	58.3
12:00 AM - 01:00 AM	61.2	74.2	57.3
01:00 AM - 02:00 AM	59.8	71.0	57.1
02:00 AM - 03:00 AM	58.9	68.2	56.6
03:00 AM - 04:00 AM	59.2	75.0	57.1
04:00 AM - 05:00 AM	60.4	78.6	57.8
05:00 AM - 06:00 AM	62.4	76.2	58.1
06:00 AM - 07:00 AM	65.1	88.7	59.0
07:00 AM - 08:00 AM	64.4	86.8	60.4
08:00 AM - 09:00 AM	64.6	92.1	58.7

Leq Average 24 hrs. (dB(A)) 61.5
Lmax (dB(A)) 92.1
L90 (dB(A)) 56.9
Ldn (dB(A)) 67.9

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543322

Date Received : May 20, 2025
Date Reported : May 24, 2025
Report Number: 3315740-1

Page 1 of 1

Sample Number 2543322-14
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1) (GPS 47P 0733599, 1405064)
Measurement Date May 19 - May 20, 2025
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472126

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	62.3	88.1	58.0
10:00 AM - 11:00 AM	62.2	83.0	58.1
11:00 AM - 12:00 PM	62.1	77.8	57.9
12:00 PM - 01:00 PM	61.5	78.0	57.5
01:00 PM - 02:00 PM	61.9	86.3	57.3
02:00 PM - 03:00 PM	61.1	80.6	56.7
03:00 PM - 04:00 PM	60.6	75.8	56.6
04:00 PM - 05:00 PM	61.2	77.3	56.7
05:00 PM - 06:00 PM	62.6	79.1	57.9
06:00 PM - 07:00 PM	63.1	85.4	58.4
07:00 PM - 08:00 PM	62.1	76.1	58.5
08:00 PM - 09:00 PM	62.8	83.3	58.7
09:00 PM - 10:00 PM	60.6	73.3	57.8
10:00 PM - 11:00 PM	61.3	77.1	58.2
11:00 PM - 12:00 AM	60.5	82.3	57.9
12:00 AM - 01:00 AM	59.8	79.7	57.5
01:00 AM - 02:00 AM	59.7	72.9	57.7
02:00 AM - 03:00 AM	60.2	74.5	58.1
03:00 AM - 04:00 AM	61.6	78.2	58.3
04:00 AM - 05:00 AM	60.8	74.7	58.0
05:00 AM - 06:00 AM	61.8	78.5	58.4
06:00 AM - 07:00 AM	64.4	85.8	59.5
07:00 AM - 08:00 AM	63.6	83.1	59.0
08:00 AM - 09:00 AM	62.5	81.4	57.9

Leq Average 24 hrs. (dB(A)) 61.8
Lmax (dB(A)) 88.1
L90 (dB(A)) 57.9
Ldn (dB(A)) 67.9

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

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ภาคผนวก ค-4

ระดับเสียงในบริเวณการทำงาน



Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543308

Date Received : May 16, 2025
Date Reported : May 21, 2025
Report Number: 3311635-1

Page 1 of 1

Sample Number 2543308-1
Parameter Noise (Leq 8 hrs.)
Location บริเวณ CO Compressor
Measurement Date May 13, 2025
Measurement by Amnat Wongsakhen

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	75.5	94.9	74.7
10:00 AM - 11:00 AM	75.1	76.6	74.7
11:00 AM - 12:00 PM	74.9	76.3	74.6
12:00 PM - 01:00 PM	74.8	76.2	74.5
01:00 PM - 02:00 PM	74.9	75.9	74.5
02:00 PM - 03:00 PM	74.9	75.9	74.5
03:00 PM - 04:00 PM	74.9	76.0	74.6
04:00 PM - 05:00 PM	75.1	77.8	74.7

Leq Average 8 hrs. (dB(A)) 75.0
Lmax (dB(A)) 94.9
Standard (dB(A)) 90
Reference Method : ISO1996-1 and 1996-2
Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543308

Date Received : May 16, 2025
Date Reported : May 21, 2025
Report Number: 3311636-1

Page 1 of 1

Sample Number 2543308-2
Parameter Noise (Leq 8 hrs.)
Location บริเวณ CO2 Compressor
Measurement Date May 13, 2025
Measurement by Amnat Wongsakhen

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	66.9	86.6	62.6
10:00 AM - 11:00 AM	66.7	86.8	62.5
11:00 AM - 12:00 PM	65.9	80.1	62.3
12:00 PM - 01:00 PM	66.1	80.4	62.2
01:00 PM - 02:00 PM	65.6	80.0	62.2
02:00 PM - 03:00 PM	65.0	78.3	61.9
03:00 PM - 04:00 PM	66.0	83.1	62.1
04:00 PM - 05:00 PM	66.7	81.7	62.7

Leq Average 8 hrs. (dB(A))

66.2

Lmax (dB(A))

86.8

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543308

Date Received : May 16, 2025
Date Reported : May 21, 2025
Report Number: 3311637-1

Page 1 of 1

Sample Number 2543308-3
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Boiler Feed Water Pumps
Measurement Date May 13, 2025
Measurement by Amnat Wongsakhen

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	82.3	83.9	82.2
10:00 AM - 11:00 AM	82.3	84.5	82.2
11:00 AM - 12:00 PM	82.1	82.6	82.1
12:00 PM - 01:00 PM	82.2	83.1	82.0
01:00 PM - 02:00 PM	82.2	84.5	82.0
02:00 PM - 03:00 PM	82.0	82.6	81.9
03:00 PM - 04:00 PM	82.1	83.3	82.0
04:00 PM - 05:00 PM	82.3	83.8	82.1

Leq Average 8 hrs. (dB(A))

82.2

Lmax (dB(A))

84.5

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543308

Date Received : May 16, 2025
Date Reported : May 21, 2025
Report Number: 3311638-1

Page 1 of 1

Sample Number 2543308-4
Parameter Noise (Leq 8 hrs.)
Location บริเวณ NG Compressor
Measurement Date May 13, 2025
Measurement by Amnat Wongsakhen

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	72.0	100.2	71.5
10:00 AM - 11:00 AM	72.0	80.5	71.7
11:00 AM - 12:00 PM	72.1	80.0	71.8
12:00 PM - 01:00 PM	72.0	77.9	71.7
01:00 PM - 02:00 PM	71.9	76.4	71.7
02:00 PM - 03:00 PM	71.9	77.2	71.7
03:00 PM - 04:00 PM	72.2	77.3	71.9
04:00 PM - 05:00 PM	72.5	79.1	72.2

Leq Average 8 hrs. (dB(A))

72.1

Lmax (dB(A))

100.2

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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ภาคผนวก ค-5

การทำงานระดับเสียงเฉลี่ยตลอดเวลาการทำงาน



Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543318

Date Received : May 16, 2025
Date Reported : May 21, 2025
Report Number : 3301543-1

Page 1 of 4

Sample Number 2543318-1
Sampled Date May 13, 2025
Sample Description Noise Dose
Location Shift D
Personal Sampling คุณชานวัฒน์ นามวิชา
Date Analysis Commenced May 17, 2025

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Noise Dose (12 hrs.) (Calculated from Lavg)	08:00 AM - 08:00 PM	%	-	1	26.9	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
Noise Dose (8 hrs.)	08:00 AM - 08:00 PM	%	-	1	24.6	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (12 hrs.) (Calculated from Lavg)	08:00 AM - 08:00 PM	dB(A)	-	-	77.3	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (8 hrs.)	08:00 AM - 08:00 PM	dB(A)	-	-	78.9	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong

Guideline :

MOL : 1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Notification of Department of Labour Protection and Welfare on the Standard of Time Weighted Average (TWA) Noise Level (B.E. 2561)
* MOL: Recommended guideline limit for 12 working hours should not be over 83 dB(A)

Sampled By : Amnat Wongsakhen

Remark :

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

Approved by

Supot Salamteh
Section Head

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

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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543318

Date Received : May 16, 2025
Date Reported : May 21, 2025
Report Number : 3301543-1

Page 2 of 4

Sample Number 2543318-2
Sampled Date May 13, 2025
Sample Description Noise Dose
Location Shift C
Personal Sampling คุณธนภฤต ศรีมาลัย
Date Analysis Commenced May 17, 2025

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Noise Dose (12 hrs.) (Calculated from Lavg)	08:00 PM - 08:00 AM	%	-	1	3.1	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
Noise Dose (8 hrs.)	08:00 PM - 08:00 AM	%	-	1	3.0	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (12 hrs.) (Calculated from Lavg)	08:00 PM - 08:00 AM	dB(A)	-	-	67.9	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (8 hrs.)	08:00 PM - 08:00 AM	dB(A)	-	-	69.8	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong

Guideline :

MOL : 1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Notification of Department of Labour Protection and Welfare on the Standard of Time Weighted Average (TWA) Noise Level (B.E. 2561)
* MOL: Recommended guideline limit for 12 working hours should not be over 83 dB(A)

Sampled By : Amnat Wongsakhen

Remark :

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

Approved by

Supot Salamteh
Section Head

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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543318

Date Received : May 16, 2025
Date Reported : May 21, 2025
Report Number : 3301543-1

Page 3 of 4

Sample Number 2543318-3
Sampled Date May 14, 2025
Sample Description Noise Dose
Location Shift D
Personal Sampling คุณเก๋อกุล ประเสริฐศักดิ์
Date Analysis Commenced May 17, 2025

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Noise Dose (12 hrs.) (Calculated from Lavg)	08:00 AM - 08:00 PM	%	-	1	389	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
Noise Dose (8 hrs.)	08:00 AM - 08:00 PM	%	-	1	355	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (12 hrs.) (Calculated from Lavg)	08:00 AM - 08:00 PM	dB(A)	-	-	88.9	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (8 hrs.)	08:00 AM - 08:00 PM	dB(A)	-	-	90.5	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong

Guideline :

MOL : 1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Notification of Department of Labour Protection and Welfare on the Standard of Time Weighted Average (TWA) Noise Level (B.E. 2561)
* MOL: Recommended guideline limit for 12 working hours should not be over 83 dB(A)

Sampled By : Amnat Wongsakhen

Remark :

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

Approved by

Supot Salamteh
Section Head

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



Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9104015116
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2543318

Date Received : May 16, 2025
Date Reported : May 21, 2025
Report Number : 3301543-1

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Sample Number 2543318-4
Sampled Date May 15, 2025
Sample Description Noise Dose
Location Shift B
Personal Sampling คุณจักรพันธ์ จันทรินทร์เวศน์
Date Analysis Commenced May 17, 2025

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Noise Dose (12 hrs.) (Calculated from Lavg)	08:00 AM - 08:00 PM	%	-	1	36.3	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
Noise Dose (8 hrs.)	08:00 AM - 08:00 PM	%	-	1	33.9	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (12 hrs.) (Calculated from Lavg)	08:00 AM - 08:00 PM	dB(A)	-	-	78.6	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (8 hrs.)	08:00 AM - 08:00 PM	dB(A)	-	-	80.3	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong

Guideline :

MOL : 1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Notification of Department of Labour Protection and Welfare on the Standard of Time Weighted Average (TWA) Noise Level (B.E. 2561)
* MOL: Recommended guideline limit for 12 working hours should not be over 83 dB(A)

Sampled By : Amnat Wongsakhen

Remark :

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

Approved by

Supot Salamteh
Section Head

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

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