

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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640690
Date Received : May 18, 2026
Date Reported : May 23, 2026
Report Number: 3570626-1

Page 1 of 1

Sample Number 2640690-1
Sampled Date May 18, 2026
Sample Description Emission from Stationary Source
Location ปล่อง Reformer Furnace
Date Analysis Commenced May 20, 2026
Condition of Sample Extracted into two 2-L collection flasks

Stack Description

Ambient Pressure	750	mmHg	Diameter	0.55	m	Oxygen	1.6	%
Ambient Temperature	32.8	°C	Shape	Circle		Carbon Dioxide	11.0	%
Type of Process	Combustion		Stack Temperature	174	°C	Gas Velocity	4.3	m/s
Type of Fuel	Natural Gas		Moisture	13.09	%	Flow Rate (Actual O2)	2104	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 %O ₂	Guideline Limit	Method	Testing Location
Air Testing								
Oxides of Nitrogen	02:00 PM - 02:10 PM	ppm	-	1.06	80.5	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 : Sathapron Thakarw ทะเบียนเลขที่ ว-323-จ-0036

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.
ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640691

Date Received : May 18, 2026
Date Reported : May 23, 2026
Report Number: 3570627-1

Page 1 of 1

Sample Number 2640691-1
Sampled Date May 18, 2026
Sample Description Emission from Stationary Source
Location ปล่อง Boiler
Date Analysis Commenced May 20, 2026
Condition of Sample Extracted into two 2-L collection flasks

Stack Description

Ambient Pressure	750	mmHg	Diameter	0.48	m	Oxygen	5.7	%
Ambient Temperature	32.8	°C	Shape	Circle		Carbon Dioxide	8.7	%
Type of Process	Combustion		Stack Temperature	145	°C	Gas Velocity	5.4	m/s
Type of Fuel	Natural Gas		Moisture	10.15	%	Flow Rate (Actual O2)	2226	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 %O ₂	Guideline Limit	Method	Testing Location
Air Testing								
Oxides of Nitrogen	01:40 PM - 01:50 PM	ppm	-	1.06	28.7	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 : Sathapron Thakarw ทะเบียนเลขที่ ว-323-จ-0036

Remark :

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

Technical Management

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Approved by

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ภาคผนวก ค-2

คุณภาพน้ำ



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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 266415
Date Received : Jan 26, 2026
Date Reported : Feb 02, 2026
Report Number : 3492426-1

Page 1 of 2

Sample Number	266415-1
Sampled Date	Jan 26, 2026 9:40 AM
Sample Description	Wastewater
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)
Date Analysis Commenced	Jan 26, 2026
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		-	-	7.9	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	-	-	27.6	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	560	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

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)
- 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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Photchana Seeda
Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

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Senior Manager

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 266415
Date Received : Jan 26, 2026
Date Reported : Feb 02, 2026
Report Number : 3492426-1

Page 2 of 2

Technical Management

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Approved by

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Dej Changchon
Senior Manager
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Analysis / Test Report

TESTING

No.0042

Lot ID: 266418

Date Received : Feb 17, 2026

Date Reported : Feb 25, 2026

Report Number : 3492429-1

Client : Linde HyCO Limited

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

P/O : 9300758928,9300758929

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	266418-1
Sampled Date	Feb 17, 2026 9:58 AM
Sample Description	Wastewater
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)
Date Analysis Commenced	Feb 17, 2026
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		-	-	7.7	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	-	-	32.0	≤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	640	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

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 : Suphanat Sakulkittimasak ทะเบียนเลขที่ ว-323-จ-0021

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

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Approved by

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Senior Manager

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 266418
Date Received : Feb 17, 2026
Date Reported : Feb 25, 2026
Report Number : 3492429-1

Page 2 of 2

Technical Management

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2615289

Date Received : Mar 13, 2026

Date Reported : Mar 20, 2026

Report Number : 3510596-1

Client : Linde HyCO Limited

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

P/O : 9300758928,9300758929

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2615289-1						
Sampled Date	Mar 13, 2026 11:30 AM						
Sample Description	Wastewater						
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)						
Date Analysis Commenced	Mar 13, 2026						
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		-	-	7.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	30.5	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	604	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

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

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

Remark :

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

Technical Management

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ทะเบียนเลขที่ ว-323-จ-0028

Approved by

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2615289
Date Received : Mar 13, 2026
Date Reported : Mar 20, 2026
Report Number : 3510596-1

Page 2 of 2

Technical Management

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2627144

Date Received : Apr 09, 2026

Date Reported : Apr 20, 2026

Report Number : 3538119-1

Client : Linde HyCO Limited

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

P/O : 9300758928,9300758929

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2627144-1						
Sampled Date	Apr 09, 2026 1:10 PM						
Sample Description	Wastewater						
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)						
Date Analysis Commenced	Apr 09, 2026						
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		-	-	7.9	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	-	-	33.6	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	396	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

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

Sampling By : Warunyo Chimphalee ทะเบียนเลขที่ ว-323-จ-0020

Remark :

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

Technical Management

Photchana S

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Scientist (4)

ทะเบียนเลขที่ ว-323-จ-0028

Approved by

D. Chumson.

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Senior Manager

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2627144
Date Received : Apr 09, 2026
Date Reported : Apr 20, 2026
Report Number : 3538119-1

Page 2 of 2

Technical Management

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2634076

Date Received : May 13, 2026

Date Reported : May 19, 2026

Report Number : 3555930-1

Client : Linde HyCO Limited

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

P/O : 9300758928,9300758929

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2634076-1						
Sampled Date	May 13, 2026 11:25 AM						
Sample Description	Wastewater						
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)						
Date Analysis Commenced	May 13, 2026						
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		-	-	7.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	30.1	≤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	392	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

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

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

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. 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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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2634076
Date Received : May 13, 2026
Date Reported : May 19, 2026
Report Number : 3555930-1

Page 2 of 2

Technical Management

PhotchanaS

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

Approved by

D. Johnson

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

TESTING

No.0042

Lot ID: 2640281

Date Received : Jun 23, 2026

Date Reported : Jun 29, 2026

Report Number : 3569586-1

Client : Linde HyCO Limited

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

P/O : 9300758928,9300758929

Project Name : Environmental Monitoring

Project Location :

Page 1 of 2

Sample Number	2640281-1						
Sampled Date	Jun 23, 2026 9:47 AM						
Sample Description	Wastewater						
Location	จุดปล่อยน้ำทิ้งของโครงการบริเวณประตู 2 (Outlet Gate 2)						
Date Analysis Commenced	Jun 23, 2026						
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	7.6	≤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	-	-	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	320	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	10	≤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 :

- 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. 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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Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

TESTING
No.0042
Lot ID: 2640281
Date Received : Jun 23, 2026
Date Reported : Jun 29, 2026
Report Number : 3569586-1

Page 2 of 2

Technical Management

PhotchanaS

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

Approved by

D. Johnson

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

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585225-1

Page 1 of 1

Sample Number 2640689-1
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน)
Measurement Date May 18 - May 19, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	58.9	66.0	58.3
09:00 AM - 10:00 AM	58.8	76.4	58.1
10:00 AM - 11:00 AM	58.9	67.4	58.2
11:00 AM - 12:00 PM	59.4	77.9	58.1
12:00 PM - 01:00 PM	58.7	69.6	58.0
01:00 PM - 02:00 PM	59.0	73.4	58.3
02:00 PM - 03:00 PM	59.0	69.4	58.2
03:00 PM - 04:00 PM	59.0	73.8	58.3
04:00 PM - 05:00 PM	59.1	72.8	58.6
05:00 PM - 06:00 PM	60.6	85.4	58.4
06:00 PM - 07:00 PM	59.4	70.2	58.7
07:00 PM - 08:00 PM	59.1	76.2	58.5
08:00 PM - 09:00 PM	58.8	65.8	58.3
09:00 PM - 10:00 PM	59.2	66.2	58.6
10:00 PM - 11:00 PM	59.2	64.0	58.6
11:00 PM - 12:00 AM	59.2	65.7	58.7
12:00 AM - 01:00 AM	60.5	70.6	58.6
01:00 AM - 02:00 AM	62.5	80.2	58.8
02:00 AM - 03:00 AM	59.4	73.1	58.5
03:00 AM - 04:00 AM	59.3	76.3	58.5
04:00 AM - 05:00 AM	59.2	73.2	58.3
05:00 AM - 06:00 AM	59.1	67.8	58.1
06:00 AM - 07:00 AM	62.0	85.3	58.2
07:00 AM - 08:00 AM	59.3	76.9	58.5

Leq Average 24 hrs. (dB(A)) 59.6
Lmax (dB(A)) 85.4
L90 (dB(A)) 58.3
Ldn (dB(A)) 66.5

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585226-1

Page 1 of 1

Sample Number 2640689-2
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน)
Measurement Date May 19 - May 20, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	59.2	65.0	58.6
09:00 AM - 10:00 AM	58.8	70.5	58.2
10:00 AM - 11:00 AM	59.0	77.6	58.1
11:00 AM - 12:00 PM	59.4	78.8	58.0
12:00 PM - 01:00 PM	59.0	75.3	58.2
01:00 PM - 02:00 PM	59.4	67.5	58.4
02:00 PM - 03:00 PM	59.1	71.8	58.4
03:00 PM - 04:00 PM	59.4	74.0	58.4
04:00 PM - 05:00 PM	58.6	69.1	58.0
05:00 PM - 06:00 PM	58.5	70.1	57.8
06:00 PM - 07:00 PM	65.4	85.7	58.6
07:00 PM - 08:00 PM	59.3	69.2	58.7
08:00 PM - 09:00 PM	59.8	85.0	58.5
09:00 PM - 10:00 PM	59.1	63.7	58.5
10:00 PM - 11:00 PM	75.4	92.1	58.9
11:00 PM - 12:00 AM	60.1	78.1	59.1
12:00 AM - 01:00 AM	59.3	63.6	58.8
01:00 AM - 02:00 AM	59.6	74.4	58.8
02:00 AM - 03:00 AM	59.4	69.5	58.8
03:00 AM - 04:00 AM	60.8	78.4	58.7
04:00 AM - 05:00 AM	61.0	73.6	60.1
05:00 AM - 06:00 AM	61.2	90.0	58.5
06:00 AM - 07:00 AM	60.7	86.1	58.3
07:00 AM - 08:00 AM	59.9	72.7	58.8

Leq Average 24 hrs. (dB(A)) 63.9
Lmax (dB(A)) 92.1
L90 (dB(A)) 58.5
Ldn (dB(A)) 72.7

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585227-1

Page 1 of 1

Sample Number 2640689-3
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน)
Measurement Date May 20 - May 21, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	59.5	76.3	58.4
09:00 AM - 10:00 AM	58.7	68.1	58.0
10:00 AM - 11:00 AM	58.6	76.9	57.9
11:00 AM - 12:00 PM	58.6	71.7	57.9
12:00 PM - 01:00 PM	59.1	78.9	58.0
01:00 PM - 02:00 PM	58.9	73.8	58.2
02:00 PM - 03:00 PM	58.9	71.9	58.2
03:00 PM - 04:00 PM	59.3	73.7	58.5
04:00 PM - 05:00 PM	59.2	82.2	58.6
05:00 PM - 06:00 PM	59.3	73.9	58.7
06:00 PM - 07:00 PM	59.8	81.2	58.6
07:00 PM - 08:00 PM	59.8	75.0	59.2
08:00 PM - 09:00 PM	60.2	78.3	59.1
09:00 PM - 10:00 PM	59.3	65.4	58.8
10:00 PM - 11:00 PM	58.9	62.4	58.4
11:00 PM - 12:00 AM	59.0	66.3	58.5
12:00 AM - 01:00 AM	58.9	73.8	58.2
01:00 AM - 02:00 AM	61.6	82.2	58.5
02:00 AM - 03:00 AM	61.0	82.7	58.6
03:00 AM - 04:00 AM	64.4	84.7	58.9
04:00 AM - 05:00 AM	60.2	78.8	59.2
05:00 AM - 06:00 AM	59.5	70.7	58.7
06:00 AM - 07:00 AM	61.1	86.0	58.4
07:00 AM - 08:00 AM	59.0	74.9	58.3

Leq Average 24 hrs. (dB(A)) 59.9
Lmax (dB(A)) 86.0
L90 (dB(A)) 58.5
Ldn (dB(A)) 67.1

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585228-1

Page 1 of 1

Sample Number 2640689-4
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน)
Measurement Date May 21 - May 22, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	58.5	67.0	57.6
09:00 AM - 10:00 AM	58.3	77.4	57.5
10:00 AM - 11:00 AM	58.4	68.1	57.7
11:00 AM - 12:00 PM	58.9	69.7	58.0
12:00 PM - 01:00 PM	58.3	67.0	57.8
01:00 PM - 02:00 PM	58.7	68.9	58.0
02:00 PM - 03:00 PM	59.0	71.7	58.3
03:00 PM - 04:00 PM	59.1	72.2	58.4
04:00 PM - 05:00 PM	58.7	64.5	58.2
05:00 PM - 06:00 PM	60.0	82.7	58.4
06:00 PM - 07:00 PM	58.9	82.3	58.3
07:00 PM - 08:00 PM	59.2	75.8	58.3
08:00 PM - 09:00 PM	72.2	90.0	58.0
09:00 PM - 10:00 PM	59.3	66.7	58.3
10:00 PM - 11:00 PM	58.5	64.0	58.2
11:00 PM - 12:00 AM	59.1	74.9	58.1
12:00 AM - 01:00 AM	59.5	71.7	58.9
01:00 AM - 02:00 AM	60.0	85.6	58.1
02:00 AM - 03:00 AM	66.8	80.9	58.4
03:00 AM - 04:00 AM	68.8	90.4	59.3
04:00 AM - 05:00 AM	60.4	80.7	58.8
05:00 AM - 06:00 AM	59.4	74.4	58.4
06:00 AM - 07:00 AM	61.6	85.5	58.5
07:00 AM - 08:00 AM	60.9	77.1	59.3

Leq Average 24 hrs. (dB(A)) 62.9
Lmax (dB(A)) 90.4
L90 (dB(A)) 58.3
Ldn (dB(A)) 69.6

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585229-1

Page 1 of 1

Sample Number 2640689-5
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน)
Measurement Date May 22 - May 23, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	59.5	70.2	58.5
09:00 AM - 10:00 AM	58.8	67.5	58.0
10:00 AM - 11:00 AM	59.4	79.7	58.4
11:00 AM - 12:00 PM	58.9	69.8	58.3
12:00 PM - 01:00 PM	59.2	74.2	58.2
01:00 PM - 02:00 PM	60.1	79.4	59.2
02:00 PM - 03:00 PM	58.9	71.9	58.3
03:00 PM - 04:00 PM	58.9	75.7	58.3
04:00 PM - 05:00 PM	59.0	72.0	58.3
05:00 PM - 06:00 PM	59.7	78.4	58.5
06:00 PM - 07:00 PM	59.6	80.9	58.3
07:00 PM - 08:00 PM	59.3	64.2	58.8
08:00 PM - 09:00 PM	61.6	74.3	58.8
09:00 PM - 10:00 PM	59.0	71.2	58.5
10:00 PM - 11:00 PM	58.8	72.7	58.3
11:00 PM - 12:00 AM	62.7	82.2	59.0
12:00 AM - 01:00 AM	60.5	81.2	58.8
01:00 AM - 02:00 AM	59.0	65.1	58.5
02:00 AM - 03:00 AM	59.5	76.4	58.6
03:00 AM - 04:00 AM	59.7	70.2	58.8
04:00 AM - 05:00 AM	59.8	80.4	58.9
05:00 AM - 06:00 AM	59.6	82.2	58.6
06:00 AM - 07:00 AM	59.0	76.6	58.2
07:00 AM - 08:00 AM	60.2	83.1	58.3

Leq Average 24 hrs. (dB(A)) 59.7
Lmax (dB(A)) 83.1
L90 (dB(A)) 58.5
Ldn (dB(A)) 66.4

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585230-1

Page 1 of 1

Sample Number 2640689-6
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน)
Measurement Date May 23 - May 24, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	59.0	70.5	58.4
09:00 AM - 10:00 AM	60.2	82.3	58.1
10:00 AM - 11:00 AM	59.0	75.2	58.1
11:00 AM - 12:00 PM	58.5	74.1	57.7
12:00 PM - 01:00 PM	58.5	74.8	57.7
01:00 PM - 02:00 PM	58.5	76.3	57.4
02:00 PM - 03:00 PM	58.4	75.6	57.7
03:00 PM - 04:00 PM	58.7	76.2	57.9
04:00 PM - 05:00 PM	58.6	80.4	58.0
05:00 PM - 06:00 PM	58.5	77.2	58.0
06:00 PM - 07:00 PM	58.5	82.0	58.0
07:00 PM - 08:00 PM	60.1	83.6	58.1
08:00 PM - 09:00 PM	58.9	64.9	58.5
09:00 PM - 10:00 PM	59.1	67.7	58.6
10:00 PM - 11:00 PM	58.7	71.2	58.2
11:00 PM - 12:00 AM	58.8	70.6	58.3
12:00 AM - 01:00 AM	59.2	70.3	58.6
01:00 AM - 02:00 AM	60.1	72.6	58.9
02:00 AM - 03:00 AM	60.4	79.7	58.6
03:00 AM - 04:00 AM	59.1	67.5	58.6
04:00 AM - 05:00 AM	59.2	75.7	58.5
05:00 AM - 06:00 AM	59.0	82.0	58.1
06:00 AM - 07:00 AM	58.6	76.7	57.7
07:00 AM - 08:00 AM	60.5	82.0	57.8

Leq Average 24 hrs. (dB(A)) 59.1
Lmax (dB(A)) 83.6
L90 (dB(A)) 58.1
Ldn (dB(A)) 65.7

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

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Supot Salamteh
Section Head

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585231-1

Page 1 of 1

Sample Number 2640689-7
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วของโรงงานด้านทิศใต้ (พื้นที่ลานปูน)
Measurement Date May 24 - May 25, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	59.0	76.7	58.1
09:00 AM - 10:00 AM	59.6	75.8	57.9
10:00 AM - 11:00 AM	58.2	75.9	57.5
11:00 AM - 12:00 PM	58.0	69.5	57.4
12:00 PM - 01:00 PM	58.2	79.2	57.4
01:00 PM - 02:00 PM	58.2	65.8	57.6
02:00 PM - 03:00 PM	58.8	72.8	57.9
03:00 PM - 04:00 PM	58.4	74.5	57.8
04:00 PM - 05:00 PM	58.8	82.6	58.1
05:00 PM - 06:00 PM	58.5	66.9	58.1
06:00 PM - 07:00 PM	59.5	68.3	58.3
07:00 PM - 08:00 PM	60.5	84.0	58.8
08:00 PM - 09:00 PM	59.0	65.7	58.4
09:00 PM - 10:00 PM	60.3	75.5	58.6
10:00 PM - 11:00 PM	61.0	84.0	58.3
11:00 PM - 12:00 AM	69.1	87.2	58.6
12:00 AM - 01:00 AM	60.9	77.2	58.9
01:00 AM - 02:00 AM	59.1	70.4	58.6
02:00 AM - 03:00 AM	59.2	63.2	58.7
03:00 AM - 04:00 AM	59.2	70.0	58.7
04:00 AM - 05:00 AM	59.5	71.6	58.7
05:00 AM - 06:00 AM	59.6	74.1	58.7
06:00 AM - 07:00 AM	59.2	71.9	58.4
07:00 AM - 08:00 AM	59.2	81.6	58.2

Leq Average 24 hrs. (dB(A)) 60.6
Lmax (dB(A)) 87.2
L90 (dB(A)) 58.3
Ldn (dB(A)) 68.5

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585232-1

Page 1 of 1

Sample Number 2640689-8
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1)
Measurement Date May 18 - May 19, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	62.0	83.0	57.5
09:00 AM - 10:00 AM	61.1	80.4	57.0
10:00 AM - 11:00 AM	61.5	80.0	57.7
11:00 AM - 12:00 PM	61.5	82.8	57.6
12:00 PM - 01:00 PM	61.2	77.2	57.2
01:00 PM - 02:00 PM	62.1	82.1	57.9
02:00 PM - 03:00 PM	63.5	78.6	59.2
03:00 PM - 04:00 PM	62.6	76.4	58.9
04:00 PM - 05:00 PM	62.7	82.6	58.9
05:00 PM - 06:00 PM	61.3	73.9	58.4
06:00 PM - 07:00 PM	61.0	77.7	58.2
07:00 PM - 08:00 PM	61.2	84.0	58.7
08:00 PM - 09:00 PM	61.0	84.1	58.5
09:00 PM - 10:00 PM	60.4	70.3	58.6
10:00 PM - 11:00 PM	60.5	71.2	58.5
11:00 PM - 12:00 AM	60.3	73.6	58.5
12:00 AM - 01:00 AM	60.4	72.1	58.3
01:00 AM - 02:00 AM	67.1	83.6	58.5
02:00 AM - 03:00 AM	66.6	83.1	58.7
03:00 AM - 04:00 AM	62.8	79.5	59.3
04:00 AM - 05:00 AM	64.3	84.6	60.0
05:00 AM - 06:00 AM	64.3	80.1	59.6
06:00 AM - 07:00 AM	62.7	80.7	59.0
07:00 AM - 08:00 AM	62.6	81.2	59.3

Leq Average 24 hrs. (dB(A)) 62.7
Lmax (dB(A)) 84.6
L90 (dB(A)) 58.5
Ldn (dB(A)) 70.1

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585233-1

Page 1 of 1

Sample Number 2640689-9
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1)
Measurement Date May 19 - May 20, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	62.1	76.0	58.9
09:00 AM - 10:00 AM	62.9	79.9	58.9
10:00 AM - 11:00 AM	61.7	77.9	57.9
11:00 AM - 12:00 PM	62.0	77.9	58.3
12:00 PM - 01:00 PM	61.7	80.4	58.1
01:00 PM - 02:00 PM	62.5	79.0	58.8
02:00 PM - 03:00 PM	63.3	78.6	58.9
03:00 PM - 04:00 PM	63.1	83.1	59.5
04:00 PM - 05:00 PM	62.6	87.4	59.1
05:00 PM - 06:00 PM	61.3	76.1	57.7
06:00 PM - 07:00 PM	61.3	76.9	58.4
07:00 PM - 08:00 PM	61.1	77.2	58.2
08:00 PM - 09:00 PM	60.6	74.9	58.3
09:00 PM - 10:00 PM	60.6	71.8	58.3
10:00 PM - 11:00 PM	62.8	80.1	59.1
11:00 PM - 12:00 AM	61.4	70.9	59.5
12:00 AM - 01:00 AM	61.1	76.9	59.1
01:00 AM - 02:00 AM	64.6	82.9	58.8
02:00 AM - 03:00 AM	64.9	86.5	58.8
03:00 AM - 04:00 AM	63.2	78.9	59.3
04:00 AM - 05:00 AM	64.9	87.6	59.7
05:00 AM - 06:00 AM	65.7	84.1	60.1
06:00 AM - 07:00 AM	64.0	80.7	59.9
07:00 AM - 08:00 AM	62.0	75.1	58.4

Leq Average 24 hrs. (dB(A)) 62.8
Lmax (dB(A)) 87.6
L90 (dB(A)) 58.8
Ldn (dB(A)) 70.1

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585234-1

Page 1 of 1

Sample Number 2640689-10
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1)
Measurement Date May 20 - May 21, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	62.1	80.5	58.0
09:00 AM - 10:00 AM	61.7	78.2	57.4
10:00 AM - 11:00 AM	60.8	77.8	57.4
11:00 AM - 12:00 PM	62.0	84.3	58.5
12:00 PM - 01:00 PM	61.4	73.3	58.0
01:00 PM - 02:00 PM	76.1	107.5	57.7
02:00 PM - 03:00 PM	63.2	81.6	59.0
03:00 PM - 04:00 PM	62.2	82.5	58.0
04:00 PM - 05:00 PM	63.5	90.3	57.6
05:00 PM - 06:00 PM	61.5	82.9	57.6
06:00 PM - 07:00 PM	61.4	88.2	57.6
07:00 PM - 08:00 PM	61.0	77.3	58.1
08:00 PM - 09:00 PM	61.5	78.7	58.6
09:00 PM - 10:00 PM	61.3	76.0	58.9
10:00 PM - 11:00 PM	61.2	79.0	58.9
11:00 PM - 12:00 AM	60.9	74.6	58.9
12:00 AM - 01:00 AM	60.9	74.9	59.0
01:00 AM - 02:00 AM	64.6	83.0	58.8
02:00 AM - 03:00 AM	63.2	85.2	59.2
03:00 AM - 04:00 AM	64.4	83.6	59.1
04:00 AM - 05:00 AM	65.3	87.1	60.4
05:00 AM - 06:00 AM	65.7	84.7	60.9
06:00 AM - 07:00 AM	63.7	80.1	59.6
07:00 AM - 08:00 AM	62.3	78.3	58.7

Leq Average 24 hrs. (dB(A)) 65.4
Lmax (dB(A)) 107.5
L90 (dB(A)) 58.6
Ldn (dB(A)) 70.5
Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
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Supot Salamteh
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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585235-1

Page 1 of 1

Sample Number 2640689-11
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1)
Measurement Date May 21 - May 22, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	61.7	76.5	57.8
09:00 AM - 10:00 AM	61.6	79.7	57.7
10:00 AM - 11:00 AM	61.3	83.8	57.8
11:00 AM - 12:00 PM	61.5	78.8	57.9
12:00 PM - 01:00 PM	61.6	82.9	57.8
01:00 PM - 02:00 PM	61.6	80.1	57.5
02:00 PM - 03:00 PM	62.5	79.8	58.4
03:00 PM - 04:00 PM	62.1	78.0	58.4
04:00 PM - 05:00 PM	62.4	77.8	58.8
05:00 PM - 06:00 PM	62.1	77.1	58.7
06:00 PM - 07:00 PM	61.3	73.0	58.7
07:00 PM - 08:00 PM	61.6	82.5	58.9
08:00 PM - 09:00 PM	61.3	76.3	58.7
09:00 PM - 10:00 PM	60.8	75.5	58.4
10:00 PM - 11:00 PM	60.3	77.1	58.3
11:00 PM - 12:00 AM	60.3	73.7	58.4
12:00 AM - 01:00 AM	60.7	72.4	58.6
01:00 AM - 02:00 AM	66.3	83.4	58.8
02:00 AM - 03:00 AM	66.0	84.6	58.9
03:00 AM - 04:00 AM	65.7	85.4	60.0
04:00 AM - 05:00 AM	66.7	90.7	61.9
05:00 AM - 06:00 AM	66.5	83.4	62.6
06:00 AM - 07:00 AM	64.5	84.7	61.0
07:00 AM - 08:00 AM	63.7	78.7	60.7

Leq Average 24 hrs. (dB(A)) 63.2
Lmax (dB(A)) 90.7
L90 (dB(A)) 58.6
Ldn (dB(A)) 70.9
Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585236-1

Page 1 of 1

Sample Number 2640689-12
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1)
Measurement Date May 22 - May 23, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	64.2	81.8	60.2
09:00 AM - 10:00 AM	63.5	80.3	59.8
10:00 AM - 11:00 AM	62.8	75.1	59.1
11:00 AM - 12:00 PM	62.4	79.2	58.9
12:00 PM - 01:00 PM	62.8	85.3	58.8
01:00 PM - 02:00 PM	62.8	75.3	59.3
02:00 PM - 03:00 PM	63.6	77.3	60.1
03:00 PM - 04:00 PM	63.7	78.5	59.3
04:00 PM - 05:00 PM	62.8	82.7	58.6
05:00 PM - 06:00 PM	62.4	77.0	59.4
06:00 PM - 07:00 PM	62.2	71.3	59.7
07:00 PM - 08:00 PM	62.0	75.7	59.4
08:00 PM - 09:00 PM	61.9	74.1	59.2
09:00 PM - 10:00 PM	61.3	72.6	59.0
10:00 PM - 11:00 PM	61.1	72.5	59.0
11:00 PM - 12:00 AM	61.2	76.5	58.9
12:00 AM - 01:00 AM	61.9	87.6	59.1
01:00 AM - 02:00 AM	61.7	80.8	59.1
02:00 AM - 03:00 AM	68.0	83.0	59.1
03:00 AM - 04:00 AM	63.0	82.0	59.1
04:00 AM - 05:00 AM	63.0	80.6	59.1
05:00 AM - 06:00 AM	64.2	84.9	59.5
06:00 AM - 07:00 AM	61.9	80.5	58.0
07:00 AM - 08:00 AM	61.3	77.5	57.6

Leq Average 24 hrs. (dB(A)) 63.0
Lmax (dB(A)) 87.6
L90 (dB(A)) 59.1
Ldn (dB(A)) 69.8

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585237-1

Page 1 of 1

Sample Number 2640689-13
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1)
Measurement Date May 23 - May 24, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	61.5	73.1	57.3
09:00 AM - 10:00 AM	62.2	85.4	57.6
10:00 AM - 11:00 AM	60.5	77.1	57.1
11:00 AM - 12:00 PM	60.6	76.4	56.8
12:00 PM - 01:00 PM	61.0	82.7	57.5
01:00 PM - 02:00 PM	60.9	72.9	57.4
02:00 PM - 03:00 PM	61.6	77.4	57.7
03:00 PM - 04:00 PM	61.8	78.7	57.9
04:00 PM - 05:00 PM	62.3	84.6	58.7
05:00 PM - 06:00 PM	61.8	83.8	58.7
06:00 PM - 07:00 PM	61.4	83.8	58.0
07:00 PM - 08:00 PM	60.6	80.7	57.6
08:00 PM - 09:00 PM	60.3	72.0	57.5
09:00 PM - 10:00 PM	60.3	74.2	57.6
10:00 PM - 11:00 PM	60.2	77.8	57.4
11:00 PM - 12:00 AM	60.0	79.7	57.6
12:00 AM - 01:00 AM	60.1	79.3	57.7
01:00 AM - 02:00 AM	60.1	70.8	57.8
02:00 AM - 03:00 AM	67.8	84.3	58.2
03:00 AM - 04:00 AM	66.2	86.1	58.6
04:00 AM - 05:00 AM	61.8	74.9	58.8
05:00 AM - 06:00 AM	62.4	83.8	57.6
06:00 AM - 07:00 AM	62.0	85.4	57.3
07:00 AM - 08:00 AM	60.4	76.1	56.9

Leq Average 24 hrs. (dB(A)) 62.1
Lmax (dB(A)) 86.1
L90 (dB(A)) 57.6
Ldn (dB(A)) 69.4

Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head



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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640689

Date Received : May 25, 2026
Date Reported : May 29, 2026
Report Number: 3585238-1

Page 1 of 1

Sample Number 2640689-14
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วของโรงงาน ด้านทิศตะวันตกเฉียงเหนือ (ป้อมประตู 1)
Measurement Date May 24 - May 25, 2026
Measurement by Norranon Tathongkham
Sound Level meter Serial No. 597168

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	60.8	76.3	57.1
09:00 AM - 10:00 AM	60.5	74.0	57.0
10:00 AM - 11:00 AM	60.0	80.1	56.2
11:00 AM - 12:00 PM	59.9	76.6	55.9
12:00 PM - 01:00 PM	60.3	75.5	56.1
01:00 PM - 02:00 PM	60.4	78.4	56.3
02:00 PM - 03:00 PM	60.9	81.8	56.4
03:00 PM - 04:00 PM	60.7	80.0	57.1
04:00 PM - 05:00 PM	61.4	75.2	57.7
05:00 PM - 06:00 PM	61.3	79.0	57.8
06:00 PM - 07:00 PM	60.9	72.9	57.7
07:00 PM - 08:00 PM	60.8	78.5	58.0
08:00 PM - 09:00 PM	60.2	79.0	57.6
09:00 PM - 10:00 PM	60.1	75.2	57.4
10:00 PM - 11:00 PM	59.6	72.4	57.3
11:00 PM - 12:00 AM	60.0	79.6	57.3
12:00 AM - 01:00 AM	61.2	83.9	58.4
01:00 AM - 02:00 AM	60.5	74.7	58.2
02:00 AM - 03:00 AM	66.9	85.3	58.3
03:00 AM - 04:00 AM	66.2	82.8	58.9
04:00 AM - 05:00 AM	63.8	82.0	59.7
05:00 AM - 06:00 AM	64.7	85.2	60.2
06:00 AM - 07:00 AM	63.3	77.9	59.3
07:00 AM - 08:00 AM	62.6	82.1	58.6

Leq Average 24 hrs. (dB(A)) 62.1
Lmax (dB(A)) 85.3
L90 (dB(A)) 57.6
Ldn (dB(A)) 69.8
Standard (dB(A)) 70 115

Reference Method : ISO 1996-1 : 2016

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

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

Technical Management

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ภาคผนวก ค-4

ระดับเสี่ยงในบริเวณการทำงาน



Analysis / Test Report

Client : Linde HyCO Limited
10/1, I-4 Road, T.Map Ta Phut, A.Muang, Rayong Thailand 21150
P/O : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640692

Date Received : May 19, 2026
Date Reported : May 23, 2026
Report Number: 3578777-1

Page 1 of 1

Sample Number 2640692-1
Parameter Noise (Leq 8 hrs.)
Location บริเวณ CO Compressor
Measurement Date May 18, 2026
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:47 AM - 10:47 AM	79.6	82.1	79.2
10:47 AM - 11:47 AM	79.5	81.8	79.1
11:47 AM - 12:47 PM	79.6	82.7	79.2
12:47 PM - 01:47 PM	80.6	82.5	79.8
01:47 PM - 02:47 PM	80.6	82.9	79.8
02:47 PM - 03:47 PM	80.6	82.8	79.8
03:47 PM - 04:47 PM	80.3	82.8	79.6
04:47 PM - 05:47 PM	80.3	82.4	79.6

Leq Average 8 hrs. (dB(A))

80.2

Lmax (dB(A))

82.9

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

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Chonticha Subongkoch
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Approved by

Supot S

Supot Salamteh
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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640692

Date Received : May 19, 2026
Date Reported : May 23, 2026
Report Number: 3578778-1

Page 1 of 1

Sample Number 2640692-2
Parameter Noise (Leq 8 hrs.)
Location บริเวณ CO2 Compressor
Measurement Date May 18, 2026
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:44 AM - 10:44 AM	65.4	76.5	63.0
10:44 AM - 11:44 AM	64.8	80.3	62.8
11:44 AM - 12:44 PM	64.5	76.0	62.5
12:44 PM - 01:44 PM	66.1	81.7	62.6
01:44 PM - 02:44 PM	64.5	74.4	62.6
02:44 PM - 03:44 PM	65.0	81.4	62.7
03:44 PM - 04:44 PM	66.5	84.1	62.9
04:44 PM - 05:44 PM	65.5	78.1	62.6

Leq Average 8 hrs. (dB(A))

65.3

Lmax (dB(A))

84.1

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640692

Date Received : May 19, 2026
Date Reported : May 23, 2026
Report Number: 3578779-1

Page 1 of 1

Sample Number 2640692-3
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Boiler Feed Water Pumps
Measurement Date May 18, 2026
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:50 AM - 10:50 AM	78.5	92.7	77.3
10:50 AM - 11:50 AM	77.8	81.3	76.5
11:50 AM - 12:50 PM	77.5	85.7	76.0
12:50 PM - 01:50 PM	77.7	87.5	75.9
01:50 PM - 02:50 PM	78.7	82.8	76.3
02:50 PM - 03:50 PM	78.2	90.3	76.7
03:50 PM - 04:50 PM	77.7	85.9	76.2
04:50 PM - 05:50 PM	78.9	83.0	76.5

Leq Average 8 hrs. (dB(A))

78.2

Lmax (dB(A))

92.7

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

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Approved by

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Supot Salamteh
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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640692

Date Received : May 19, 2026
Date Reported : May 23, 2026
Report Number: 3578780-1

Page 1 of 1

Sample Number 2640692-4
Parameter Noise (Leq 8 hrs.)
Location บริเวณ NG Compressor
Measurement Date May 18, 2026
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:34 AM - 10:34 AM	73.1	78.3	72.9
10:34 AM - 11:34 AM	73.0	75.1	72.8
11:34 AM - 12:34 PM	72.8	74.6	72.6
12:34 PM - 01:34 PM	72.9	75.1	72.6
01:34 PM - 02:34 PM	72.9	74.3	72.7
02:34 PM - 03:34 PM	72.9	74.7	72.7
03:34 PM - 04:34 PM	73.0	75.9	72.8
04:34 PM - 05:34 PM	73.0	74.8	72.8

Leq Average 8 hrs. (dB(A))

73.0

Lmax (dB(A))

78.3

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

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Supot Salamteh
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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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640694

Date Received : May 20, 2026
Date Reported : May 23, 2026
Report Number : 3570647-1

Page 1 of 4

Sample Number 2640694-1
Sampled Date May 18, 2026
Sample Description Noise Dose
Location Shift C กะเขำ
Personal Sampling คุณธนภฤต ศรีมาลัย
Date Analysis Commenced May 21, 2026

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	30.2	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
Noise Dose (8 hrs.)	08:00 AM - 08:00 PM	%	-	1	28.2	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)	-	-	77.8	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (8 hrs.)	08:00 AM - 08:00 PM	dB(A)	-	-	79.5	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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640694

Date Received : May 20, 2026
Date Reported : May 23, 2026
Report Number : 3570647-1

Page 2 of 4

Sample Number 2640694-2
Sampled Date May 18, 2026
Sample Description Noise Dose
Location Shift D นะดึก
Personal Sampling คุณนฤกร ฤทธิ์
Date Analysis Commenced May 21, 2026

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	17.8	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
Noise Dose (8 hrs.)	08:00 PM - 08:00 AM	%	-	1	17.4	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)	-	-	75.5	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (8 hrs.)	08:00 PM - 08:00 AM	dB(A)	-	-	77.4	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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640694

Date Received : May 20, 2026
Date Reported : May 23, 2026
Report Number : 3570647-1

Page 3 of 4

Sample Number 2640694-3
Sampled Date May 19, 2026
Sample Description Noise Dose
Location Shift A กะเขำ
Personal Sampling คุณชานวัฒน์ นามวิชา
Date Analysis Commenced May 21, 2026

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	27.5	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
Noise Dose (8 hrs.)	08:00 AM - 08:00 PM	%	-	1	25.7	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)	-	-	77.4	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (8 hrs.)	08:00 AM - 08:00 PM	dB(A)	-	-	79.1	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 : 9300758928,9300758929
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2640694

Date Received : May 20, 2026
Date Reported : May 23, 2026
Report Number : 3570647-1

Page 4 of 4

Sample Number 2640694-4
Sampled Date May 19, 2026
Sample Description Noise Dose
Location Shift B กะดึก
Personal Sampling คุณจักรพันธ์ จันทรินทร์เวศน์
Date Analysis Commenced May 21, 2026

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	10.0	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
Noise Dose (8 hrs.)	08:00 PM - 08:00 AM	%	-	1	9.6	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)	-	-	73.0	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (8 hrs.)	08:00 PM - 08:00 AM	dB(A)	-	-	74.8	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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