

ภาคผนวก ค

ใบรับรองผลการตรวจวิเคราะห์

ภาคผนวก ค-1

คุณภาพอากาศในบรรยากาศโดยทั่วไป



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444693

Date Received : May 28, 2024

Date Reported : Jun 03, 2024

Report Number: 3011114-1

Page 1 of 1

Sample Description	Air Quality							
Location	อาคารสำนักงานของกลุ่มโรงงาน TPE (Site 1) (GPS 47P 0731747, 1404885)							
Parameter	Nitrogen dioxide (ppm)							
Measurement Date	May 13, 2024 - May 20, 2024							
Measurement by	Anuwet Tema							
	2444693-8	2444693-9	2444693-10	2444693-11	2444693-12	2444693-13	2444693-14	
Time	May 13, 2024	May 14, 2024	May 15, 2024	May 16, 2024	May 17, 2024	May 18, 2024	May 19, 2024	
10:00 AM - 11:00 AM	0.006	0.003	0.012	0.004	0.007	0.004	0.004	
11:00 AM - 12:00 PM	0.002	0.002	0.004	0.006	0.006	0.004	0.003	
12:00 PM - 01:00 PM	0.006	0.005	0.003	0.008	0.005	0.004	0.004	
01:00 PM - 02:00 PM	0.004	0.002	0.003	0.006	0.005	0.003	0.003	
02:00 PM - 03:00 PM	0.003	0.003	0.002	0.006	0.005	0.004	0.003	
03:00 PM - 04:00 PM	0.003	0.002	0.002	0.004	0.004	0.004	0.003	
04:00 PM - 05:00 PM	0.004	0.001	0.003	0.012	0.005	0.005	0.003	
05:00 PM - 06:00 PM	0.003	<0.001	0.002	0.006	0.005	0.006	0.002	
06:00 PM - 07:00 PM	0.008	<0.001	0.004	0.017	0.007	0.005	0.001	
07:00 PM - 08:00 PM	0.005	<0.001	0.002	0.014	0.018	0.010	0.002	
08:00 PM - 09:00 PM	0.009	0.001	0.001	0.009	0.008	0.005	0.002	
09:00 PM - 10:00 PM	0.005	0.001	0.002	0.007	0.006	0.001	0.001	
10:00 PM - 11:00 PM	0.004	<0.001	0.001	0.005	0.006	0.001	0.001	
11:00 PM - 12:00 AM	0.002	0.001	0.001	0.002	0.002	0.001	0.002	
12:00 AM - 01:00 AM	0.002	<0.001	0.001	0.001	0.002	<0.001	0.002	
01:00 AM - 02:00 AM	0.002	<0.001	0.001	0.002	0.002	0.002	0.001	
02:00 AM - 03:00 AM	0.002	<0.001	0.001	0.002	0.001	0.002	0.002	
03:00 AM - 04:00 AM	0.002	<0.001	0.001	0.002	0.001	0.002	0.001	
04:00 AM - 05:00 AM	0.003	<0.001	<0.001	0.003	<0.001	0.002	0.001	
05:00 AM - 06:00 AM	0.001	0.001	<0.001	0.008	0.002	0.002	0.003	
06:00 AM - 07:00 AM	0.003	0.010	0.007	0.013	0.008	0.002	0.018	
07:00 AM - 08:00 AM	0.007	0.006	0.010	0.013	0.016	0.005	0.036	
08:00 AM - 09:00 AM	0.008	0.003	0.007	0.011	0.008	0.006	0.027	
09:00 AM - 10:00 AM	0.004	0.017	0.008	0.014	0.007	0.003	0.006	
Average	0.004	0.003	0.003	0.007	0.006	0.004	0.005	
1hr - Maximum	0.009	0.017	0.012	0.017	0.018	0.010	0.036	
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170	

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

Reference Method : US EPA Method Part 50 App. F (Chemiluminescence)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Orawan R.
Orawan Rakyoung
Scientist (3)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444695

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971443-1

Page 8 of 14

Sample Number	2444695-8						
Sampled Date	May 13, 2024						
Sample Description	Air Quality						
Location	อาคารสำนักงานของกลุ่มโรงงาน TPE (Site 1) (GPS 47P 0731747, 1404885)						
Date Analysis Commenced	May 28, 2024						
Condition of Sample	Drawn into one 25-L air sampling bag						
Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	13/05/24 - 14/05/24	ppm	-	1.0	1.8	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.
Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444695

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971443-1

Page 9 of 14

Sample Number 2444695-9
Sampled Date May 14, 2024
Sample Description Air Quality
Location อาคารสำนักงานของกลุ่มโรงงาน TPE (Site 1) (GPS 47P 0731747, 1404885)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	14/05/24 - 15/05/24	ppm	-	1.0	1.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444695

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971443-1

Page 10 of 14

Sample Number 2444695-10
Sampled Date May 15, 2024
Sample Description Air Quality
Location อาคารสำนักงานของกลุ่มโรงงาน TPE (Site 1) (GPS 47P 0731747, 1404885)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	15/05/24 - 16/05/24	ppm	-	1.0	1.8	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2444695
Date Received : May 27, 2024
Date Reported : Jun 01, 2024
Report Number : 2971443-1

Page 11 of 14

Sample Number 2444695-11
Sampled Date May 16, 2024
Sample Description Air Quality
Location อาคารสำนักงานของกลุ่มโรงงาน TPE (Site 1) (GPS 47P 0731747, 1404885)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	16/05/24 - 17/05/24	ppm	-	1.0	8.7	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2444695
Date Received : May 27, 2024
Date Reported : Jun 01, 2024
Report Number : 2971443-1

Page 12 of 14

Sample Number 2444695-12
Sampled Date May 17, 2024
Sample Description Air Quality
Location อาคารสำนักงานของกลุ่มโรงงาน TPE (Site 1) (GPS 47P 0731747, 1404885)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	17/05/24 - 18/05/24	ppm	-	1.0	1.8	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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Approved by

Thanita K.

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444695

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971443-1

Page 13 of 14

Sample Number 2444695-13
Sampled Date May 18, 2024
Sample Description Air Quality
Location อาคารสำนักงานของกลุ่มโรงงาน TPE (Site 1) (GPS 47P 0731747, 1404885)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	18/05/24 - 19/05/24	ppm	-	1.0	<1.0	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

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Thanita K.

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444695

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971443-1

Page 14 of 14

Sample Number 2444695-14
Sampled Date May 19, 2024
Sample Description Air Quality
Location อาคารสำนักงานของกลุ่มโรงงาน TPE (Site 1) (GPS 47P 0731747, 1404885)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	19/05/24 - 20/05/24	ppm	-	1.0	1.3	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444699

Date Received : May 28, 2024

Date Reported : Jun 03, 2024

Report Number: 2971446-1

Page 1 of 1

Sample Description Air Quality
Location Ban Map Ta Phut School (โรงเรียนบางมด) (GPS 47P 0735343, 1406686)
Parameter Nitrogen dioxide (ppm)
Measurement Date May 13, 2024 - May 20, 2024
Measurement by Anuwet Tema

Time	2444699-1 May 13, 2024	2444699-2 May 14, 2024	2444699-3 May 15, 2024	2444699-4 May 16, 2024	2444699-5 May 17, 2024	2444699-6 May 18, 2024	2444699-7 May 19, 2024
10:00 AM - 11:00 AM	0.007	0.004	0.002	0.007	0.014	0.016	0.004
11:00 AM - 12:00 PM	0.006	0.003	0.005	0.007	0.008	0.007	0.003
12:00 PM - 01:00 PM	<0.001	0.003	0.008	0.003	0.006	0.013	0.005
01:00 PM - 02:00 PM	0.013	0.002	0.009	0.004	0.006	0.014	0.005
02:00 PM - 03:00 PM	0.007	0.002	0.003	0.002	0.006	0.008	0.004
03:00 PM - 04:00 PM	0.004	0.002	0.002	0.002	0.010	0.007	0.003
04:00 PM - 05:00 PM	0.003	0.002	0.001	0.003	0.012	0.006	0.004
05:00 PM - 06:00 PM	0.003	0.001	0.002	0.004	0.014	0.006	0.004
06:00 PM - 07:00 PM	0.003	0.001	0.002	0.005	0.007	0.006	0.003
07:00 PM - 08:00 PM	0.003	0.001	0.002	0.006	0.003	0.003	0.003
08:00 PM - 09:00 PM	0.004	0.001	0.003	0.009	0.002	0.004	0.002
09:00 PM - 10:00 PM	0.006	0.002	0.002	0.013	0.002	0.003	0.004
10:00 PM - 11:00 PM	0.005	0.002	0.002	0.006	0.002	0.002	0.004
11:00 PM - 12:00 AM	0.003	0.002	0.002	0.004	0.001	0.002	0.003
12:00 AM - 01:00 AM	0.002	0.002	0.001	0.003	0.001	0.002	0.002
01:00 AM - 02:00 AM	0.002	0.002	0.002	0.002	0.001	0.001	0.002
02:00 AM - 03:00 AM	0.002	0.001	0.002	0.002	0.001	0.001	0.002
03:00 AM - 04:00 AM	0.002	0.002	0.002	0.002	0.002	0.003	0.002
04:00 AM - 05:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
05:00 AM - 06:00 AM	0.002	0.002	0.002	0.002	0.001	0.002	0.002
06:00 AM - 07:00 AM	0.002	0.004	0.003	0.002	0.003	0.002	0.004
07:00 AM - 08:00 AM	0.004	0.006	0.008	0.008	0.007	0.004	0.015
08:00 AM - 09:00 AM	0.004	0.003	0.005	0.006	0.005	0.004	0.012
09:00 AM - 10:00 AM	0.004	0.002	0.005	0.005	0.005	0.005	0.007
Average	0.004	0.002	0.003	0.005	0.005	0.005	0.004
1hr - Maximum	0.013	0.006	0.009	0.013	0.014	0.016	0.015
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

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

Reference Method : US EPA Method Part 50 App. F (Chemiluminescence)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Orawan R.

Orawan Rak Yong
Scientist (3)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444703

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971449-1

Page 1 of 7

Sample Number 2444703-1
Sampled Date May 13, 2024
Sample Description Air Quality
Location Ban Map Ta Phut School (โรงเรียนบางมด) (GPS 47P 0735343, 1406686)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	13/05/24 - 14/05/24	ppm	-	1.0	<1.0	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444703

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971449-1

Page 2 of 7

Sample Number 2444703-2
Sampled Date May 14, 2024
Sample Description Air Quality
Location Ban Map Ta Phut School (โรงเรียนบางมด) (GPS 47P 0735343, 1406686)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	14/05/24 - 15/05/24	ppm	-	1.0	1.3	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444703

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971449-1

Page 3 of 7

Sample Number 2444703-3
Sampled Date May 15, 2024
Sample Description Air Quality
Location Ban Map Ta Phut School (โรงเรียนบางมด) (GPS 47P 0735343, 1406686)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	15/05/24 - 16/05/24	ppm	-	1.0	1.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2444703
Date Received : May 27, 2024
Date Reported : Jun 01, 2024
Report Number : 2971449-1

Page 4 of 7

Sample Number	2444703-4
Sampled Date	May 16, 2024
Sample Description	Air Quality
Location	Ban Map Ta Phut School (โรงเรียนบ้านมาบตาพุด) (GPS 47P 0735343, 1406686)
Date Analysis Commenced	May 28, 2024
Condition of Sample	Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	16/05/24 - 17/05/24	ppm	-	1.0	6.7	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
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Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2444703
Date Received : May 27, 2024
Date Reported : Jun 01, 2024
Report Number : 2971449-1

Page 5 of 7

Sample Number	2444703-5
Sampled Date	May 17, 2024
Sample Description	Air Quality
Location	Ban Map Ta Phut School (โรงเรียนบ้านมาบตาพุด) (GPS 47P 0735343, 1406686)
Date Analysis Commenced	May 28, 2024
Condition of Sample	Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	17/05/24 - 18/05/24	ppm	-	1.0	8.6	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2444703
Date Received : May 27, 2024
Date Reported : Jun 01, 2024
Report Number : 2971449-1

Page 6 of 7

Sample Number 2444703-6
Sampled Date May 18, 2024
Sample Description Air Quality
Location Ban Map Ta Phut School (โรงเรียนบางมด) (GPS 47P 0735343, 1406686)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	18/05/24 - 19/05/24	ppm	-	1.0	2.9	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2444703
Date Received : May 27, 2024
Date Reported : Jun 01, 2024
Report Number : 2971449-1

Page 7 of 7

Sample Number 2444703-7
Sampled Date May 19, 2024
Sample Description Air Quality
Location Ban Map Ta Phut School (โรงเรียนบางมด) (GPS 47P 0735343, 1406686)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	19/05/24 - 20/05/24	ppm	-	1.0	1.2	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

- LOD : Limit of Detection
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Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444693

Date Received : May 28, 2024

Date Reported : Jun 03, 2024

Report Number: 2971445-1

Page 1 of 1

Sample Description Air Quality
Location โรงเรียนบ้านหนองเพน (GPS 47P 0729825, 1403308)
Parameter Nitrogen dioxide (ppm)
Measurement Date May 13, 2024 - May 20, 2024
Measurement by Anuwet Tema

Time	2444693-1 May 13, 2024	2444693-2 May 14, 2024	2444693-3 May 15, 2024	2444693-4 May 16, 2024	2444693-5 May 17, 2024	2444693-6 May 18, 2024	2444693-7 May 19, 2024
11:00 AM - 12:00 PM	<0.001	0.001	0.005	0.002	0.002	<0.001	0.002
12:00 PM - 01:00 PM	<0.001	<0.001	0.005	0.002	0.004	<0.001	<0.001
01:00 PM - 02:00 PM	0.001	0.002	0.006	0.001	0.002	<0.001	0.002
02:00 PM - 03:00 PM	<0.001	<0.001	0.002	0.002	0.004	<0.001	<0.001
03:00 PM - 04:00 PM	0.004	0.001	0.003	0.001	0.004	<0.001	<0.001
04:00 PM - 05:00 PM	0.001	<0.001	0.002	0.002	0.004	<0.001	<0.001
05:00 PM - 06:00 PM	0.002	<0.001	0.003	0.002	0.005	<0.001	<0.001
06:00 PM - 07:00 PM	0.002	0.003	0.002	0.002	0.004	<0.001	<0.001
07:00 PM - 08:00 PM	0.002	0.003	0.002	0.002	0.003	<0.001	<0.001
08:00 PM - 09:00 PM	0.002	0.003	0.003	0.002	0.002	<0.001	<0.001
09:00 PM - 10:00 PM	0.001	0.003	<0.001	0.002	0.004	<0.001	<0.001
10:00 PM - 11:00 PM	0.001	0.003	0.002	0.002	0.003	<0.001	<0.001
11:00 PM - 12:00 AM	<0.001	0.002	<0.001	0.002	0.002	<0.001	<0.001
12:00 AM - 01:00 AM	0.001	0.002	0.002	0.003	0.002	0.001	<0.001
01:00 AM - 02:00 AM	<0.001	0.002	0.002	0.003	0.002	<0.001	<0.001
02:00 AM - 03:00 AM	0.002	0.002	0.002	0.003	0.002	0.001	<0.001
03:00 AM - 04:00 AM	0.002	0.002	0.002	0.002	0.002	<0.001	<0.001
04:00 AM - 05:00 AM	0.002	0.002	0.002	0.002	0.002	<0.001	<0.001
05:00 AM - 06:00 AM	0.003	0.002	<0.001	0.002	0.003	<0.001	<0.001
06:00 AM - 07:00 AM	0.003	0.002	<0.001	0.003	0.003	<0.001	<0.001
07:00 AM - 08:00 AM	0.003	0.002	0.001	0.002	0.004	<0.001	<0.001
08:00 AM - 09:00 AM	0.004	0.002	<0.001	0.002	0.004	<0.001	<0.001
09:00 AM - 10:00 AM	0.005	0.004	<0.001	0.003	0.004	<0.001	<0.001
10:00 AM - 11:00 AM	0.003	0.003	0.006	0.003	0.004	<0.001	0.002
Average	0.002	0.002	0.002	0.002	0.003	<0.001	<0.001
1hr - Maximum	0.005	0.004	0.006	0.003	0.005	0.001	0.002
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

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

Reference Method : US EPAMethod Part 50 App. F (Chemiluminescence)

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Approved by

Orawan R.

Orawan Rak Yong
Scientist (3)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444695

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971443-1

Page 1 of 14

Sample Number 2444695-1
Sampled Date May 13, 2024
Sample Description Air Quality
Location โรงเรียนบ้านหนองเพน (GPS 47P 0729825, 1403308)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	13/05/24 - 14/05/24	ppm	-	1.0	<1.0	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2444695
Date Received : May 27, 2024
Date Reported : Jun 01, 2024
Report Number : 2971443-1

Page 2 of 14

Sample Number 2444695-2
Sampled Date May 14, 2024
Sample Description Air Quality
Location โรงเรียนบ้านหนองหญ้า (GPS 47P 0729825, 1403308)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	14/05/24 - 15/05/24	ppm	-	1.0	1.3	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2444695
Date Received : May 27, 2024
Date Reported : Jun 01, 2024
Report Number : 2971443-1

Page 3 of 14

Sample Number 2444695-3
Sampled Date May 15, 2024
Sample Description Air Quality
Location โรงเรียนบ้านหนองหญ้า (GPS 47P 0729825, 1403308)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	15/05/24 - 16/05/24	ppm	-	1.0	1.2	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

- LOD : Limit of Detection
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Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
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Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2444695
Date Received : May 27, 2024
Date Reported : Jun 01, 2024
Report Number : 2971443-1

Page 4 of 14

Sample Number 2444695-4
Sampled Date May 16, 2024
Sample Description Air Quality
Location โรงเรียนบ้านหนองพิน (GPS 47P 0729825, 1403308)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	16/05/24 - 17/05/24	ppm	-	1.0	2.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

- LOD : Limit of Detection
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Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

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Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location :

Lot ID: 2444695
Date Received : May 27, 2024
Date Reported : Jun 01, 2024
Report Number : 2971443-1

Page 5 of 14

Sample Number 2444695-5
Sampled Date May 17, 2024
Sample Description Air Quality
Location โรงเรียนบ้านหนองพิน (GPS 47P 0729825, 1403308)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	17/05/24 - 18/05/24	ppm	-	1.0	1.0	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

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Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444695

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971443-1

Page 6 of 14

Sample Number 2444695-6
Sampled Date May 18, 2024
Sample Description Air Quality
Location โรงเรียนบ้านหนองพัน (GPS 47P 0729825, 1403308)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	18/05/24 - 19/05/24	ppm	-	1.0	1.4	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

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Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444695

Date Received : May 27, 2024

Date Reported : Jun 01, 2024

Report Number : 2971443-1

Page 7 of 14

Sample Number 2444695-7
Sampled Date May 19, 2024
Sample Description Air Quality
Location โรงเรียนบ้านหนองพัน (GPS 47P 0729825, 1403308)
Date Analysis Commenced May 28, 2024
Condition of Sample Drawn into one 25-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Non-Methane Hydrocarbon	19/05/24 - 20/05/24	ppm	-	1.0	2.9	Total Hydrocarbon Analyzer (FID)	Rayong

Sampled By : Anuwet Tema

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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S:\Reports_Air_Working_NGL.rpt (10:44AM)

1980-261/ EMAIL



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand
21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

Lot ID: 2444708

Date Received : May 31, 2024

Date Reported : Jun 03, 2024

Report Number : 2971452-1

Page 1 of 2

Sample Number : 2444708-1 to 7
Parameter : Wind Speed / Wind Direction
Location : อาคารสำนักงานของกลุ่มโรงงาน TPE (Site 1) (GPS 47P 0731747, 1404885)
Sampling Date : May 13 - May 20, 2024
Sampling by : Anuwet Tema

Time	May 13 - May 14, 2024			May 14 - May 15, 2024			May 15 - May 16, 2024			May 16 - May 17, 2024			May 17 - May 18, 2024			May 18 - May 19, 2024			May 19 - May 20, 2024		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
10:00 AM - 11:00 AM	1.0	196.0	SSW	1.3	257.0	WSW	0.6	184.0	S	0.0	-	-	1.8	66.0	ENE	2.6	177.0	S	2.5	155.0	SSE
11:00 AM - 12:00 PM	0.2	-	-	0.8	155.0	SSE	1.2	214.0	SW	1.5	96.0	E	1.4	48.0	NE	1.7	219.0	SW	2.1	190.0	S
12:00 PM - 01:00 PM	0.8	181.0	S	0.3	189.0	S	0.7	55.0	NE	0.0	-	-	1.8	75.0	ENE	2.1	151.0	SSE	2.8	159.0	SSE
01:00 PM - 02:00 PM	0.3	198.0	SSW	0.5	265.0	W	0.4	161.0	SSE	0.3	175.0	S	0.9	32.0	NNE	1.4	94.0	E	0.9	178.0	S
02:00 PM - 03:00 PM	0.4	181.0	S	0.8	213.0	SSW	0.9	164.0	SSE	0.7	194.0	SSW	0.6	37.0	NE	0.8	286.0	WNW	1.0	177.0	S
03:00 PM - 04:00 PM	0.8	238.0	WSW	0.6	162.0	SSE	0.6	198.0	SSW	0.0	-	-	0.7	47.0	NE	1.7	106.0	ESE	1.1	115.0	ESE
04:00 PM - 05:00 PM	0.5	212.0	SSW	0.6	214.0	SW	0.6	187.0	S	0.3	184.0	S	1.0	62.0	ENE	1.3	199.0	SSW	0.9	255.0	WSW
05:00 PM - 06:00 PM	0.7	209.0	SSW	0.7	160.0	SSE	0.5	152.0	SSE	0.3	187.0	S	1.7	359.0	N	1.1	216.0	SW	0.8	213.0	SSW
06:00 PM - 07:00 PM	1.1	193.0	SSW	1.5	254.0	WSW	1.3	222.0	SW	0.8	194.0	SSW	0.9	351.0	N	1.0	123.0	ESE	1.3	198.0	SSW
07:00 PM - 08:00 PM	0.3	192.0	SSW	1.1	338.0	NNW	0.4	204.0	SSW	0.8	232.0	SW	0.8	270.0	W	0.9	173.0	S	0.9	272.0	W
08:00 PM - 09:00 PM	0.4	204.0	SSW	1.5	186.0	S	0.3	207.0	SSW	0.5	196.0	SSW	0.6	270.0	W	0.8	106.0	ESE	0.6	167.0	SSE
09:00 PM - 10:00 PM	1.2	191.0	S	0.5	206.0	SSW	0.0	-	-	1.1	194.0	SSW	2.5	260.0	W	1.5	119.0	ESE	0.9	195.0	SSW
10:00 PM - 11:00 PM	0.5	197.0	SSW	1.4	170.0	S	0.0	-	-	0.2	-	-	1.1	265.0	W	1.1	32.0	NNE	1.1	183.0	S
11:00 PM - 12:00 AM	0.6	274.0	W	1.7	207.0	SSW	0.0	-	-	0.0	-	-	0.9	303.0	WNW	1.3	45.0	NE	1.5	179.0	S
12:00 AM - 01:00 AM	0.5	241.0	WSW	1.2	215.0	SW	0.3	165.0	SSE	0.4	175.0	S	1.3	28.0	NNE	0.8	74.0	ENE	0.7	175.0	S
01:00 AM - 02:00 AM	0.6	213.0	SSW	0.7	288.0	WNW	0.7	213.0	SSW	0.2	-	-	0.7	152.0	SSE	1.1	101.0	E	1.3	171.0	S
02:00 AM - 03:00 AM	0.8	202.0	SSW	0.6	177.0	S	0.6	176.0	S	0.8	129.0	SE	0.9	95.0	E	1.7	124.0	SE	0.9	153.2	SSE
03:00 AM - 04:00 AM	0.6	194.0	SSW	1.0	179.0	S	0.8	156.0	SSE	0.5	177.0	S	0.8	171.0	S	1.9	104.0	ESE	1.7	149.2	SSE
04:00 AM - 05:00 AM	0.6	235.0	SW	1.0	188.0	S	0.8	165.0	SSE	0.6	136.0	SE	0.9	171.0	S	2.1	136.0	SE	1.8	151.0	SSE
05:00 AM - 06:00 AM	0.6	183.0	S	0.7	151.0	SSE	0.5	57.0	ENE	0.6	143.0	SE	0.9	155.0	SSE	1.9	142.0	SE	0.9	149.9	SSE
06:00 AM - 07:00 AM	2.6	222.0	SW	1.8	274.0	W	0.8	236.0	SW	0.0	-	-	1.7	197.0	SSW	1.0	136.0	SE	2.7	128.5	SE
07:00 AM - 08:00 AM	1.5	205.0	SSW	0.3	166.0	SSE	0.6	192.0	SSW	0.9	104.0	ESE	1.6	170.0	S	1.5	183.0	S	2.9	148.8	SSE
08:00 AM - 09:00 AM	1.0	185.0	S	0.7	186.0	S	0.3	172.0	S	1.0	116.0	ESE	1.0	198.0	SSW	1.0	105.0	ESE	1.7	158.0	SSE
09:00 AM - 10:00 AM	1.1	155.0	SSE	0.2	-	-	0.6	168.0	SSE	0.0	-	-	1.9	173.0	S	1.1	150.0	SSE	1.5	68.0	ENE

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jittrano
Assistant General Manager

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand
21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location :

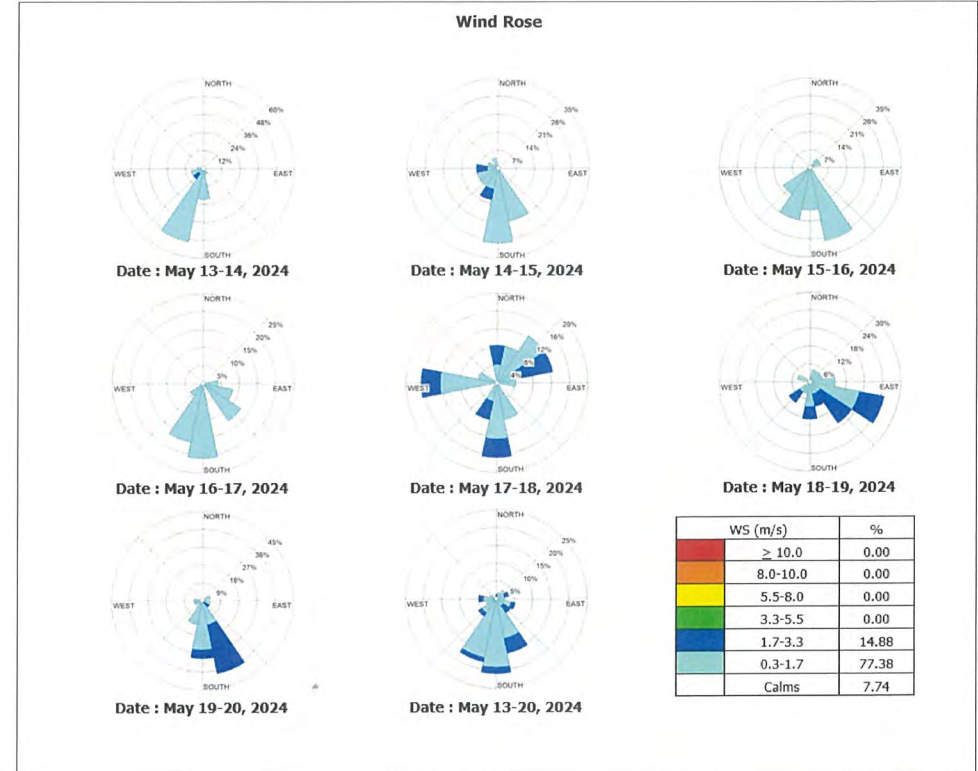
Lot ID: 2444708

Date Received : May 31, 2024

Date Reported : Jun 03, 2024

Report Number : 2971452-1

Page 2 of 2



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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand
21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Lot ID: 2444759

Date Received : May 31, 2024

Date Reported : Jun 04, 2024

Report Number : 2971512-1

Sample Number : 2444759-1 to 7
Parameter : Wind Speed / Wind Direction
Location : โรงเรือนเพาะชำทุเรียน (โกลด์เรนเจอร์) (GPS 47P 0735343, 1406686)
Sampling Date : May 13 - May 20, 2024
Sampling by : Anuwet Tema

Time	May 13 - May 14, 2024			May 14 - May 15, 2024			May 15 - May 16, 2024			May 16 - May 17, 2024			May 17 - May 18, 2024			May 18 - May 19, 2024			May 19 - May 20, 2024		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
12:00 PM - 01:00 PM	3.0	226.0	SW	1.3	243.0	WSW	1.7	190.0	S	0.0	-	-	0.7	235.0	SW	1.6	274.0	W	2.8	260.0	W
01:00 PM - 02:00 PM	2.1	215.0	SW	1.7	208.0	SSW	0.5	265.0	W	1.0	347.0	NNW	0.8	259.0	W	0.6	307.0	NW	0.8	279.0	W
02:00 PM - 03:00 PM	1.5	186.0	S	1.0	161.0	SSE	1.2	317.0	NW	0.3	351.0	N	1.0	102.0	ESE	0.5	182.0	S	2.8	209.0	SSW
03:00 PM - 04:00 PM	0.0	-	-	0.0	-	-	0.8	27.0	NNE	1.0	350.0	N	1.0	159.0	SSE	0.5	198.0	SSW	1.1	355.0	N
04:00 PM - 05:00 PM	0.6	34.0	NE	1.1	237.0	WSW	0.2	-	-	0.6	20.0	NNE	0.5	181.0	S	1.6	297.0	WNW	0.8	279.0	W
05:00 PM - 06:00 PM	1.6	14.0	NNE	0.0	-	-	0.4	259.0	W	0.5	19.0	NNE	0.4	166.0	SSE	1.2	165.0	SSE	0.2	-	-
06:00 PM - 07:00 PM	1.1	5.0	N	0.5	39.0	NE	0.0	-	-	0.0	-	-	0.4	109.0	ESE	0.8	178.0	S	1.1	215.0	SW
07:00 PM - 08:00 PM	0.8	20.0	NNE	1.4	357.0	N	0.0	-	-	0.2	-	-	0.0	-	-	1.9	107.0	ESE	3.5	185.0	S
08:00 PM - 09:00 PM	1.3	33.0	NNE	1.7	3.0	N	0.2	-	-	1.2	30.0	NNE	0.0	-	-	0.4	229.0	SW	2.8	250.0	WSW
09:00 PM - 10:00 PM	1.1	27.0	NNE	1.6	357.0	N	0.6	29.0	NNE	0.9	30.0	NNE	0.0	-	-	0.9	261.0	W	0.6	208.0	SSW
10:00 PM - 11:00 PM	0.3	342.0	NNW	1.0	25.0	NNE	0.2	-	-	0.6	20.0	NNE	0.0	-	-	1.8	217.0	SW	0.5	204.0	SSW
11:00 PM - 12:00 AM	0.5	33.0	NNE	1.0	27.0	NNE	0.7	104.0	ESE	1.2	18.0	NNE	0.0	-	-	1.1	131.0	SE	0.1	-	-
12:00 AM - 01:00 AM	0.9	15.0	NNE	1.5	70.0	ENE	0.8	24.0	NNE	1.1	203.0	SSW	0.0	-	-	1.2	168.0	SSE	0.2	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.9	71.0	ENE	1.1	25.0	NNE	1.6	178.0	S	0.0	-	-	1.7	211.0	SSW	0.6	151.0	SSE
02:00 AM - 03:00 AM	1.2	32.0	NNE	0.7	83.0	E	0.6	55.0	NE	0.6	32.0	NNE	0.7	27.0	NNE	1.3	209.0	SSW	1.0	187.0	S
03:00 AM - 04:00 AM	0.5	11.0	N	1.0	89.0	E	1.5	20.0	NNE	0.8	28.0	NNE	0.0	-	-	0.0	-	-	0.6	82.0	E
04:00 AM - 05:00 AM	0.4	350.0	N	0.1	-	-	2.0	20.0	NNE	1.4	23.0	NNE	0.0	-	-	0.1	-	-	1.1	190.0	S
05:00 AM - 06:00 AM	0.3	355.0	N	0.0	-	-	0.0	-	-	1.2	65.0	ENE	0.0	-	-	0.0	-	-	0.9	188.0	S
06:00 AM - 07:00 AM	1.5	43.0	NE	0.6	201.0	SSW	1.0	12.0	NNE	0.1	-	-	0.0	-	-	0.0	-	-	0.4	82.0	E
07:00 AM - 08:00 AM	0.5	17.0	NNE	0.0	-	-	0.5	52.0	NE	0.0	-	-	0.2	-	-	0.5	204.0	SSW	0.3	261.0	W
08:00 AM - 09:00 AM	1.3	57.0	ENE	0.9	241.0	WSW	1.3	206.0	SSW	0.9	223.0	SW	1.0	290.0	WNW	0.9	235.0	SW	0.5	246.0	WSW
09:00 AM - 10:00 AM	0.4	31.0	NNE	0.0	-	-	0.9	147.0	SSE	0.0	-	-	1.5	217.0	SW	0.0	-	-	2.4	222.0	SW
10:00 AM - 11:00 AM	0.0	-	-	1.1	284.0	WNW	1.9	97.0	E	0.8	300.0	WNW	1.6	215.0	SW	0.1	-	-	1.5	228.0	SW
11:00 AM - 12:00 PM	1.7	238.0	WSW	1.3	219.0	SW	1.1	290.0	WNW	1.1	228.0	SW	0.6	275.0	W	1.7	200.0	SSW	1.0	242.0	WSW

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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Sarayuth Jitranont
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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand
21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

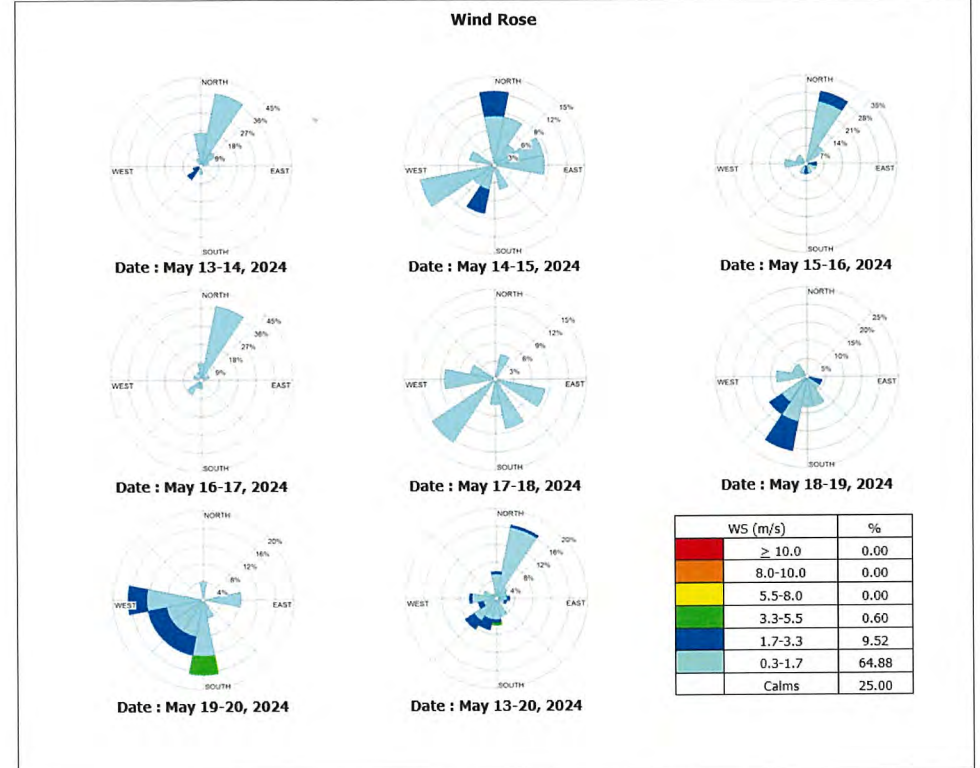
Project Location : TPE Site 1

Lot ID: 2444759

Date Received : May 31, 2024

Date Reported : Jun 04, 2024

Report Number : 2971512-1



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Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand
21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Lot ID: 2444821

Date Received : May 31, 2024

Date Reported : Jun 04, 2024

Report Number : 2971717-1

Page 1 of 2

Sample Number : 2444821-1 to 7
Parameter : Wind Speed / Wind Direction
Location : โรงสีขนบ้านหนองแฟบ ตำบลจันทะวันตึกเชียงใหม่ (GPS 47P 0729825, 1403308)
Sampling Date : May 13 - May 20, 2024
Sampling by : Anuwet Tema

Time	May 13 - May 14, 2024			May 14 - May 15, 2024			May 15 - May 16, 2024			May 16 - May 17, 2024			May 17 - May 18, 2024			May 18 - May 19, 2024			May 19 - May 20, 2024		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
11:00 AM - 12:00 PM	0.7	183.0	S	0.9	132.0	SE	1.1	134.0	SE	1.2	132.0	SE	0.6	112.0	ESE	1.1	117.0	ESE	1.6	127.0	SE
12:00 PM - 01:00 PM	0.7	121.0	ESE	0.6	132.0	SE	2.0	52.0	NE	0.2	-	-	2.0	151.0	SSE	1.0	74.0	ENE	1.1	120.0	ESE
01:00 PM - 02:00 PM	0.8	169.0	S	0.6	137.0	SE	0.8	224.0	SW	0.4	0.0	N	1.3	162.0	SSE	0.5	142.0	SE	1.2	122.0	ESE
02:00 PM - 03:00 PM	0.9	161.0	SSE	0.8	74.0	ENE	0.2	-	-	0.1	-	-	1.3	181.0	S	1.6	278.0	W	0.9	135.0	SE
03:00 PM - 04:00 PM	0.8	69.0	ENE	0.6	111.0	ESE	0.7	125.0	SE	0.0	-	-	0.4	155.0	SSE	0.5	269.0	W	3.0	89.0	E
04:00 PM - 05:00 PM	1.8	77.0	ENE	0.4	78.0	ENE	1.1	203.0	SSW	0.0	-	-	0.5	133.0	SE	0.1	-	-	1.2	75.0	ENE
05:00 PM - 06:00 PM	0.9	177.0	S	0.4	105.0	ESE	1.1	189.0	S	0.0	-	-	0.2	-	-	0.8	197.0	SSW	0.8	71.0	ENE
06:00 PM - 07:00 PM	2.8	163.0	SSE	0.5	112.0	ESE	2.7	179.0	S	0.0	-	-	0.0	-	-	0.8	152.0	SSE	1.9	11.0	N
07:00 PM - 08:00 PM	1.6	47.0	NE	1.2	51.0	NE	1.8	199.0	SSW	0.0	-	-	0.0	-	-	2.5	188.0	S	1.3	201.0	SSW
08:00 PM - 09:00 PM	1.4	167.0	SSE	0.5	43.0	NE	0.9	183.0	S	0.2	-	-	0.9	134.0	SE	2.1	187.0	S	0.5	261.0	W
09:00 PM - 10:00 PM	1.6	3.0	N	1.0	26.0	NNE	1.0	330.0	NNW	0.4	125.0	SE	0.8	181.0	S	1.6	160.0	SSE	0.2	-	-
10:00 PM - 11:00 PM	2.9	134.0	SE	1.2	188.0	S	0.7	321.0	NW	0.7	171.0	S	1.1	179.0	S	2.0	138.0	SE	1.0	108.0	ESE
11:00 PM - 12:00 AM	1.0	148.0	SSE	1.1	181.0	S	0.4	335.0	NNW	2.5	171.0	S	2.1	188.0	S	2.4	182.0	S	0.0	-	-
12:00 AM - 01:00 AM	0.7	29.0	NNE	0.8	196.0	SSW	1.2	164.0	SSE	0.5	148.0	SSE	1.7	150.0	SSE	1.7	181.0	S	0.3	211.0	SSW
01:00 AM - 02:00 AM	0.5	15.0	NNE	0.7	187.0	S	1.1	180.0	S	0.0	-	-	1.9	189.0	S	0.5	79.0	E	0.0	-	-
02:00 AM - 03:00 AM	0.7	141.0	SE	2.2	191.0	S	0.3	331.0	NNW	0.7	120.0	ESE	0.9	149.0	SSE	0.0	-	-	0.2	-	-
03:00 AM - 04:00 AM	0.6	158.0	SSE	2.0	185.0	S	2.2	154.0	SSE	0.0	-	-	0.6	186.0	S	1.0	122.0	ESE	0.0	-	-
04:00 AM - 05:00 AM	0.8	164.0	SSE	0.4	122.0	ESE	0.4	120.0	ESE	0.9	193.0	SSW	0.0	-	-	0.9	143.0	SE	0.0	-	-
05:00 AM - 06:00 AM	1.0	136.0	SE	0.0	-	-	0.2	-	-	0.2	-	-	0.0	-	-	0.7	63.0	ENE	0.0	-	-
06:00 AM - 07:00 AM	0.8	156.0	SSE	0.3	95.0	E	0.4	85.0	E	0.3	185.0	S	0.5	166.0	SSE	0.4	90.0	E	0.2	-	-
07:00 AM - 08:00 AM	0.9	105.0	ESE	0.2	-	-	0.1	-	-	1.5	184.0	S	0.6	134.0	SE	2.3	115.0	ESE	0.6	153.0	SSE
08:00 AM - 09:00 AM	0.8	120.0	ESE	0.3	98.0	E	0.9	179.0	S	0.0	-	-	1.4	157.0	SSE	1.2	151.0	SSE	0.7	142.0	SE
09:00 AM - 10:00 AM	0.4	131.0	SE	0.6	152.0	SSE	1.0	119.0	ESE	1.8	173.0	S	0.6	148.0	SSE	2.1	151.0	SSE	0.9	135.0	SE
10:00 AM - 11:00 AM	0.5	148.0	SSE	1.3	136.0	SE	0.4	128.0	SE	2.8	128.0	SE	1.6	119.0	ESE	1.2	230.0	SW	1.1	158.0	SSE

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand
21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

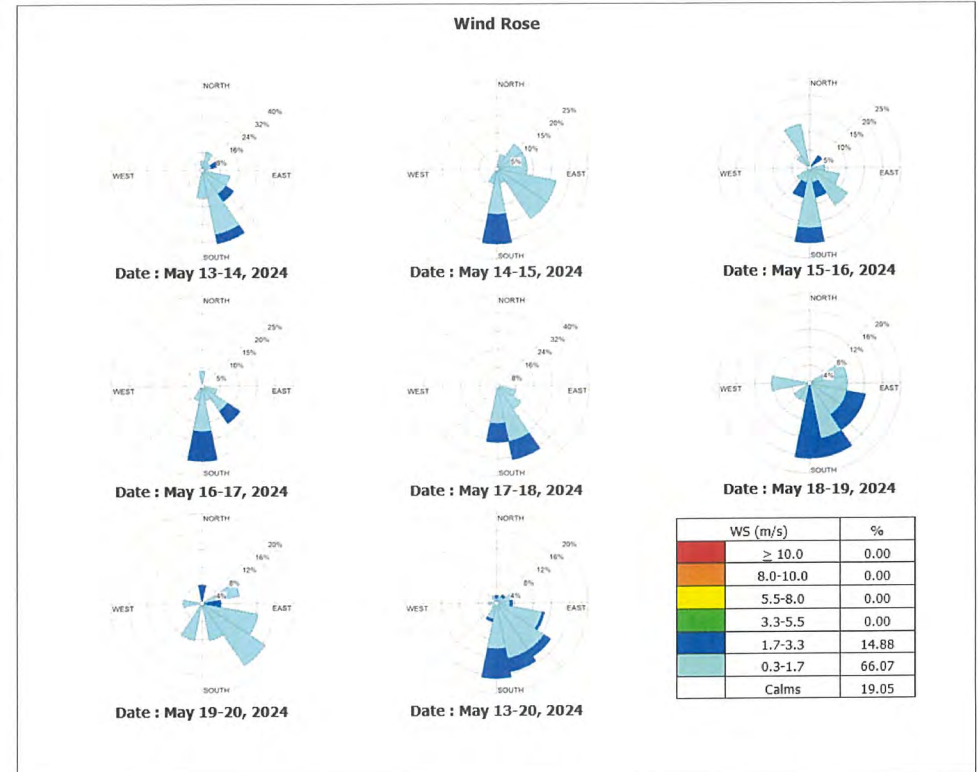
Lot ID: 2444821

Date Received : May 31, 2024

Date Reported : Jun 04, 2024

Report Number : 2971717-1

Page 2 of 2



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Sarayuth Jitranont
Assistant General Manager

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ภาคผนวก ค-2

คุณภาพน้ำทิ้ง



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O :
Project Name : Environmental Monitoring
Project Location : TPE Site 1



TESTING
No.0042
Lot ID: 244149
Date Received : Jan 12, 2024
Date Reported : Jan 19, 2024
Report Number : 2883713-1

Page 1 of 2

Sample Number	244149-1
Sampled Date	Jan 12, 2024 9:45 AM
Sample Description	Wastewater
Location	PP2 : ปล่องควัน API Separator
Date Analysis Commenced	Jan 12, 2024
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	6	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	5	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	30.0	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	166	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banphit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Khunon

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

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O :
Project Name : Environmental Monitoring
Project Location : TPE Site 1



TESTING
No.0042
Lot ID: 244149
Date Received : Jan 12, 2024
Date Reported : Jan 19, 2024
Report Number : 2883713-1

Page 2 of 2

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Paramet Sattayakun ทะเบียนเลขที่ ว-323-จ-9476 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-จ-8592

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. Banphit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Khunon

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

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O :
Project Name : Environmental Monitoring
Project Location : TPE Site 1

Lot ID: 244149

Date Received : Jan 12, 2024
Date Reported : Jan 19, 2024
Report Number : 2883713-2

Page 1 of 1

Sample Number	244149-1						
Sampled Date	Jan 12, 2024 9:45 AM						
Sample Description	Wastewater						
Location	PP2 : หลักรับน้ำ API Separator						
Date Analysis Commenced	Jan 12, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	42	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.005	No Standard	Flow meter	Rayong
n-Hexane	mg/L	-	0.001	<0.001	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6200 B	Bangkok
Total Organic Carbon	mg/L	0.01	0.1	3.48	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Sampling By : Paramet Sattayakun , Thanasoun Namakunna

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

Approved by

Siriluk P.

Siriluk Puengpang
Section Head

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O :
Project Name : Environmental Monitoring
Project Location : TPE Site 1



TESTING
No.0042

Lot ID: 2411566

Date Received : Feb 02, 2024
Date Reported : Feb 09, 2024
Report Number : 2897852-1

Page 1 of 2

Sample Number	2411566-1						
Sampled Date	Feb 02, 2024 10:11 AM						
Sample Description	Wastewater						
Location	PP : หลักรับน้ำ API Separator						
Date Analysis Commenced	Feb 02, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	<25	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	13	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	12	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	32.8	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	676	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ 7-323-ก-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ 7-323-ก-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location : TPE Site 1



TESTING
No.0042

Lot ID: 2411566

Date Received : Feb 02, 2024

Date Reported : Feb 09, 2024

Report Number : 2897852-1

Page 2 of 2

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

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ว-323-จ-9457 , Kardbundit Kitisupavanit ทะเบียนเลขที่ ว-204-จ-0001

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.



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Lot ID: 2411566

Date Received : Feb 02, 2024

Date Reported : Feb 10, 2024

Report Number : 2897852-2

Page 1 of 1

Sample Number	2411566-1						
Sampled Date	Feb 02, 2024 10:11 AM						
Sample Description	Wastewater						
Location	PP : โรงล้าง API Separator						
Date Analysis Commenced	Feb 02, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	189	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.007	No Standard	Flow meter	Rayong
n-Hexane	mg/L	-	0.001	<0.001	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 6200 B	Bangkok
Total Organic Carbon	mg/L	0.01	0.1	10.8	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Sampling By : Wanlop Hunchainaow , Kardbundit Kitisupavanit

Remark :

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

Technical Management

N. Banthit

Narumon Banchongkit
Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-จ-9442

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Approved by

Suwimon C.

Suwimon Chairuangwut
Scientist (3)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : Site 1



TESTING
No.0042
Lot ID: 2417413
Date Received : Mar 04, 2024
Date Reported : May 02, 2024
Report Number : 2910818-1 C22-4

Page 1 of 2

Sample Number	2417413-1						
Sampled Date	Mar 04, 2024 10:00 AM						
Sample Description	Wastewater						
Location	PP2 : ปลังผวน API Separator						
Date Analysis Commenced	Mar 04, 2024						
Condition of Sample	Contained in one amber glass bottle, four glass vials and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	27	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	15	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	13	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	31.8	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	388	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ร-323-ก-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ร-323-ก-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : Site 1



TESTING
No.0042
Lot ID: 2417413
Date Received : Mar 04, 2024
Date Reported : May 02, 2024
Report Number : 2910818-1 C22-4

Page 2 of 2

Sample Number	2417413-1						
Sampled Date	Mar 04, 2024 10:00 AM						
Sample Description	Wastewater						
Location	PP2 : ปลังผวน API Separator						
Date Analysis Commenced	Mar 04, 2024						
Condition of Sample	Contained in one amber glass bottle, four glass vials and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampled By : Paramet Sattayakun ทะเบียนเลขที่ ร-323-ก-9476 , Panupong Manit ทะเบียนเลขที่ ร-204-ก-0109

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.
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Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ร-323-ก-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ร-323-ก-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-SCGCH-2019-343

Project Name : Environmental Monitoring

Project Location : Site 1

Lot ID: 2417413

Date Received : Mar 04, 2024

Date Reported : May 02, 2024

Report Number : 2910818-2 C22-4

Page 1 of 1

Sample Number	2417413-1						
Sampled Date	Mar 04, 2024 10:00 AM						
Sample Description	Wastewater						
Location	PP2 : หลังคา API Separator						
Date Analysis Commenced	Mar 04, 2024						
Condition of Sample	Contained in one amber glass bottle, four glass vials and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	91	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m ³ /s	-	-	0.007	No Standard	Flow meter	Rayong
Total Organic Carbon	mg/L	0.01	0.1	8.07	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Sampled By : Paramet Sattayakun , Panupong Manit

Remark :

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

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Siriluk P.

Siriluk Bunnak
Section Head

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-SCGCH-2019-343

Project Name : Environmental Monitoring

Project Location : Site 1



TESTING

No.0042

Lot ID: 2430832

Date Received : Apr 05, 2024

Date Reported : May 02, 2024

Report Number : 2976429-1 C22-4

Page 1 of 2

Sample Number	2430832-1						
Sampled Date	Apr 05, 2024 10:10 AM						
Sample Description	Wastewater						
Location	PP2 : หลังคา API Separator						
Date Analysis Commenced	Apr 05, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
COD	mg/L	1.5	25	60	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	10	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	8	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.6	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	476	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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

Technical Management

N. Banphit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ร-323-ก-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ร-323-ก-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-SCGCH-2019-343

Project Name : Environmental Monitoring

Project Location : Site 1



TESTING

No.0042

Lot ID: 2430832

Date Received : Apr 05, 2024

Date Reported : May 02, 2024

Report Number : 2976429-1 C22-4

Page 2 of 2

Note : This Analysis test report is reissued to supersede report No.2940571-2, Date Reported : Apr 13, 2024 due to revise analytical information.

Sampled By : Paramet Sattayakun ทะเบียนเลขที่ ๖-323-๖-9476 , Kardbundit Kitisupavanit ทะเบียนเลขที่ ๖-204-๖-0001

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.



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-SCGCH-2019-343

Project Name : Environmental Monitoring

Project Location : Site 1



TESTING

No.0042

Lot ID: 2442717

Date Received : Apr 19, 2024

Date Reported : May 03, 2024

Report Number : 2967742-1 C22-1

Page 1 of 1

Sample Number 2442717-1
Sampled Date Apr 19, 2024 2:10 PM
Sample Description Wastewater
Location PP2 : ปลั่งผ่าน API Separator
Date Analysis Commenced Apr 20, 2024
Condition of Sample Contained in 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							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong

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

Remark :

- LOD : Limit of Detection
- "<" : 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 ๖-323-๖-9445

Approved by

D. Chanchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ๖-323-๖-9442

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Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : Site 1

Lot ID: 2430832
Date Received : Apr 05, 2024
Date Reported : May 02, 2024
Report Number : 2976429-2 C22-4

Page 1 of 1

Sample Number	2430832-1						
Sampled Date	Apr 05, 2024 10:10 AM						
Sample Description	Wastewater						
Location	PP2 : ปลั้วน้ำ API Separator						
Date Analysis Commenced	Apr 05, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	126	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m ³ /s	-	-	0.007	No Standard	Flow meter	Rayong
Total Organic Carbon	mg/L	0.01	0.1	17.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Note : This Analysis test report is reissued to supersede report No.2940571-2, Date Reported : Apr 13, 2024 due to revise analytical information.

Sampled By : Paramet Sattayakun , Kardbundit Kitisupavanit

Remark :

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N. Banphit

Narumon Banchongkit
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Analysis / Test Report

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Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : Site 1



TESTING
No.0042

Lot ID: 2444768
Date Received : May 16, 2024
Date Reported : May 27, 2024
Report Number : 2971549-1 C22

Page 1 of 2

Sample Number	2444768-1						
Sampled Date	May 16, 2024 1:54 PM						
Sample Description	Wastewater						
Location	PP2 : ปลั้วน้ำ API Separator						
Date Analysis Commenced	May 16, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	30	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	25	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	24	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.5	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	852	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)
หมายเลขโทรศัพท์ 323-9-9449

Approved by

D. Changchon

Dej Changchon
Senior Manager
หมายเลขโทรศัพท์ 323-9-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : Site 1



TESTING
No.0042
Lot ID: 2444768
Date Received : May 16, 2024
Date Reported : May 27, 2024
Report Number : 2971549-1 C22

Page 2 of 2

Sample Number	2444768-1
Sampled Date	May 16, 2024 1:54 PM
Sample Description	Wastewater
Location	PP2 : หลังคา API Separator
Date Analysis Commenced	May 16, 2024
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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

Sampled By : Surawit Narapong ทะเบียนเลขที่ ๖-323-๖-0011 , Thanasoun Namakunna ทะเบียนเลขที่ ๖-204-๖-0101

Remark :

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Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ๖-323-๖-9449

Approved by

D. Chongchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ๖-323-๖-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : Site 1

Lot ID: 2444768

Date Received : May 16, 2024
Date Reported : May 27, 2024
Report Number : 2971549-2 C22

Page 1 of 1

Sample Number	2444768-1
Sampled Date	May 16, 2024 1:54 PM
Sample Description	Wastewater
Location	PP2 : หลังคา API Separator
Date Analysis Commenced	May 16, 2024
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	206	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.008	No Standard	Flow meter	Rayong
Total Organic Carbon	mg/L	0.01	0.1	12.4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Sampled By : Surawit Narapong , Thanasoun Namakunna

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Chontichak

Chonticha Subongkoch
Scientist (3)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-SCGCH-2019-343

Project Name : Environmental Monitoring

Project Location : Site 1



TESTING

No.0042

Lot ID: 2460089

Date Received : Jun 07, 2024

Date Reported : Jul 02, 2024

Report Number : 3040821-1 C22

Page 1 of 2

Sample Number	2460089-1
Sampled Date	Jun 07, 2024 10:10 AM
Sample Description	Wastewater
Location	PP2 : หลังผวน API Separator
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	36	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	20	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	17	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
pH at 25 degree C		-	-	7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	34.1	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	612	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

Photchana S.

Photchana Seeda
Scientist (4)

ทะเบียนเลขที่ 3-323-3-9446

Approved by

D. Chuan.

Dej Changchon
Senior Manager

ทะเบียนเลขที่ 3-323-3-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-SCGCH-2019-343

Project Name : Environmental Monitoring

Project Location : Site 1



TESTING

No.0042

Lot ID: 2460089

Date Received : Jun 07, 2024

Date Reported : Jul 02, 2024

Report Number : 3040821-1 C22

Page 2 of 2

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

Note : This Analysis test report is reissued to supersede report No.3004553-1, Date Reported : Jun 14, 2024 due to revise analytical information.

Sampled By : Paramet Sattayakun ทะเบียนเลขที่ 3-323-3-9476 , Pattarapol Sawangjaitam ทะเบียนเลขที่ 3-204-3-0002

Remark :

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

Photchana S.

Photchana Seeda
Scientist (4)

ทะเบียนเลขที่ 3-323-3-9446

Approved by

D. Chuan.

Dej Changchon
Senior Manager

ทะเบียนเลขที่ 3-323-3-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: Site 1

Lot ID: 2460089
Date Received : Jun 07, 2024
Date Reported : Jun 15, 2024
Report Number : 3004553-2 C22

Page 1 of 1

Sample Number	2460089-1						
Sampled Date	Jun 07, 2024 10:10 AM						
Sample Description	Wastewater						
Location	PP2 : หลังผา API Separator						
Date Analysis Commenced	Jun 07, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	147	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.007	No Standard	Flow meter	Rayong
Total Organic Carbon	mg/L	0.01	0.1	12.9	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Sampled By : Paramet Sattayakun , Pattarapol Sawangjaitam

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

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Approved by

Suwimon C.
Suwimon Chairuangwut
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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: Site 1



TESTING
No.0042
Lot ID: 2468553
Date Received : Jun 17, 2024
Date Reported : Jun 26, 2024
Report Number : 3026784-1 C22

Page 1 of 1

Sample Number	2468553-1						
Sampled Date	Jun 17, 2024 2:50 PM						
Sample Description	Wastewater						
Location	PP2 : หลังผา API Separator						
Date Analysis Commenced	Jun 18, 2024						
Condition of Sample	Contained in one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong

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

Sampled By : Wanlop Hunchanaow ทวีวัฒน์ เลขที่ 7-323-ก-9457

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

Photchana S.
Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ 7-323-ก-9446

Approved by

Dej Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ 7-323-ก-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : PP2_S1

Lot ID: 244073

TESTING
No.0042
Date Received : Jan 12, 2024
Date Reported : Jan 24, 2024
Report Number : 2883671-1 C4

Page 1 of 2

Sample Number	244073-1						
Sampling Date	Jan 12, 2024 11:00 AM						
Sample Description	Wastewater						
Location	ทางระบายน้ำรวม						
Date Analysis Commenced	Jan 12, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	2.3	≤20	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	33	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	14	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	13	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	31.4	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	708	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banchoangkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ๖-323-๖-9445

Approved by

D. Changchon

Dej Changchon
Manager
ทะเบียนเลขที่ ๖-225-๓-5283

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Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : PP2_S1

Lot ID: 244073

TESTING
No.0042
Date Received : Jan 12, 2024
Date Reported : Jan 24, 2024
Report Number : 2883671-1 C4

Page 2 of 2

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

Remark :

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

Technical Management

N. Banchoangkit

Narumon Banchongkit
Supervisor
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Approved by

D. Changchon

Dej Changchon
Manager
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Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1

Lot ID: 244073
Date Received : Jan 12, 2024
Date Reported : Apr 11, 2024
Report Number : 2883671-2 C4

Page 1 of 1

Sample Number	244073-1						
Sampled Date	Jan 12, 2024 11:00 AM						
Sample Description	Wastewater						
Location	โรงงานน้ำกรวด						
Date Analysis Commenced	Jan 12, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	140	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.013	No Standard	Flow meter	Rayong
Total Organic Carbon	mg/L	0.01	0.1	12.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Sampled By : Paramet Sattayakun , Thanasoun Namakunna

Remark :
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Approved by

Siriluk P.

Siriluk Bunnak
Section Head

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Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1



TESTING
No.0042

Lot ID: 247074
Date Received : Feb 02, 2024
Date Reported : Feb 13, 2024
Report Number : 2889766-1 C4

Page 1 of 2

Sample Number	247074-1						
Sampling Date	Feb 02, 2024 10:58 AM						
Sample Description	Wastewater						
Location	โรงงานน้ำกรวด						
Date Analysis Commenced	Feb 02, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	2.1	≤20	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	32	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	14	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	13	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	34.1	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	776	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	26	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banongkit

Narumon Banchongkit
Supervisor
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Approved by

D. Chanchon

Dej Changchon
Manager
ทะเบียนเลขที่ 7-225-จ-5283

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Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1



TESTING
No.0042
Lot ID: 247074
Date Received : Feb 02, 2024
Date Reported : Feb 13, 2024
Report Number : 2889766-1 C4

Page 2 of 2

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

Remark :

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1

Lot ID: 247074
Date Received : Feb 02, 2024
Date Reported : Apr 11, 2024
Report Number : 2889766-2 C4

Page 1 of 1

Sample Number 247074-1
Sampled Date Feb 02, 2024 10:58 AM
Sample Description Wastewater
Location โรงงานน้ำจืด
Date Analysis Commenced Feb 02, 2024
Condition of Sample Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	216	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.020	No Standard	Flow meter	Rayong
Total Organic Carbon	mg/L	0.01	0.1	12.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Remark :

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Technical Management

N. Banphit

Narumon Banchongkit
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โทรศัพท์ ๖-323-๙-9445

Approved by

D. Chongchon

Dej Changchon
Manager
โทรศัพท์ ๖-225-๙-5283

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Narumon Banchongkit
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P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1



TESTING
No.0042
Lot ID: 2417334
Date Received : Mar 04, 2024
Date Reported : Mar 19, 2024
Report Number : 2910655-1 C4

Page 1 of 2

Sample Number	2417334-1					
Sampling Date	Mar 04, 2024 11:25 AM					
Sample Description	Wastewater					
Location	โรงงานน้ำรวม					
Date Analysis Commenced	Mar 04, 2024					
Condition of Sample	Contained in one amber glass bottle, four glass vials and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Physical Property	Yellow, some odour, solid and turbid					

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	26	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	14	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	12	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.5	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.8	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	400	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

N. Banongkit

Narumon Banchongkit
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Dej Chanchon
Manager
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Analysis / Test Report

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Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1



TESTING
No.0042
Lot ID: 2417334
Date Received : Mar 04, 2024
Date Reported : Mar 19, 2024
Report Number : 2910655-1 C4

Page 2 of 2

Sample Number	2417334-1					
Sampling Date	Mar 04, 2024 11:25 AM					
Sample Description	Wastewater					
Location	โรงงานน้ำรวม					
Date Analysis Commenced	Mar 04, 2024					
Condition of Sample	Contained in one amber glass bottle, four glass vials and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Physical Property	Yellow, some odour, solid and turbid					

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	14	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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

Sampling By : Paramet Sattayakun , Panupong Manit

Remark :

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Technical Management

N. Banongkit

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Supervisor
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Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1

Lot ID: 2417334
Date Received : Mar 04, 2024
Date Reported : Apr 11, 2024
Report Number : 2910655-2 C4

Sample Number 2417334-1
Sampled Date Mar 04, 2024 11:25 AM
Sample Description Wastewater
Location โรงงานน้ำจืด
Date Analysis Commenced Mar 04, 2024
Condition of Sample Contained in one amber glass bottle, four glass vials and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	118	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.019	No Standard	Flow meter	Rayong
Total Organic Carbon	mg/L	0.01	0.1	7.61	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Remark :
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Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1



TESTING
No.0042

Lot ID: 2429701
Date Received : Apr 05, 2024
Date Reported : Apr 13, 2024
Report Number : 2937956-1 C4

Sample Number 2429701-1
Sampled Date Apr 05, 2024 11:01 AM
Sample Description Wastewater
Location โรงงานน้ำจืด
Date Analysis Commenced Apr 05, 2024
Condition of Sample Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	4.7	≤20	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	37	≤120	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	10	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	9	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	34.2	≤40	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	636	≤3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

N. Banphit
Narumon Banchongkit
Supervisor
เบอร์โทรศัพท์ 3-323-9-9445

Approved by

D. Chumon.
Dej Changchon
Senior Manager
เบอร์โทรศัพท์ 3-323-9-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1



TESTING
No.0042
Lot ID: 2429701
Date Received : Apr 05, 2024
Date Reported : Apr 13, 2024
Report Number : 2937956-1 C4

Page 2 of 2

Sample Number	2429701-1						
Sampled Date	Apr 05, 2024 11:01 AM						
Sample Description	Wastewater						
Location	โรงระเหยน้ำกรรณ						
Date Analysis Commenced	Apr 05, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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

Sampled By : Paramet Sattayakun ทะเบียนเลขที่ ๖-323-๖-9476 , Kardbundit Kitisupavanit ทะเบียนเลขที่ ๖-204-๖-0001

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. Banngmit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ๖-323-๖-9445

Approved by

D. Chanchon

Dej Chanchon
Senior Manager
ทะเบียนเลขที่ ๖-323-๖-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1

Lot ID: 2429701

Date Received : Apr 05, 2024
Date Reported : Apr 13, 2024
Report Number : 2937956-2 C4

Page 1 of 1

Sample Number	2429701-1						
Sampled Date	Apr 05, 2024 11:01 AM						
Sample Description	Wastewater						
Location	โรงระเหยน้ำกรรณ						
Date Analysis Commenced	Apr 05, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	180	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.021	No Standard	Flow meter	Rayong
Total Organic Carbon	mg/L	0.01	0.1	11.4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Sampled By : Paramet Sattayakun , Kardbundit Kitisupavanit

Remark :

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N. Banngmit

Narumon Banchongkit
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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
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Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : PP2_S1



TESTING
No.0042

Lot ID: 2444080
Date Received : May 16, 2024
Date Reported : May 27, 2024
Report Number : 2969777-1 C4

Page 1 of 2

Sample Number	2444080-1						
Sampled Date	May 16, 2024 2:40 PM						
Sample Description	Wastewater						
Location	โรงระเหยน้ำรวม						
Date Analysis Commenced	May 16, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.8	≤20	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	36	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	11	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	11	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.3	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	644	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

Chontichok
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-จ-9449

Approved by

D. Chumon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-จ-9442

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Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : PP2_S1



TESTING
No.0042

Lot ID: 2444080
Date Received : May 16, 2024
Date Reported : May 27, 2024
Report Number : 2969777-1 C4

Page 2 of 2

Sample Number	2444080-1						
Sampled Date	May 16, 2024 2:40 PM						
Sample Description	Wastewater						
Location	โรงระเหยน้ำรวม						
Date Analysis Commenced	May 16, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	29	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampled By : Surawit Naramong ทะเบียนเลขที่ ว-323-จ-0011 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-จ-0101

Remark :

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Technical Management

Chontichok
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ว-323-จ-9449

Approved by

D. Chumon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-จ-9442

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Analysis / Test Report

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Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : PP2_S1

Lot ID: 2444080
Date Received : May 16, 2024
Date Reported : May 27, 2024
Report Number : 2969777-2 C4

Page 1 of 1

Sample Number	2444080-1
Sampled Date	May 16, 2024 2:40 PM
Sample Description	Wastewater
Location	โรงระเหยน้ำกรร
Date Analysis Commenced	May 16, 2024
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	179	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.021	No Standard	Flow meter	Rayong
Total Organic Carbon	mg/L	0.01	0.1	10.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Sampled By : Surawit Narapong , Thanasoun Namakunna

Remark :
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Approved by

Chontichak
Chonticha Subongkoch
Scientist (3)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location : PP2_S1



TESTING
No.0042

Lot ID: 2460079
Date Received : Jun 07, 2024
Date Reported : Jun 15, 2024
Report Number : 3004543-1 C4

Page 1 of 2

Sample Number	2460079-1
Sampled Date	Jun 07, 2024 11:30 AM
Sample Description	Wastewater
Location	โรงระเหยน้ำกรร
Date Analysis Commenced	Jun 07, 2024
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	31	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	13	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	11	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	38.6	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	428	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

Chontichak
Chonticha Subongkoch
Scientist (3)
ทะเบียนเลขที่ ๖-323-๙-9449

Approved by

D. Changchon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ๖-323-๙-9442

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1



TESTING
No.0042
Lot ID: 2460079
Date Received : Jun 07, 2024
Date Reported : Jun 15, 2024
Report Number : 3004543-1 C4

Page 2 of 2

Sample Number	2460079-1						
Sampled Date	Jun 07, 2024 11:30 AM						
Sample Description	Wastewater						
Location	โรงงานน้ำตาล						
Date Analysis Commenced	Jun 07, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	11	≤50	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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

Sampled By : Paramet Sattayakun ทะเบียนเลขที่ ๖-323-๖-9476 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ๖-204-๖-0002

Remark :

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Technical Management

Chonticha

Chonticha Subongkoch
Scientist (3)

ทะเบียนเลขที่ ๖-323-๖-9449

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ๖-323-๖-9442

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10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP2_S1

Lot ID: 2460079
Date Received : Jun 07, 2024
Date Reported : Jun 15, 2024
Report Number : 3004543-2 C4

Page 1 of 1

Sample Number	2460079-1						
Sampled Date	Jun 07, 2024 11:30 AM						
Sample Description	Wastewater						
Location	โรงงานน้ำตาล						
Date Analysis Commenced	Jun 07, 2024						
Condition of Sample	Contained in four glass vials, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Chloride as Cl	mg/L	0.5	1	118	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.016	No Standard	Flow meter	Rayong
Total Organic Carbon	mg/L	0.01	0.1	10.1	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5310 B	Bangkok

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

Sampled By : Paramet Sattayakun , Pattarapol Sawangjaitam

Remark :

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Approved by

Swimon C.

Swimon Chairuangwut
Scientist (3)

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ภาคผนวก ค-3

ระดับเสียงทั่วไป



Analysis / Test Report



TESTING
No.0042

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Lot ID: 2444056

Date Received : May 29, 2024

Date Reported : Jun 01, 2024

Report Number: 3010685-1

Sample Number 2444056-1
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1 (GPS 47P 0731760, 1404872)
Measurement Date May 13 - May 14, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 233183

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	61.0	89.3	58.8
11:00 AM - 12:00 PM	60.7	82.1	58.2
12:00 PM - 01:00 PM	60.7	83.4	58.4
01:00 PM - 02:00 PM	60.5	76.3	58.4
02:00 PM - 03:00 PM	60.6	81.1	58.6
03:00 PM - 04:00 PM	61.7	77.3	59.7
04:00 PM - 05:00 PM	62.8	74.9	61.3
05:00 PM - 06:00 PM	62.0	79.9	60.1
06:00 PM - 07:00 PM	61.9	81.8	60.3
07:00 PM - 08:00 PM	61.5	70.9	59.5
08:00 PM - 09:00 PM	60.7	70.5	58.5
09:00 PM - 10:00 PM	61.2	77.2	59.2
10:00 PM - 11:00 PM	62.3	76.5	60.9
11:00 PM - 12:00 AM	61.4	74.1	59.7
12:00 AM - 01:00 AM	61.0	73.8	58.9
01:00 AM - 02:00 AM	61.3	83.3	59.0
02:00 AM - 03:00 AM	60.7	71.5	58.8
03:00 AM - 04:00 AM	60.8	68.8	59.2
04:00 AM - 05:00 AM	61.5	77.5	59.7
05:00 AM - 06:00 AM	63.0	85.0	60.9
06:00 AM - 07:00 AM	62.1	87.1	60.2
07:00 AM - 08:00 AM	62.0	78.4	59.8
08:00 AM - 09:00 AM	61.6	81.1	59.3
09:00 AM - 10:00 AM	61.3	81.1	59.0

Leq Average 24 hrs. (dB(A))

61.5

Lmax (dB(A))

89.3

L90 (dB(A))

59.2

Ldn (dB(A))

68.0

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
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1980-261/ EMAIL



Analysis / Test Report



TESTING
No.0042

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Lot ID: 2444056

Date Received : May 29, 2024

Date Reported : Jun 01, 2024

Report Number: 3010686-1

Sample Number 2444056-2
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1 (GPS 47P 0731760, 1404872)
Measurement Date May 14 - May 15, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 233183

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	61.0	82.3	58.9
11:00 AM - 12:00 PM	60.6	75.7	58.4
12:00 PM - 01:00 PM	60.8	75.7	58.6
01:00 PM - 02:00 PM	61.6	75.9	60.0
02:00 PM - 03:00 PM	60.9	81.0	58.3
03:00 PM - 04:00 PM	60.6	82.8	58.4
04:00 PM - 05:00 PM	60.6	81.8	57.9
05:00 PM - 06:00 PM	61.0	80.9	58.1
06:00 PM - 07:00 PM	61.0	80.4	58.6
07:00 PM - 08:00 PM	60.8	85.9	57.9
08:00 PM - 09:00 PM	61.2	81.8	58.4
09:00 PM - 10:00 PM	60.9	84.1	58.4
10:00 PM - 11:00 PM	60.2	77.2	57.7
11:00 PM - 12:00 AM	61.2	70.8	59.3
12:00 AM - 01:00 AM	59.9	70.4	57.7
01:00 AM - 02:00 AM	60.2	70.1	57.9
02:00 AM - 03:00 AM	59.8	75.6	57.5
03:00 AM - 04:00 AM	60.1	73.6	58.2
04:00 AM - 05:00 AM	60.3	75.3	57.7
05:00 AM - 06:00 AM	61.0	77.8	58.4
06:00 AM - 07:00 AM	61.2	81.5	58.6
07:00 AM - 08:00 AM	61.3	77.3	59.0
08:00 AM - 09:00 AM	61.9	82.4	59.1
09:00 AM - 10:00 AM	62.1	81.3	59.7

Leq Average 24 hrs. (dB(A))

60.9

Lmax (dB(A))

85.9

L90 (dB(A))

58.4

Ldn (dB(A))

67.0

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
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S:\Reports_Air Noise.rpt (1:20PM)



Analysis / Test Report



TESTING
No.0042

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Lot ID: 2444056

Date Received : May 29, 2024

Date Reported : Jun 01, 2024

Report Number: 3010687-1

Page 1 of 1

Sample Number	2444056-3
Parameter	Noise (Leq 24 hrs.)
Location	อาคารสำนักงานของคลังโรงงาน TPE Site#1 (GPS 47P 0731760, 1404872)
Measurement Date	May 15 - May 16, 2024
Measurement by	Anuwet Tema
Sound Level meter	Serial No. 233183

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	60.9	79.3	58.3
11:00 AM - 12:00 PM	65.8	87.3	57.3
12:00 PM - 01:00 PM	59.7	77.5	57.5
01:00 PM - 02:00 PM	59.6	79.0	57.2
02:00 PM - 03:00 PM	60.2	78.6	57.9
03:00 PM - 04:00 PM	60.6	79.0	58.3
04:00 PM - 05:00 PM	61.4	80.3	59.6
05:00 PM - 06:00 PM	61.5	83.2	59.1
06:00 PM - 07:00 PM	61.0	80.5	58.8
07:00 PM - 08:00 PM	60.4	84.7	57.9
08:00 PM - 09:00 PM	62.1	83.0	59.6
09:00 PM - 10:00 PM	60.7	77.1	59.2
10:00 PM - 11:00 PM	61.6	78.1	60.0
11:00 PM - 12:00 AM	60.9	77.1	59.4
12:00 AM - 01:00 AM	61.2	88.2	59.3
01:00 AM - 02:00 AM	61.0	85.9	58.7
02:00 AM - 03:00 AM	60.5	76.5	59.1
03:00 AM - 04:00 AM	60.2	87.3	58.4
04:00 AM - 05:00 AM	60.2	73.7	58.9
05:00 AM - 06:00 AM	61.0	74.3	59.2
06:00 AM - 07:00 AM	61.4	86.7	59.5
07:00 AM - 08:00 AM	61.5	78.9	59.1
08:00 AM - 09:00 AM	60.8	77.9	58.6
09:00 AM - 10:00 AM	61.3	82.8	58.8

Leq Average 24 hrs. (dB(A))

61.3

Lmax (dB(A))

88.2

L90 (dB(A))

58.8

Ldn (dB(A))

67.4

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

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Supot Salamteh
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Analysis / Test Report



TESTING
No.0042

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Lot ID: 2444056

Date Received : May 29, 2024

Date Reported : Jun 01, 2024

Report Number: 3010688-1

Page 1 of 1

Sample Number	2444056-4
Parameter	Noise (Leq 24 hrs.)
Location	อาคารสำนักงานของคลังโรงงาน TPE Site#1 (GPS 47P 0731760, 1404872)
Measurement Date	May 16 - May 17, 2024
Measurement by	Anuwet Tema
Sound Level meter	Serial No. 233183

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	60.1	74.9	58.3
11:00 AM - 12:00 PM	60.2	72.4	58.4
12:00 PM - 01:00 PM	60.5	81.2	58.5
01:00 PM - 02:00 PM	63.7	80.1	62.5
02:00 PM - 03:00 PM	63.2	79.2	62.0
03:00 PM - 04:00 PM	63.6	78.8	62.4
04:00 PM - 05:00 PM	62.6	79.1	60.5
05:00 PM - 06:00 PM	61.4	79.7	59.1
06:00 PM - 07:00 PM	60.5	73.6	58.3
07:00 PM - 08:00 PM	60.2	83.3	58.2
08:00 PM - 09:00 PM	59.4	70.9	57.7
09:00 PM - 10:00 PM	60.1	69.2	58.6
10:00 PM - 11:00 PM	60.8	76.2	58.9
11:00 PM - 12:00 AM	62.1	70.2	60.6
12:00 AM - 01:00 AM	65.1	82.8	59.6
01:00 AM - 02:00 AM	60.0	74.3	58.3
02:00 AM - 03:00 AM	59.5	74.1	57.6
03:00 AM - 04:00 AM	59.8	68.0	58.7
04:00 AM - 05:00 AM	60.0	73.3	58.1
05:00 AM - 06:00 AM	61.6	82.9	59.7
06:00 AM - 07:00 AM	62.3	86.3	59.6
07:00 AM - 08:00 AM	61.5	74.8	59.3
08:00 AM - 09:00 AM	61.0	82.2	58.6
09:00 AM - 10:00 AM	60.9	81.2	57.8

Leq Average 24 hrs. (dB(A))

61.5

Lmax (dB(A))

86.3

L90 (dB(A))

58.6

Ldn (dB(A))

68.0

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

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Supot Salamteh
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Analysis / Test Report



TESTING
No.0042

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Lot ID: 2444056

Date Received : May 29, 2024

Date Reported : Jun 01, 2024

Report Number: 3010689-1

Sample Number 2444056-5
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1 (GPS 47P 0731760, 1404872)
Measurement Date May 17 - May 18, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 233183

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	59.7	79.1	57.1
11:00 AM - 12:00 PM	59.6	92.6	57.1
12:00 PM - 01:00 PM	59.9	81.0	57.2
01:00 PM - 02:00 PM	59.7	88.1	57.2
02:00 PM - 03:00 PM	60.7	84.6	58.3
03:00 PM - 04:00 PM	60.7	83.0	58.5
04:00 PM - 05:00 PM	60.7	77.9	58.6
05:00 PM - 06:00 PM	60.7	80.5	58.0
06:00 PM - 07:00 PM	60.2	76.2	58.2
07:00 PM - 08:00 PM	61.0	77.0	57.7
08:00 PM - 09:00 PM	60.2	72.7	58.3
09:00 PM - 10:00 PM	60.0	76.7	58.1
10:00 PM - 11:00 PM	60.4	78.4	58.8
11:00 PM - 12:00 AM	60.0	78.6	58.2
12:00 AM - 01:00 AM	59.8	69.9	58.5
01:00 AM - 02:00 AM	60.1	79.6	58.3
02:00 AM - 03:00 AM	59.8	78.5	58.1
03:00 AM - 04:00 AM	59.6	70.4	57.9
04:00 AM - 05:00 AM	60.7	76.5	58.7
05:00 AM - 06:00 AM	60.9	75.9	59.4
06:00 AM - 07:00 AM	60.8	75.3	58.8
07:00 AM - 08:00 AM	61.7	74.8	58.9
08:00 AM - 09:00 AM	61.8	82.7	59.1
09:00 AM - 10:00 AM	60.7	76.2	59.1

Leq Average 24 hrs. (dB(A)) 60.4
Lmax (dB(A)) 92.6
L90 (dB(A)) 58.3
Ldn (dB(A)) 66.7
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Supot Salamteh
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Analysis / Test Report



TESTING
No.0042

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Lot ID: 2444056

Date Received : May 29, 2024

Date Reported : Jun 01, 2024

Report Number: 3010690-1

Sample Number 2444056-6
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1 (GPS 47P 0731760, 1404872)
Measurement Date May 18 - May 19, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 233183

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	60.3	77.4	58.3
11:00 AM - 12:00 PM	59.8	73.8	57.9
12:00 PM - 01:00 PM	60.4	78.1	57.1
01:00 PM - 02:00 PM	61.6	71.2	60.1
02:00 PM - 03:00 PM	60.3	77.0	57.6
03:00 PM - 04:00 PM	59.9	71.3	58.1
04:00 PM - 05:00 PM	60.1	72.3	58.0
05:00 PM - 06:00 PM	60.0	73.0	58.3
06:00 PM - 07:00 PM	59.8	72.8	58.1
07:00 PM - 08:00 PM	59.9	71.9	58.2
08:00 PM - 09:00 PM	59.8	72.9	58.3
09:00 PM - 10:00 PM	59.8	73.0	58.4
10:00 PM - 11:00 PM	60.1	73.5	58.8
11:00 PM - 12:00 AM	60.8	69.0	58.7
12:00 AM - 01:00 AM	60.4	68.9	57.7
01:00 AM - 02:00 AM	58.7	71.5	56.8
02:00 AM - 03:00 AM	58.9	70.5	57.3
03:00 AM - 04:00 AM	58.6	69.8	56.6
04:00 AM - 05:00 AM	58.9	71.4	57.1
05:00 AM - 06:00 AM	59.8	76.2	57.7
06:00 AM - 07:00 AM	60.9	80.2	58.3
07:00 AM - 08:00 AM	60.5	79.9	57.8
08:00 AM - 09:00 AM	60.1	76.5	57.6
09:00 AM - 10:00 AM	60.5	81.9	57.5

Leq Average 24 hrs. (dB(A)) 60.1
Lmax (dB(A)) 81.9
L90 (dB(A)) 57.9
Ldn (dB(A)) 66.2
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Supot Salamteh
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Analysis / Test Report

TESTING
No.0042

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Lot ID: 2444056

Date Received : May 29, 2024

Date Reported : Jun 01, 2024

Report Number: 3010691-1

Page 1 of 1

Sample Number 2444056-7
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานกลุ่มโรงงาน TPE Site#1 (GPS 47P 0731760, 1404872)
Measurement Date May 19 - May 20, 2024
Measurement by Anuwet Tema
Sound Level meter Serial No. 233183

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	59.7	86.2	56.9
11:00 AM - 12:00 PM	59.9	81.1	56.7
12:00 PM - 01:00 PM	59.5	83.0	57.0
01:00 PM - 02:00 PM	59.7	85.6	56.8
02:00 PM - 03:00 PM	60.7	82.4	57.1
03:00 PM - 04:00 PM	60.0	70.5	58.1
04:00 PM - 05:00 PM	59.9	78.5	57.5
05:00 PM - 06:00 PM	59.9	84.5	57.5
06:00 PM - 07:00 PM	59.2	77.7	56.6
07:00 PM - 08:00 PM	59.6	85.1	57.2
08:00 PM - 09:00 PM	59.2	80.1	56.6
09:00 PM - 10:00 PM	59.1	75.2	57.0
10:00 PM - 11:00 PM	59.2	76.1	56.7
11:00 PM - 12:00 AM	59.3	75.5	57.1
12:00 AM - 01:00 AM	59.3	84.4	56.7
01:00 AM - 02:00 AM	59.8	71.5	58.0
02:00 AM - 03:00 AM	59.6	69.0	57.9
03:00 AM - 04:00 AM	59.7	68.9	58.4
04:00 AM - 05:00 AM	60.3	76.6	57.8
05:00 AM - 06:00 AM	61.6	77.0	59.7
06:00 AM - 07:00 AM	61.2	75.7	59.3
07:00 AM - 08:00 AM	61.2	83.9	58.1
08:00 AM - 09:00 AM	60.9	82.9	58.3
09:00 AM - 10:00 AM	60.0	74.0	57.9

Leq Average 24 hrs. (dB(A))

60.0

Lmax (dB(A))

86.2

L90 (dB(A))

57.2

Ldn (dB(A))

66.5

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป

2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน 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

คุณภาพอากาศภายในสถานประกอบการ



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : PP2

Lot ID: 2411052
Date Received : Feb 02, 2024
Date Reported : Feb 13, 2024
Report Number : 2897100-1

Page 1 of 3

Sample Number 2411052-1
Sampled Date Feb 01, 2024
Sample Description Air Quality
Location หน่วยโพลีเอทิลีน
Date Analysis Commenced Feb 03, 2024
Condition of Sample Drawn into one 10-L air sampling bag and one sorbent tube, refrigerated
Barometric Pressure 760 mmHg
Atmospheric Temperature 32.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Ethylene	09:50 AM - 11:50 AM	ppm	-	1.0	<1.0	200	Based on ASTM, D 2712-18	ACGIH	Bangkok
n-Hexane	09:50 AM - 11:50 AM	ppm	-	0.03	0.15	500	NIOSH (2003), 1500	MOL	Bangkok
Propylene	09:50 AM - 11:50 AM	ppm	-	1.0	<1.0	500	Based on ASTM, D 2712-91	ACGIH	Bangkok

Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2023).

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)

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : PP2

Lot ID: 2444687
Date Received : Jun 22, 2024
Date Reported : Jul 03, 2024
Report Number : 2971438-1

Page 1 of 3

Sample Number 2444687-1
Sampled Date Jun 21, 2024
Sample Description Air Quality
Location หน่วยโพลีเอทิลีน
Date Analysis Commenced Jun 25, 2024
Condition of Sample Drawn into one 10-L air sampling bag and one sorbent tube, refrigerated
Barometric Pressure 755 mmHg
Atmospheric Temperature 32.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Ethylene	09:30 AM - 11:30 AM	ppm	-	1.0	<1.0	200	Based on ASTM, D 2712-18	ACGIH	Bangkok
n-Hexane	09:30 AM - 11:30 AM	ppm	-	0.03	0.15	500	NIOSH (2003), 1500	MOL	Bangkok
Propylene	09:30 AM - 11:30 AM	ppm	-	1.0	<1.0	500	Based on ASTM, D 2712-91	ACGIH	Bangkok

Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2023).

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 : Supot Salamteh

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : PP2

Lot ID: 2411052
Date Received : Feb 02, 2024
Date Reported : Feb 13, 2024
Report Number : 2897100-1

Page 2 of 3

Sample Number 2411052-2
Sampled Date Feb 01, 2024
Sample Description Air Quality
Location หน่วยบรรจุหีบห่อ
Date Analysis Commenced Feb 05, 2024
Condition of Sample Drawn into one filter paper placed in plastic cassette
Barometric Pressure 760 mmHg
Atmospheric Temperature 32.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total Dust	09:50 AM - 11:50 AM	mg/m3	-	0.15	<0.15	15	Based on NIOSH (1994), 0500	OSHA	Rayong

Guideline :

OSHA : Occupational Safety and Health Administration
Sampled By : Prasannit Kueanpet

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : PP2

Lot ID: 2444687
Date Received : Jun 22, 2024
Date Reported : Jul 03, 2024
Report Number : 2971438-1

Page 2 of 3

Sample Number 2444687-2
Sampled Date Jun 21, 2024
Sample Description Air Quality
Location หน่วยบรรจุหีบห่อ
Date Analysis Commenced Jun 26, 2024
Condition of Sample Drawn into one filter paper placed in plastic cassette
Barometric Pressure 755 mmHg
Atmospheric Temperature 32.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total Dust	09:30 AM - 11:30 AM	mg/m3	-	0.15	<0.15	15	Based on NIOSH (1994), 0500	OSHA	Rayong

Guideline :

OSHA : Occupational Safety and Health Administration
Sampled By : Supot Salamteh

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : PP2

Lot ID: 2411052
Date Received : Feb 02, 2024
Date Reported : Feb 13, 2024
Report Number : 2897100-1

Page 3 of 3

Sample Number 2411052-3
Sampled Date Feb 01, 2024
Sample Description Air Quality
Location Extruder (หน่วยผลิตเม็ด)
Date Analysis Commenced Feb 03, 2024
Condition of Sample Drawn into one 10-L air sampling bag and one sorbent tube, refrigerated
Barometric Pressure 760 mmHg
Atmospheric Temperature 32.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Ethylene	09:50 AM - 11:50 AM	ppm	-	1.0	<1.0	200	Based on ASTM, D 2712-18	ACGIH	Bangkok
n-Hexane	09:50 AM - 11:50 AM	ppm	-	0.03	<0.03	500	NIOSH (2003), 1500	MOL	Bangkok
Propylene	09:50 AM - 11:50 AM	ppm	-	1.0	<1.0	500	Based on ASTM, D 2712-91	ACGIH	Bangkok

Guideline :
ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2023).
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)

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : PP2

Lot ID: 2444687
Date Received : Jun 22, 2024
Date Reported : Jul 03, 2024
Report Number : 2971438-1

Page 3 of 3

Sample Number 2444687-3
Sampled Date Jun 21, 2024
Sample Description Air Quality
Location Extruder (หน่วยผลิตเม็ด)
Date Analysis Commenced Jun 25, 2024
Condition of Sample Drawn into one 10-L air sampling bag and one sorbent tube, refrigerated
Barometric Pressure 755 mmHg
Atmospheric Temperature 32.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Ethylene	09:30 AM - 11:30 AM	ppm	-	1.0	<1.0	200	Based on ASTM, D 2712-18	ACGIH	Bangkok
n-Hexane	09:30 AM - 11:30 AM	ppm	-	0.03	0.05	500	NIOSH (2003), 1500	MOL	Bangkok
Propylene	09:30 AM - 11:30 AM	ppm	-	1.0	<1.0	500	Based on ASTM, D 2712-91	ACGIH	Bangkok

Guideline :
ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2023).
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 : Supot Salamteh

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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ภาคผนวก ค-5

ระดับเสียงภายในสถานประกอบการ



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location : PP2

Lot ID: 2411053

Date Received : Feb 02, 2024

Date Reported : Feb 07, 2024

Report Number: 2904928-1

Page 1 of 1

Sample Number	2411053-1		
Parameter	Noise (Leq 8 hrs.)		
Location	หน่วยเพื่อนอโรเซชั่น		
Measurement Date	Feb 01, 2024		
Measurement by	Prasanmit Kueanpet		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:09 AM - 11:09 AM	82.8	83.9	82.2
11:09 AM - 12:09 PM	82.8	84.0	81.9
12:09 PM - 01:09 PM	82.7	84.1	82.0
01:09 PM - 02:09 PM	82.9	86.3	82.2
02:09 PM - 03:09 PM	82.7	86.2	82.1
03:09 PM - 04:09 PM	82.7	84.1	82.1
04:09 PM - 05:09 PM	83.0	84.2	82.4
05:09 PM - 06:09 PM	83.0	84.0	82.4
Leq Average 8 hrs. (dB(A))	82.8		
Lmax (dB(A))		86.3	
Standard (dB(A))	90	140	
Reference Method	: ISO1996-1 and 1996-2		
Standard	: ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖		



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : PP2

Lot ID: 2444689

Date Received : Jun 22, 2024

Date Reported : Jun 24, 2024

Report Number: 3034090-1

Page 1 of 1

Sample Number	2444689-1			
Parameter	Noise (Leq 8 hrs.)			
Location	หน่วยเพื่อนอโรเซชั่น			
Measurement Date	Jun 21, 2024			
Measurement by	Supot Salamteh			
	Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
	09:00 AM - 10:00 AM	86.1	101.2	82.6
	10:00 AM - 11:00 AM	83.5	84.8	82.8
	11:00 AM - 12:00 PM	83.8	85.8	83.0
	12:00 PM - 01:00 PM	83.0	85.5	82.2
	01:00 PM - 02:00 PM	82.9	84.9	82.3
	02:00 PM - 03:00 PM	83.1	84.7	82.5
	03:00 PM - 04:00 PM	83.2	84.8	82.6
	04:00 PM - 05:00 PM	83.1	84.6	82.5
	Leq Average 8 hrs. (dB(A))	83.7		
	Lmax (dB(A))		101.2	
	Standard (dB(A))	90	140	
	Reference Method : ISO1996-1 and 1996-2			
	Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖			

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location : PP2

Lot ID: 2411053

Date Received : Feb 02, 2024

Date Reported : Feb 07, 2024

Report Number: 2904929-1

Page 1 of 1

Sample Number 2411053-2
Parameter Noise (Leq 8 hrs.)
Location หน่วยวัดเน็ด
Measurement Date Feb 01, 2024
Measurement by Prasanmit Kueanpet

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:25 AM - 11:25 AM	81.5	88.7	80.3
11:25 AM - 12:25 PM	82.5	84.1	80.8
12:25 PM - 01:25 PM	82.8	84.1	82.0
01:25 PM - 02:25 PM	82.0	84.1	80.8
02:25 PM - 03:25 PM	81.9	83.7	80.6
03:25 PM - 04:25 PM	81.7	83.4	80.5
04:25 PM - 05:25 PM	81.9	83.5	80.7
05:25 PM - 06:25 PM	81.8	83.3	80.8

Leq Average 8 hrs. (dB(A))

82.0

Lmax (dB(A))

88.7

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสถานะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : PP2

Lot ID: 2444689

Date Received : Jun 22, 2024

Date Reported : Jun 24, 2024

Report Number: 3034091-1

Page 1 of 1

Sample Number 2444689-2
Parameter Noise (Leq 8 hrs.)
Location หน่วยวัดเน็ด
Measurement Date Jun 21, 2024
Measurement by Supot Salamteh

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	82.0	88.9	81.0
10:00 AM - 11:00 AM	82.9	85.1	82.3
11:00 AM - 12:00 PM	82.8	84.5	82.1
12:00 PM - 01:00 PM	81.9	84.8	81.0
01:00 PM - 02:00 PM	81.7	88.0	81.1
02:00 PM - 03:00 PM	82.2	86.3	81.5
03:00 PM - 04:00 PM	82.9	88.0	82.4
04:00 PM - 05:00 PM	82.5	84.3	81.4

Leq Average 8 hrs. (dB(A))

82.4

Lmax (dB(A))

88.9

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสถานะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location : PP2

Lot ID: 2411053

Date Received : Feb 02, 2024

Date Reported : Feb 07, 2024

Report Number: 2904930-1

Page 1 of 1

Sample Number 2411053-3
Parameter Noise (Leq 8 hrs.)
Location Compressor (ผ่านส่ง Vent Gas และ Nitrogen)
Measurement Date Feb 01, 2024
Measurement by Prasanmit Kueanpet

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:50 AM - 11:50 AM	74.9	76.9	74.6
11:50 AM - 12:50 PM	74.8	75.9	74.5
12:50 PM - 01:50 PM	74.8	75.9	74.5
01:50 PM - 02:50 PM	74.8	76.0	74.6
02:50 PM - 03:50 PM	74.9	77.8	74.5
03:50 PM - 04:50 PM	74.8	77.8	74.4
04:50 PM - 05:50 PM	75.0	76.3	74.6
05:50 PM - 06:50 PM	75.1	76.2	74.8

Leq Average 8 hrs. (dB(A))

74.9

Lmax (dB(A))

77.8

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการควบคุมความปลอดภ้ย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.

10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150

P/O : PMM-23-11

Project Name : Environmental Monitoring

Project Location : PP2

Lot ID: 2444689

Date Received : Jun 22, 2024

Date Reported : Jun 24, 2024

Report Number: 3034092-1

Page 1 of 1

Sample Number 2444689-3
Parameter Noise (Leq 8 hrs.)
Location Compressor (ผ่านส่ง Vent Gas และ Nitrogen)
Measurement Date Jun 21, 2024
Measurement by Supot Salamteh

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	79.0	81.9	75.9
10:00 AM - 11:00 AM	80.8	83.6	80.0
11:00 AM - 12:00 PM	79.8	83.0	76.7
12:00 PM - 01:00 PM	75.3	80.0	74.8
01:00 PM - 02:00 PM	76.0	77.4	75.6
02:00 PM - 03:00 PM	78.7	82.8	76.0
03:00 PM - 04:00 PM	79.1	81.8	77.6
04:00 PM - 05:00 PM	77.0	80.1	75.8

Leq Average 8 hrs. (dB(A))

78.6

Lmax (dB(A))

83.6

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการควบคุมความปลอดภ้ย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

Technical Management

Thanita K.

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S:\Reports\Air Noise.rpt (11:35AM)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O :
Project Name : Environmental Monitoring
Project Location : PP2

Lot ID: 2411049
Date Received : Feb 02, 2024
Date Reported : Feb 07, 2024
Report Number : 2897090-1

Page 1 of 1

Sample Number	2411049-1
Sampled Date	Feb 01, 2024
Sample Description	Noise Dose
Location	Polymerization Unit
Personal Sampling	คุณหญิงพรดี มณีโชติ
Date Analysis Commenced	Feb 06, 2024

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Noise Dose (12 hrs.) (Calculated from Lavg)	08:00 AM - 08:00 PM	%	-	-	14.4	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
Noise Dose (8 hrs.)	08:00 AM - 08:00 PM	%	-	-	13.8	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (12 hrs.) (Calculated from Lavg)	08:00 AM - 08:00 PM	dB(A)	-	-	74.6	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (8 hrs.)	08:00 AM - 08:00 PM	dB(A)	-	-	76.4	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong

Guideline :

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

Sampled By : Norranon Tathongkham

Remark :

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

Approved by

Supot Salamteh
Section Head

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150

P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : PP2

Lot ID: 2444691
Date Received : Jun 22, 2024
Date Reported : Jun 24, 2024
Report Number : 2971441-1

Page 1 of 1

Sample Number	2444691-1
Sampled Date	Jun 21, 2024
Sample Description	Noise Dose
Location	Polymerization Unit
Personal Sampling	คุณธนวัฒน์ เจริญสุขวรรณ
Date Analysis Commenced	Jun 24, 2024

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Noise Dose (12 hrs.) (Calculated from Lavg)	07:30 AM - 07:30 PM	%	-	1	74.1	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
Noise Dose (8 hrs.)	07:30 AM - 07:30 PM	%	-	1	69.2	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (12 hrs.) (Calculated from Lavg)	07:30 AM - 07:30 PM	dB(A)	-	-	81.7	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong
TWA (8 hrs.)	07:30 AM - 07:30 PM	dB(A)	-	-	83.4	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Rayong

Guideline :

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

Sampled By : Supot Salamteh

Remark :

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

Approved by

Supot Salamteh
Section Head

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ภาคผนวก ค-6

ระดับความร้อนภายในสถานประกอบการ



Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District,
Rayong Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location : PP2

Lot ID: 2411054

Date Received : Feb 02, 2024

Date Reported : Feb 07, 2024

Report Number: 2897096-1

Page 1 of 1

Sample Number 2411054-1
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Feb 01, 2024
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
หน่วยคัดเมล็ด	120	31.3	30.2	33.9	33.7
Average (WBGT)		31.3			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

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. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supot Salamteh
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District,
Rayong Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : PP2

Lot ID: 2444690

Date Received : Jun 22, 2024

Date Reported : Jun 25, 2024

Report Number: 2971440-1

Page 1 of 1

Sample Number 2444690-1
Parameter Heat Stress (Sampling Time : 09.30 AM - 11.30 AM)
Measurement Date Jun 21, 2024
Measurement by Supot Salamteh
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน - : แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
หน่วยตัดไม้	120	30.2	28.2	35.0	34.8
Average (WBGT)		30.2			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- 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)
- Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supot Salamteh
Section Head

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