

ภาคผนวก ค

ใบรับรองผลการตรวจวิเคราะห์

ภาคผนวก ค-1

คุณภาพอากาศในบรรยากาศ



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 : PHM-23-11
Project Name : Environmental Monitoring
Project Location : TPE Site 1

Lot ID: 2345562

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631330-1

Page 1 of 7

Sample Number 2345562-1
Sample Date May 15, 2023
Sample Description Air Quality
Location อากาศในจุดตามแผนที่ (ตาม TPE (Site # 1))
Date Analysis Commenced May 25, 2023
Condition of Sample Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure 759 mmHg
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Hexane	15/05/23 - 16/05/23	ppm	-	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	15/05/23 - 16/05/23	ppm	-	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawat Topho

Remark :

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

Approved by

Orawan R.
Orawan Rakpong
Scientist (3)

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S:\Report\ALC_Web\mg_2023\1 (50276)



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 : PHM-23-11
Project Name : Environmental Monitoring
Project Location : TPE Site 1

Lot ID: 2345562

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631330-1

Page 2 of 7

Sample Number 2345562-2
Sample Date May 16, 2023
Sample Description Air Quality
Location อากาศในจุดตามแผนที่ (ตาม TPE (Site # 1))
Date Analysis Commenced May 25, 2023
Condition of Sample Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure 759 mmHg
Atmospheric Temperature 31.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Hexane	16/05/23 - 17/05/23	ppm	-	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	16/05/23 - 17/05/23	ppm	-	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawat Topho

Remark :

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

Approved by

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Orawan Rakpong
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Analysis / Test Report

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

Lot ID: 2345562

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631330-1

Page 3 of 7

Sample Number 2345562-3
Sample Date May 17, 2023
Sample Description Air Quality
Location อากาศในโรงงานอุตสาหกรรม TPE (Site # 1)
Date Analysis Commenced May 25, 2023
Condition of Sample Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure 759 mmHg
Atmospheric Temperature 32.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Hexane	17/05/23 - 18/05/23	ppm	-	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	17/05/23 - 18/05/23	ppm	-	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawal Torphio

Remark :

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

Approved by

Orawan R.

Orawan Rukyong
Scientist (3)

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Analysis / Test Report

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

Lot ID: 2345562

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631330-1

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Sample Number 2345562-4
Sample Date May 18, 2023
Sample Description Air Quality
Location อากาศในโรงงานอุตสาหกรรม TPE (Site # 1)
Date Analysis Commenced May 25, 2023
Condition of Sample Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure 759 mmHg
Atmospheric Temperature 32.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Hexane	18/05/23 - 19/05/23	ppm	-	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	18/05/23 - 19/05/23	ppm	-	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawal Torphio

Remark :

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

Approved by

Orawan R.

Orawan Rukyong
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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate E-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PM25-11
Project Name : Environmental Monitoring
Project Location : TPE Site 1

Lot ID: 2345562

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number: 2631330-1

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Sample Number : 2345562-5
Sample Date : May 19, 2023
Sample Description : Air Quality
Location : อวนสารเคมีอุตสาหกรรม TPE (Site # 1)
Date Analysis Commenced : May 25, 2023
Condition of Sample : Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure : 759 mmHg
Atmospheric Temperature : 33.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Hexane	19/05/23 - 20/05/23	ppm	-	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	19/05/23 - 20/05/23	ppm	-	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawal Tonpho

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

Approved by
Orawan R.
Orawan Rukyong
Scientist (3)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate E-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PM25-11
Project Name : Environmental Monitoring
Project Location : TPE Site 1

Lot ID: 2345562

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number: 2631330-1

Page 6 of 7

Sample Number : 2345562-6
Sample Date : May 20, 2023
Sample Description : Air Quality
Location : อวนสารเคมีอุตสาหกรรม TPE (Site # 1)
Date Analysis Commenced : May 25, 2023
Condition of Sample : Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure : 759 mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Hexane	20/05/23 - 21/05/23	ppm	-	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	20/05/23 - 21/05/23	ppm	-	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawal Tonpho

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

Approved by
Orawan R.
Orawan Rukyong
Scientist (3)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
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Thailand 21150
P/O : PHM25-11
Project Name : Environmental Monitoring
Project Location : TPE Site 1

Lot ID: 2345562

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631330-1

Page 7 of 7

Sample Number : 2345562-7
Sampled Date : May 21, 2023
Sample Description : Air Quality
Location : อวนสารพิษทางอากาศ TPE (Site # 1)
Date Analysis Commenced : May 25, 2023
Condition of Sample : Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure : 759 mmHg
Atmospheric Temperature : 33.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Hexane	21/05/23 - 22/05/23	ppm	-	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	21/05/23 - 22/05/23	ppm	-	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawal Tonpho

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Thailand 21150
P/O : PHM23-11
Project Name : Environmental Monitoring
Project Location : TPE Site 1

Lot ID: 2345756

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631339-1

Page 1 of 7

Sample Number : 2345756-1
Sampled Date : May 15, 2023
Sample Description : Air Quality
Location : อวนสารพิษทางอากาศ
Date Analysis Commenced : May 25, 2023
Condition of Sample : Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure : 759 mmHg
Atmospheric Temperature : 30.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Hexane	15/05/23 - 16/05/23	ppm	-	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	15/05/23 - 16/05/23	ppm	-	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawal Tonpho

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

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Thailand 21150
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : TPE Site 1

Lot ID: 2345756
Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631339-1

Page 2 of 7

Sample Number : 2345756-2
Sample Date : May 16, 2023
Sample Description : Air Quality
Location : TPE Site 1
Date Analysis Commenced : May 25, 2023
Condition of Sample : Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure : 759 mmHg
Atmospheric Temperature : 31.0 °C

Analyte	Sampled Date/Time	Unit	LOQ (LOQ)	Result	Method	Testing Location
Air Testing						
n-Hexane	16/05/23 - 17/05/23	ppm	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	16/05/23 - 17/05/23	ppm	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawal Tonpho

Remark :

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

Approved by
Orawan R.
Orawan Rakying
Scientist (3)

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1890-2617 Email

S:Report_Air_Monitoring_ML23-11 (1.02ppm)



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 : TPE Site 1

Lot ID: 2345756
Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631339-1

Page 3 of 7

Sample Number : 2345756-3
Sample Date : May 17, 2023
Sample Description : Air Quality
Location : TPE Site 1
Date Analysis Commenced : May 25, 2023
Condition of Sample : Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure : 759 mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Sampled Date/Time	Unit	LOQ (LOQ)	Result	Method	Testing Location
Air Testing						
n-Hexane	17/05/23 - 18/05/23	ppm	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	17/05/23 - 18/05/23	ppm	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawal Tonpho

Remark :

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

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Orawan Rakying
Scientist (3)

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S:Report_Air_Monitoring_ML23-11 (1.02ppm)



Analysis / Test Report

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

Lot ID: 2345756
Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631339-1

Page 6 of 7

Sample Number : 2345756-6
Sample Date : May 20, 2023
Sample Description : Air Quality
Location : Yaefraihunuaakhu
Date Analysis Commenced : May 25, 2023
Condition of Sample : Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure : 759 mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Hexane	20/05/23 - 21/05/23	ppm	-	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	20/05/23 - 21/05/23	ppm	-	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawai Tongpho

Remark :

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

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Approved by

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Scientist (3)

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Analysis / Test Report

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

Lot ID: 2345756
Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631339-1

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Sample Number : 2345756-7
Sample Date : May 21, 2023
Sample Description : Air Quality
Location : Yaefraihunuaakhu
Date Analysis Commenced : May 25, 2023
Condition of Sample : Drawn into one 25-L air sampling bag and two sorbent tubes, refrigerated
Barometric Pressure : 759 mmHg
Atmospheric Temperature : 33.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Hexane	21/05/23 - 22/05/23	ppm	-	0.10	<0.10	Based on NIOSH, 1500	Bangkok
Propylene	21/05/23 - 22/05/23	ppm	-	1.0	<1.0	Based on ASTM, D2712-18	Bangkok

Sampled By : Sawai Tongpho

Remark :

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Analysis / Test Report

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

Lot ID: 2345757

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631335-1

Page 1 of 1

Sample Number 2345757-1
Sample Date May 15, 2023
Sample Description Air 7 daily
Location Tsafonhuanthue Qanastangituew
Date Analysis Commenced May 25, 2023
Condition of Sample Drift into one 25-L air sampling bag and 100 solvent tubes, refrigerated
Barometric Pressure 15° mmHg
Atmospheric Temperature 30.0 EC

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOB)	Result	Method	Testing Location
Air Testing							
n-xylene	15/05/23 - 16/05/23	ppm	-	0.10	(0.10)	based on 91<5x, 1500	kang808
Propylene	15/05/23 - 16/05/23	ppm	-	1.0	(1.0)	based on ASTM, D2112-1	kang808

Sampled By : Sakai Toripho

Remark :

- L&D : Limit of Detection
- T* : Lower than L&D Limit of Detection/ L&D Limit of Reporting

Approved by

Orawan R.

Orathan Rasyong
Scientist QW

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

Lot ID: 2345757

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631335-1

Page 1 of 1

Sample Number 2345757-2
Sample Date May 16, 2023
Sample Description Air 7 daily
Location Tsafonhuanthue Qanastangituew
Date Analysis Commenced May 25, 2023
Condition of Sample Drift into one 25-L air sampling bag and 100 solvent tubes, refrigerated
Barometric Pressure 15° mmHg
Atmospheric Temperature 31.0 EC

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOB)	Result	Method	Testing Location
Air Testing							
n-xylene	16/05/23 - 17/05/23	ppm	-	0.10	(0.10)	based on 91<5x, 1500	kang808
Propylene	16/05/23 - 17/05/23	ppm	-	1.0	(1.0)	based on ASTM, D2112-1	kang808

Sampled By : Sakai Toripho

Remark :

- L&D : Limit of Detection
- T* : Lower than L&D Limit of Detection/ L&D Limit of Reporting

Approved by

Orawan R.

Orathan Rasyong
Scientist QW

The client is responsible for the accuracy of the data reported in this report. The client is responsible for the accuracy of the data reported in this report. The client is responsible for the accuracy of the data reported in this report.

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate T-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: 2345757
Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631335-1

Page 3 of 4

Sample Number : 2345757-3
Sample Date : May 17, 2023
Sample Description : Air Quality
Location : ตำบลบ้านใหม่ อำเภอเมืองจันทบุรี
Date Analysis Commenced : May 25, 2023
Condition of Sample : Drawn into one 25-L air sampling bag and into solvent tubes, refrigerated
Barometric Pressure : 15" mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Heptane	17/05/23 - 17/05/23	ppm	-	0.10	(0.10	based on 91-CK, 1500	kang8a8
Propylene	17/05/23 - 17/05/23	ppm	-	1.0	(1.0	based on ASTM, D2712-1	kang8a8

Sampled By : Sahai Tonpho

Remarks :

- L.O.D. : Limit of Detection
- L.O.R. : Lower than L.O.R. Limit of Reporting

The above results are valid only for the analytes listed and are not intended to be used for any other purpose. The results are not a guarantee of quality and are not a substitute for a full audit. The results are not a guarantee of quality and are not a substitute for a full audit.

Approved by
Orawan R.
Oran R. R. R. R.
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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate T-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: 2345757
Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631335-1

Page 4 of 4

Sample Number : 2345757-4
Sample Date : May 17, 2023
Sample Description : Air Quality
Location : ตำบลบ้านใหม่ อำเภอเมืองจันทบุรี
Date Analysis Commenced : May 25, 2023
Condition of Sample : Drawn into one 25-L air sampling bag and into solvent tubes, refrigerated
Barometric Pressure : 15" mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
n-Heptane	17/05/23 - 17/05/23	ppm	-	0.10	(0.10	based on 91-CK, 1500	kang8a8
Propylene	17/05/23 - 17/05/23	ppm	-	1.0	(1.0	based on ASTM, D2712-1	kang8a8

Sampled By : Sahai Tonpho

Remarks :

- L.O.D. : Limit of Detection
- L.O.R. : Lower than L.O.R. Limit of Reporting

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Oran R. R. R. R.
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Analysis / Test Report

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Thailand 21150
P/O : PMN-23-11
Project Name : Environmental Monitoring
Project Location : TPE Site 1

Lot ID: 2345757

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631335-1

Page 5 of 7

Sample Number	2345757-5								
Sampled Date	May 19, 2023								
Sample Description	Air 7 daily								
Location	โรงงานอุตสาหกรรม อุตสาหกรรมปิโตรเลียม								
Date Analysis Commenced	May 25, 2023								
Condition of Sample	Drain into one 25-L air sampling bag and the sorbent tubes, refrigerated								
Barometric Pressure	15" mmHg								
Atmospheric Temperature	33.0 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOQ)	Result	Method		Testing Location	
Air Testing									
n-xylene	19/05/23 - 20/05/23	ppm	-	0.10	(0.10	based on 91-Cx, 1500		kang808	
Propylene	19/05/23 - 20/05/23	ppm	-	1.0	(1.0	based on ASTM, D21 12-1		kang808	

Sampled By : Sahai Tongpho

Remark:
- L&D : Limit of Detection
- % : Lower than L&D Limit of Detection/ Limit of Quantification

Approved by

Orawan R.

Oranin Rabyong
Scientist QW

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Analysis / Test Report

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

Lot ID: 2345757

Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631335-1

Page 6 of 7

Sample Number	2345757-6								
Sampled Date	May 20, 2023								
Sample Description	Air 7 daily								
Location	โรงงานอุตสาหกรรม อุตสาหกรรมปิโตรเลียม								
Date Analysis Commenced	May 25, 2023								
Condition of Sample	Drain into one 25-L air sampling bag and into sorbent tubes, refrigerated								
Barometric Pressure	15° mmHg								
Atmospheric Temperature	32.0 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOQ)	Result	Method	Testing Location		
Air Testing									
n-xylene	20/05/23 - 21/05/23	ppm	-	0.10	(0.10	based on 91-5x, 1500	kang808		
Propylene	20/05/23 - 21/05/23	ppm	-	1.0	(1.0	based on ASTM, D21 12-1	kang808		

Sampled By : Sahai Tongpho

Remark:
- L&D : Limit of Detection
- % : Lower than L&D Limit of Detection/ Limit of Quantification

Approved by

Orawan R.

Oranin Rabyong
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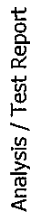
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Page 4 of 4

Sampled By: SaHa! Tonpho

- L<D : Limit obDetection
- "(" : L<D ob7 ventilationw/ L<R Qlimit obReportingw

Approved by

Orawan R.
 <rahan.rahyong
 Scientist QW

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Analysis / Test Report

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

P/O : PNM-23-11

Project Name : Environmental Monitoring
Project Location : TPE Site 1

Sample Number	2345563-1 to 7
Parameter	Wind Speed / Wind Direction
Location	อาคารสำนักงานของกรุงเทพมหานคร
Sampling Date	May 15 - May 22, 2023
Sampling by	Sawal Tonpho

Page 1 of 2

Lot ID : 2345563
Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631359-1

Parameter	Wind Speed / Wind Direction
Location	อาคารฝึกอบรมของเทศบาลเมือง TPE Site#1
Sampling Date	May 15 - May 22, 2023
Sampling by	Sawal Tonpho

Time	May 15 - May 16, 2023		May 16 - May 17, 2023		May 17 - May 18, 2023		May 18 - May 19, 2023		May 19 - May 20, 2023		May 20 - May 21, 2023		May 21 - May 22, 2023								
	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	0.6	23.0	SW	0.1	-	1.1	157.0	SSE	0.3	23.0	SW	0.6	248.0	WSW	0.0	-	0.0	-	-	-	
11:00 AM - 12:00 PM	0.2	-	0.9	20.0	SSW	0.1	18.0	264.0	SW	0.4	209.0	SSW	1.4	258.0	N	1.7	240.0	WSW	0.1	-	
12:00 PM - 01:00 PM	0.4	25.0	WSW	0.0	0.1	1.1	150.0	SSE	1.3	34.0	NNW	0.2	-	2.0	204.0	SSW	1.1	225.0	SW	-	
01:00 PM - 02:00 PM	1.2	137.0	SE	0.2	-	0.6	203.0	SSW	1.7	345.0	NNW	1.6	268.0	W	0.4	247.0	WSW	0.9	152.0	SSE	
02:00 PM - 03:00 PM	0.9	170.0	S	0.3	1.7	179.0	S	0.6	154.0	ESE	0.0	-	0.0	-	0.0	-	1.5	259.0	SSW	-	
03:00 PM - 04:00 PM	0.6	227.0	SW	0.0	-	0.3	111.0	ESE	0.9	200.0	SSW	0.5	42.0	NE	0.5	221.0	SW	1.0	186.0	S	
04:00 PM - 05:00 PM	0.5	180.0	S	0.9	207.0	SSW	0.3	176.0	S	0.5	197.0	SSW	0.5	198.0	SSW	0.0	-	1.0	179.0	S	
05:00 PM - 06:00 PM	0.3	119.0	SE	0.0	-	0.0	-	0.0	-	0.6	225.0	SW	0.7	189.0	S	0.6	213.0	SSW	0.0	-	
06:00 PM - 07:00 PM	0.0	-	0.8	225.0	SW	0.7	189.0	S	0.5	216.0	SSW	0.9	203.0	SSW	0.8	204.0	SSW	0.4	183.0	S	
07:00 PM - 08:00 PM	0.0	-	0.3	195.0	SSW	0.4	191.0	S	1.1	204.0	SSW	0.3	169.0	S	0.6	191.0	S	1.0	148.0	SSE	
08:00 PM - 09:00 PM	0.4	176.0	S	0.0	-	0.4	194.0	SSW	0.1	-	0.7	210.0	SSW	0.0	-	0.8	216.0	SW	0.0	-	
09:00 PM - 10:00 PM	1.2	202.0	SSW	0.3	207.0	SSW	0.9	194.0	SSW	1.1	203.0	SSW	0.6	181.0	S	0.0	-	0.4	151.0	SSE	
10:00 PM - 11:00 PM	0.8	176.0	S	0.0	-	0.7	182.0	S	0.5	178.0	S	0.9	192.0	SSW	1.1	201.0	SSW	1.3	204.0	SSW	
11:00 PM - 12:00 AM	0.3	295.0	SSW	0.5	211.0	SSW	0.8	200.0	SSW	0.1	-	1.2	218.0	SW	0.0	-	0.5	187.0	S	-	
12:00 AM - 01:00 AM	0.0	-	0.6	294.0	SSW	0.5	214.0	SW	0.4	155.0	SSW	0.0	-	0.0	-	0.6	200.0	SSW	0.0	-	
01:00 AM - 02:00 AM	0.5	166.0	SSE	0.8	210.0	SSW	0.6	152.0	SSE	0.3	216.0	SW	0.0	-	0.0	-	1.4	194.0	SSW	-	
02:00 AM - 03:00 AM	1.4	329.0	NNW	1.2	295.0	SSW	0.3	194.0	SSW	0.3	291.0	NNW	0.5	338.0	NNW	0.0	-	0.6	200.0	SSW	
03:00 AM - 04:00 AM	1.3	324.0	RW	1.1	264.0	W	0.8	213.0	SSW	2.6	330.0	NNW	0.0	-	0.7	193.0	SSW	0.4	164.0	SSE	
04:00 AM - 05:00 AM	0.0	-	-	0.8	213.0	SSW	1.1	216.0	SW	1.2	210	NNE	0.0	-	0.0	-	0.4	213.0	SSW	-	
05:00 AM - 06:00 AM	0.5	285.0	NNW	0.9	225.0	SW	0.9	215.0	SW	1.6	266.0	W	0.0	-	0.6	228.0	SW	0.7	255.0	WSW	
06:00 AM - 07:00 AM	0.3	336.0	NNW	0.7	233.0	SW	0.3	226.0	SW	0.6	333.0	NNW	0.0	-	0.3	324.0	NW	1.2	231.0	SW	
07:00 AM - 08:00 AM	0.6	322.0	NW	0.2	-	0.3	223.0	SW	0.3	66.0	ENE	0.4	310.0	NW	0.1	-	0.9	219.0	SW	-	
08:00 AM - 09:00 AM	0.2	-	1.2	-	0.2	-	0.7	312.0	NW	0.3	310.0	NW	1.7	288.0	NW	0.8	246.0	WSW	0.3	190.0	S
09:00 AM - 10:00 AM	0.0	-	-	1.2	307.0	NW	0.2	-	1.0	227.0	SW	0.6	259.0	NNW	0.4	258.0	WSW	0.6	211.0	SSW	
10:00 AM - 11:00 AM	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Sarayuth Jitranont
Assistant General Manager

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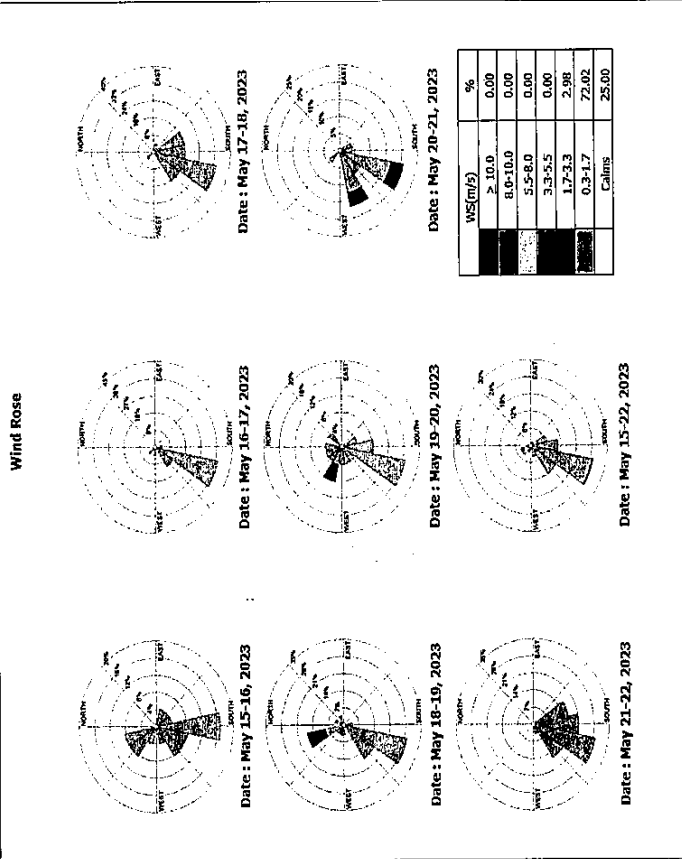


Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate 1-1 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 : 2345563
Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631359-1

Page 2 of 2



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P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : TPE Site 1

Lot ID : 2345566
Date Received : May 24, 2023
Date Reported : Jun 01, 2023
Report Number : 2631390-1

Page 1 of 2

Sample Number		Wind Speed / Wind Direction		May 15 - May 16, 2023		May 17 - May 18, 2023		May 19 - May 20, 2023		May 21 - May 22, 2023	
Parameter		Location		May 15 - May 16, 2023		May 17 - May 18, 2023		May 19 - May 20, 2023		May 21 - May 22, 2023	
Sampling Date		Sampling by		May 15 - May 16, 2023		May 17 - May 18, 2023		May 19 - May 20, 2023		May 21 - May 22, 2023	
Time		Time		WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
09:00 AM - 10:00 AM		09:00 AM - 10:00 AM		0.0	-	1.0	70.0	0.5	337.0	0.9	331.0
10:00 AM - 11:00 AM		10:00 AM - 11:00 AM		0.4	15.0	1.1	353.0	0.8	346.0	1.1	177.0
11:00 AM - 12:00 PM		11:00 AM - 12:00 PM		1.2	359.0	0.2	-	3.5	131.0	0.8	346.0
12:00 PM - 01:00 PM		12:00 PM - 01:00 PM		0.9	331.0	0.2	-	0.6	347.0	0.8	346.0
01:00 PM - 02:00 PM		01:00 PM - 02:00 PM		0.9	142.0	SE	1.0	357.0	SE	1.0	256.0
02:00 PM - 03:00 PM		02:00 PM - 03:00 PM		1.4	75.0	SE	1.1	20.0	NNE	1.9	334.0
03:00 PM - 04:00 PM		03:00 PM - 04:00 PM		0.7	25.0	NNE	1.3	157.0	SSE	0.4	26.0
04:00 PM - 05:00 PM		04:00 PM - 05:00 PM		0.3	351.0	N	0.6	114.0	ESE	1.2	240.0
05:00 PM - 06:00 PM		05:00 PM - 06:00 PM		0.4	332.0	NW	1.2	278.0	W	1.3	268.0
06:00 PM - 07:00 PM		06:00 PM - 07:00 PM		0.4	300.0	N	0.1	-	0.3	33.0	NNE
07:00 PM - 08:00 PM		07:00 PM - 08:00 PM		0.1	-	0.3	133.0	SE	0.3	350.0	ESE
08:00 PM - 09:00 PM		08:00 PM - 09:00 PM		0.0	-	0.3	133.0	SE	0.5	127.0	SE
09:00 PM - 10:00 PM		09:00 PM - 10:00 PM		0.4	200.0	SSW	0.0	-	0.3	286.0	NW
10:00 PM - 11:00 PM		10:00 PM - 11:00 PM		0.5	161.0	SSE	0.0	-	1.4	359.0	N
11:00 PM - 12:00 AM		11:00 PM - 12:00 AM		0.0	-	1.1	344.0	NW	1.0	357.0	N
12:00 AM - 01:00 AM		12:00 AM - 01:00 AM		1.0	245.0	WSW	0.6	1.0	N	0.4	0.0
01:00 AM - 02:00 AM		01:00 AM - 02:00 AM		0.1	-	0.0	-	0.0	-	0.0	-
02:00 AM - 03:00 AM		02:00 AM - 03:00 AM		0.8	196.0	SSW	0.5	25.0	NNE	0.8	35.0
03:00 AM - 04:00 AM		03:00 AM - 04:00 AM		0.4	81.0	E	0.3	67.0	ESE	0.3	316.0
04:00 AM - 05:00 AM		04:00 AM - 05:00 AM		0.0	-	0.0	-	0.5	7.0	N	1.3
05:00 AM - 06:00 AM		05:00 AM - 06:00 AM		0.0	-	0.3	359.0	N	0.3	212.0	SSW
06:00 AM - 07:00 AM		06:00 AM - 07:00 AM		0.7	95.0	E	1.3	262.0	NW	1.5	331.0
07:00 AM - 08:00 AM		07:00 AM - 08:00 AM		0.2	-	0.2	-	1.5	317.0	NW	1.3
08:00 AM - 09:00 AM		08:00 AM - 09:00 AM		1.4	72.0	ESE	0.3	317.0	NW	1.5	286.0

Reference Method : Cup Anemometer & Anemized Aluminium Vane Method

Approved by

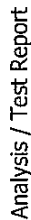
Sarayuth Jitranont
Assistant General Manager

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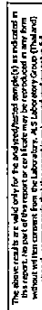
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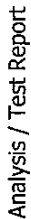
P/O : PMM-23-11
Project Name : Environmental Monitoring
Project Location : TPE Site 1

1000



Sarayuth Jitranont
Assistant General Manager

www.alsqlub.com

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P/O: PHM-23-11

Project Name : Environmental Monitoring

Project Location : TPE Site 1

Sample Number	7346307.1 to 7
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Sample Number	Wind Speed / Wind
2340207-100	Wind Speed / Wind

Location

May 15 - May 22,

Sawai Tonpho

Time	May 15 - May 16, 2023		May 16 - May 17, 2023		May 17 - May 18, 2023		May 18 - May 19, 2023		May 19 - May 20, 2023		May 20 - May 21, 2023		May 21 - May 22, 2023									
	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	0.9	1.0	N	1.2	121.0	ESE	2.4	170.0	S	0.3	65.0	ENE	1.4	350.0	N	2.6	201.0	SSW	2.2	180.0	S	
12:00 PM - 01:00 PM	1.1	354.0	N	1.5	170.0	S	1.5	235.0	WSW	1.1	295.0	WSW	0.5	77.0	NNE	1.0	270.0	W	1.1	271.0	W	
01:00 PM - 02:00 PM	0.4	23.0	NNE	1.1	231.0	S	1.5	207.0	SSW	3.0	248.0	VNW	0.7	220.0	SW	2.2	347.0	NNW	0.9	217.0	SW	
02:00 PM - 03:00 PM	1.2	124.0	SE	2.1	201.0	SSW	0.9	201.0	SSW	0.7	102.0	E	1.3	181.0	S	0.6	120.0	SE	2.1	345.0	NNE	
03:00 PM - 04:00 PM	1.0	171.0	S	1.7	101.0	E	1.4	240.0	WSW	1.5	230.0	WSW	1.5	230.0	WSW	0.7	170.0	S	1.5	160.0	SSE	
04:00 PM - 05:00 PM	1.3	65.0	E	2.5	105.0	WSW	1.0	192.0	SSW	0.9	248.0	WSW	1.2	234.0	WSW	0.9	212.0	SSW	1.5	137.0	SSE	
05:00 PM - 06:00 PM	3.3	92.0	E	0.7	224.0	SW	1.0	210.0	SSW	0.6	221.0	SW	1.0	200.0	SSW	2.9	202.0	SSW	2.9	157.0	SSE	
06:00 PM - 07:00 PM	1.0	147.0	SSW	1.5	164.0	SSE	1.4	216.0	SW	0.8	221.0	SW	1.5	221.0	SSW	4.1	177.0	S	1.7	175.0	S	
07:00 PM - 08:00 PM	1.0	194.0	SSW	0.2	-	-	-	0.4	206.0	SSW	0.6	207.0	SSW	1.2	240.0	SSW	1.6	220.0	SW	0.9	240.0	WSW
08:00 PM - 09:00 PM	1.4	121.0	ESE	1.1	218.0	SW	1.1	244.0	WSW	0.4	280.0	SSW	0.6	212.0	SSW	1.9	201.0	SSW	1.6	197.0	SSW	
09:00 PM - 10:00 PM	1.9	217.0	SSW	0.5	155.0	SSE	0.9	224.0	SW	1.1	299.0	SSW	1.5	194.0	SSW	2.6	213.0	SSW	0.6	171.0	S	
10:00 PM - 11:00 PM	1.0	141.0	SE	1.0	211.0	SE	1.0	211.0	SE	0.7	202.0	SSW	0.9	169.0	S	1.5	242.0	WSW	0.9	228.0	SW	
11:00 PM - 12:00 AM	0.4	102.0	SSW	1.4	230.0	SW	1.6	207.0	SSW	1.0	214.0	SW	0.8	181.0	S	1.3	240.0	WSW	2.0	192.0	S	
12:00 AM - 01:00 AM	4.3	137.0	SE	1.9	229.0	SW	1.2	190.0	S	0.3	243.0	WSW	0.4	159.0	SSE	0.8	190.0	S	1.2	180.0	S	
01:00 AM - 02:00 AM	4.1	227.0	WSW	0.0	-	-	-	1.7	212.0	SSW	0.0	-	-	0.0	-	-	0.4	235.0	SW	1.4	251.0	WSW
02:00 AM - 03:00 AM	1.3	82.0	ENE	0.4	231.0	SW	0.5	222.0	SW	0.9	220.0	SW	0.5	226.0	SW	0.0	-	-	1.4	271.0	W	
03:00 AM - 04:00 AM	0.7	372.0	NW	0.0	-	-	0.1	-	-	0.3	232.0	SW	0.0	-	-	0.0	-	-	0.4	255.0	WSW	
04:00 AM - 05:00 AM	0.6	38.0	E	0.0	-	-	0.0	-	-	0.0	-	-	0.8	260.0	W	0.0	-	-	0.0	-	-	
05:00 AM - 06:00 AM	0.0	-	-	0.4	308.0	NW	0.0	-	-	0.0	-	-	0.0	-	-	1.1	262.0	W	0.4	283.0	NNW	
06:00 AM - 07:00 AM	0.0	-	-	0.3	308.0	NW	0.4	240.0	WSW	0.0	-	-	0.0	-	-	1.9	282.0	NNW	0.3	275.0	W	
07:00 AM - 08:00 AM	0.4	357.0	N	0.0	-	-	-	-	-	0.3	111.0	ESE	1.1	232.0	SW	1.4	121.0	S	1.5	261.0	W	
08:00 AM - 09:00 AM	0.0	-	-	0.0	-	-	-	-	-	2.4	246.0	WSW	0.5	251.0	WSW	0.4	185.0	S	0.6	266.0	W	
09:00 AM - 10:00 AM	0.4	69.0	ENE	0.3	227.0	SW	0.6	312.0	NW	1.2	317.0	NW	1.3	214.0	NW	1.3	217.0	SSW	0.9	232.0	SSW	
10:00 AM - 11:00 AM	0.9	311.0	SSW	1.8	169.0	SSE	0.3	62.0	NNE	1.1	210.0	SW	1.7	193.0	N	2.2	197.0	SSW	0.9	251.0	WSW	

10.00 PSI - 33.00 PSI	W.T.P.	A.T.A.M.	REPTIF	R.O.P.	RODING	W.T.P.
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Approved by

Sarayuth Jittrant
Assistant General Manager

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Analysis / Test Report

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

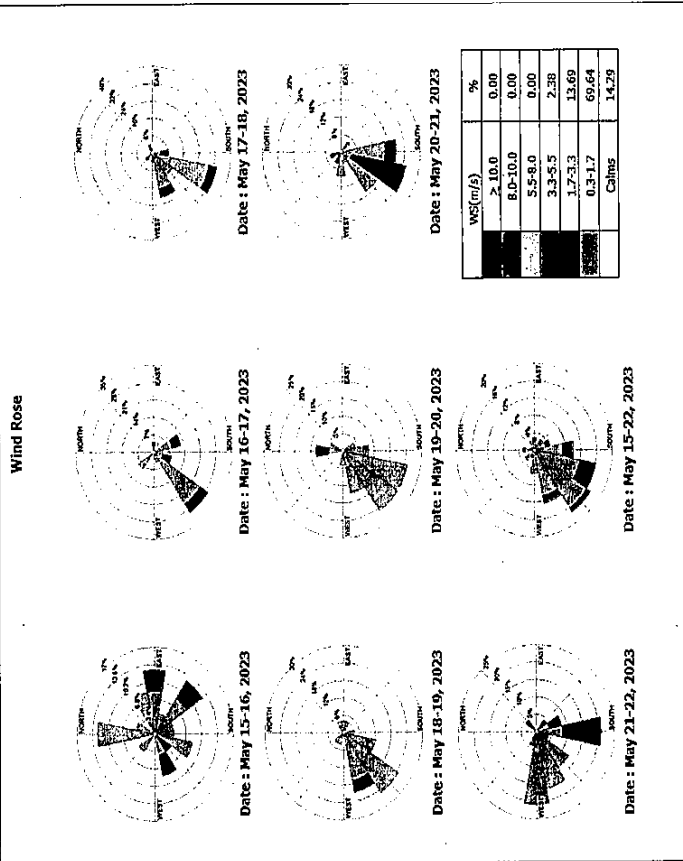
Lot ID : 2346207

Date Received : May 24, 2023

Date Reported : Jun 01, 2023

Report Number : 2632414-1

Page 2 of 2



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ภาคผนวก ค-2

คุณภาพน้ำทิ้ง



Analysis / Test Report

TESTING

No.0042

Lot ID: 23325

Date Received : Jan 06, 2023

Date Reported : Jan 13, 2023

Report Number : 2534586-1

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

Page 1 of 2

Sample Number	23325-1
Sampled Date	Jan 06, 2023 10:30 AM
Sample Description	Wastewater
Location	PP1 : หลัฟาน API Separator
Date Analysis Commenced	Jan 06, 2023
Condition of Sample	Contained in two 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	<2	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	5	16	≤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	7	≤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	6	≤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	-	-	31.1	≤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	272	≤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. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0042

Client : 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: 23325

Date Received : Jan 06, 2023

Date Reported : Jan 13, 2023

Report Number : 2534586-1

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. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

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

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Analysis / Test Report

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: 23325

Date Received : Jan 06, 2023

Date Reported : Jan 13, 2023

Report Number : 2534586-2

Page 1 of 1

Sample Number 23325-1
Sampled Date Jan 06, 2023 10:30 AM
Sample Description Wastewater
Location PP1 : หลัฟาน API Separator
Date Analysis Commenced Jan 06, 2023
Condition of Sample Contained in two 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	64	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	-	-	0.006	No Standard	Flow meter	Rayong
n-Hexane	mg/L	-	0.001	<0.001	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	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 :

Remark :

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

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Approved by

Siriluk P.

Siriluk Puengpang
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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-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP1_S1

Lot ID: 231037

Date Received : Jan 06, 2023
Date Reported : Jan 30, 2023
Report Number : 2534429-1 C3

Page 1 of 2

Sample Number	231037-1						
Sampling Date	Jan 06, 2023 11:15 AM						
Sample Description	Wastewater						
Location	โรงงานน้ำรวม						
Date Analysis Commenced	Jan 06, 2023						
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	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	29	≤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	12	≤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	-	-	31.5	≤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	608	≤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	16	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Manager
ทะเบียนเลขที่ ว-225-ค-5283

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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-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP1_S1

Lot ID: 231037

Date Received : Jan 06, 2023
Date Reported : Jan 30, 2023
Report Number : 2534429-1 C3

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 :

- 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.

Technical Management

N. Banumit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
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-SCGCH-2019-343
Project Name : Environmental Monitoring
Project Location: PP1_S1

Lot ID: 231037

Date Received : Jan 06, 2023
Date Reported : Jan 30, 2023
Report Number : 2534429-2 C3

Page 1 of 1

Sample Number	231037-1						
Sampling Date	Jan 06, 2023 11:15 AM						
Sample Description	Wastewater						
Location	โรงงานน้ำกรวด						
Date Analysis Commenced	Jan 06, 2023						
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	110	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
n-Hexane	mg/L	-	0.001	0.35	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	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)

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Approved by

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Siriluk Puengpang
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 :

Project Name : Environmental Monitoring

Project Location: TPE Site 1

TESTING

No.0042

Lot ID: 2312994

Date Received : Feb 03, 2023

Date Reported : Feb 10, 2023

Report Number : 2558559-1

Page 1 of 2

Sample Number	2312994-1
Sampled Date	Feb 03, 2023 11:30 AM
Sample Description	Wastewater
Location	โรงงานน้ำรวมพื้นที่ TPE Site#1
Date Analysis Commenced	Feb 03, 2023
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	3.7	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	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	17	≤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	15	≤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	-	-	32.2	≤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	540	≤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	10	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2312994

Date Received : Feb 03, 2023

Date Reported : Feb 10, 2023

Report Number : 2558559-1

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

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 :

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

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor

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Approved by

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Senior 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 :

Project Name : Environmental Monitoring

Project Location: TPE Site 1

Lot ID: 2312994

Date Received : Feb 03, 2023

Date Reported : Feb 10, 2023

Report Number : 2558559-2

Page 1 of 1

Sample Number 2312994-1
Sampled Date Feb 03, 2023 11:30 AM
Sample Description Wastewater
Location โรงงานนำารวมพื้นที่ TPE Site#1
Date Analysis Commenced Feb 03, 2023
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	117	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Total Organic Carbon	mg/L	0.01	0.1	10.6	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

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2313017

Date Received : Feb 03, 2023

Date Reported : Feb 10, 2023

Report Number : 2558592-1

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

Page 1 of 2

Sample Number	2313017-1
Sampled Date	Feb 03, 2023 10:25 AM
Sample Description	Wastewater
Location	PP1 : หลัฟาน API Separator
Date Analysis Commenced	Feb 03, 2023
Condition of Sample	Contained in two 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	4.6	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	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	18	≤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	16	≤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	524	≤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	7	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2313017

Date Received : Feb 03, 2023

Date Reported : Feb 10, 2023

Report Number : 2558592-1

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

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

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Technical Management

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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 :

Project Name : Environmental Monitoring

Project Location: TPE Site 1

Lot ID: 2313017

Date Received : Feb 03, 2023

Date Reported : Feb 10, 2023

Report Number : 2558592-2

Page 1 of 1

Sample Number	2313017-1
Sampled Date	Feb 03, 2023 10:25 AM
Sample Description	Wastewater
Location	PP1 : หลังฝาน API Separator
Date Analysis Commenced	Feb 03, 2023
Condition of Sample	Contained in two 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	139	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	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	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 :

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2323410

Date Received : Mar 03, 2023

Date Reported : Mar 13, 2023

Report Number : 2581433-1

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

Page 1 of 2

Sample Number	2323410-1
Sampled Date	Mar 03, 2023 11:05 AM
Sample Description	Wastewater
Location	โรงงานนำรวมพื้นที่ TPE Site#1
Date Analysis Commenced	Mar 03, 2023
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	Rayong
COD	mg/L	1.5	25	28	≤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	14	≤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	-	-	30.9	≤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	664	≤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	14	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2323410

Date Received : Mar 03, 2023

Date Reported : Mar 13, 2023

Report Number : 2581433-1

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

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

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Technical Management

N. Banngkit

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Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
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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 :

Project Name : Environmental Monitoring

Project Location: TPE Site 1

Lot ID: 2323410

Date Received : Mar 03, 2023

Date Reported : Mar 13, 2023

Report Number : 2581433-2

Page 1 of 1

Sample Number 2323410-1
Sampled Date Mar 03, 2023 11:05 AM
Sample Description Wastewater
Location โรงงานนำารวมพื้นที่ TPE Site#1
Date Analysis Commenced Mar 03, 2023
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
Total Organic Carbon	mg/L	0.01	0.1	10.4	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).

Sampling By : Paramet Sattayakun , Thanasoun Namakunna

Remark :

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2323706

Date Received : Mar 09, 2023

Date Reported : Mar 16, 2023

Report Number : 2582103-1

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

Page 1 of 2

Sample Number	2323706-1
Sampled Date	Mar 09, 2023 2:10 PM
Sample Description	Wastewater
Location	PP1 : หลัฟาน API Separator
Date Analysis Commenced	Mar 09, 2023
Condition of Sample	Contained in two 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	3.5	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	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	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	10	≤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	-	-	35.0	≤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	680	≤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	12	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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TESTING

No.0042

Lot ID: 2323706

Date Received : Mar 09, 2023

Date Reported : Mar 16, 2023

Report Number : 2582103-1

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

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 , Thanasoun Namakunna ทะเบียนเลขที่ ว-204-จ-8592

Remark :

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Technical Management

N. Banchongkit

Narumon Banchongkit
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Approved by

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Senior 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: 2323706

Date Received : Mar 09, 2023
Date Reported : Mar 17, 2023
Report Number : 2582103-2

Page 1 of 1

Sample Number 2323706-1
Sampled Date Mar 09, 2023 2:10 PM
Sample Description Wastewater
Location PP1 : หลังฝ้าย API Separator
Date Analysis Commenced Mar 09, 2023
Condition of Sample Contained in two 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	218	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	-	-	0.006	No Standard	Flow meter	Rayong
n-Hexane	mg/L	-	0.001	0.02	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	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 , Thanasoun Namakunna

Remark :

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

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Approved by

Siriluk P.

Siriluk Puengpang
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2336510

Date Received : Apr 03, 2023

Date Reported : Apr 11, 2023

Report Number : 2610277-1

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

Page 1 of 2

Sample Number	2336510-1
Sampled Date	Apr 03, 2023 10:53 AM
Sample Description	Wastewater
Location	โรงงานน้ำรวมพื้นที่ TPE Site#1
Date Analysis Commenced	Apr 03, 2023
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	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	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	-	-	33.4	≤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	660	≤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	15	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2336510

Date Received : Apr 03, 2023

Date Reported : Apr 11, 2023

Report Number : 2610277-1

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

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

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

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

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: 2336510

Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2610277-2

Page 1 of 1

Sample Number 2336510-1
Sampled Date Apr 03, 2023 10:53 AM
Sample Description Wastewater
Location โรงระบายน้ำรวมพื้นที่ TPE Site#1
Date Analysis Commenced Apr 03, 2023
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	193	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Total Organic Carbon	mg/L	0.01	0.1	9.95	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

Remark :

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

Approved by

Nanthawadee Somboon
Specialist 1

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2336527

Date Received : Apr 03, 2023

Date Reported : Apr 11, 2023

Report Number : 2610300-1

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

Page 1 of 2

Sample Number	2336527-1
Sampled Date	Apr 03, 2023 10:07 AM
Sample Description	Wastewater
Location	PP1 : หลัฟาน API Separator
Date Analysis Commenced	Apr 03, 2023
Condition of Sample	Contained in two 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	4.1	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	35	≤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 *		-	-	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	-	-	34.2	≤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	684	≤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	8	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2336527

Date Received : Apr 03, 2023

Date Reported : Apr 11, 2023

Report Number : 2610300-1

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

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 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-จ-0002

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. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

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

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Analysis / Test Report

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: 2336527

Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2610300-2

Page 1 of 1

Sample Number 2336527-1
Sampled Date Apr 03, 2023 10:07 AM
Sample Description Wastewater
Location PP1 : หลัฟาน API Separator
Date Analysis Commenced Apr 03, 2023
Condition of Sample Contained in two 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	220	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	-	-	0.002	No Standard	Flow meter	Rayong
n-Hexane	mg/L	-	0.001	<0.001	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	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 , Pattarapol Sawangjaitam

Remark :

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

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Approved by

Nant Somb

Nanthawadee Somboon
Specialist 1

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2345049

Date Received : May 08, 2023

Date Reported : May 16, 2023

Report Number : 2630202-1

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

Page 1 of 2

Sample Number	2345049-1
Sampled Date	May 08, 2023 11:15 AM
Sample Description	Wastewater
Location	โรงงานน้ำรวมพื้นที่ TPE Site#1
Date Analysis Commenced	May 08, 2023
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	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	16	≤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	16	≤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	-	-	36.0	≤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	792	≤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	8	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2345049

Date Received : May 08, 2023

Date Reported : May 16, 2023

Report Number : 2630202-1

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

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 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-จ-0002

Remark :

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

Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

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: 2345049

Date Received : May 08, 2023
Date Reported : May 16, 2023
Report Number : 2630202-2

Page 1 of 1

Sample Number 2345049-1
Sampled Date May 08, 2023 11:15 AM
Sample Description Wastewater
Location โรงงานนำารวมพื้นที่ TPE Site#1
Date Analysis Commenced May 08, 2023
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	172	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
n-Hexane	mg/L	-	0.001	<0.001	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok
Total Organic Carbon	mg/L	0.01	0.1	10.9	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).

Sampling By : Wanlop Hunchainaow , Pattarapol Sawangjaitam

Remark :

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

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Approved by

Siriluk P.

Siriluk Puengpang
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2347498

Date Received : May 08, 2023

Date Reported : May 16, 2023

Report Number : 2635003-1

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

Page 1 of 2

Sample Number	2347498-1
Sampled Date	May 08, 2023 9:35 AM
Sample Description	Wastewater
Location	PP1 : หลัฟาน API Separator
Date Analysis Commenced	May 08, 2023
Condition of Sample	Contained in two 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	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	18	≤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	16	≤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 *		-	-	8.1	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	-	-	35.8	≤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	808	≤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. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2347498

Date Received : May 08, 2023

Date Reported : May 16, 2023

Report Number : 2635003-1

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

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 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ว-204-จ-0002

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. Banchongkit

Narumon Banchongkit
Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

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: 2347498

Date Received : May 08, 2023
Date Reported : May 16, 2023
Report Number : 2635003-2

Page 1 of 1

Sample Number 2347498-1
Sampled Date May 08, 2023 9:35 AM
Sample Description Wastewater
Location PP1 : หลังผ่าน API Separator
Date Analysis Commenced May 08, 2023
Condition of Sample Contained in two 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	175	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	-	-	0.050	No Standard	Flow meter	Rayong
n-Hexane	mg/L	-	0.001	<0.001	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	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 , Pattarapol Sawangjaitam

Remark :

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

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Approved by

Siriluk P.

Siriluk Puengpang
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2355648

Date Received : Jun 01, 2023

Date Reported : Jun 10, 2023

Report Number : 2652503-1

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

Page 1 of 2

Sample Number	2355648-1
Sampled Date	Jun 01, 2023 9:52 AM
Sample Description	Wastewater
Location	PP1 : หลังผ่าน API Separator
Date Analysis Commenced	Jun 01, 2023
Condition of Sample	Contained in two 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	18	≤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	16	≤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 *		-	-	8.1	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	-	-	35.7	≤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	688	≤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. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2355648

Date Received : Jun 01, 2023

Date Reported : Jun 10, 2023

Report Number : 2652503-1

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

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.

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

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

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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: 2355648

Date Received : Jun 01, 2023
Date Reported : Jun 10, 2023
Report Number : 2652503-2

Page 1 of 1

Sample Number 2355648-1
Sampled Date Jun 01, 2023 9:52 AM
Sample Description Wastewater
Location PP1 : หลัฟาน API Separator
Date Analysis Commenced Jun 01, 2023
Condition of Sample Contained in two 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	270	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	-	-	0.003	No Standard	Flow meter	Rayong
n-Hexane	mg/L	-	0.001	<0.001	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	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 :

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Approved by

N. Banchoangkit

Narumon Banchoangkit
Supervisor

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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: 2355649

Date Received : Jun 01, 2023

Date Reported : Jun 10, 2023

Report Number : 2652573-1

Page 1 of 1

Sample Number	2355649-1
Sampled Date	Jun 01, 2023 9:57 AM
Sample Description	Wastewater
Location	PP1 : ถังผ่าน API Separator
Date Analysis Commenced	Jun 01, 2023
Condition of Sample	Contained in two 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	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.4	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	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	19	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	16	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	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	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	35.7	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	648	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	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

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

Remark :

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Technical Management

N. Banongkit

Narumon Banongkit
Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

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: 2355649

Date Received : Jun 01, 2023

Date Reported : Jun 10, 2023

Report Number : 2652573-2

Page 1 of 1

Sample Number	2355649-1
Sampled Date	Jun 01, 2023 9:57 AM
Sample Description	Wastewater
Location	PP1 : ถังแยกน้ำ API Separator
Date Analysis Commenced	Jun 01, 2023
Condition of Sample	Contained in two 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	Method	Testing Location
Water Testing						
Chloride as Cl	mg/L	0.5	1	237	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Flow rate	m3/s	-	-	0.000	Flow meter	Rayong
n-Hexane	mg/L	-	0.001	0.005	In-house method based on United States Environmental Protection Agency, EPA Method 5030 B and 8260 D	Bangkok

Sampling By : Wanlop Hunchainaow , Kardbundit Kitisupavanit

Remark :

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

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Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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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-SCGCH-2019-343

Project Name : Environmental Monitoring

Project Location : PP1

Lot ID: 2346330

Date Received : May 24, 2023

Date Reported : Jun 06, 2023

Report Number: 2664956-1C3

Page 1 of 1

Sample Number	2346330-1		
Parameter	Noise (Leq 24 hrs.)		
Location	อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1		
Measurement Date	May 15 - May 16, 2023		
Measurement by	Sawai Tonpho		
Sound Level meter	Serial No. 472132		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	61.0	72.4	57.9
11:00 AM - 12:00 PM	60.4	75.5	58.1
12:00 PM - 01:00 PM	59.5	81.2	57.2
01:00 PM - 02:00 PM	60.1	73.0	57.8
02:00 PM - 03:00 PM	60.1	74.4	58.1
03:00 PM - 04:00 PM	60.5	69.8	58.6
04:00 PM - 05:00 PM	60.7	71.2	59.2
05:00 PM - 06:00 PM	61.3	80.5	59.3
06:00 PM - 07:00 PM	60.6	70.0	58.9
07:00 PM - 08:00 PM	60.0	69.0	58.8
08:00 PM - 09:00 PM	60.0	81.5	58.0
09:00 PM - 10:00 PM	59.0	68.6	58.0
10:00 PM - 11:00 PM	58.6	67.4	57.4
11:00 PM - 12:00 AM	58.9	66.9	57.6
12:00 AM - 01:00 AM	58.2	72.4	56.6
01:00 AM - 02:00 AM	62.1	70.2	58.1
02:00 AM - 03:00 AM	62.3	87.4	59.0
03:00 AM - 04:00 AM	63.7	81.8	59.8
04:00 AM - 05:00 AM	61.8	85.5	59.0
05:00 AM - 06:00 AM	61.3	79.1	59.5
06:00 AM - 07:00 AM	61.4	78.5	59.4
07:00 AM - 08:00 AM	61.0	71.5	59.0
08:00 AM - 09:00 AM	60.4	76.1	57.5
09:00 AM - 10:00 AM	60.3	75.1	57.7
Leq Average 24 hrs. (dB(A))	60.7		
Lmax (dB(A))		87.4	
L90 (dB(A))			58.1
Ldn (dB(A))	67.6		
Standard (dB(A))	70	115	
Reference Method : ISO1996-1 and 1996-2			
Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป			
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการ			
โรงงาน พ.ศ. 2548			

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING

No.0042

Client : 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 : PP1

Lot ID: 2346330

Date Received : May 24, 2023

Date Reported : Jun 06, 2023

Report Number: 2664957-1C3

Page 1 of 1

Sample Number 2346330-2
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1
Measurement Date May 16 - May 17, 2023
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472132

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	59.4	75.2	57.2
11:00 AM - 12:00 PM	58.7	74.0	56.2
12:00 PM - 01:00 PM	58.1	75.7	55.5
01:00 PM - 02:00 PM	58.9	69.4	57.1
02:00 PM - 03:00 PM	59.0	71.6	56.9
03:00 PM - 04:00 PM	59.0	76.9	56.9
04:00 PM - 05:00 PM	58.9	71.6	57.3
05:00 PM - 06:00 PM	59.9	77.2	57.6
06:00 PM - 07:00 PM	59.9	75.3	57.7
07:00 PM - 08:00 PM	58.9	73.4	56.8
08:00 PM - 09:00 PM	58.6	74.3	56.7
09:00 PM - 10:00 PM	58.3	65.3	57.2
10:00 PM - 11:00 PM	59.5	71.2	58.2
11:00 PM - 12:00 AM	59.4	69.6	58.0
12:00 AM - 01:00 AM	59.3	72.9	58.2
01:00 AM - 02:00 AM	58.6	73.0	57.1
02:00 AM - 03:00 AM	58.4	72.2	57.3
03:00 AM - 04:00 AM	58.6	77.1	57.6
04:00 AM - 05:00 AM	58.5	73.2	57.2
05:00 AM - 06:00 AM	59.8	72.2	57.2
06:00 AM - 07:00 AM	60.2	74.6	58.5
07:00 AM - 08:00 AM	59.9	73.2	57.7
08:00 AM - 09:00 AM	59.6	71.7	57.7
09:00 AM - 10:00 AM	61.9	78.0	60.1
Leq Average 24 hrs. (dB(A))	59.3		
Lmax (dB(A))		78.0	
L90 (dB(A))			57.2
Ldn (dB(A))	65.6		
Standard (dB(A))	70	115	
Reference Method : ISO1996-1 and 1996-2			
Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป			
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการ			
โรงงาน พ.ศ. 2548			

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : 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 : PP1

Lot ID: 2346330

Date Received : May 24, 2023

Date Reported : Jun 06, 2023

Report Number: 2664958-1C3

Page 1 of 1

Sample Number 2346330-3
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1
Measurement Date May 17 - May 18, 2023
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472132

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	62.8	84.6	57.3
11:00 AM - 12:00 PM	61.2	85.7	56.5
12:00 PM - 01:00 PM	58.5	74.8	56.2
01:00 PM - 02:00 PM	58.2	69.1	56.3
02:00 PM - 03:00 PM	58.6	77.0	56.4
03:00 PM - 04:00 PM	58.9	76.9	56.5
04:00 PM - 05:00 PM	59.3	79.7	56.6
05:00 PM - 06:00 PM	59.6	75.4	57.2
06:00 PM - 07:00 PM	59.6	73.4	56.7
07:00 PM - 08:00 PM	58.7	81.7	55.9
08:00 PM - 09:00 PM	57.1	73.2	55.4
09:00 PM - 10:00 PM	57.8	80.2	55.9
10:00 PM - 11:00 PM	56.9	74.1	54.8
11:00 PM - 12:00 AM	57.7	84.8	55.4
12:00 AM - 01:00 AM	56.7	71.9	54.8
01:00 AM - 02:00 AM	56.8	68.8	55.2
02:00 AM - 03:00 AM	56.5	81.5	54.6
03:00 AM - 04:00 AM	56.5	79.1	54.8
04:00 AM - 05:00 AM	57.1	76.8	54.0
05:00 AM - 06:00 AM	58.4	76.3	55.5
06:00 AM - 07:00 AM	58.0	72.4	55.1
07:00 AM - 08:00 AM	58.8	77.2	55.6
08:00 AM - 09:00 AM	57.6	85.2	55.2
09:00 AM - 10:00 AM	57.0	74.1	54.7

Leq Average 24 hrs. (dB(A))

58.6

Lmax (dB(A))

85.7

L90 (dB(A))

55.5

Ldn (dB(A))

64.0

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : 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 : PP1

Lot ID: 2346373

Date Received : May 24, 2023

Date Reported : Jun 06, 2023

Report Number: 2664940-1C3

Page 1 of 1

Sample Number 2346373-1
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1
Measurement Date May 18 - May 19, 2023
Measurement by Sawal Tonpho
Sound Level meter Serial No. 472132

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	57.2	74.8	54.9
11:00 AM - 12:00 PM	56.7	73.6	54.8
12:00 PM - 01:00 PM	56.4	77.0	53.9
01:00 PM - 02:00 PM	56.4	76.0	54.3
02:00 PM - 03:00 PM	56.9	72.8	54.6
03:00 PM - 04:00 PM	58.2	83.0	55.8
04:00 PM - 05:00 PM	58.1	81.0	55.5
05:00 PM - 06:00 PM	58.4	72.5	55.8
06:00 PM - 07:00 PM	58.1	74.1	55.3
07:00 PM - 08:00 PM	57.5	73.0	55.0
08:00 PM - 09:00 PM	56.9	75.4	54.5
09:00 PM - 10:00 PM	56.7	75.3	55.0
10:00 PM - 11:00 PM	56.1	71.8	54.5
11:00 PM - 12:00 AM	56.1	78.1	54.3
12:00 AM - 01:00 AM	56.5	73.3	54.5
01:00 AM - 02:00 AM	56.4	70.8	55.4
02:00 AM - 03:00 AM	56.2	70.1	55.0
03:00 AM - 04:00 AM	56.3	77.3	53.6
04:00 AM - 05:00 AM	59.5	79.3	54.2
05:00 AM - 06:00 AM	58.0	76.9	55.5
06:00 AM - 07:00 AM	59.4	84.2	57.0
07:00 AM - 08:00 AM	59.3	82.2	56.7
08:00 AM - 09:00 AM	59.6	73.7	57.0
09:00 AM - 10:00 AM	59.3	75.3	56.5

Leq Average 24 hrs. (dB(A))

57.7

Lmax (dB(A))

84.2

L90 (dB(A))

55.0

Ldn (dB(A))

63.9

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : 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 : PP1

Lot ID: 2346373

Date Received : May 24, 2023

Date Reported : Jun 06, 2023

Report Number: 2664941-1C3

Page 1 of 1

Sample Number 2346373-2
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1
Measurement Date May 19 - May 20, 2023
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472132

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	57.1	81.9	54.9
11:00 AM - 12:00 PM	56.5	73.1	54.5
12:00 PM - 01:00 PM	56.3	72.1	54.0
01:00 PM - 02:00 PM	56.3	73.9	54.3
02:00 PM - 03:00 PM	54.8	71.0	52.5
03:00 PM - 04:00 PM	56.4	75.8	54.4
04:00 PM - 05:00 PM	58.1	76.7	55.4
05:00 PM - 06:00 PM	57.5	77.3	55.8
06:00 PM - 07:00 PM	57.9	72.5	55.6
07:00 PM - 08:00 PM	57.8	74.3	56.2
08:00 PM - 09:00 PM	56.3	68.9	55.2
09:00 PM - 10:00 PM	56.9	69.9	55.9
10:00 PM - 11:00 PM	56.4	67.1	55.3
11:00 PM - 12:00 AM	56.1	62.5	55.1
12:00 AM - 01:00 AM	55.7	68.0	54.6
01:00 AM - 02:00 AM	56.0	74.1	54.9
02:00 AM - 03:00 AM	55.1	64.3	54.4
03:00 AM - 04:00 AM	54.3	69.0	53.6
04:00 AM - 05:00 AM	56.1	72.3	53.6
05:00 AM - 06:00 AM	56.6	75.9	54.3
06:00 AM - 07:00 AM	57.2	74.3	54.1
07:00 AM - 08:00 AM	56.6	73.3	54.0
08:00 AM - 09:00 AM	56.8	72.9	54.3
09:00 AM - 10:00 AM	56.9	75.2	53.9

Leq Average 24 hrs. (dB(A))

56.6

Lmax (dB(A))

81.9

L90 (dB(A))

54.4

Ldn (dB(A))

62.6

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : 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 : PP1

Lot ID: 2346373

Date Received : May 24, 2023

Date Reported : Jun 06, 2023

Report Number: 2664942-1C3

Page 1 of 1

Sample Number 2346373-3
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1
Measurement Date May 20 - May 21, 2023
Measurement by Sawal Tonpho
Sound Level meter Serial No. 472132

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	56.8	80.6	53.6
11:00 AM - 12:00 PM	58.2	90.8	54.0
12:00 PM - 01:00 PM	57.8	85.5	54.3
01:00 PM - 02:00 PM	57.5	78.3	54.9
02:00 PM - 03:00 PM	57.2	78.4	54.6
03:00 PM - 04:00 PM	57.5	73.7	54.9
04:00 PM - 05:00 PM	57.7	72.1	55.5
05:00 PM - 06:00 PM	58.3	83.0	56.3
06:00 PM - 07:00 PM	58.3	75.6	56.5
07:00 PM - 08:00 PM	57.9	71.6	56.1
08:00 PM - 09:00 PM	56.9	72.6	55.6
09:00 PM - 10:00 PM	56.9	76.2	55.5
10:00 PM - 11:00 PM	56.1	71.0	54.7
11:00 PM - 12:00 AM	56.4	72.9	55.4
12:00 AM - 01:00 AM	56.2	78.7	55.1
01:00 AM - 02:00 AM	56.3	72.0	55.3
02:00 AM - 03:00 AM	56.1	63.0	55.3
03:00 AM - 04:00 AM	55.4	63.3	54.4
04:00 AM - 05:00 AM	57.1	71.1	54.9
05:00 AM - 06:00 AM	57.1	70.4	55.0
06:00 AM - 07:00 AM	59.0	77.9	56.4
07:00 AM - 08:00 AM	58.8	78.2	56.4
08:00 AM - 09:00 AM	59.1	83.9	56.7
09:00 AM - 10:00 AM	59.0	81.9	56.4
Leq Average 24 hrs. (dB(A))	57.5		
Lmax (dB(A))		90.8	
L90 (dB(A))			55.3
Ldn (dB(A))	63.4		
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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : 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 : PP1

Lot ID: 2346373

Date Received : May 24, 2023

Date Reported : Jun 06, 2023

Report Number: 2664943-1C3

Page 1 of 1

Sample Number 2346373-4
Parameter Noise (Leq 24 hrs.)
Location อาคารสำนักงานของกลุ่มโรงงาน TPE Site#1
Measurement Date May 21 - May 22, 2023
Measurement by Sawai Tonpho
Sound Level meter Serial No. 472132

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	59.3	73.4	56.7
11:00 AM - 12:00 PM	59.0	75.0	56.2
12:00 PM - 01:00 PM	56.8	81.6	54.6
01:00 PM - 02:00 PM	56.2	72.8	54.2
02:00 PM - 03:00 PM	56.0	71.8	53.7
03:00 PM - 04:00 PM	56.0	73.6	54.0
04:00 PM - 05:00 PM	54.5	70.7	52.2
05:00 PM - 06:00 PM	56.1	75.5	54.1
06:00 PM - 07:00 PM	57.8	76.4	55.1
07:00 PM - 08:00 PM	57.2	77.0	55.5
08:00 PM - 09:00 PM	57.6	72.2	55.3
09:00 PM - 10:00 PM	57.5	74.0	55.9
10:00 PM - 11:00 PM	56.0	68.6	54.9
11:00 PM - 12:00 AM	56.6	69.6	55.6
12:00 AM - 01:00 AM	56.1	66.8	55.0
01:00 AM - 02:00 AM	55.8	62.2	54.8
02:00 AM - 03:00 AM	55.4	67.7	54.3
03:00 AM - 04:00 AM	55.7	73.8	54.6
04:00 AM - 05:00 AM	54.8	64.0	54.1
05:00 AM - 06:00 AM	54.0	68.7	53.3
06:00 AM - 07:00 AM	55.8	72.0	53.3
07:00 AM - 08:00 AM	56.3	75.6	54.0
08:00 AM - 09:00 AM	56.9	74.0	53.8
09:00 AM - 10:00 AM	56.3	73.0	53.7

Leq Average 24 hrs. (dB(A))

56.6

Lmax (dB(A))

81.6

L90 (dB(A))

54.3

Ldn (dB(A))

62.3

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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ภาคผนวก ค-4

คุณภาพอากาศในสถานประกอบการ



Analysis / Test Report

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

Lot ID: 2312058

Date Received : Feb 09, 2023
Date Reported : Feb 18, 2023
Report Number : 2556820-1

Page 1 of 4

Sample Number : 2312058-1
Sample Date : Feb 08, 2023
Sample Description : Air Quality
Location : within facility
Date Analysis Commenced : Feb 10, 2023
Condition of Sample : Drawn into two 10-L air sampling bags and one sorbent tube, refrigerated
Barometric Pressure : 758 mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Ethylene	09:30 AM - 11:30 AM	ppm	-	1.0	<1.0	200	Based on ASTM, D 2712-91	ACGIH Bangkok
n-Hexane	09:30 AM - 11:30 AM	ppm	-	0.03	0.10	500	NIOSH (1994), 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 8th edition of the Documentation of the Threshold Limit Values and Biological
MOL : Ministry of Labour (2022)
NIOSH : National Institute for Occupational Safety and Health (2022)
B.E. 2560 (2017)
Sampled By : Nattapong Jengwareewong

Remark:

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

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Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

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

Lot ID: 2312058

Date Received : Feb 09, 2023
Date Reported : Feb 18, 2023
Report Number : 2556820-1

Page 2 of 4

Sample Number : 2312058-2
Sample Date : Feb 08, 2023
Sample Description : Air Quality
Location : within facility
Date Analysis Commenced : Feb 10, 2023
Condition of Sample : Drawn into one sorbent tube, refrigerated
Barometric Pressure : 758 mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
n-Hexane	09:30 AM - 11:30 AM	ppm	-	0.03	0.06	500	NIOSH (1994), 1500	MOL Bangkok

Guideline:

MOL : Ministry of Labour (2022)
NIOSH : National Institute for Occupational Safety and Health (2022)
B.E. 2560 (2017)
Sampled By : Nattapong Jengwareewong

Remark:

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

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Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate 1-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O :
Project Name : Environmental Monitoring
Project Location : PP1

Lot ID: 2312058

Date Received : Feb 09, 2023
Date Reported : Feb 18, 2023
Report Number : 2556820-1

Page 3 of 4

Sample Number	2312058-3
Sampled Date	Feb 08, 2023
Sample Description	Air Quality
Location	withairysaiaaiaaif
Date Analysis Commenced	Feb 10, 2023
Condition of Sample	Drawn into one filter paper placed in plastic cassette
Barometric Pressure	758 mmHg
Atmospheric Temperature	32.0 °C
Analyte	
Air Testing	
Total Dust	10:00 AM - 12:00 PM mg/m3 - 0.15 <0.15 15 Based on NIOSH (1994), OSHA 0500

Guideline :
OSHA : Occupational Safety and Health Administration
Sampled By : Nitthapon Jengweerawatong

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

Approved by
Orawan R.
Orawan Ranyong
Scientist (3)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate 1-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O :
Project Name : Environmental Monitoring
Project Location : PP1

Lot ID: 2312058

Date Received : Feb 09, 2023
Date Reported : Feb 18, 2023
Report Number : 2556820-1

Page 4 of 4

Sample Number	2312058-4
Sampled Date	Feb 08, 2023
Sample Description	Air Quality
Location	Extender (withairysaiaaiaaif)
Date Analysis Commenced	Feb 10, 2023
Condition of Sample	Drawn into two 10-L air sampling bags and one sorbent tube, refrigerated
Barometric Pressure	758 mmHg
Atmospheric Temperature	32.0 °C
Analyte	
Air Testing	
Ethylene	09:30 AM - 11:30 AM ppm - 1.0 <1.0 200 Based on ASTM, D 2712-91
n-Heptane	09:30 AM - 11:30 AM ppm - 0.03 <0.03 500 NIOSH (1994), 1500
Propylene	09:30 AM - 11:30 AM ppm - 1.0 <1.0 500 Based on ASTM, D 2712-91

Guideline :
ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2002).
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 : Nitthapon Jengweerawatong

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

Approved by

Orawan R.
Orawan Ranyong
Scientist (3)

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Analysis / Test Report

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

Lot ID: 2345695
Date Received : Jun 01, 2023
Date Reported : Jun 14, 2023
Report Number : 2631307-1

Page 1 of 4

Sample Number : 2345695-1
Sampled Date : May 31, 2023
Sample Description : Air Quality
Location : within the facility
Date Analysis Commenced : Jun 02, 2023
Condition of Sample : Drawn into two 10-L air sampling bags and one sorbent tube, refrigerated
Barometric Pressure : 755 mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Sampled Date/Time	Unit	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing							
Ethylene	10:00 AM - 12:00 PM	ppm	1.0	<1.0	200	Based on ASTM, D 2712-91	ACGIH Bangkok
n-Hexane	10:00 AM - 12:00 PM	ppm	0.03	<0.03	500	NIOSH (1994), 1500	MOL Bangkok
Propylene	10:00 AM - 12:00 PM	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 : Nantawat Sarin

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

Approved by Sarinya C.
Sarinya Chalermbharmong
Scientist (4)

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Analysis / Test Report

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

Lot ID: 2345695
Date Received : Jun 01, 2023
Date Reported : Jun 14, 2023
Report Number : 2631307-1

Page 2 of 4

Sample Number : 2345695-2
Sampled Date : May 31, 2023
Sample Description : Air Quality
Location : within the facility
Date Analysis Commenced : Jun 02, 2023
Condition of Sample : Drawn into one sorbent tube, refrigerated
Barometric Pressure : 755 mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Sampled Date/Time	Unit	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing							
n-Hexane	10:00 AM - 12:00 PM	ppm	0.03	<0.03	500	NIOSH (1994), 1500	MOL Bangkok

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

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

Approved by Sarinya C.
Sarinya Chalermbharmong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate P-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMW-23-11
Project Name : Environmental Monitoring
Project Location : PP1

Lot ID: 2345695
Date Received : Jun 01, 2023
Date Reported : Jun 14, 2023
Report Number : 2631307-1

Page 3 of 4

Sample Number : 2345695-3
Sampled Date : May 31, 2023
Sample Description : Air Quality
Location : wutunthuduan
Date Analysis Commenced : Jun 02, 2023
Condition of Sample : Drawn into one filter paper placed in plastic cassette
Barometric Pressure : 755 mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing								
Total Dust	mg/m ³		0.15	<0.15	15	Based on NIOSH (1994), OSHA 0500		Rayong

Guideline :
OSHA : Occupational Safety and Health Administration
Sampled By : Nantawat Sain

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

Approved by
Savanya C.
Saranya Chalerthamrong
Scientist (4)

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Analysis / Test Report

Client : Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate P-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMW-23-11
Project Name : Environmental Monitoring
Project Location : PP1

Lot ID: 2345695
Date Received : Jun 01, 2023
Date Reported : Jun 14, 2023
Report Number : 2631307-1

Page 4 of 4

Sample Number : 2345695-4
Sampled Date : May 31, 2023
Sample Description : Air Quality
Location : Extender (wutunthuduan)
Date Analysis Commenced : Jun 02, 2023
Condition of Sample : Drawn into two 10-L air sampling bags and one sorbent tube, refrigerated
Barometric Pressure : 755 mmHg
Atmospheric Temperature : 32.0 °C

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing								
Ethylene	ppm		1.0	<1.0	200	Based on ASTM, D 2712-91	ACGIH	Bangkok
n-Heptane	ppm		0.03	<0.03	500	NIOSH (1994), 1500	MOL	Bangkok
Propylene	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 (2022).
MOL : A document 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 : Nantawat Sain

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

Approved by
Savanya C.
Saranya Chalerthamrong
Scientist (4)

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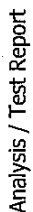
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ภาคผนวก ค-5

ระดับเสียงในสถานประกอบการ



Client: Thai Polyethylene Co., Ltd.
 10, Map Ta Phut Industrial Estate F-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150
 P/O :
 Project Name : Environmental Monitoring
 Project Location : PP1
 Lot ID: 237501
 Date Received : Feb 09
 Date Reported : Feb 10
 Report Number: 250831

Page 1 of 1

Sample Number	237301-2		
Parameter	Noise (Leq 12 hrs.)		
Location	Extruder (hidufluencia)		
Measurement Date	Feb 08, 2023		
Measurement by	Nattaphon Jongsriwatsong		
Time			
	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:19 AM - 09:19 AM	81.4	93.0	80.8
09:19 AM - 10:19 AM	81.6	84.8	81.1
10:19 AM - 11:19 AM	81.1	82.3	80.7
11:19 AM - 12:19 PM	81.0	82.3	80.7
12:19 PM - 01:19 PM	81.2	94.0	80.8
01:19 PM - 02:19 PM	82.1	86.3	81.8
02:19 PM - 03:19 PM	82.1	87.9	81.9
03:19 PM - 04:19 PM	82.9	82.9	81.8
04:19 PM - 05:19 PM	81.7	82.4	81.5
05:19 PM - 06:19 PM	82.0	87.8	81.8
06:19 PM - 07:19 PM	81.6	94.4	81.2
07:19 PM - 08:19 PM	81.7	82.9	81.3

seq Average 12 hrs. (dB(A))	81.6
σ_{\max} (dB(A))	
Standard (dB(A))	87

Reference Method : ISO 1996-1 and 1996-2

Standard : กรมการขนส่งทางบก (กรมการจราจร) กรุงเทพมหานคร
กรมการขนส่งทางบก (กรมการจราจร) กรุงเทพมหานคร
กรมการขนส่งทางบก (กรมการจราจร) กรุงเทพมหานคร

Technical Management

Tharwat.

Approved by

Supt S.

Supt Salameh
Section Head

Thania Kuisurwong
Scientist (4)

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C:\Reports\Air Noise.rpt (1:13PM)



Analysis / Test Report

Client: Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate E-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150
P/O :
Project Name : Environmental Monitoring
Project Location : PPI
Lot ID: 237501
Date Received : Feb 09, 2023
Date Reported : Feb 14, 2023
Report Number: 2568358-1

Page 1 of 1

Sample Number Parameter Location Measurement Date Measurement by	237501-3 Noise (Leq 12 hrs.) Compressor (Vibranis Vent Gas near Nitrogen) Feb 08, 2023 Nathapong Jitngwaeewong	Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
		08:26 AM - 09:26 AM	75.6	77.2	75.3
		09:26 AM - 10:26 AM	75.4	80.5	75.1
		10:26 AM - 11:26 AM	75.3	76.2	75.0
		11:26 AM - 12:26 PM	75.6	78.9	75.2
		12:26 PM - 01:26 PM	75.8	78.5	75.5
		01:26 PM - 02:26 PM	75.7	79.3	75.3
		02:26 PM - 03:26 PM	76.1	80.2	75.5
		03:26 PM - 04:26 PM	76.2	78.0	75.8
		04:26 PM - 05:26 PM	76.3	77.3	76.0
		05:26 PM - 06:26 PM	75.9	76.9	75.6
		06:26 PM - 07:26 PM	76.1	78.8	75.8
		07:26 PM - 08:26 PM	75.9	80.0	75.3

Reference Method : ISO 996-1 and 1996-2
Standard : กรมควบคุมมลพิษ (กรมควบคุมมลพิษ) มาตรฐานการวัดเสียง
Turnstile มาตรฐานการวัดเสียงในโรงงานอุตสาหกรรม (กรมควบคุมมลพิษ) มาตรฐานการวัดเสียงในโรงงานอุตสาหกรรม

Technical Management
Tharitat Kulkarniwong
Scientist (R)

Approved by

Supt S.

Supt. Salmeh
Section Head

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S.Voguesh_Air Noise (11/19/19)



Analysis / Test Report

Client: Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate E-1 Road, Map Ta Phut, Muang District, Rayong Thailand 21150
P/O :
Project Name : Environmental Monitoring
Project Location : PPI
Lot ID: 2313168
Date Received : Feb 09, 2023
Date Reported : Feb 15, 2023
Report Number: 2568575-1

Page 1 of 1

Sample Number	2313168-1
Parameter	Octave Band, 12 hrs.
Location	วัดบริเวณโรงกลั่น
Measurement Date	Feb 08, 2023
Measurement by	Nathapong Jitngwaeewong

Time	Leq	16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz
08:34 AM - 09:34 AM	82.5	75.9	42.5	51.5	61.4	68.6	75.1	78.5	76.1	73.1	64.9	52.3
09:34 AM - 10:34 AM	82.4	76.0	42.5	51.5	61.5	68.7	75.4	78.2	76.2	72.9	64.9	52.3
10:34 AM - 11:34 AM	82.6	76.1	42.6	51.2	61.6	69.0	75.5	78.2	76.0	72.7	64.8	52.4
11:34 AM - 12:34 PM	82.6	76.2	42.8	51.4	61.6	69.2	75.5	78.4	76.3	73.0	65.1	52.7
12:34 PM - 01:34 PM	82.4	76.5	43.0	51.6	61.7	69.3	75.5	78.2	76.2	73.0	64.9	52.6
01:34 PM - 02:34 PM	82.3	76.7	42.9	51.7	61.8	69.4	75.5	78.0	76.0	72.9	64.5	52.4
02:34 PM - 03:34 PM	82.7	76.7	42.7	51.6	61.9	69.6	75.6	78.5	76.5	73.2	64.8	52.5
03:34 PM - 04:34 PM	82.5	77.4	42.9	51.9	62.0	69.7	75.6	78.5	76.0	72.8	64.1	52.3
04:34 PM - 05:34 PM	82.7	77.4	42.8	51.9	62.2	69.9	75.7	78.5	76.4	72.8	64.1	52.4
05:34 PM - 06:34 PM	82.5	76.6	43.1	51.7	61.8	69.4	75.6	78.3	76.3	73.1	65.0	52.7
06:34 PM - 07:34 PM	82.7	77.6	43.1	52.1	62.2	69.9	75.8	78.7	76.2	73.0	64.3	52.5
07:34 PM - 08:34 PM	82.5	76.5	42.5	51.4	61.7	69.4	75.4	78.3	76.3	73.0	64.6	52.3
Average	82.5	76.7	42.8	51.6	61.8	69.4	75.5	78.4	76.2	73.0	64.7	52.5

Reference Method : ANSI Standard S1.6-1984

Technical Management

Savang C.

Approved by

Supt S.

Sarany Chaitumarnong
Scientist (R)

Supt. Salmeh
Section Head

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S.Voguesh_Air Noise, Octave band (1/19/19)



Analysis / Test Report

Client: Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate 1-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
Lot ID: 2313168
Date Received: Feb 09, 2023
Date Reported: Feb 15, 2023
Report Number: 2509676-1

P/O :
Project Name : Environmental Monitoring
Project Location : PP1

Page 1 of 1

Sample Number 2313168-2
Parameter Octave Band 12 hrs.
Location Extruder (vibrafuade)
Measurement Date Feb 08, 2023
Measurement By Natthapon Jengwarawong

Time	Leq	Result (dB(A))										
		16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz
08:19 AM - 09:19 AM	81.4	30.2	41.5	48.4	62.5	71.2	73.8	77.4	74.6	70.8	66.1	55.0
09:19 AM - 10:19 AM	81.6	30.8	41.6	48.0	61.7	70.7	74.1	77.9	74.5	70.6	65.0	54.0
10:19 AM - 11:19 AM	81.1	28.8	41.1	47.6	61.8	70.2	73.0	77.3	74.4	70.5	64.8	53.7
11:19 AM - 12:19 PM	81.0	28.4	40.9	47.5	62.2	69.7	73.0	77.3	74.4	70.6	65.0	53.9
12:19 PM - 01:19 PM	81.2	29.2	41.6	47.7	62.0	70.1	73.4	77.4	74.4	70.6	66.1	54.6
01:19 PM - 02:19 PM	82.1	31.1	42.3	48.0	61.3	71.2	75.2	78.4	74.7	70.7	65.3	54.6
02:19 PM - 03:19 PM	82.1	31.2	41.9	48.9	60.9	71.4	74.8	78.5	74.9	70.9	65.5	54.7
03:19 PM - 04:19 PM	82.0	31.5	42.9	49.4	61.4	71.5	74.8	78.4	74.8	70.7	65.3	54.7
04:19 PM - 05:19 PM	81.7	30.8	41.5	48.4	62.1	71.4	74.5	77.7	74.7	70.7	65.4	54.8
05:19 PM - 06:19 PM	82.0	31.1	41.8	48.8	60.8	71.3	74.7	78.4	74.8	70.8	65.4	54.6
06:19 PM - 07:19 PM	81.6	29.6	42.0	48.1	62.4	70.5	73.8	77.8	74.8	71.0	66.5	55.0
07:19 PM - 08:19 PM	81.7	29.4	41.7	48.2	62.4	70.8	73.6	77.9	75.0	71.1	65.4	54.3
Average	81.6	30.3	41.8	48.4	61.8	70.9	74.1	77.9	74.7	70.8	65.5	54.5

Reference Method : ANSI Standard S1.6-1984

Technical Management

Sanyu C.
Saranya Chalermbhannong
Scientist (4)

Approved by

Supt S.
Supot Salaminth
Section Head

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1800-3617 BUAL

S Report Air Noise, Octave band ref / C00916



Analysis / Test Report

Client: Thai Polyethylene Co., Ltd.
10, Map Ta Phut Industrial Estate 1-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
Lot ID: 2313168
Date Received: Feb 09, 2023
Date Reported: Feb 15, 2023
Report Number: 2509677-1

P/O :
Project Name : Environmental Monitoring
Project Location : PP1

Page 1 of 1

Sample Number 2313168-3
Parameter Octave Band 12 hrs.
Location Compressor (Yamada Vent Gas use Nitrogen)
Measurement Date Feb 08, 2023
Measurement By Natthapon Jengwarawong

Time	Leq	Result (dB(A))										
		16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz
08:26 AM - 09:26 AM	75.6	20.1	38.2	51.1	56.1	64.0	65.0	69.6	70.3	69.5	59.7	43.5
09:26 AM - 10:26 AM	75.4	19.8	37.9	51.8	55.0	63.7	65.0	69.6	70.1	69.3	59.4	43.1
10:26 AM - 11:26 AM	75.3	19.2	38.2	51.0	55.0	63.6	65.0	69.3	70.0	69.2	59.6	43.2
11:26 AM - 12:26 PM	75.6	19.7	39.1	52.0	55.8	64.1	65.1	69.9	70.2	69.4	59.6	43.5
12:26 PM - 01:26 PM	75.8	20.3	39.3	51.9	56.3	64.5	65.6	69.9	70.5	69.6	59.9	43.9
01:26 PM - 02:26 PM	75.7	20.1	38.5	50.9	56.2	64.2	65.4	69.9	70.3	69.6	59.8	43.7
02:26 PM - 03:26 PM	76.1	25.4	41.8	51.3	58.0	64.5	65.7	70.3	70.6	69.9	61.7	48.4
03:26 PM - 04:26 PM	76.2	22.9	40.1	51.0	57.7	65.0	65.8	70.4	70.8	69.9	61.0	47.0
04:26 PM - 05:26 PM	76.3	20.6	38.8	50.8	57.4	65.6	65.8	70.6	70.9	69.9	59.8	44.6
05:26 PM - 06:26 PM	75.9	20.2	38.4	50.4	57.0	65.2	65.4	70.2	70.5	69.5	59.4	44.2
06:26 PM - 07:26 PM	76.1	20.6	39.6	52.2	56.6	64.8	65.9	70.2	70.8	69.9	60.2	44.2
07:26 PM - 08:26 PM	75.9	25.2	41.6	51.1	57.8	64.3	65.5	70.1	70.4	69.7	61.5	48.2
Average	75.8	21.7	39.5	51.3	56.8	64.5	65.4	70.0	70.5	69.6	60.2	45.2

Reference Method : ANSI Standard S1.6-1984

Technical Management

Sanyu C.
Saranya Chalermbhannong
Scientist (4)

Approved by

Supt S.
Supot Salaminth
Section Head

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1800-3617 BUAL

S Report Air Noise, Octave band ref / C10916



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 : PPM-23-11
Project Name : Environmental Monitoring
Project Location : PPI
Lot ID: 2313169
Date Received : Feb 09, 2023
Date Reported : Feb 13, 2023
Report Number: 2559011-1

Page 1 of 1

Sample Number	2313169-1								
Sampled Date	Feb 09, 2023								
Sample Description	Noise Dose								
Location	บริเวณด้านขวา CCR								
Personal Sampling	เจ้าหน้าที่ควบคุม								
Date Analysis Commenced	Feb 10, 2023								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOB)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing	Noise Dose (12 hrs.) (Calculated from Law)	%	-	-	1.7	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
	Noise Dose (8 hrs.)	%	-	1	1.6	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
	TWA (12 hrs.) (Calculated from Law)	dB(A)	-	-	65.2	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
	TWA (8 hrs.)	dB(A)	-	-	65.9	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok

Guidelines :
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 permit (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 85 dB(A)
Sampled By : Nattapong Jengnueangrong

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

Approved by *Wichan Choochum*
Wichan Choochum
Assistant Manager

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1980-2611/PMU



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 : PPM-23-11
Project Name : Environmental Monitoring
Project Location : PPI
Lot ID: 2345697
Date Received : Jun 01, 2023
Date Reported : Jun 06, 2023
Report Number: 2676215-1

Page 1 of 1

Sample Number	2345697-1		
Parameter	Noise (Leq 12 hrs.)		
Location	บริเวณด้านขวา		
Measurement Date	May 31, 2023		
Measurement by	Nantawat Sathin		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	83.9	96.7	82.3
10:00 AM - 11:00 AM	83.4	85.7	82.4
11:00 AM - 12:00 PM	83.4	85.6	82.3
12:00 PM - 01:00 PM	83.5	85.5	82.2
01:00 PM - 02:00 PM	83.5	85.9	82.3
02:00 PM - 03:00 PM	83.5	86.0	82.3
03:00 PM - 04:00 PM	83.4	85.8	82.2
04:00 PM - 05:00 PM	83.3	85.8	82.2
05:00 PM - 06:00 PM	83.2	87.2	82.0
06:00 PM - 07:00 PM	83.5	86.1	82.2
07:00 PM - 08:00 PM	83.6	86.2	82.3
08:00 PM - 09:00 PM	83.4	87.4	82.2

Technical Management *Thanitak*
Thanitak Kulsurawong
Scientist (4)
Approved by *Supt S*
Supt Salameh
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 : PMH-23-11
Date Received : Jun 01, 2023
Date Reported : Jun 08, 2023
Report Number: 2676216-1
Project Name : Environmental Monitoring
Project Location : PP1

Lot ID: 2345697

Page 1 of 1

Sample Number	2345697-2		
Parameter	Noise (Leq 12 hrs.)		
Location	Extruder (หน้าเครื่อง)		
Measurement Date	May 31, 2023		
Measurement by	Nantawat Sarin		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	82.5	88.0	81.7
10:00 AM - 11:00 AM	82.5	86.4	81.9
11:00 AM - 12:00 PM	82.0	83.5	81.6
12:00 PM - 01:00 PM	81.6	83.3	81.4
01:00 PM - 02:00 PM	80.8	92.8	79.5
02:00 PM - 03:00 PM	82.0	98.7	81.5
03:00 PM - 04:00 PM	82.2	84.6	81.5
04:00 PM - 05:00 PM	82.5	84.3	81.5
05:00 PM - 06:00 PM	82.0	98.2	81.5
06:00 PM - 07:00 PM	81.8	94.6	80.6
07:00 PM - 08:00 PM	82.1	94.9	80.9
08:00 PM - 09:00 PM	82.4	95.2	81.2

Technical Management

Approved by

Tharitat Kulsriwong
Scientist (4)

Supot Salameh
Section Head

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P/O : PMH-23-11
Date Received : Jun 01, 2023
Date Reported : Jun 08, 2023
Report Number: 2676217-1
Project Name : Environmental Monitoring
Project Location : PP1

Lot ID: 2345697

Page 1 of 1

Sample Number	2345697-3			
Parameter	Noise (Leq 12 hrs.)			
Location	Compressor (Motorola Vent Gas Line Nitrogen)			
Measurement Date	May 31, 2023			
Measurement by	Nantawat Sarin			
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))	
09:00 AM - 10:00 AM	75.3	79.2	74.4	
10:00 AM - 11:00 AM	74.9	77.5	74.2	
11:00 AM - 12:00 PM	74.8	77.9	74.0	
12:00 PM - 01:00 PM	74.7	77.5	74.1	
01:00 PM - 02:00 PM	74.8	78.7	74.0	
02:00 PM - 03:00 PM	74.6	79.0	73.9	
03:00 PM - 04:00 PM	75.7	79.8	74.2	
04:00 PM - 05:00 PM	77.5	80.2	76.9	
05:00 PM - 06:00 PM	75.9	80.3	74.7	
06:00 PM - 07:00 PM	77.2	80.8	75.6	
07:00 PM - 08:00 PM	77.1	80.7	74.9	
08:00 PM - 09:00 PM	77.3	80.9	75.1	

Technical Management

Approved by

Tharitat Kulsriwong
Scientist (4)

Supot Salameh
Section Head

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10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMV-23-11
Project Name : Environmental Monitoring
Project Location : PPI

Lot ID: 2345699
Date Received : Jun 01, 2023
Date Reported : Jun 08, 2023
Report Number : 2676266-1

Page 1 of 1

Sample Number	2345699-1
Parameter	Octave Band, 12 hrs.
Location	WuWuWuWuWuWu
Measurement Date	May 31, 2023
Measurement By	Nantawat Surin

Time	Result (dB(A))										
	Leq	16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
09:00 AM - 10:00 AM	83.9	25.4	41.2	51.7	61.8	69.9	75.7	81.2	76.7	72.2	64.5
10:00 AM - 11:00 AM	83.4	25.2	41.2	51.8	61.5	69.8	75.6	80.4	76.2	72.0	64.6
11:00 AM - 12:00 PM	83.4	25.3	41.2	51.4	61.8	69.9	75.5	80.4	76.3	72.1	64.7
12:00 PM - 01:00 PM	83.4	25.5	41.4	51.4	61.6	69.6	75.5	80.4	76.5	72.0	64.8
01:00 PM - 02:00 PM	83.5	25.4	41.3	51.3	61.4	69.4	75.3	80.4	76.8	72.4	65.0
02:00 PM - 03:00 PM	83.5	25.5	41.3	51.5	61.9	69.4	75.4	80.5	76.4	72.4	65.0
03:00 PM - 04:00 PM	83.4	25.7	41.5	51.6	61.8	69.3	75.4	80.4	76.3	72.2	64.7
04:00 PM - 05:00 PM	83.3	25.6	41.3	51.6	61.7	69.4	75.3	80.3	76.3	72.1	64.4
05:00 PM - 06:00 PM	83.2	25.4	41.0	51.8	61.7	69.3	75.2	80.5	76.8	71.7	64.0
06:00 PM - 07:00 PM	83.5	25.5	41.2	51.9	61.8	69.5	75.3	80.7	76.0	72.0	64.3
07:00 PM - 08:00 PM	83.6	25.6	41.3	52.0	61.9	69.6	75.4	80.8	76.1	72.1	64.4
08:00 PM - 09:00 PM	83.4	25.6	41.2	52.0	61.9	69.5	75.4	80.7	76.0	71.9	64.2
Average	83.5	25.5	41.3	51.7	61.7	69.6	75.4	80.6	76.3	72.1	64.6

Reference Method : ANSI Standard S1.6-1984

Technical Management

Orawan R.
Orawan Raksong
Scientist (3)

Approved by

Supt S.
Supt Salameh
Section Head

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Analysis / Test Report

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10, Map Ta Phut Industrial Estate I-1 Road, Map Ta Phut, Muang District, Rayong
Thailand 21150
P/O : PMV-23-11
Project Name : Environmental Monitoring
Project Location : PPI

Lot ID: 2345699
Date Received : Jun 01, 2023
Date Reported : Jun 08, 2023
Report Number : 2676267-1

Page 1 of 1

Sample Number	2345699-2
Parameter	Octave Band, 12 hrs.
Location	Extruder (Indurafin)
Measurement Date	May 31, 2023
Measurement By	Nantawat Surin

Time	Result (dB(A))										
	Leq	16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
09:00 AM - 10:00 AM	82.5	30.0	40.4	52.0	63.7	71.2	74.9	78.1	75.7	73.3	68.5
10:00 AM - 11:00 AM	82.5	30.0	40.6	51.5	63.8	72.5	74.9	78.3	75.3	72.8	68.0
11:00 AM - 12:00 PM	82.0	30.5	40.2	51.6	63.8	72.3	74.0	77.5	75.1	72.7	67.8
12:00 PM - 01:00 PM	81.6	30.6	40.6	50.7	63.4	72.2	73.8	76.8	75.0	72.4	67.6
01:00 PM - 02:00 PM	80.8	31.0	43.1	51.6	64.6	71.1	74.1	76.0	73.6	71.3	65.7
02:00 PM - 03:00 PM	82.0	31.1	39.6	50.9	62.6	71.5	73.6	77.0	75.9	73.4	69.3
03:00 PM - 04:00 PM	82.2	31.1	39.6	51.4	62.5	71.8	74.5	77.7	75.3	73.0	68.0
04:00 PM - 05:00 PM	82.5	30.6	40.0	51.6	62.7	72.7	74.8	78.3	75.2	73.1	68.5
05:00 PM - 06:00 PM	82.0	30.4	39.8	51.6	62.7	71.4	74.0	77.7	75.1	72.8	68.2
06:00 PM - 07:00 PM	81.8	29.8	40.0	52.3	62.3	71.0	73.6	77.5	75.1	72.5	68.8
07:00 PM - 08:00 PM	82.1	30.1	40.3	52.6	62.6	71.3	73.9	77.8	75.4	72.8	69.1
08:00 PM - 09:00 PM	82.4	30.4	40.6	52.9	62.9	71.6	74.2	78.1	75.7	73.1	69.4
Average	82.1	30.5	40.5	51.8	63.2	71.8	74.2	77.6	75.2	72.8	68.3

Reference Method : ANSI Standard S1.6-1984

Technical Management

Orawan R.
Orawan Raksong
Scientist (3)

Approved by

Supt S.
Supt Salameh
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 : PMH-23-11
Project Name : Environmental Monitoring
Project Location : PP1

Lot ID: 2345699

Date Received : Jun 01, 2023
Date Reported : Jun 06, 2023
Report Number : 2676268-1

Page 1 of 1

Sample Number	2345699-3
Parameter	Octave Band 12 hrs.
Location	Compressor (Nitrogen Vent Gas unit Nitrogen)
Measurement Date	May 31, 2023
Measurement By	Nattawat Sutin

Time	Leq	Result (dB(A))										
		16 Hz	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	16 kHz
09:02 AM - 10:02 AM	75.3	-0.2	15.7	31.5	49.3	59.6	66.8	65.6	62.6	56.2	47.7	34.5
10:02 AM - 11:02 AM	74.9	-2.2	15.6	31.5	49.3	59.1	66.2	64.7	62.5	56.0	47.4	33.8
11:02 AM - 12:02 PM	74.8	6.9	18.7	30.6	49.2	58.7	66.2	64.8	62.4	55.6	46.4	34.3
12:02 PM - 01:02 PM	74.7	6.4	19.4	30.2	49.1	58.5	65.6	64.1	62.2	55.4	46.1	34.0
01:02 PM - 02:02 PM	74.8	4.2	17.5	29.9	49.0	58.8	66.5	64.4	62.2	55.4	46.2	33.9
02:02 PM - 03:02 PM	74.6	6.0	18.8	30.4	49.1	59.2	66.4	64.6	62.4	55.5	46.3	34.1
03:02 PM - 04:02 PM	75.7	1.2	17.2	30.5	48.9	60.0	67.5	66.5	63.3	56.2	47.0	34.5
04:02 PM - 05:02 PM	77.5	1.8	16.6	30.4	49.0	60.2	68.1	69.0	65.8	57.9	48.6	34.7
05:02 PM - 06:02 PM	75.9	5.5	17.7	30.6	49.1	60.6	66.6	66.3	63.2	56.5	47.7	34.5
06:02 PM - 07:02 PM	77.2	4.3	17.4	30.5	49.0	60.3	67.7	68.4	65.1	57.9	49.3	34.6
07:02 PM - 08:02 PM	77.1	4.2	17.3	30.4	48.9	60.2	67.6	68.3	65.0	57.8	49.2	34.5
08:02 PM - 09:02 PM	77.3	4.4	17.5	30.6	49.1	60.4	67.8	68.5	65.2	58.0	49.4	34.7
Average	76.0	4.2	17.6	30.6	49.1	59.7	67.0	66.6	63.7	56.7	47.8	34.4

Reference Method : ANSI Standard S1.6-1984

Technical Management

Orawan R.
Orawan Ranyong
Scientist (3)

Approved by

Supt. S.
Supt. Salameh
Section Head

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S.0910001_Air Noise_Octave Band.pdf (10/10/20)



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 : PMH-23-11
Project Name : Environmental Monitoring
Project Location : PP1

Lot ID: 2345703

Date Received : Jun 01, 2023
Date Reported : Jun 06, 2023
Report Number : 2631315-1

Page 1 of 1

Sample Number	2345703-1
Sample Date	May 31, 2023
Sample Description	Noise Dose
Location	หน้างานโรงงาน
Personal Sampling	พนักงานประจำ
Date Analysis Commenced	Jun 06, 2023

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing	Noise Dose (12 hrs.) (Calculated from Lavg)	%	-	-	12.3	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
Noise Dose (8 hrs.)	08:00 AM - 08:00 PM	%	-	1	11.5	No Standard	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
TWA (12 hrs.) (Calculated from Lavg)	08:00 AM - 08:00 PM	dB(A)	-	-	73.9	83*	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok
TWA (8 hrs.)	08:00 AM - 08:00 PM	dB(A)	-	-	75.6	85	MOL, Department Labour Protection and Welfare (B.E.2561)	MOL	Bangkok

Guideline :

MOL : 1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)

2. Notification of Department of Labour Protection and Welfare on the Standard of Time Weighted Average (TWA) Noise Level (B.E. 2561)

* MOL: Recommended guideline limit for 12 working hours should not be over 83 dB(A)

Sampled By : Natthapon Jengwattaveong

Remark :

- LOD : Limit of Detection

- LOR : Lower than LOQ (Limit of Quantization) / LOR (Limit of Reporting)

Approved by

Wichan Chonhirat
Wichan Chonhirat
Assistant Manager

The above results are valid only for the unaltered 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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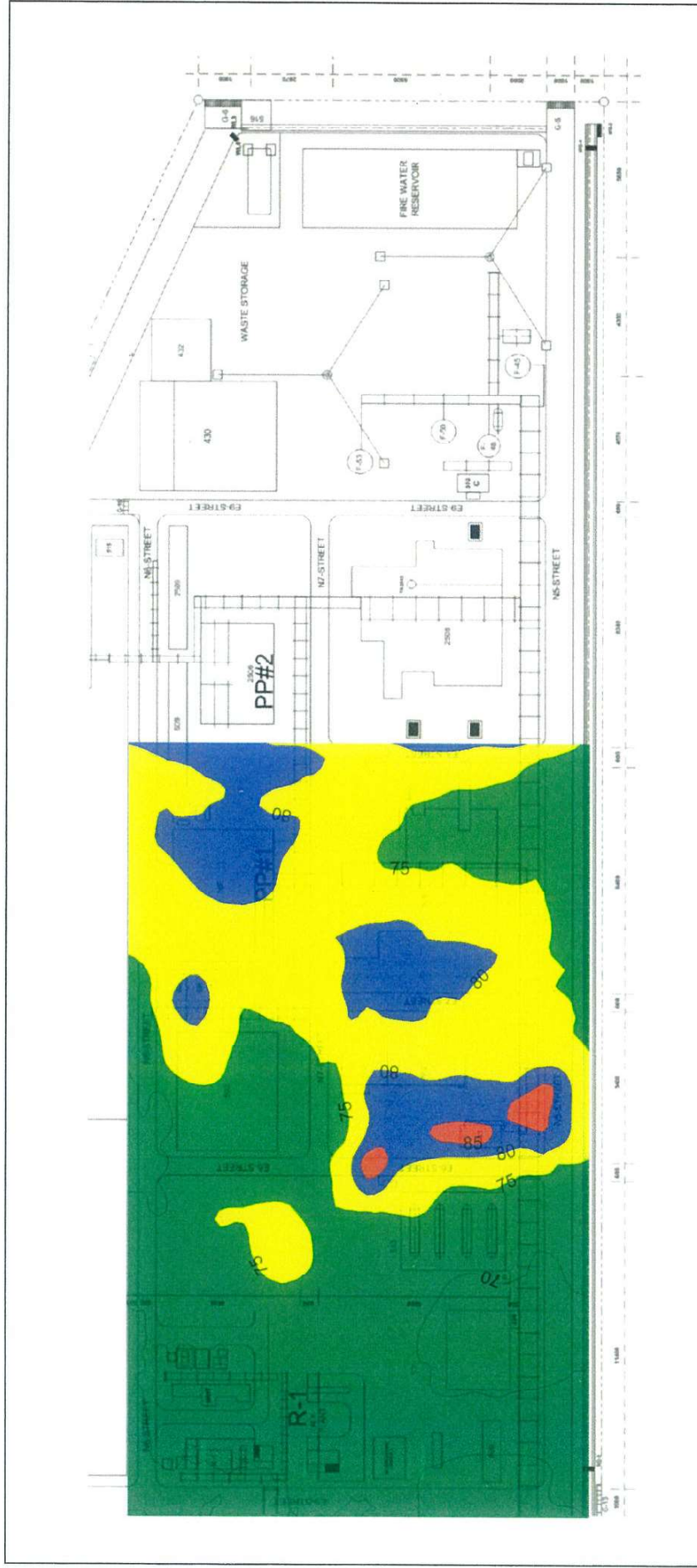
Noise Contour Map

Project : Thai Polyethylene Co., Ltd.

Reference Number : Lot 2345561-1

Measurement Date : Jun 27, 2023

Location : พื้นที่กระบวนการผลิต PP1



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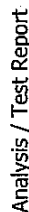
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Page 1 of 2

Guideline: *N. 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

Wichan Choonharat
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 :
Project Name : Environmental Monitoring
Project Location : PP1

Page 3 of 3

Sample Number	2313170-2
Parameter	Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date	Feb 08, 2023
Measurement by	Nattapon Jangwansong
Location	มหาวิทยาลัยราชภัฏวไลยอลงกรณ์ (วังน้อย) จังหวัดพระนครศรีอยุธยา

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
Polymerization Unit	120	29.2	27.4	33.3	33.2
Average (WBGT)		29.2			
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).

Reference: 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

Sept 5.

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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