

ภาคผนวก ค

ผลการตรวจวัดคุณภาพสิ่งแวดล้อม

ภาคผนวก ค-1

คุณภาพอากาศในบรรยากาศโดยทั่วไป



Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150

P/O : KAC-2022-88

Project Name :

Project Location :

Lot ID: 232498

Date Received : Jan 10, 2023

Date Reported : Jan 20, 2023

Report Number : 2537855-2C1

Page 1 of 1

Sample Number 232498-1
Sampled Date Jan 09, 2023
Sample Description Air Quality (Community)
Location ชุมชนมาบชอุตสาหกรรม (A1)
Date Analysis Commenced Jan 11, 2023
Condition of Sample Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure 761 mmHg
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Formaldehyde	09/01/23 - 10/01/23	ppm	-	0.10	<0.10	No Standard	Based on NIOSH, 2541	-	Bangkok
Toluene	09/01/23 - 10/01/23	ug/m3	0.60	1.88	18.84	No Standard	Based on US EPA Compendium Method, TO-15	-	Rayong

Guideline :

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

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

Sampled By : Tarin Octjinda

Remark :

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

Approved by

Saranya C.

Saranya Chalermtamrong
Scientist (4)

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Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150

P/O : KAC-2022-88

Project Name :

Project Location :

Lot ID: 237878

Date Received : Feb 03, 2023

Date Reported : Feb 11, 2023

Report Number : 2549006-1C1

Page 1 of 1

Sample Number 237878-1
Sampled Date Feb 02, 2023
Sample Description Air Quality (Community)
Location ชุมชนमानชลุด-ซากกลาง (A1)
Date Analysis Commenced Feb 06, 2023
Condition of Sample Drawn into one 6-L Canister and two sorbent tubes, refrigerated
Barometric Pressure 756 mmHg
Atmospheric Temperature 32.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Formaldehyde	02/02/23 - 03/02/23	ppm	-	0.10	<0.10	No Standard	Based on NIOSH, 2541	-	Bangkok
Toluene	02/02/23 - 03/02/23	ug/m3	0.60	1.88	155	No Standard	Based on US EPA Compendium Method, TO-15	-	Rayong

Guideline :

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

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

Sampled By : Kantaphon Maneesampan

Remark :

- LOD : Limit of Detection
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Approved by

Sararat Mongkonjirawut
Supervisor

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Analysis / Test Report

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Muang Rayong, Rayong Thailand 21150

P/O : KAC-2022-88

Project Name :

Project Location :

Lot ID: 2319012

Date Received : Mar 03, 2023

Date Reported : Mar 15, 2023

Report Number : 2573003-1C1

Page 1 of 1

Sample Number 2319012-1
Sampled Date Mar 01, 2023
Sample Description Air Quality (Community)
Location ชุมชนমানชลด-ซากกลาง (A1)
Date Analysis Commenced Mar 03, 2023
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 760 mmHg
Atmospheric Temperature 34.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Formaldehyde	01/03/23 - 02/03/23	ppm	-	0.10	<0.10	No Standard	Based on NIOSH, 2541	-	Bangkok
Toluene	01/03/23 - 02/03/23	ug/m3	0.60	1.88	38.59	No Standard	Based on US EPA Compendium Method, TO-15	-	Rayong

Guideline :

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

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

Sampled By : Saknarin Jaraskay

Remark :

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Approved by

Tanyatorn Mongkonjirawut
Supervisor

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Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150

P/O : KAC-2022-88

Project Name :

Project Location :

Lot ID: 2335291

Date Received : Apr 19, 2023

Date Reported : Apr 28, 2023

Report Number : 2607415-1C1

Page 1 of 1

Sample Number 2335291-1
Sampled Date Apr 18, 2023
Sample Description Air Quality (Community)
Location ชุมชนमानชลุด-ซากกลาง (A1)
Date Analysis Commenced Apr 20, 2023
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 757 mmHg
Atmospheric Temperature 33.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Formaldehyde	18/04/23 - 19/04/23	ppm	-	0.10	<0.10	No Standard	Based on NIOSH, 2541	-	Bangkok
Toluene	18/04/23 - 19/04/23	ug/m3	0.60	1.88	58.42	No Standard	Based on US EPA Compendium Method, TO-15	-	Rayong

Guideline :

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

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

Sampled By : Jittakorn Sriwasa

Remark :

- LOD : Limit of Detection
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Approved by

Tanyatorn Mongkonjirawut
Supervisor

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Analysis / Test Report

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11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150

P/O : KAC-2022-88

Project Name : EIA Monitoring

Project Location :

Lot ID: 2347006

Date Received : May 06, 2023

Date Reported : May 18, 2023

Report Number : 2634008-1C1

Page 1 of 1

Sample Number 2347006-1
Sampled Date May 05, 2023
Sample Description Air Quality (Community)
Location ชุมชนमानชลุด-ซากกลาง (A1)
Date Analysis Commenced May 09, 2023
Condition of Sample Extracted into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 756 mmHg
Atmospheric Temperature 34.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Formaldehyde	05/05/23 - 06/05/23	ppm	-	0.10	<0.10	No Standard	Based on NIOSH, 2541	-	Bangkok
Toluene	05/05/23 - 06/05/23	ug/m3	0.60	1.88	141	No Standard	Based on US EPA Compendium Method, TO-15	-	Rayong

Guideline :

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

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

Sampled By : Chatchai Sukpia

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Life Sciences

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Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2359786

Date Received : Jun 02, 2023

Date Reported : Jun 15, 2023

Report Number : 2659949-1C1

Page 1 of 1

Sample Number 2359786-1
Sampled Date Jun 01, 2023
Sample Description Air Quality
Location ชุมชนมาบชลูด-ซากกลาง (A1) (GPS 47P 729920, 1407115)
Date Analysis Commenced Jun 06, 2023
Condition of Sample Drawn into one 6-L Canister and one sorbent tube, refrigerated
Barometric Pressure 758 mmHg
Atmospheric Temperature 32.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Formaldehyde	01/06/23 - 02/06/23	ppm	-	0.10	<0.10	No Standard	Based on NIOSH, 2541	-	Bangkok
Toluene	01/06/23 - 02/06/23	ug/m3	0.60	1.88	<1.88	No Standard	Based on US EPA Compendium Method, TO-15	-	Rayong

Guideline :

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

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

Sampled By : Nantawat Sarin

Remark :

- LOD : Limit of Detection
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Approved by

Tanyatorn Mongkonjirawut
Supervisor

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Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong,
Amphur Muang Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID : 2319015

Date Received : Jun 02, 2023

Date Reported : Jun 12, 2023

Report Number : 2573005-1

Page 1 of 2

Sample Number : 2319015-1
Parameter : Wind Speed / Wind Direction
Location : ชุมชนนาบขลุ่ย-ซากกลาง (A1) (GPS 47P 729920, 1407115)
Sampling Date : Jun 01 - Jun 02, 2023
Sampling by : Nantawat Sarin

Time	Jun 01 - Jun 02, 2023			-			-			-			-			-			-		
	WS (m/s)	WD (deg)		-	-		-	-		-	-		-	-		-	-		-	-	
02:00 PM - 03:00 PM	0.4	296.0	WNW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00 PM - 04:00 PM	0.3	288.0	WNW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00 PM - 05:00 PM	0.3	277.0	W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00 PM - 06:00 PM	0.3	291.0	WNW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00 PM - 07:00 PM	0.6	294.0	WNW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07:00 PM - 08:00 PM	0.5	333.0	NNW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00 PM - 09:00 PM	0.3	330.0	NNW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09:00 PM - 10:00 PM	0.7	11.0	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 PM - 11:00 PM	2.3	292.0	WNW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM - 12:00 AM	0.7	327.0	NNW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 AM - 01:00 AM	3.3	229.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01:00 AM - 02:00 AM	0.3	174.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02:00 AM - 03:00 AM	0.5	136.0	SE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00 AM - 04:00 AM	0.3	124.0	SE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00 AM - 05:00 AM	1.6	185.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00 AM - 06:00 AM	2.8	178.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00 AM - 07:00 AM	1.7	197.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07:00 AM - 08:00 AM	3.3	180.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00 AM - 09:00 AM	3.3	176.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09:00 AM - 10:00 AM	1.8	214.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM - 11:00 AM	0.9	162.0	SSE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM - 12:00 PM	0.7	157.0	SSE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM - 01:00 PM	0.3	238.0	WSW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01:00 PM - 02:00 PM	0.3	326.0	NW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jittrantont
Assistant General Manager



Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong,
Amphur Muang Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID : 2319015

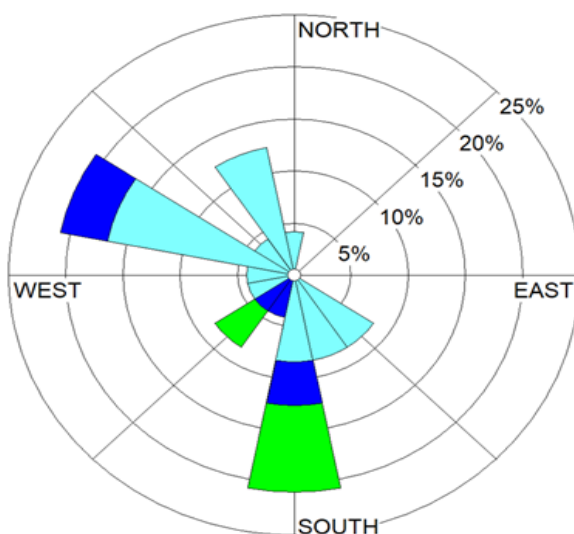
Date Received : Jun 02, 2023

Date Reported : Jun 12, 2023

Report Number : 2573005-1

Page 2 of 2

Wind Rose



Date : Jun 01-02, 2023

WS(m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	12.50
1.7-3.3	16.67
0.3-1.7	70.83
Calms	0.00

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Approved by

Sarayuth Jittranont
Assistant General Manager

ภาคผนวก ค-2

คุณภาพอากาศจากปล่องระบายอากาศ



Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.

11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319016

Date Received : Jun 02, 2023

Date Reported : Jun 12, 2023

Report Number: 2573009-1

Page 1 of 2

Sample Number	2319016-1
Sampled Date	Jun 02, 2023
Sample Description	Emission From Stationary Source
Location	ปล่องของส่วนการเตรียมฟอร์มาลดีไฮด์
Date Analysis Commenced	Jun 06, 2023
Condition of Sample	Extracted into one sorbent tube, refrigerated

Stack Description

Ambient Pressure	754	mmHg	Diameter	0.40	m	Oxygen	7.2	%
Ambient Temperature	31.0	°C	Shape	Circle		Carbon Dioxide	7.7	%
Type of Process	Process		Stack Temperature	120	°C	Gas Velocity	10.5	m/s
Type of Fuel	-		Moisture	3.59	%	Flow Rate (Actual O2)	3446	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Testing Location
Air Testing								
Formaldehyde	09:45 AM - 10:00 AM	ppm	-	1.00	<1.00	15.0	United States Environmental Protection Agency, EPA Method 18	Bangkok

Approved by

Tanyatorn Mongkonjirawut
Supervisor

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Analysis / Test Report

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11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319016

Date Received : Jun 02, 2023
Date Reported : Jun 12, 2023
Report Number: 2573009-1

Page 2 of 2

Sample Number 2319016-1
Sampled Date Jun 02, 2023
Sample Description Emission From Stationary Source
Location ปล่องของส่วนการเตรียมฟอร์มาลดีไฮด์
Date Analysis Commenced Jun 06, 2023
Condition of Sample Extracted into one sorbent tube, refrigerated

Stack Description

Ambient Pressure	754	mmHg	Diameter	0.40	m	Oxygen	7.2	%
Ambient Temperature	31.0	°C	Shape	Circle		Carbon Dioxide	7.7	%
Type of Process	Process		Stack Temperature	120	°C	Gas Velocity	10.5	m/s
Type of Fuel	-		Moisture	3.59	%	Flow Rate (Actual O2)	3446	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline Limit	Method	Testing Location
Air Testing								
Formaldehyde	09:45 AM - 10:00 AM	g/s	-	-	<0.001	0.019	Calculated	Bangkok

Guideline : Environmental Impact Assessment Report of Kuraray Advanced Chemicals (Thailand) Co., Ltd.

Sampled By : Thitipong Buadaeng

Remark :

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

Approved by

Tanyatorn Mongkonjirawut
Supervisor

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ภาคผนวก ค-3

ระดับเสียง



Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023
Date Reported : Jun 23, 2023
Report Number: 2693786-1

Page 1 of 1

Sample Number 2319019-1
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 1 (N1)
Measurement Date Jun 12 - Jun 13, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	58.4	91.1	50.1
03:00 PM - 04:00 PM	53.8	70.8	49.9
04:00 PM - 05:00 PM	56.1	77.2	49.5
05:00 PM - 06:00 PM	54.0	78.4	49.7
06:00 PM - 07:00 PM	53.7	76.8	50.1
07:00 PM - 08:00 PM	51.3	65.1	50.0
08:00 PM - 09:00 PM	50.9	65.7	50.0
09:00 PM - 10:00 PM	51.0	60.9	50.2
10:00 PM - 11:00 PM	51.1	61.1	50.2
11:00 PM - 12:00 AM	50.7	60.4	49.9
12:00 AM - 01:00 AM	51.3	59.9	50.4
01:00 AM - 02:00 AM	51.1	60.4	50.2
02:00 AM - 03:00 AM	51.3	59.1	50.4
03:00 AM - 04:00 AM	51.3	58.7	50.4
04:00 AM - 05:00 AM	52.1	66.7	50.6
05:00 AM - 06:00 AM	58.4	75.2	50.5
06:00 AM - 07:00 AM	57.4	86.9	50.6
07:00 AM - 08:00 AM	54.8	77.3	50.2
08:00 AM - 09:00 AM	55.8	75.8	50.0
09:00 AM - 10:00 AM	61.0	87.1	50.0
10:00 AM - 11:00 AM	59.1	85.2	48.1
11:00 AM - 12:00 PM	58.7	84.8	47.7
12:00 PM - 01:00 PM	57.9	84.0	46.9
01:00 PM - 02:00 PM	57.8	83.9	46.8

Leq Average 24 hrs. (dB(A)) 55.8
Lmax (dB(A)) 91.1
L90 (dB(A)) 50.0
Ldn (dB(A)) 60.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693787-1

Page 1 of 1

Sample Number 2319019-2
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 1 (N1)
Measurement Date Jun 13 - Jun 14, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	61.3	87.6	49.9
03:00 PM - 04:00 PM	56.5	83.9	50.1
04:00 PM - 05:00 PM	54.5	77.0	49.1
05:00 PM - 06:00 PM	56.8	73.8	49.2
06:00 PM - 07:00 PM	55.7	81.2	48.9
07:00 PM - 08:00 PM	53.8	75.6	49.4
08:00 PM - 09:00 PM	61.0	84.0	48.9
09:00 PM - 10:00 PM	52.7	79.5	49.0
10:00 PM - 11:00 PM	51.0	75.6	49.4
11:00 PM - 12:00 AM	51.0	62.1	50.0
12:00 AM - 01:00 AM	50.7	62.4	49.1
01:00 AM - 02:00 AM	53.4	61.5	49.6
02:00 AM - 03:00 AM	49.7	75.1	46.7
03:00 AM - 04:00 AM	48.3	56.8	46.9
04:00 AM - 05:00 AM	48.8	56.1	47.5
05:00 AM - 06:00 AM	48.7	59.0	47.3
06:00 AM - 07:00 AM	49.3	72.4	46.5
07:00 AM - 08:00 AM	50.5	72.6	46.5
08:00 AM - 09:00 AM	56.1	75.9	46.6
09:00 AM - 10:00 AM	58.8	86.2	47.8
10:00 AM - 11:00 AM	55.7	75.5	47.7
11:00 AM - 12:00 PM	54.6	74.3	48.2
12:00 PM - 01:00 PM	57.7	86.9	48.1
01:00 PM - 02:00 PM	59.7	85.3	47.6

Leq Average 24 hrs. (dB(A)) 55.8
Lmax (dB(A)) 87.6
L90 (dB(A)) 48.2
Ldn (dB(A)) 58.7
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693788-1

Page 1 of 1

Sample Number 2319019-3
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 1 (N1)
Measurement Date Jun 14 - Jun 15, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	57.4	81.7	49.3
03:00 PM - 04:00 PM	55.2	70.1	48.7
04:00 PM - 05:00 PM	54.2	74.7	48.7
05:00 PM - 06:00 PM	54.2	72.8	49.0
06:00 PM - 07:00 PM	55.9	77.3	48.4
07:00 PM - 08:00 PM	54.9	85.8	48.3
08:00 PM - 09:00 PM	54.9	73.7	48.8
09:00 PM - 10:00 PM	52.3	70.0	49.0
10:00 PM - 11:00 PM	49.8	64.5	48.5
11:00 PM - 12:00 AM	49.6	58.0	48.5
12:00 AM - 01:00 AM	50.8	68.1	49.0
01:00 AM - 02:00 AM	50.5	62.6	49.1
02:00 AM - 03:00 AM	50.0	62.4	48.6
03:00 AM - 04:00 AM	50.3	75.8	48.7
04:00 AM - 05:00 AM	49.8	56.8	48.7
05:00 AM - 06:00 AM	49.9	67.7	48.2
06:00 AM - 07:00 AM	49.4	68.1	47.8
07:00 AM - 08:00 AM	50.8	70.7	47.5
08:00 AM - 09:00 AM	55.8	73.9	48.3
09:00 AM - 10:00 AM	60.2	85.8	49.4
10:00 AM - 11:00 AM	56.1	85.8	48.8
11:00 AM - 12:00 PM	55.8	80.1	48.6
12:00 PM - 01:00 PM	58.9	87.3	48.5
01:00 PM - 02:00 PM	51.2	74.4	46.3

Leq Average 24 hrs. (dB(A)) 54.5
Lmax (dB(A)) 87.3
L90 (dB(A)) 48.6
Ldn (dB(A)) 57.9
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023
Date Reported : Jun 23, 2023
Report Number: 2693789-1

Page 1 of 1

Sample Number 2319019-4
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 1 (N1)
Measurement Date Jun 15 - Jun 16, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	56.5	84.0	48.6
03:00 PM - 04:00 PM	58.6	84.6	48.6
04:00 PM - 05:00 PM	58.0	81.1	48.0
05:00 PM - 06:00 PM	57.6	85.5	48.1
06:00 PM - 07:00 PM	51.5	70.2	48.2
07:00 PM - 08:00 PM	54.5	81.2	48.3
08:00 PM - 09:00 PM	54.1	68.4	49.2
09:00 PM - 10:00 PM	52.4	68.4	49.7
10:00 PM - 11:00 PM	52.6	66.9	50.3
11:00 PM - 12:00 AM	51.6	61.7	50.3
12:00 AM - 01:00 AM	50.9	72.9	49.4
01:00 AM - 02:00 AM	51.0	72.1	49.1
02:00 AM - 03:00 AM	49.7	58.4	48.6
03:00 AM - 04:00 AM	49.8	60.0	48.5
04:00 AM - 05:00 AM	51.2	72.9	48.9
05:00 AM - 06:00 AM	50.2	56.7	49.0
06:00 AM - 07:00 AM	50.4	65.8	49.1
07:00 AM - 08:00 AM	52.0	71.0	49.0
08:00 AM - 09:00 AM	55.2	72.2	49.8
09:00 AM - 10:00 AM	55.7	73.6	49.9
10:00 AM - 11:00 AM	53.6	75.5	49.2
11:00 AM - 12:00 PM	58.5	81.9	48.5
12:00 PM - 01:00 PM	60.7	81.2	48.3
01:00 PM - 02:00 PM	53.8	74.7	48.4

Leq Average 24 hrs. (dB(A)) 55.0
Lmax (dB(A)) 85.5
L90 (dB(A)) 48.9
Ldn (dB(A)) 58.6
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693790-1

Page 1 of 1

Sample Number	2319019-5
Parameter	Noise (Leq 24 hrs.)
Location	ชุมชนบางพลู-ซากกลาง จุดที่ 1 (N1)
Measurement Date	Jun 16 - Jun 17, 2023
Measurement by	Jakkarin Manwicha
Sound Level meter	Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	54.3	78.8	48.2
03:00 PM - 04:00 PM	56.2	79.9	49.6
04:00 PM - 05:00 PM	63.1	87.0	48.7
05:00 PM - 06:00 PM	53.9	79.9	48.5
06:00 PM - 07:00 PM	53.6	81.3	48.6
07:00 PM - 08:00 PM	56.7	87.2	48.6
08:00 PM - 09:00 PM	54.6	76.3	48.0
09:00 PM - 10:00 PM	53.2	87.6	48.6
10:00 PM - 11:00 PM	50.7	68.0	48.8
11:00 PM - 12:00 AM	50.4	63.4	48.6
12:00 AM - 01:00 AM	51.8	62.7	49.5
01:00 AM - 02:00 AM	49.3	62.4	48.0
02:00 AM - 03:00 AM	48.4	58.0	47.5
03:00 AM - 04:00 AM	48.0	56.8	46.7
04:00 AM - 05:00 AM	46.8	55.9	46.1
05:00 AM - 06:00 AM	47.2	66.1	46.0
06:00 AM - 07:00 AM	47.6	57.0	47.0
07:00 AM - 08:00 AM	49.3	66.7	47.1
08:00 AM - 09:00 AM	54.9	72.1	47.6
09:00 AM - 10:00 AM	57.3	83.4	48.1
10:00 AM - 11:00 AM	53.8	75.2	47.4
11:00 AM - 12:00 PM	52.7	73.1	47.9
12:00 PM - 01:00 PM	65.2	88.4	47.7
01:00 PM - 02:00 PM	63.9	87.1	46.4
Leq Average 24 hrs. (dB(A))	57.0		
Lmax (dB(A))		88.4	
L90 (dB(A))			48.0
Ldn (dB(A))	58.9		
Standard (dB(A))	70	115	
Reference Method : ISO1996-1 and 1996-2			
Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป			
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการ			
โรงงาน พ.ศ. 2548			
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.			

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023
Date Reported : Jun 23, 2023
Report Number: 2693791-1

Page 1 of 1

Sample Number 2319019-6
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ชากกลาง จุดที่ 1 (N1)
Measurement Date Jun 17 - Jun 18, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	57.4	80.4	53.3
03:00 PM - 04:00 PM	53.0	79.6	48.3
04:00 PM - 05:00 PM	51.5	67.3	48.2
05:00 PM - 06:00 PM	53.1	74.8	48.5
06:00 PM - 07:00 PM	55.2	77.5	48.7
07:00 PM - 08:00 PM	54.4	83.2	49.0
08:00 PM - 09:00 PM	52.3	68.8	49.5
09:00 PM - 10:00 PM	52.5	71.8	49.4
10:00 PM - 11:00 PM	52.5	72.6	49.6
11:00 PM - 12:00 AM	50.7	64.0	49.1
12:00 AM - 01:00 AM	51.0	65.4	49.3
01:00 AM - 02:00 AM	50.6	62.9	49.0
02:00 AM - 03:00 AM	49.7	60.0	48.3
03:00 AM - 04:00 AM	49.3	68.9	48.1
04:00 AM - 05:00 AM	48.9	56.2	47.8
05:00 AM - 06:00 AM	48.7	55.4	47.8
06:00 AM - 07:00 AM	48.8	56.2	47.9
07:00 AM - 08:00 AM	50.5	56.0	49.4
08:00 AM - 09:00 AM	51.3	70.7	49.5
09:00 AM - 10:00 AM	56.0	76.5	49.9
10:00 AM - 11:00 AM	59.6	83.7	49.6
11:00 AM - 12:00 PM	54.6	79.1	49.5
12:00 PM - 01:00 PM	52.7	70.2	49.2
01:00 PM - 02:00 PM	54.0	76.1	48.4

Leq Average 24 hrs. (dB(A)) 53.4
Lmax (dB(A)) 83.7
L90 (dB(A)) 49.0
Ldn (dB(A)) 57.6
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023
Date Reported : Jun 23, 2023
Report Number: 2693792-1

Page 1 of 1

Sample Number 2319019-7
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 1 (N1)
Measurement Date Jun 18 - Jun 19, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1173610

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	56.3	76.3	47.6
03:00 PM - 04:00 PM	53.6	72.4	50.1
04:00 PM - 05:00 PM	56.4	78.2	50.6
05:00 PM - 06:00 PM	57.1	78.2	50.2
06:00 PM - 07:00 PM	57.1	80.1	50.6
07:00 PM - 08:00 PM	54.4	74.7	50.8
08:00 PM - 09:00 PM	52.6	69.4	49.7
09:00 PM - 10:00 PM	54.6	72.6	51.2
10:00 PM - 11:00 PM	52.8	72.3	50.5
11:00 PM - 12:00 AM	50.4	65.7	48.9
12:00 AM - 01:00 AM	50.0	61.9	48.5
01:00 AM - 02:00 AM	49.9	55.1	48.8
02:00 AM - 03:00 AM	49.8	56.1	48.7
03:00 AM - 04:00 AM	49.6	52.8	48.4
04:00 AM - 05:00 AM	49.5	69.5	47.9
05:00 AM - 06:00 AM	49.7	54.4	48.5
06:00 AM - 07:00 AM	49.5	57.6	48.3
07:00 AM - 08:00 AM	50.1	64.9	48.4
08:00 AM - 09:00 AM	52.0	73.6	49.4
09:00 AM - 10:00 AM	57.3	73.6	50.0
10:00 AM - 11:00 AM	61.3	87.7	49.7
11:00 AM - 12:00 PM	55.5	77.8	49.7
12:00 PM - 01:00 PM	59.7	88.6	49.6
01:00 PM - 02:00 PM	56.2	83.5	48.9

Leq Average 24 hrs. (dB(A)) 55.0
Lmax (dB(A)) 88.6
L90 (dB(A)) 49.4
Ldn (dB(A)) 58.3
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023
Date Reported : Jun 23, 2023
Report Number: 2693793-1

Page 1 of 1

Sample Number 2319019-8
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 2 (N2)
Measurement Date Jun 12 - Jun 13, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 376364

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	55.6	72.7	50.5
03:00 PM - 04:00 PM	55.6	62.2	51.7
04:00 PM - 05:00 PM	63.3	76.2	57.6
05:00 PM - 06:00 PM	59.3	76.4	54.2
06:00 PM - 07:00 PM	56.3	75.2	50.9
07:00 PM - 08:00 PM	57.7	64.3	53.8
08:00 PM - 09:00 PM	59.0	63.7	56.3
09:00 PM - 10:00 PM	59.2	76.3	54.1
10:00 PM - 11:00 PM	61.1	67.7	57.2
11:00 PM - 12:00 AM	65.5	78.4	59.8
12:00 AM - 01:00 AM	65.2	77.3	62.9
01:00 AM - 02:00 AM	66.6	71.3	63.9
02:00 AM - 03:00 AM	66.0	71.2	61.6
03:00 AM - 04:00 AM	64.3	73.7	56.0
04:00 AM - 05:00 AM	65.8	75.4	51.8
05:00 AM - 06:00 AM	66.1	73.6	50.7
06:00 AM - 07:00 AM	64.9	75.7	53.4
07:00 AM - 08:00 AM	56.9	80.2	53.8
08:00 AM - 09:00 AM	56.2	75.1	50.8
09:00 AM - 10:00 AM	55.8	74.7	50.4
10:00 AM - 11:00 AM	59.5	82.5	49.5
11:00 AM - 12:00 PM	57.0	83.6	53.6
12:00 PM - 01:00 PM	56.1	78.2	54.2
01:00 PM - 02:00 PM	58.8	77.6	56.9

Leq Average 24 hrs. (dB(A)) 62.3
Lmax (dB(A)) 83.6
L90 (dB(A)) 53.8
Ldn (dB(A)) 71.2
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693794-1

Page 1 of 1

Sample Number 2319019-9
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 2 (N2)
Measurement Date Jun 13 - Jun 14, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 376364

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	60.5	77.9	55.1
03:00 PM - 04:00 PM	57.7	66.6	52.4
04:00 PM - 05:00 PM	61.4	76.0	56.4
05:00 PM - 06:00 PM	64.2	81.6	58.8
06:00 PM - 07:00 PM	59.5	81.6	52.2
07:00 PM - 08:00 PM	59.8	68.7	54.5
08:00 PM - 09:00 PM	57.0	64.2	47.0
09:00 PM - 10:00 PM	64.1	81.5	58.7
10:00 PM - 11:00 PM	63.2	72.1	57.9
11:00 PM - 12:00 AM	63.6	78.2	58.6
12:00 AM - 01:00 AM	62.1	69.7	56.1
01:00 AM - 02:00 AM	64.6	71.8	54.6
02:00 AM - 03:00 AM	62.4	74.0	52.7
03:00 AM - 04:00 AM	63.3	73.3	52.8
04:00 AM - 05:00 AM	62.7	73.5	52.6
05:00 AM - 06:00 AM	57.4	75.1	51.0
06:00 AM - 07:00 AM	56.8	71.4	54.1
07:00 AM - 08:00 AM	58.1	83.4	55.7
08:00 AM - 09:00 AM	59.4	81.5	52.1
09:00 AM - 10:00 AM	59.0	81.1	51.7
10:00 AM - 11:00 AM	58.2	76.0	54.7
11:00 AM - 12:00 PM	63.1	76.3	48.3
12:00 PM - 01:00 PM	65.0	78.5	56.5
01:00 PM - 02:00 PM	63.1	81.7	60.1

Leq Average 24 hrs. (dB(A)) 61.8
Lmax (dB(A)) 83.4
L90 (dB(A)) 54.5
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 และระดับเสียงที่เกิดจากการประกอบกิจการ
โรงงาน พ.ศ. 2548

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693795-1

Page 1 of 1

Sample Number 2319019-10
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 2 (N2)
Measurement Date Jun 14 - Jun 15, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 376364

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	50.0	65.7	48.2
03:00 PM - 04:00 PM	51.1	58.7	43.4
04:00 PM - 05:00 PM	53.8	72.4	48.6
05:00 PM - 06:00 PM	53.7	69.4	51.9
06:00 PM - 07:00 PM	55.0	80.1	51.9
07:00 PM - 08:00 PM	51.2	60.8	45.5
08:00 PM - 09:00 PM	56.0	67.5	44.3
09:00 PM - 10:00 PM	53.6	69.3	51.8
10:00 PM - 11:00 PM	51.6	64.2	48.9
11:00 PM - 12:00 AM	56.0	74.6	50.8
12:00 AM - 01:00 AM	58.9	67.2	51.9
01:00 AM - 02:00 AM	56.6	75.1	51.9
02:00 AM - 03:00 AM	54.2	68.4	51.9
03:00 AM - 04:00 AM	54.9	79.5	51.7
04:00 AM - 05:00 AM	52.0	64.3	50.8
05:00 AM - 06:00 AM	51.0	61.0	49.9
06:00 AM - 07:00 AM	54.7	79.0	52.7
07:00 AM - 08:00 AM	56.9	74.2	54.2
08:00 AM - 09:00 AM	54.9	80.0	51.8
09:00 AM - 10:00 AM	54.5	79.6	51.4
10:00 AM - 11:00 AM	58.1	78.3	53.9
11:00 AM - 12:00 PM	55.2	73.5	45.7
12:00 PM - 01:00 PM	56.4	80.7	52.9
01:00 PM - 02:00 PM	57.2	80.8	53.1

Leq Average 24 hrs. (dB(A)) 55.1
Lmax (dB(A)) 80.8
L90 (dB(A)) 51.7
Ldn (dB(A)) 61.5
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693796-1

Page 1 of 1

Sample Number 2319019-11
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 2 (N2)
Measurement Date Jun 15 - Jun 16, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 376364

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	55.4	74.6	53.0
03:00 PM - 04:00 PM	52.9	71.0	49.8
04:00 PM - 05:00 PM	51.2	70.1	49.0
05:00 PM - 06:00 PM	53.9	73.1	51.5
06:00 PM - 07:00 PM	52.7	76.4	49.7
07:00 PM - 08:00 PM	51.0	69.1	47.9
08:00 PM - 09:00 PM	54.7	67.7	49.0
09:00 PM - 10:00 PM	53.8	73.0	51.4
10:00 PM - 11:00 PM	51.4	69.5	48.3
11:00 PM - 12:00 AM	50.0	68.9	47.8
12:00 AM - 01:00 AM	52.0	61.8	47.6
01:00 AM - 02:00 AM	55.3	68.3	49.6
02:00 AM - 03:00 AM	52.2	64.4	49.4
03:00 AM - 04:00 AM	51.2	68.0	49.9
04:00 AM - 05:00 AM	50.4	63.1	49.3
05:00 AM - 06:00 AM	51.8	60.9	48.4
06:00 AM - 07:00 AM	51.7	69.1	50.8
07:00 AM - 08:00 AM	53.5	69.1	52.6
08:00 AM - 09:00 AM	52.6	76.3	49.6
09:00 AM - 10:00 AM	52.2	75.9	49.2
10:00 AM - 11:00 AM	55.5	79.3	52.5
11:00 AM - 12:00 PM	52.8	71.6	51.0
12:00 PM - 01:00 PM	54.8	72.9	52.3
01:00 PM - 02:00 PM	54.8	84.5	51.8

Leq Average 24 hrs. (dB(A)) 53.1
Lmax (dB(A)) 84.5
L90 (dB(A)) 49.6
Ldn (dB(A)) 58.7
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693797-1

Page 1 of 1

Sample Number 2319019-12
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 2 (N2)
Measurement Date Jun 16 - Jun 17, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 376364

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	55.6	66.2	47.9
03:00 PM - 04:00 PM	53.6	64.2	49.3
04:00 PM - 05:00 PM	50.2	56.8	48.6
05:00 PM - 06:00 PM	58.3	68.9	50.6
06:00 PM - 07:00 PM	52.3	74.5	50.1
07:00 PM - 08:00 PM	51.7	62.3	47.4
08:00 PM - 09:00 PM	50.3	62.7	47.0
09:00 PM - 10:00 PM	58.2	68.8	50.5
10:00 PM - 11:00 PM	52.1	62.7	47.8
11:00 PM - 12:00 AM	49.0	55.6	47.4
12:00 AM - 01:00 AM	48.5	61.8	46.1
01:00 AM - 02:00 AM	50.9	63.3	47.6
02:00 AM - 03:00 AM	51.2	62.0	48.7
03:00 AM - 04:00 AM	50.9	62.8	49.2
04:00 AM - 05:00 AM	50.3	59.2	48.8
05:00 AM - 06:00 AM	49.0	60.1	47.8
06:00 AM - 07:00 AM	51.7	60.2	50.3
07:00 AM - 08:00 AM	54.3	65.3	52.8
08:00 AM - 09:00 AM	52.2	74.4	50.0
09:00 AM - 10:00 AM	51.8	74.0	49.6
10:00 AM - 11:00 AM	55.7	82.9	52.6
11:00 AM - 12:00 PM	53.3	71.1	50.6
12:00 PM - 01:00 PM	55.4	75.3	51.3
01:00 PM - 02:00 PM	54.5	74.3	50.2

Leq Average 24 hrs. (dB(A)) 53.4
Lmax (dB(A)) 82.9
L90 (dB(A)) 49.2
Ldn (dB(A)) 57.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693798-1

Page 1 of 1

Sample Number 2319019-13
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 2 (N2)
Measurement Date Jun 17 - Jun 18, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 376364

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	54.2	77.6	50.8
03:00 PM - 04:00 PM	55.4	67.0	50.7
04:00 PM - 05:00 PM	51.2	72.3	49.6
05:00 PM - 06:00 PM	53.7	77.1	50.3
06:00 PM - 07:00 PM	52.2	70.1	49.4
07:00 PM - 08:00 PM	53.5	65.1	48.8
08:00 PM - 09:00 PM	50.8	70.7	48.4
09:00 PM - 10:00 PM	53.6	77.0	50.2
10:00 PM - 11:00 PM	53.9	65.5	49.2
11:00 PM - 12:00 AM	50.0	71.1	48.4
12:00 AM - 01:00 AM	48.5	57.3	47.1
01:00 AM - 02:00 AM	51.4	71.3	49.0
02:00 AM - 03:00 AM	51.6	64.1	49.5
03:00 AM - 04:00 AM	51.6	64.6	49.8
04:00 AM - 05:00 AM	50.4	62.6	48.9
05:00 AM - 06:00 AM	49.2	59.1	47.5
06:00 AM - 07:00 AM	52.8	75.7	50.7
07:00 AM - 08:00 AM	54.2	59.7	52.4
08:00 AM - 09:00 AM	52.1	70.0	49.3
09:00 AM - 10:00 AM	51.7	69.6	48.9
10:00 AM - 11:00 AM	56.5	76.6	53.0
11:00 AM - 12:00 PM	55.4	84.1	51.3
12:00 PM - 01:00 PM	57.7	81.4	52.4
01:00 PM - 02:00 PM	57.1	77.6	52.9

Leq Average 24 hrs. (dB(A)) 53.5
Lmax (dB(A)) 84.1
L90 (dB(A)) 49.5
Ldn (dB(A)) 58.4
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693799-1

Page 1 of 1

Sample Number 2319019-14
Parameter Noise (Leq 24 hrs.)
Location ชุมชนมาบชลด-ซากกลาง จุดที่ 2 (N2)
Measurement Date Jun 18 - Jun 19, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 376364

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	53.7	72.6	50.3
03:00 PM - 04:00 PM	53.6	68.5	48.9
04:00 PM - 05:00 PM	52.2	72.6	47.8
05:00 PM - 06:00 PM	53.2	72.1	49.8
06:00 PM - 07:00 PM	56.5	74.9	51.9
07:00 PM - 08:00 PM	51.7	66.6	47.0
08:00 PM - 09:00 PM	50.4	69.9	47.4
09:00 PM - 10:00 PM	53.1	72.0	49.7
10:00 PM - 11:00 PM	52.1	67.0	47.4
11:00 PM - 12:00 AM	51.0	71.4	46.6
12:00 AM - 01:00 AM	47.9	62.9	45.7
01:00 AM - 02:00 AM	51.0	70.5	48.0
02:00 AM - 03:00 AM	50.0	62.2	48.1
03:00 AM - 04:00 AM	50.0	58.9	48.5
04:00 AM - 05:00 AM	49.5	62.4	48.3
05:00 AM - 06:00 AM	49.1	61.0	47.1
06:00 AM - 07:00 AM	51.5	60.3	50.4
07:00 AM - 08:00 AM	53.9	69.5	52.2
08:00 AM - 09:00 AM	56.4	74.8	51.8
09:00 AM - 10:00 AM	56.0	74.4	51.4
10:00 AM - 11:00 AM	56.4	74.8	52.7
11:00 AM - 12:00 PM	53.6	72.0	49.7
12:00 PM - 01:00 PM	52.4	68.1	50.4
01:00 PM - 02:00 PM	56.2	73.1	53.0

Leq Average 24 hrs. (dB(A)) 53.2
Lmax (dB(A)) 74.9
L90 (dB(A)) 48.9
Ldn (dB(A)) 57.6
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693800-1

Page 1 of 1

Sample Number 2319019-15
Parameter Noise (Leq 24 hrs.)
Location ริมรั้วด้านทิศเหนือของโครงการ (N3)
Measurement Date Jun 12 - Jun 13, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1133046

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	54.0	68.6	49.8
04:00 PM - 05:00 PM	50.4	55.1	49.9
05:00 PM - 06:00 PM	50.1	51.2	49.6
06:00 PM - 07:00 PM	50.3	56.8	49.6
07:00 PM - 08:00 PM	54.2	69.2	49.8
08:00 PM - 09:00 PM	51.0	57.5	50.0
09:00 PM - 10:00 PM	50.9	55.5	50.1
10:00 PM - 11:00 PM	50.4	51.7	49.9
11:00 PM - 12:00 AM	50.5	54.4	49.8
12:00 AM - 01:00 AM	51.1	57.1	50.3
01:00 AM - 02:00 AM	50.4	52.3	49.9
02:00 AM - 03:00 AM	50.9	59.6	50.1
03:00 AM - 04:00 AM	50.3	55.5	49.8
04:00 AM - 05:00 AM	50.4	51.9	49.9
05:00 AM - 06:00 AM	50.4	53.9	49.9
06:00 AM - 07:00 AM	50.1	53.1	49.6
07:00 AM - 08:00 AM	50.1	51.5	49.6
08:00 AM - 09:00 AM	51.0	60.1	49.9
09:00 AM - 10:00 AM	50.2	54.6	49.7
10:00 AM - 11:00 AM	54.5	67.3	49.8
11:00 AM - 12:00 PM	55.0	68.0	49.9
12:00 PM - 01:00 PM	51.1	62.2	49.9
01:00 PM - 02:00 PM	50.7	55.2	50.1
02:00 PM - 03:00 PM	50.3	51.9	49.9

Leq Average 24 hrs. (dB(A)) 51.5
Lmax (dB(A)) 69.2
L90 (dB(A)) 49.9
Ldn (dB(A)) 57.2
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693801-1

Page 1 of 1

Sample Number 2319019-16
Parameter Noise (Leq 24 hrs.)
Location ริมรั้วด้านทิศเหนือของโครงการ (N3)
Measurement Date Jun 13 - Jun 14, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1133046

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	51.1	60.2	49.8
04:00 PM - 05:00 PM	50.3	54.9	49.7
05:00 PM - 06:00 PM	50.9	60.5	49.8
06:00 PM - 07:00 PM	51.0	57.2	49.9
07:00 PM - 08:00 PM	50.6	58.7	49.7
08:00 PM - 09:00 PM	50.8	60.6	49.6
09:00 PM - 10:00 PM	51.4	63.5	49.6
10:00 PM - 11:00 PM	50.5	55.6	49.7
11:00 PM - 12:00 AM	51.3	62.1	49.9
12:00 AM - 01:00 AM	50.4	57.4	49.9
01:00 AM - 02:00 AM	51.3	67.4	49.6
02:00 AM - 03:00 AM	54.6	68.5	50.0
03:00 AM - 04:00 AM	50.5	52.8	50.1
04:00 AM - 05:00 AM	51.0	57.5	50.2
05:00 AM - 06:00 AM	50.8	53.4	50.2
06:00 AM - 07:00 AM	50.7	54.2	50.1
07:00 AM - 08:00 AM	51.0	58.2	50.1
08:00 AM - 09:00 AM	54.9	71.3	50.3
09:00 AM - 10:00 AM	50.7	53.8	50.1
10:00 AM - 11:00 AM	51.7	68.2	50.2
11:00 AM - 12:00 PM	51.1	60.2	50.2
12:00 PM - 01:00 PM	51.6	63.8	50.2
01:00 PM - 02:00 PM	50.6	51.4	50.3
02:00 PM - 03:00 PM	51.0	62.0	50.3

Leq Average 24 hrs. (dB(A)) 51.4
Lmax (dB(A)) 71.3
L90 (dB(A)) 50.0
Ldn (dB(A)) 57.9
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693802-1

Page 1 of 1

Sample Number 2319019-17
Parameter Noise (Leq 24 hrs.)
Location ริมรั้วด้านทิศเหนือของโครงการ (N3)
Measurement Date Jun 14 - Jun 15, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1133046

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	51.5	63.3	50.4
04:00 PM - 05:00 PM	51.2	59.0	50.3
05:00 PM - 06:00 PM	50.7	55.3	50.2
06:00 PM - 07:00 PM	50.6	53.8	50.2
07:00 PM - 08:00 PM	50.8	52.7	50.1
08:00 PM - 09:00 PM	51.1	54.3	50.3
09:00 PM - 10:00 PM	51.0	52.3	50.4
10:00 PM - 11:00 PM	51.4	53.7	50.7
11:00 PM - 12:00 AM	51.1	52.8	50.6
12:00 AM - 01:00 AM	51.3	56.5	50.5
01:00 AM - 02:00 AM	51.4	60.9	50.4
02:00 AM - 03:00 AM	50.6	51.9	50.2
03:00 AM - 04:00 AM	51.2	58.4	50.6
04:00 AM - 05:00 AM	50.9	52.3	50.3
05:00 AM - 06:00 AM	50.8	51.8	50.4
06:00 AM - 07:00 AM	50.9	53.6	50.5
07:00 AM - 08:00 AM	51.9	55.6	51.1
08:00 AM - 09:00 AM	52.0	55.3	51.3
09:00 AM - 10:00 AM	51.7	56.6	51.0
10:00 AM - 11:00 AM	51.7	55.5	50.9
11:00 AM - 12:00 PM	50.8	51.9	50.5
12:00 PM - 01:00 PM	50.8	51.9	50.4
01:00 PM - 02:00 PM	51.2	54.0	50.7
02:00 PM - 03:00 PM	51.7	55.2	50.8

Leq Average 24 hrs. (dB(A)) 51.2
Lmax (dB(A)) 63.3
L90 (dB(A)) 50.4
Ldn (dB(A)) 57.5
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693803-1

Page 1 of 1

Sample Number 2319019-18
Parameter Noise (Leq 24 hrs.)
Location ริมรั้วด้านทิศเหนือของโครงการ (N3)
Measurement Date Jun 15 - Jun 16, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1133046

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	51.7	54.9	50.9
04:00 PM - 05:00 PM	54.9	69.3	51.1
05:00 PM - 06:00 PM	51.5	53.7	51.0
06:00 PM - 07:00 PM	51.7	55.4	51.1
07:00 PM - 08:00 PM	51.9	54.2	51.2
08:00 PM - 09:00 PM	52.2	56.7	51.7
09:00 PM - 10:00 PM	51.9	54.5	51.3
10:00 PM - 11:00 PM	51.6	54.9	51.1
11:00 PM - 12:00 AM	51.6	52.7	51.2
12:00 AM - 01:00 AM	51.8	53.7	51.2
01:00 AM - 02:00 AM	55.4	71.5	51.1
02:00 AM - 03:00 AM	51.4	54.9	50.9
03:00 AM - 04:00 AM	51.7	56.0	51.4
04:00 AM - 05:00 AM	51.7	58.7	51.1
05:00 AM - 06:00 AM	51.6	53.3	51.1
06:00 AM - 07:00 AM	51.7	54.6	51.0
07:00 AM - 08:00 AM	52.4	54.6	51.8
08:00 AM - 09:00 AM	51.3	52.6	50.9
09:00 AM - 10:00 AM	51.6	54.7	51.1
10:00 AM - 11:00 AM	51.5	57.0	50.9
11:00 AM - 12:00 PM	52.6	63.7	51.2
12:00 PM - 01:00 PM	53.2	66.1	51.3
01:00 PM - 02:00 PM	51.9	61.3	51.2
02:00 PM - 03:00 PM	51.8	55.9	51.4

Leq Average 24 hrs. (dB(A)) 52.2
Lmax (dB(A)) 71.5
L90 (dB(A)) 51.1
Ldn (dB(A)) 58.7
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693804-1

Page 1 of 1

Sample Number 2319019-19
Parameter Noise (Leq 24 hrs.)
Location ริมรั้วด้านทิศเหนือของโครงการ (N3)
Measurement Date Jun 16 - Jun 17, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1133046

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	51.6	58.6	50.9
04:00 PM - 05:00 PM	51.7	58.6	51.0
05:00 PM - 06:00 PM	52.0	55.7	51.5
06:00 PM - 07:00 PM	52.5	54.6	52.0
07:00 PM - 08:00 PM	52.6	57.0	52.0
08:00 PM - 09:00 PM	52.6	62.2	51.7
09:00 PM - 10:00 PM	52.6	61.3	51.7
10:00 PM - 11:00 PM	52.6	54.7	52.0
11:00 PM - 12:00 AM	52.6	59.3	51.5
12:00 AM - 01:00 AM	52.3	54.5	51.5
01:00 AM - 02:00 AM	52.0	53.1	51.6
02:00 AM - 03:00 AM	54.6	67.9	51.6
03:00 AM - 04:00 AM	52.4	59.7	51.5
04:00 AM - 05:00 AM	51.9	53.6	51.4
05:00 AM - 06:00 AM	51.9	58.7	51.1
06:00 AM - 07:00 AM	51.7	53.1	51.1
07:00 AM - 08:00 AM	51.5	52.5	51.1
08:00 AM - 09:00 AM	51.6	53.3	51.3
09:00 AM - 10:00 AM	51.4	52.7	51.1
10:00 AM - 11:00 AM	51.6	52.8	51.3
11:00 AM - 12:00 PM	51.8	55.4	51.3
12:00 PM - 01:00 PM	52.8	61.1	51.5
01:00 PM - 02:00 PM	51.9	53.7	51.4
02:00 PM - 03:00 PM	52.2	61.9	51.1

Leq Average 24 hrs. (dB(A)) 52.2
Lmax (dB(A)) 67.9
L90 (dB(A)) 51.4
Ldn (dB(A)) 58.9
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693805-1

Page 1 of 1

Sample Number 2319019-20
Parameter Noise (Leq 24 hrs.)
Location ริมรั้วด้านทิศเหนือของโครงการ (N3)
Measurement Date Jun 17 - Jun 18, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1133046

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	51.4	52.3	51.0
04:00 PM - 05:00 PM	51.6	53.3	51.1
05:00 PM - 06:00 PM	51.7	52.8	51.1
06:00 PM - 07:00 PM	51.8	53.0	51.4
07:00 PM - 08:00 PM	52.7	63.4	51.2
08:00 PM - 09:00 PM	51.9	62.5	51.3
09:00 PM - 10:00 PM	51.6	52.6	51.2
10:00 PM - 11:00 PM	51.6	52.7	51.3
11:00 PM - 12:00 AM	51.8	52.8	51.5
12:00 AM - 01:00 AM	51.7	52.9	51.4
01:00 AM - 02:00 AM	52.6	64.5	51.5
02:00 AM - 03:00 AM	51.9	53.9	51.5
03:00 AM - 04:00 AM	51.8	53.7	51.3
04:00 AM - 05:00 AM	51.6	52.9	51.2
05:00 AM - 06:00 AM	51.5	53.4	51.0
06:00 AM - 07:00 AM	51.6	53.1	51.1
07:00 AM - 08:00 AM	51.6	53.0	51.2
08:00 AM - 09:00 AM	51.7	52.6	51.3
09:00 AM - 10:00 AM	51.4	52.3	51.1
10:00 AM - 11:00 AM	51.6	57.5	51.0
11:00 AM - 12:00 PM	51.9	58.1	50.9
12:00 PM - 01:00 PM	51.4	52.5	51.1
01:00 PM - 02:00 PM	51.4	52.4	50.9
02:00 PM - 03:00 PM	51.1	53.3	50.7

Leq Average 24 hrs. (dB(A)) 51.7
Lmax (dB(A)) 64.5
L90 (dB(A)) 51.2
Ldn (dB(A)) 58.2
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319019

Date Received : Jun 20, 2023

Date Reported : Jun 23, 2023

Report Number: 2693806-1

Page 1 of 1

Sample Number 2319019-21
Parameter Noise (Leq 24 hrs.)
Location ริมรั้วด้านทิศเหนือของโครงการ (N3)
Measurement Date Jun 18 - Jun 19, 2023
Measurement by Jakkarin Manwicha
Sound Level meter Serial No. 1133046

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	51.2	52.2	50.8
04:00 PM - 05:00 PM	51.5	52.5	51.1
05:00 PM - 06:00 PM	51.3	52.7	51.0
06:00 PM - 07:00 PM	51.1	52.3	50.8
07:00 PM - 08:00 PM	51.3	52.2	51.0
08:00 PM - 09:00 PM	51.5	52.7	51.1
09:00 PM - 10:00 PM	51.1	51.9	50.8
10:00 PM - 11:00 PM	51.2	52.0	50.9
11:00 PM - 12:00 AM	51.1	51.8	50.8
12:00 AM - 01:00 AM	51.3	52.4	51.0
01:00 AM - 02:00 AM	51.3	52.3	50.9
02:00 AM - 03:00 AM	51.0	51.9	50.7
03:00 AM - 04:00 AM	51.1	52.1	50.9
04:00 AM - 05:00 AM	51.5	52.9	51.1
05:00 AM - 06:00 AM	51.4	52.4	51.0
06:00 AM - 07:00 AM	51.2	51.8	50.9
07:00 AM - 08:00 AM	51.0	51.8	50.7
08:00 AM - 09:00 AM	51.0	52.0	50.6
09:00 AM - 10:00 AM	51.1	52.5	50.8
10:00 AM - 11:00 AM	50.9	52.2	50.6
11:00 AM - 12:00 PM	50.9	51.7	50.6
12:00 PM - 01:00 PM	50.9	52.3	50.5
01:00 PM - 02:00 PM	50.8	51.9	50.4
02:00 PM - 03:00 PM	50.7	51.5	50.3

Leq Average 24 hrs. (dB(A)) 51.1
Lmax (dB(A)) 52.9
L90 (dB(A)) 50.8
Ldn (dB(A)) 57.6
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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ภาคผนวก ค-4

คุณภาพน้ำเสีย



Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319027

Date Received : Mar 10, 2023
Date Reported : Mar 17, 2023
Report Number : 2573028-1

Page 1 of 1

Sample Number	2319027-1
Sampled Date	Mar 10, 2023 10:50 AM
Sample Description	Wastewater
Location	ถังตรวจสอบคุณภาพน้ำเสีย (ก่อนส่งไปยังระบบบำบัดน้ำเสียของ KGC)
Date Analysis Commenced	Mar 10, 2023
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	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	1173	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	16160	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde *	mg/L	0.03	0.1	1583	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease *	mg/L	-	3	4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	10.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1870	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	<1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460

Remark :

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

Technical Management

N. Banongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

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

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2335294

Date Received : Apr 10, 2023
Date Reported : Apr 19, 2023
Report Number : 2607423-1

Page 1 of 1

Sample Number	2335294-1
Sampled Date	Apr 10, 2023 11:00 AM
Sample Description	Wastewater
Location	ถังตรวจสอบคุณภาพน้ำเสีย (ก่อนส่งไปยังระบบบำบัดน้ำเสียของ KGC)
Date Analysis Commenced	Apr 10, 2023
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	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	1103	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	9556	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde *	mg/L	0.03	0.1	1498	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease *	mg/L	-	3	11	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	9.9	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1860	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	<1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

N. Banongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

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

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2347013

Date Received : May 12, 2023
Date Reported : May 19, 2023
Report Number : 2634016-1

Page 1 of 1

Sample Number	2347013-1
Sampled Date	May 12, 2023 2:40 PM
Sample Description	Wastewater
Location	ถังตรวจสอบคุณภาพน้ำเสีย (ก่อนส่งไปยังระบบบำบัดน้ำเสียของ KGC)
Date Analysis Commenced	May 12, 2023
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	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	203	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	802	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde *	mg/L	0.03	0.1	48.9	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease *	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	4.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	172	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	<1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-จ-9457

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

N. Banongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

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

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Analysis / Test Report

TESTING
No.0042

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11,18, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2359788

Date Received : Jun 12, 2023
Date Reported : Jun 19, 2023
Report Number : 2659952-1

Page 1 of 1

Sample Number	2359788-1
Sampled Date	Jun 12, 2023 2:55 PM
Sample Description	Wastewater
Location	ตั้งตรวจสอบคุณภาพน้ำเสีย (ก่อนส่งไปยังระบบบำบัดน้ำเสียของ KGC)
Date Analysis Commenced	Jun 12, 2023
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	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	197	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	6436	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Formaldehyde *	mg/L	0.03	0.1	79.1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease	mg/L	-	3	13	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	9.8	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	330	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.6	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-จ-9457

Remark :

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

Technical Management

N. Banongkit

Narumon Banhongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

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

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ภาคผนวก ค-5

คุณภาพอากาศในสถานประกอบการ



Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2347009

Date Received : May 17, 2023

Date Reported : May 24, 2023

Report Number : 2634012-1

Page 1 of 3

Sample Number 2347009-1
Sampled Date May 16, 2023
Sample Description Air Quality
Location ส่วนเตรียมฟอร์มัลดีไฮด์ (กระบวนการผลิตไอโซพรีนอล)
Date Analysis Commenced May 19, 2023
Condition of Sample Drawn into two sorbent tubes, refrigerated
Barometric Pressure 759 mmHg
Atmospheric Temperature 33.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Formaldehyde	09:00 AM - 05:00 PM	ppm	-	0.1	<0.10	0.75	NIOSH (1994), 2541	MOL	Bangkok
Toluene	09:00 AM - 05:00 PM	ppm	-	0.05	<0.05	200	Based on NIOSH (2003), 1501	MOL	Bangkok

Guideline :

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

Sampled By : Prasarnmit Kueanpet

Remark :

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

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Approved by

Orawan R.

Orawan Rakyong
Scientist (3)



Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2347009

Date Received : May 17, 2023

Date Reported : May 24, 2023

Report Number : 2634012-1

Page 2 of 3

Sample Number 2347009-2
Sampled Date May 16, 2023
Sample Description Air Quality
Location ส่วนเตรียมสารเร่งปฏิกิริยา (กระบวนการผลิตอนุพันธ์)
Date Analysis Commenced May 19, 2023
Condition of Sample Drawn into two sorbent tubes, refrigerated
Barometric Pressure 759 mmHg
Atmospheric Temperature 33.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Formaldehyde	09:00 AM - 05:00 PM	ppm	-	0.1	<0.10	0.75	NIOSH (1994), 2541	MOL	Bangkok
Toluene	09:00 AM - 05:00 PM	ppm	-	0.05	<0.05	200	Based on NIOSH (2003), 1501	MOL	Bangkok

Guideline :

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

Sampled By : Prasarnmit Kueanpet

Remark :

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

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Approved by

Orawan R.

Orawan Rakyong
Scientist (3)



Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2347009

Date Received : May 17, 2023

Date Reported : May 24, 2023

Report Number : 2634012-1

Page 3 of 3

Sample Number 2347009-3
Sampled Date May 16, 2023
Sample Description Air Quality
Location ตั้งเก็บกักโหลฮุอิน
Date Analysis Commenced May 19, 2023
Condition of Sample Drawn into two sorbent tubes, refrigerated
Barometric Pressure 759 mmHg
Atmospheric Temperature 33.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Formaldehyde	09:00 AM - 05:00 PM	ppm	-	0.1	<0.10	0.75	NIOSH (1994), 2541	MOL	Bangkok
Toluene	09:00 AM - 05:00 PM	ppm	-	0.05	<0.05	200	Based on NIOSH (2003), 1501	MOL	Bangkok

Guideline :

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

Sampled By : Prasanmit Kueanpet

Remark :

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

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Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

ภาคผนวก ค-6

ระดับเสียงในสถานประกอบการ



Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150

P/O : 4500121111

Project Name : EIA Monitoring

Project Location :

Lot ID: 2319021

Date Received : Jun 02, 2023

Date Reported : Jun 08, 2023

Report Number: 2676130-1

Page 1 of 1

Sample Number 2319021-1
Parameter Noise (Leq 12 hrs.)
Location เครื่องเพิ่มความดัน
Measurement Date Jun 01, 2023
Measurement by Ronnachai MOUNGMA

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:30 AM - 09:30 AM	85.8	88.3	84.3
09:30 AM - 10:30 AM	84.5	86.9	83.8
10:30 AM - 11:30 AM	85.2	87.2	84.2
11:30 AM - 12:30 PM	85.0	87.4	83.8
12:30 PM - 01:30 PM	84.1	86.3	83.3
01:30 PM - 02:30 PM	84.2	86.6	83.2
02:30 PM - 03:30 PM	84.2	86.3	83.3
03:30 PM - 04:30 PM	84.2	86.6	83.4
04:30 PM - 05:30 PM	84.3	86.6	83.5
05:30 PM - 06:30 PM	83.9	86.4	83.3
06:30 PM - 07:30 PM	83.8	86.4	83.3
07:30 PM - 08:30 PM	83.9	86.3	83.3

Leq Average 12 hrs. (dB(A))

84.5

Lmax (dB(A))

88.3

Standard (dB(A))

87

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ. ๒๕๔๖

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

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11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur Muang
Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319021

Date Received : Jun 02, 2023
Date Reported : Jun 08, 2023
Report Number: 2676131-1

Page 1 of 1

Sample Number 2319021-2
Parameter Noise (Leq 12 hrs.)
Location เครื่องเป่าหมุนเวียนอากาศ
Measurement Date Jun 01, 2023
Measurement by Ronnachai Mounigma

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:34 AM - 09:34 AM	89.5	91.9	88.1
09:34 AM - 10:34 AM	89.4	92.1	88.4
10:34 AM - 11:34 AM	88.1	90.6	87.4
11:34 AM - 12:34 PM	88.0	91.1	87.3
12:34 PM - 01:34 PM	88.2	91.6	87.4
01:34 PM - 02:34 PM	88.5	92.3	87.3
02:34 PM - 03:34 PM	88.8	92.8	87.6
03:34 PM - 04:34 PM	88.7	92.1	87.6
04:34 PM - 05:34 PM	89.2	92.4	88.0
05:34 PM - 06:34 PM	89.7	92.9	88.3
06:34 PM - 07:34 PM	89.9	93.6	88.1
07:34 PM - 08:34 PM	89.3	93.3	88.1

Leq Average 12 hrs. (dB(A)) 89.0
Lmax (dB(A)) 93.6
Standard (dB(A)) 87
Reference Method : ISO1996-1 and 1996-2
Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319023

Date Received : Jun 02, 2023

Date Reported : Jun 07, 2023

Report Number : 2573023-1

Page 1 of 3

Sample Number 2319023-1
Sampled Date Jun 01, 2023
Sample Description Noise Dose
Location พนักงานสวนการผลิต
คนที่ 1
Personal Sampling คุณณัฐวัตร ปะกะหัง
Date Analysis Commenced Jun 06, 2023

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Noise Dose (12 hrs.) (Calculated from Lavg)	07:00 AM - 07:00 PM	%	-	-	24.0	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
Noise Dose (8 hrs.)	07:00 AM - 07:00 PM	%	-	1	22.4	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
TWA (12 hrs.) (Calculated from Lavg)	07:00 AM - 07:00 PM	dB(A)	-	-	76.8	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
TWA (8 hrs.)	07:00 AM - 07:00 PM	dB(A)	-	-	78.5	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok

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 : Natthapon Jiengwareewong

Remark :

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

Approved by

Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319023

Date Received : Jun 02, 2023

Date Reported : Jun 07, 2023

Report Number : 2573023-1

Page 2 of 3

Sample Number 2319023-2
Sampled Date Jun 01, 2023
Sample Description Noise Dose
Location พนักงานสวนการผลิต
คนที่ 2
Personal Sampling คุณปรเมศย์ สร้อยคำ
Date Analysis Commenced Jun 06, 2023

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Noise Dose (12 hrs.) (Calculated from Lavg)	07:00 AM - 07:00 PM	%	-	-	39.8	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
Noise Dose (8 hrs.)	07:00 AM - 07:00 PM	%	-	1	38.0	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
TWA (12 hrs.) (Calculated from Lavg)	07:00 AM - 07:00 PM	dB(A)	-	-	79.0	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
TWA (8 hrs.)	07:00 AM - 07:00 PM	dB(A)	-	-	80.8	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok

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 : Natthapon Jiengwareewong

Remark :

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

Approved by

Wichan Choonharat
Assistant Manager

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11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : 4500121111
Project Name : EIA Monitoring
Project Location :

Lot ID: 2319023

Date Received : Jun 02, 2023

Date Reported : Jun 07, 2023

Report Number : 2573023-1

Page 3 of 3

Sample Number 2319023-3
Sampled Date Jun 01, 2023
Sample Description Noise Dose
Location พนักงานส่วนการผลิต
คนที่ 3
Personal Sampling คุณชูเกียรติ แก้วเกิด
Date Analysis Commenced Jun 06, 2023

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Noise Dose (12 hrs.) (Calculated from Lavg)	07:00 AM - 07:00 PM	%	-	-	27.5	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
Noise Dose (8 hrs.)	07:00 AM - 07:00 PM	%	-	1	26.3	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
TWA (12 hrs.) (Calculated from Lavg)	07:00 AM - 07:00 PM	dB(A)	-	-	77.4	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
TWA (8 hrs.)	07:00 AM - 07:00 PM	dB(A)	-	-	79.2	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok

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 : Natthapon Jiengwareewong

Remark :

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

Approved by

Wichan Choonharat
Assistant Manager

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ภาคผนวก ค-7

คุณภาพดินและน้ำใต้ดิน



Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : ContractofAgreement2022
Project Name : EIA Monitoring
Project Location :

Lot ID: 22121734

Date Received : Nov 25, 2022

Date Reported : Jan 06, 2023

Report Number : 2511315-1

Page 1 of 1

Sample Number 22121734-1
Sampled Date Nov 25, 2022 2:50 PM
Sample Description Soil
Location Soil (Up-Gradient)
Date Analysis Commenced Nov 28, 2022
Condition of Sample Packed in two glass bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Organic Compounds							
Methanol	mg/kg	-	5	<5	1000	Based on US EPA, Method 5021 A and 8260D	Bangkok
Volatile Organics Compounds							
Toluene	mg/kg	-	0.05	<0.05	520	Based on US EPA, Method 5035 and 8260D	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Note : Analysis Results expressed on dry basis.

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :

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

Technical Management

Nant Somb

Nanthawadee Somboon
Specialist 1
ทะเบียนเลขที่ ว-204-จ-4716

Approved by

Kanok Korn Anek

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

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11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : ContractofAgreement2022
Project Name : EIA Monitoring
Project Location :

Lot ID: 22121734

Date Received : Nov 25, 2022

Date Reported : Jan 06, 2023

Report Number : 2511315-2

Page 1 of 1

Sample Number 22121734-1
Sampled Date Nov 25, 2022 2:50 PM
Sample Description Soil
Location Soil (Up-Gradient)
Date Analysis Commenced Nov 28, 2022
Condition of Sample Packed in two glass bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Chemical Testing							
Formaldehyde	mg/kg	-	1.0	<1.0	No Standard	Based on Wastewater Analysis	Bangkok
Physical Parameters							
Moisture	%	-	0.1	23.1	No Standard	Based on APHA (2017), 2540 G	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Note : Analysis Results expressed on dry basis.

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :

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

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Approved by

Nanthawadee Somboon
Specialist 1



Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : ContractofAgreement2022
Project Name : EIA Monitoring
Project Location :

Lot ID: 22121734

Date Received : Nov 25, 2022

Date Reported : Jan 06, 2023

Report Number : 2511316-1

Page 1 of 1

Sample Number 22121734-2
Sampled Date Nov 25, 2022 1:55 PM
Sample Description Soil
Location Soil (Down-Gradient)
Date Analysis Commenced Nov 28, 2022
Condition of Sample Packed in two glass bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Organic Compounds							
Methanol	mg/kg	-	5	<5	1000	Based on US EPA, Method 5021 A and 8260D	Bangkok
Volatile Organics Compounds							
Toluene	mg/kg	-	0.05	<0.05	520	Based on US EPA, Method 5035 and 8260D	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Note : Analysis Results expressed on dry basis.

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :

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

Technical Management

Nant Somb

Nanthawadee Somboon
Specialist 1
ทะเบียนเลขที่ ว-204-จ-4716

Approved by

Kanok Korn Anek

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

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11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : ContractofAgreement2022
Project Name : EIA Monitoring
Project Location :

Lot ID: 22121734

Date Received : Nov 25, 2022

Date Reported : Jan 06, 2023

Report Number : 2511316-2

Page 1 of 1

Sample Number 22121734-2
Sampled Date Nov 25, 2022 1:55 PM
Sample Description Soil
Location Soil (Down-Gradient)
Date Analysis Commenced Nov 28, 2022
Condition of Sample Packed in two glass bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Chemical Testing							
Formaldehyde	mg/kg	-	1.0	<1.0	No Standard	Based on Wastewater Analysis	Bangkok
Physical Parameters							
Moisture	%	-	0.1	12.6	No Standard	Based on APHA (2017), 2540 G	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Note : Analysis Results expressed on dry basis.

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :

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

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Approved by

Nanthawadee Somboon
Specialist 1



Analysis / Test Report

TESTING

No.0009

Lot ID: 22121737

Date Received : Nov 25, 2022

Date Reported : Jan 05, 2023

Report Number : 2511318-1

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : ContractofAgreement2022
Project Name : EIA Monitoring
Project Location :

Page 1 of 1

Sample Number	22121737-1
Sampled Date	Nov 25, 2022 3:10 PM
Sample Description	Underground water
Location	Underground water (Up-Gradient)
Date Analysis Commenced	Nov 28, 2022
Condition of Sample	Contained in four glass vials and one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Organic Compounds							
Methanol *	mg/L	-	2.0	<2.0	60	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6200 B	Bangkok
Volatile Organics Compounds							
Toluene	mg/L	0.00004	0.0005	Not Detected	5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6200 B	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

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

Technical Management

Nant Somb

Nanthawadee Somboon

Specialist 1

ทะเบียนเลขที่ ว-204-จ-4716

Approved by

Kanok Korn Anek

Kanokkorn Anek

Senior Manager

ทะเบียนเลขที่ ว-204-ค-6111

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Analysis / Test Report

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : ContractofAgreement2022
Project Name : EIA Monitoring
Project Location :

Lot ID: 22121737

Date Received : Nov 25, 2022

Date Reported : Jan 06, 2023

Report Number : 2511318-2

Page 1 of 1

Sample Number	22121737-1						
Sampled Date	Nov 25, 2022 3:10 PM						
Sample Description	Underground water						
Location	Underground water (Up-Gradient)						
Date Analysis Commenced	Nov 26, 2022						
Condition of Sample	Contained in four glass vials and one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Formaldehyde	mg/L	0.03	0.1	Not Detected	No Standard	Wastewater Analysis	Rayong
Water Level	m	-	-	9.07	No Standard	Water Level Meter	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

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Approved by

Nanthawadee Somboon
Specialist 1

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Analysis / Test Report

TESTING

No.0009

Lot ID: 22121737

Date Received : Nov 25, 2022

Date Reported : Jan 05, 2023

Report Number : 2511319-1

Client : Kuraray Advanced Chemicals (Thailand) Co., Ltd.
11, Asia Industrial Estate, Phungmuang Chapor 2-1 Road, Tambol Huai Pong, Amphur
Muang Rayong, Rayong Thailand 21150
P/O : ContractofAgreement2022
Project Name : EIA Monitoring
Project Location :

Page 1 of 1

Sample Number 22121737-2
Sampled Date Nov 25, 2022 2:25 PM
Sample Description Underground water
Location Underground water (Down-Gradient)
Date Analysis Commenced Nov 28, 2022
Condition of Sample Contained in four glass vials and one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Organic Compounds							
Methanol *	mg/L	-	2.0	<2.0	60	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6200 B	Bangkok
Volatile Organics Compounds							
Toluene	mg/L	0.00004	0.0005	Not Detected	5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6200 B	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

Remark :

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

Technical Management

Nant Somb

Nanthawadee Somboon

Specialist 1

ทะเบียนเลขที่ ว-204-จ-4716

Approved by

Kanok Korn Anek

Kanokkorn Anek

Senior Manager

ทะเบียนเลขที่ ว-204-ค-6111

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Muang Rayong, Rayong Thailand 21150
P/O : ContractofAgreement2022
Project Name : EIA Monitoring
Project Location :

Lot ID: 22121737

Date Received : Nov 25, 2022

Date Reported : Jan 05, 2023

Report Number : 2511319-2

Page 1 of 1

Sample Number	22121737-2						
Sampled Date	Nov 25, 2022 2:25 PM						
Sample Description	Underground water						
Location	Underground water (Down-Gradient)						
Date Analysis Commenced	Nov 26, 2022						
Condition of Sample	Contained in four glass vials and one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Formaldehyde	mg/L	0.03	0.1	Not Detected	No Standard	Wastewater Analysis	Rayong
Water Level	m	-	-	5.76	No Standard	Water Level Meter	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Sampling By : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460 , Panupong Manit ทะเบียนเลขที่ ว-204-จ-8600

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Approved by

Nanthawadee Somboon
Specialist 1

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