

ภาคผนวก ง

ใบรับรองผลการติดตามตรวจสอบผลกระทบสิ่งแวดล้อม
ระหว่างเดือนกรกฎาคม ถึงธันวาคม พ.ศ.2567

ภาคผนวก ง.1

ใบรับรองผลการตรวจวัดคุณภาพอากาศจากแหล่งกำเนิด

The Monitoring Result of Emission Concentration
100-H1
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 9, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.68	5.67	47.02	47.01	42.90
2	5.66	5.64	45.89	45.88	41.79
3	5.74	5.70	45.52	45.51	41.62
Average	5.70	5.67	46.14	46.13	42.10

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.68	5.67	8.84	8.82	8.05
2	5.66	5.64	8.98	8.95	8.15
3	5.74	5.70	8.15	8.12	7.43
Average	5.70	5.67	8.66	8.63	7.88

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Date: October 9, 2024
 Start time: 1:00 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: Teledyne 200EM
 SO₂ instrument Model: Teledyne 100eh
 Fuel Type : Natural Gas

Run # : 1
 Location : 100-H1
 Finish time : 1:20 PM
 Serial No.: 161212-13
 Serial No.: 433
 Serial No.: 186
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
1:00 PM	5.74	46.62	6.42
1:01 PM	5.68	46.89	6.71
1:02 PM	5.73	47.32	7.04
1:03 PM	5.69	47.31	7.40
1:04 PM	5.70	47.26	7.85
1:05 PM	5.77	47.93	8.05
1:06 PM	5.67	47.22	8.17
1:07 PM	5.68	46.81	8.45
1:08 PM	5.66	46.79	8.66
1:09 PM	5.65	46.74	8.92
1:10 PM	5.70	46.75	9.11
1:11 PM	5.66	47.45	9.29
1:12 PM	5.66	46.67	9.40
1:13 PM	5.70	46.66	9.62
1:14 PM	5.67	46.76	9.80
1:15 PM	5.68	46.34	9.99
1:16 PM	5.69	47.59	10.10
1:17 PM	5.68	47.26	10.16
1:18 PM	5.63	46.99	10.18
1:19 PM	5.62	47.01	10.17
1:20 PM	5.63	47.10	10.13
Average	5.68	47.02	8.84

Signature _____

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2
Date: October 9, 2024
Start time: 1:21 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200EM
SO₂ instrument Model: Teledyne 100eh
Fuel Type : Natural Gas
Location : 100-H1
Finish time : 1:41 PM
Serial No.: 161212-13
Serial No.: 433
Serial No.: 186
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
1:21 PM	5.66	46.81	10.00
1:22 PM	5.66	47.16	9.99
1:23 PM	5.61	46.90	9.76
1:24 PM	5.68	46.33	9.67
1:25 PM	5.61	45.78	9.60
1:26 PM	5.66	45.64	9.37
1:27 PM	5.67	45.88	9.26
1:28 PM	5.65	45.76	9.17
1:29 PM	5.68	45.68	9.06
1:30 PM	5.70	46.25	8.92
1:31 PM	5.72	45.78	8.85
1:32 PM	5.64	46.32	8.78
1:33 PM	5.62	45.62	8.68
1:34 PM	5.71	45.53	8.69
1:35 PM	5.63	45.70	8.51
1:36 PM	5.69	45.42	8.46
1:37 PM	5.69	45.74	8.43
1:38 PM	5.65	45.78	8.37
1:39 PM	5.67	45.38	8.38
1:40 PM	5.68	45.18	8.36
1:41 PM	5.64	45.11	8.34
Average	5.66	45.89	8.98

Signature 

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3
Date: October 9, 2024
Start time: 1:42 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200EM
SO₂ instrument Model: Teledyne 100eh
Fuel Type : Natural Gas
Location : 100-H1
Finish time : 2:02 PM
Serial No.: 161212-13
Serial No.: 433
Serial No.: 186
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
1:42 PM	5.68	45.40	8.23
1:43 PM	5.68	45.62	8.28
1:44 PM	5.62	45.23	8.28
1:45 PM	5.68	45.33	8.15
1:46 PM	5.76	45.44	8.22
1:47 PM	5.77	46.10	8.20
1:48 PM	5.72	45.51	8.21
1:49 PM	5.74	45.54	8.11
1:50 PM	5.68	45.48	8.12
1:51 PM	5.64	44.94	8.15
1:52 PM	5.71	44.63	8.15
1:53 PM	5.63	45.20	8.09
1:54 PM	5.76	45.49	8.10
1:55 PM	5.75	45.91	8.13
1:56 PM	5.82	45.61	8.14
1:57 PM	5.85	45.78	8.18
1:58 PM	5.86	46.18	8.13
1:59 PM	5.83	45.91	8.14
2:00 PM	5.78	45.60	8.10
2:01 PM	5.80	45.19	8.04
2:02 PM	5.82	45.77	8.02
Average	5.74	45.52	8.15

Signature 

(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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SECOT CO.,LTD.

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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/100-H1
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 09/10/2024
RECEIVED DATE : 18/10/2024 ANALYTICAL DATE : 19-29/10/2024
REPORT DATE : 30/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 100-H1 OPERATOR : Mr. Song Hengchwankul
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas


STACK DESCRIPTION

Height : 52.61 m Gas Velocity : 5.6 m/s
Diameter : 1.44 m Flow rate^{1/} : 337 Ncu.m/min
Temperature : 150.2 °C Excess Oxygen : 5.7 %
Moisture : 11.6 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.7%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	8.63	7.88	0.13	60*/12.69**	0.17**	US. EPA Method 6C
Oxide of Nitrogen	ppm	46.13	42.10	0.49	200*/59.19**	0.57**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist


(Miss Preeda Somjai)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/100-H1
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 09/10/2024
RECEIVED DATE : 15/10/2024 ANALYTICAL DATE : 16/10/2024
REPORT DATE : 19/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 100-H1 OPERATOR : Mr. Kittipong Thakoengsuk
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 52.61 m Gas Velocity : 5.6 m/s
Diameter : 1.44 m Flow rate^{1/} : 337 Ncu.m/min
Temperature : 150.2 °C Excess Oxygen : 5.7 %
Moisture : 11.6 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.7%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	2.20	2.00	0.022	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)

Analyst


(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
100-H1A
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 9, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.33	5.29	13.57	13.55	12.07
2	5.30	5.25	13.35	13.33	11.84
3	5.29	5.23	13.32	13.30	11.80
Average	5.31	5.26	13.41	13.39	11.90

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.33	5.29	5.31	5.27	4.69
2	5.30	5.25	5.47	5.44	4.83
3	5.29	5.23	5.54	5.52	4.90
Average	5.31	5.26	5.44	5.41	4.81

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 1
Date: October 9, 2024
Location : 100-H1A
Start time: 1:00 PM
Finish time: 1:20 PM
O₂ instrument Model: AMI 70
Serial No.: 071023-47
NO_x instrument Model: API 200 AH
Serial No.: 314
SO₂ instrument Model: API 100 AH
Serial No.: 058
Fuel Type : Natural Gas
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
1:00 PM	5.42	13.46	5.03
1:01 PM	5.36	13.53	5.08
1:02 PM	5.33	13.49	5.16
1:03 PM	5.36	13.50	5.21
1:04 PM	5.30	13.51	5.26
1:05 PM	5.33	13.53	5.37
1:06 PM	5.37	13.52	5.27
1:07 PM	5.28	13.58	5.28
1:08 PM	5.31	13.64	5.30
1:09 PM	5.30	13.63	5.33
1:10 PM	5.31	13.64	5.47
1:11 PM	5.32	13.59	5.44
1:12 PM	5.33	13.64	5.41
1:13 PM	5.43	13.60	5.35
1:14 PM	5.42	13.55	5.26
1:15 PM	5.36	13.62	5.34
1:16 PM	5.31	13.65	5.41
1:17 PM	5.25	13.62	5.44
1:18 PM	5.36	13.56	5.37
1:19 PM	5.30	13.55	5.40
1:20 PM	5.25	13.52	5.41
Average	5.33	13.57	5.31

Signature 
(Miss Katesarin Vorradetwittaya)
Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: October 9, 2024
Start time: 1:21 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 100-H1A
Finish time : 1:41 PM
Serial No.: 071023-47
Serial No.: 314
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NOx (ppm)	SO2 (ppm)
1:21 PM	5.33	13.41	5.47
1:22 PM	5.33	13.30	5.44
1:23 PM	5.24	13.37	5.42
1:24 PM	5.34	13.47	5.48
1:25 PM	5.31	13.47	5.47
1:26 PM	5.32	13.37	5.45
1:27 PM	5.36	13.38	5.47
1:28 PM	5.29	13.47	5.40
1:29 PM	5.27	13.39	5.51
1:30 PM	5.32	13.39	5.48
1:31 PM	5.35	13.35	5.46
1:32 PM	5.29	13.30	5.42
1:33 PM	5.25	13.23	5.39
1:34 PM	5.34	13.25	5.48
1:35 PM	5.34	13.35	5.41
1:36 PM	5.26	13.37	5.48
1:37 PM	5.26	13.37	5.53
1:38 PM	5.31	13.32	5.49
1:39 PM	5.24	13.28	5.58
1:40 PM	5.32	13.25	5.54
1:41 PM	5.30	13.26	5.46
Average	5.30	13.35	5.47

Signature 
 (Miss Katesarin Vorradetwittaya)
 Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: October 9, 2024
Start time: 1:42 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 100-H1A
Finish time : 2:02 PM
Serial No.: 071023-47
Serial No.: 314
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NOx (ppm)	SO2 (ppm)
1:42 PM	5.27	13.26	5.41
1:43 PM	5.29	13.27	5.47
1:44 PM	5.28	13.25	5.44
1:45 PM	5.34	13.23	5.50
1:46 PM	5.43	13.25	5.51
1:47 PM	5.40	13.31	5.47
1:48 PM	5.36	13.33	5.50
1:49 PM	5.38	13.33	5.52
1:50 PM	5.32	13.39	5.49
1:51 PM	5.27	13.31	5.43
1:52 PM	5.23	13.32	5.59
1:53 PM	5.10	13.40	5.58
1:54 PM	5.20	13.40	5.66
1:55 PM	5.30	13.34	5.63
1:56 PM	5.34	13.37	5.64
1:57 PM	5.34	13.45	5.59
1:58 PM	5.32	13.44	5.57
1:59 PM	5.33	13.36	5.59
2:00 PM	5.25	13.26	5.57
2:01 PM	5.11	13.23	5.61
2:02 PM	5.16	13.19	5.64
Average	5.29	13.32	5.54

Signature 
 (Miss Katesarin Vorradetwittaya)
 Environmental Scientist



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STACK EMISSION ANALYSIS REPORT


CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/100-H1A
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 09/10/2024
RECEIVED DATE : 18/10/2024 ANALYTICAL DATE : 19-29/10/2024
REPORT DATE : 30/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 100-H1A OPERATOR : Mr. Song Hengchwankul
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 52.61 m Gas Velocity : 3.5 m/s
Diameter : 1.44 m Flow rate^{1/} : 182 Ncu.m/min
Temperature : 220.7 °C Excess Oxygen : 5.3 %
Moisture : 10.8 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.3%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	5.41	4.81	0.04	60*/14.89**	0.11**	US. EPA Method 6C
Oxide of Nitrogen	ppm	13.39	11.90	0.08	200*/99.84**	0.53**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team

- Remark :** 1. Reported analysis refers to submitted sample only.
2. This report shall not be reproduced, except in full, without official approval.
3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.
4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).
5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT


CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/100-H1A
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 09/10/2024
RECEIVED DATE : 15/10/2024 ANALYTICAL DATE : 16/10/2024
REPORT DATE : 19/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 100-H1A OPERATOR : Mr. Kittipong Thakoengsuk
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 52.61 m Gas Velocity : 3.5 m/s
Diameter : 1.44 m Flow rate^{1/} : 182 Ncu.m/min
Temperature : 220.7 °C Excess Oxygen : 5.3 %
Moisture : 10.8 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.3%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	1.85	1.64	0.010	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)
Analyst


(Miss Narisa Poowasanpetch)
Technical Management Team

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
150-H1/H2
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 7, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	3.59	3.60	24.09	24.06	19.33
2	3.44	3.44	23.42	23.40	18.63
3	3.60	3.59	23.74	23.72	19.05
Average	3.55	3.54	23.75	23.73	19.00

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	3.59	3.60	6.29	6.24	5.01
2	3.44	3.44	6.32	6.27	4.99
3	3.60	3.59	6.54	6.50	5.22
Average	3.55	3.54	6.38	6.34	5.07

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Date: October 7, 2024

Start time: 12:20 PM

O₂ instrument Model: AMI 70

NO_x instrument Model: Teledyne 200 EM

SO₂ instrument Model: API 100 AH

Fuel Type : Natural Gas

Run # : 1

Location : 150-H1/H2

Finish time : 12:40 PM

Serial No.: 161212-14

Serial No.: 435

Serial No.: 058

Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
12:20 PM	3.56	23.91	6.53
12:21 PM	3.72	23.91	6.53
12:22 PM	3.55	24.46	6.54
12:23 PM	3.59	23.95	6.54
12:24 PM	3.51	23.92	6.55
12:25 PM	3.48	24.72	6.54
12:26 PM	3.65	25.02	6.53
12:27 PM	3.69	24.72	6.54
12:28 PM	3.57	24.86	6.54
12:29 PM	3.59	24.55	6.13
12:30 PM	3.65	24.82	5.90
12:31 PM	3.57	23.98	6.00
12:32 PM	3.57	23.92	6.13
12:33 PM	3.68	23.88	6.03
12:34 PM	3.54	24.07	6.20
12:35 PM	3.61	24.10	6.23
12:36 PM	3.67	23.91	6.13
12:37 PM	3.63	23.65	6.17
12:38 PM	3.53	23.42	6.10
12:39 PM	3.56	23.14	6.03
12:40 PM	3.49	23.01	6.10
Average	3.59	24.09	6.29

Signature 

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: October 7, 2024
Start time: 12:41 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 150-H1/H2
Finish time : 1:01 PM
Serial No.: 161212-14
Serial No.: 435
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
12:41 PM	3.57	23.39	6.06
12:42 PM	3.61	24.01	6.16
12:43 PM	3.54	23.93	6.16
12:44 PM	3.41	23.50	6.10
12:45 PM	3.44	23.51	6.13
12:46 PM	3.35	22.22	6.23
12:47 PM	3.23	22.68	6.24
12:48 PM	3.31	22.73	6.46
12:49 PM	3.27	22.85	6.33
12:50 PM	3.42	23.27	6.23
12:51 PM	3.43	23.81	6.43
12:52 PM	3.48	23.84	6.36
12:53 PM	3.50	23.72	6.36
12:54 PM	3.50	23.65	6.29
12:55 PM	3.48	23.40	6.53
12:56 PM	3.44	23.42	6.46
12:57 PM	3.39	23.59	6.53
12:58 PM	3.38	23.49	6.39
12:59 PM	3.45	23.35	6.46
1:00 PM	3.47	23.55	6.43
1:01 PM	3.59	23.98	6.46
Average	3.44	23.42	6.32

Signature 
 (Miss Katesarin Vorradetwittaya)
 Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: October 7, 2024
Start time: 1:02 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 150-H1/H2
Finish time : 1:22 PM
Serial No.: 161212-14
Serial No.: 435
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
1:02 PM	3.52	24.20	6.43
1:03 PM	3.53	24.14	6.50
1:04 PM	3.43	23.77	6.56
1:05 PM	3.43	23.57	6.46
1:06 PM	3.41	23.16	6.60
1:07 PM	3.42	23.04	6.60
1:08 PM	3.64	24.13	6.56
1:09 PM	3.67	23.96	6.56
1:10 PM	3.67	23.84	6.56
1:11 PM	3.65	24.01	6.55
1:12 PM	3.65	24.04	6.54
1:13 PM	3.77	23.55	6.54
1:14 PM	3.69	23.65	6.54
1:15 PM	3.64	23.89	6.54
1:16 PM	3.59	23.81	6.53
1:17 PM	3.63	23.71	6.53
1:18 PM	3.63	23.82	6.54
1:19 PM	3.63	23.67	6.53
1:20 PM	3.71	23.43	6.53
1:21 PM	3.67	23.54	6.53
1:22 PM	3.69	23.55	6.53
Average	3.60	23.74	6.54

Signature 
 (Miss Katesarin Vorradetwittaya)
 Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096MON2H-Stk/150-H1/H2
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 07/10/2024
RECEIVED DATE	: 18/10/2024	ANALYTICAL DATE	: 19-29/10/2024
REPORT DATE	: 30/10/2024	SAMPLE CONDITION	: Normal
STACK LOCATION	: 150-H1/H2	OPERATOR	: Mr. Song Hengchwankul
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Fuel gas

STACK DESCRIPTION

Height	: 35.70	m	Gas Velocity	: 7.1	m/s
Diameter	: 1.44	m	Flow rate ^{1/}	: 386	Ncu.m/min
Temperature	: 194.5	°C	Excess Oxygen	: 3.5	%
Moisture	: 12.6	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		3.5%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	6.34	5.07	0.11	60*/10.37**	0.19**	US. EPA Method 6C
Oxide of Nitrogen	ppm	23.73	19.00	0.29	200*/60.74**	0.80**	US. EPA Method 7E

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Preeda Somjai)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096MON2H-Stk/150-H1/H2
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 07/10/2024
RECEIVED DATE	: 10/10/2024	ANALYTICAL DATE	: 11/10/2024
REPORT DATE	: 18/10/2024	SAMPLE CONDITION	: Normal
STACK LOCATION	: 150-H1/H2	OPERATOR	: Mr. Song Hengchwankul
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Fuel gas

STACK DESCRIPTION

Height	: 35.70	m	Gas Velocity	: 7.1	m/s
Diameter	: 1.44	m	Flow rate ^{1/}	: 386	Ncu.m/min
Temperature	: 194.5	°C	Excess Oxygen	: 3.5	%
Moisture	: 12.6	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		3.5%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	1.57	1.26	0.018	-	-	US. EPA Method 25A

(Miss Sudaporn Soonthorn)

Analyst

(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
200-H1/H2/H3/H4/H5
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 7, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.77	4.72	36.33	36.33	31.21
2	4.61	4.56	36.65	36.65	31.18
3	4.60	4.55	36.04	36.04	30.64
Average	4.66	4.61	36.34	36.34	31.01

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.77	4.72	5.24	5.18	4.45
2	4.61	4.56	5.31	5.26	4.47
3	4.60	4.55	5.30	5.26	4.47
Average	4.66	4.61	5.28	5.23	4.47

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 1

Date: October 7, 2024

Start time: 11:10 AM

O₂ instrument Model: AMI 70

NO_x instrument Model: Teledyne 200 EM

SO₂ instrument Model: THERMO 43 C

Fuel Type : Natural Gas

Location : 200-H1/H2/H3/H4/H5

Finish time : 11:30 AM

Serial No.: 121121-10

Serial No.: 433

Serial No.: 58702-319

Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:10 AM	4.86	36.28	5.28
11:11 AM	4.76	36.77	5.19
11:12 AM	4.74	36.84	5.32
11:13 AM	4.68	36.83	5.16
11:14 AM	4.65	36.84	5.23
11:15 AM	4.63	36.73	5.12
11:16 AM	4.57	36.64	5.33
11:17 AM	4.85	36.57	5.29
11:18 AM	4.65	36.45	5.14
11:19 AM	4.76	36.28	5.14
11:20 AM	4.81	36.24	5.19
11:21 AM	4.78	36.29	5.18
11:22 AM	4.79	36.23	5.19
11:23 AM	4.83	36.15	5.20
11:24 AM	4.80	36.23	5.37
11:25 AM	4.79	36.25	5.16
11:26 AM	4.83	36.03	5.19
11:27 AM	4.87	35.77	5.38
11:28 AM	4.89	35.71	5.41
11:29 AM	4.83	35.81	5.49
11:30 AM	4.77	35.89	5.14
Average	4.77	36.33	5.24

Signature 

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: October 7, 2024
 Start time: 11:31 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: Teledyne 200 EM
 SO₂ instrument Model: THERMO 43 C
 Fuel Type : Natural Gas

Location : 200-H1/H2/H3/H4/H5
 Finish time : 11:51 AM
 Serial No.: 121121-10
 Serial No.: 433
 Serial No.: 58702-319
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:31 AM	4.71	35.95	5.19
11:32 AM	4.66	36.12	5.16
11:33 AM	4.64	36.10	5.34
11:34 AM	4.68	36.14	5.21
11:35 AM	4.69	36.52	5.35
11:36 AM	4.63	36.82	5.35
11:37 AM	4.51	37.05	5.39
11:38 AM	4.36	37.18	5.27
11:39 AM	4.26	37.06	5.27
11:40 AM	4.24	36.93	5.32
11:41 AM	4.41	36.82	5.26
11:42 AM	4.65	36.73	5.36
11:43 AM	4.75	36.75	5.32
11:44 AM	4.70	36.88	5.26
11:45 AM	4.66	36.90	5.28
11:46 AM	4.67	36.82	5.35
11:47 AM	4.69	36.67	5.40
11:48 AM	4.73	36.52	5.35
11:49 AM	4.74	36.47	5.38
11:50 AM	4.71	36.52	5.33
11:51 AM	4.65	36.62	5.34
Average	4.61	36.65	5.31

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: October 7, 2024
 Start time: 11:52 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: Teledyne 200 EM
 SO₂ instrument Model: THERMO 43 C
 Fuel Type : Natural Gas

Location : 200-H1/H2/H3/H4/H5
 Finish time : 12:12 PM
 Serial No.: 121121-10
 Serial No.: 433
 Serial No.: 58702-319
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:52 AM	4.54	36.70	5.44
11:53 AM	4.50	36.83	5.26
11:54 AM	4.46	36.89	5.38
11:55 AM	4.46	36.69	5.26
11:56 AM	4.65	36.34	5.15
11:57 AM	4.73	36.16	5.17
11:58 AM	4.57	36.14	5.23
11:59 AM	4.56	36.05	5.30
12:00 PM	4.68	35.97	5.26
12:01 PM	4.73	35.98	5.34
12:02 PM	4.58	36.08	5.30
12:03 PM	4.83	36.15	5.35
12:04 PM	4.67	36.11	5.36
12:05 PM	4.75	35.95	5.28
12:06 PM	4.76	35.73	5.19
12:07 PM	4.56	35.69	5.19
12:08 PM	4.47	35.70	5.37
12:09 PM	4.50	35.65	5.50
12:10 PM	4.46	35.49	5.36
12:11 PM	4.48	35.32	5.30
12:12 PM	4.58	35.30	5.32
Average	4.60	36.04	5.30

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/200-H1/H2/H3/H4/H5
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 07/10/2024
RECEIVED DATE : 18/10/2024 ANALYTICAL DATE : 19-29/10/2024
REPORT DATE : 30/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 200-H1/H2/H3/H4/H5 OPERATOR : Mr. Song Hengchwankul
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 84.00 m Gas Velocity : 6.4 m/s
Diameter : 3.42 m Flow rate^{1/} : 1,820 Ncu.m/min
Temperature : 226.4 °C Excess Oxygen : 4.6 %
Moisture : 13.6 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.6%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	5.23	4.47	0.42	60*/26.62**	0.96**	US. EPA Method 6C
Oxide of Nitrogen	ppm	36.34	31.01	2.07	200*/145.46**	3.77**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team

- Remark :** 1. Reported analysis refers to submitted sample only.
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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.
4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).
5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/200-H1/H2/H3/H4/H5
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 07/10/2024
RECEIVED DATE : 10/10/2024 ANALYTICAL DATE : 11/10/2024
REPORT DATE : 18/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 200-H1/H2/H3/H4/H5 OPERATOR : Mr. Song Hengchwankul
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 84.00 m Gas Velocity : 6.4 m/s
Diameter : 3.42 m Flow rate^{1/} : 1,820 Ncu.m/min
Temperature : 226.4 °C Excess Oxygen : 4.6 %
Moisture : 13.6 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.6%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	2.21	1.88	0.121	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)
Analyst


(Miss Narisa Poowasanpetch)
Technical Management Team

- Remark :** 1. Reported analysis refers to submitted sample only.
2. This report shall not be reproduced, except in full, without official approval.
3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
430-H1
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 8, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.25	5.10	63.03	63.02	55.44
2	5.36	5.23	63.89	63.88	56.66
3	5.33	5.21	64.03	64.02	56.72
Average	5.31	5.18	63.65	63.64	56.27

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.25	5.10	5.40	5.37	4.72
2	5.36	5.23	5.43	5.40	4.79
3	5.33	5.21	5.40	5.37	4.76
Average	5.31	5.18	5.41	5.38	4.76

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 1
Date: October 8, 2024
Start time: 4:10 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: Teledyne 100 EH
Fuel Type : Natural Gas
Location : 430-H1
Finish time : 4:30 PM
Serial No.: 161212-13
Serial No.: 433
Serial No.: 186
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
4:10 PM	5.13	63.22	5.42
4:11 PM	5.19	61.65	5.45
4:12 PM	5.21	60.41	5.26
4:13 PM	5.27	61.14	5.27
4:14 PM	5.28	62.17	5.33
4:15 PM	5.26	61.71	5.40
4:16 PM	5.38	62.28	5.34
4:17 PM	5.29	62.54	5.31
4:18 PM	5.33	62.74	5.34
4:19 PM	5.24	63.18	5.38
4:20 PM	5.29	63.25	5.70
4:21 PM	5.29	63.53	5.83
4:22 PM	5.16	63.49	5.74
4:23 PM	5.33	63.35	5.23
4:24 PM	5.25	63.56	5.35
4:25 PM	5.22	66.43	5.36
4:26 PM	5.13	65.18	5.23
4:27 PM	5.28	64.39	5.27
4:28 PM	5.25	62.90	5.44
4:29 PM	5.34	63.13	5.32
4:30 PM	5.19	63.37	5.43
Average	5.25	63.03	5.40

Signature 
(Miss Katesarin Vorradetwittaya)
Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Date: October 8, 2024
Start time: 4:31 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: Teledyne 100 EH
Fuel Type : Natural Gas

Run # : 2
Location : 430-H1
Finish time : 4:51 PM
Serial No.: 161212-13
Serial No.: 433
Serial No.: 186
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
4:31 PM	5.34	63.73	5.37
4:32 PM	5.18	63.69	5.59
4:33 PM	5.34	63.04	5.72
4:34 PM	5.23	63.47	5.47
4:35 PM	5.26	63.91	5.48
4:36 PM	5.72	65.55	5.43
4:37 PM	5.41	64.58	5.28
4:38 PM	5.52	63.50	5.31
4:39 PM	5.58	63.89	5.43
4:40 PM	5.60	64.69	5.24
4:41 PM	5.59	64.87	5.25
4:42 PM	5.46	64.79	5.32
4:43 PM	5.26	64.36	5.34
4:44 PM	5.19	63.88	5.38
4:45 PM	5.16	63.33	5.39
4:46 PM	5.22	63.48	5.45
4:47 PM	5.21	63.28	5.49
4:48 PM	5.29	63.46	5.48
4:49 PM	5.42	63.96	5.52
4:50 PM	5.29	62.90	5.47
4:51 PM	5.26	63.34	5.55
Average	5.36	63.89	5.43

Signature 
 (Miss Katesarin Vorradetwittaya)
 Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Date: October 8, 2024
Start time: 4:52 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: Teledyne 100 EH
Fuel Type : Natural Gas

Run # : 3
Location : 430-H1
Finish time : 5:12 PM
Serial No.: 161212-13
Serial No.: 433
Serial No.: 186
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
4:52 PM	5.26	63.58	5.43
4:53 PM	5.22	64.06	5.27
4:54 PM	5.43	64.25	5.48
4:55 PM	5.35	64.27	5.22
4:56 PM	5.47	65.08	5.37
4:57 PM	5.46	64.19	5.52
4:58 PM	5.32	63.69	5.47
4:59 PM	5.26	64.03	5.72
5:00 PM	5.23	63.92	5.38
5:01 PM	5.24	63.74	5.75
5:02 PM	5.43	64.08	5.23
5:03 PM	5.33	63.61	5.47
5:04 PM	5.32	64.05	5.24
5:05 PM	5.33	64.08	5.38
5:06 PM	5.32	64.06	5.24
5:07 PM	5.33	64.07	5.47
5:08 PM	5.33	63.84	5.32
5:09 PM	5.33	64.04	5.37
5:10 PM	5.35	63.92	5.23
5:11 PM	5.34	63.95	5.43
5:12 PM	5.34	64.03	5.38
Average	5.33	64.03	5.40

Signature 
 (Miss Katesarin Vorradetwittaya)
 Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096MON2H-Stk/430-H1
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 08/10/2024
RECEIVED DATE	: 18/10/2024	ANALYTICAL DATE	: 19-29/10/2024
REPORT DATE	: 30/10/2024	SAMPLE CONDITION	: Normal
STACK LOCATION	: 430-H1	OPERATOR	: Mr. Song Hengchwankul
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Fuel gas

STACK DESCRIPTION

Height	: 45.00	m	Gas Velocity	: 6.4	m/s
Diameter	: 1.44	m	Flow rate ^{1/}	: 307	Ncu.m/min
Temperature	: 267.3	°C	Excess Oxygen	: 5.2	%
Moisture	: 10.8	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	5.38	4.76	0.07	60*/14.93**	0.25**	US. EPA Method 6C
Oxide of Nitrogen	ppm	63.64	56.27	0.61	200*/93.89**	1.13**	US. EPA Method 7E

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Preeda Somjai)

Technical Management Team

- Remark :**
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 3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.
 4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).
 5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096MON2H-Stk/430-H1
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 08/10/2024
RECEIVED DATE	: 10/10/2024	ANALYTICAL DATE	: 11/10/2024
REPORT DATE	: 18/10/2024	SAMPLE CONDITION	: Normal
STACK LOCATION	: 430-H1	OPERATOR	: Mr. Rommadon Lemmad
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Fuel gas

STACK DESCRIPTION

Height	: 45.00	m	Gas Velocity	: 6.4	m/s
Diameter	: 1.44	m	Flow rate ^{1/}	: 307	Ncu.m/min
Temperature	: 267.3	°C	Excess Oxygen	: 5.2	%
Moisture	: 10.8	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	1.27	1.13	0.012	-	-	US. EPA Method 25A

(Miss Sudaporn Soonthorn)

Analyst

(Miss Narisa Poowasanpetch)

Technical Management Team

- Remark :**
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 3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
380-H1/H2
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 8, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	3.37	3.28	36.30	36.28	28.62
2	3.31	3.22	35.34	35.31	27.76
3	3.23	3.13	34.09	34.06	26.64
Average	3.30	3.21	35.24	35.22	27.67

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	3.37	3.28	5.77	5.74	4.53
2	3.31	3.22	5.99	5.96	4.69
3	3.23	3.13	6.33	6.31	4.94
Average	3.30	3.21	6.03	6.00	4.72

MTR 380-H1-2/Run1/01-11-24

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 1
Date: October 8, 2024
Start time: 2:40 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas
Location : 380-H1/H2
Finish time : 3:00 PM
Serial No.: 121121-10
Serial No.: 314
Serial No.: 132
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
2:40 PM	3.46	35.62	5.65
2:41 PM	3.37	34.83	5.64
2:42 PM	3.65	34.62	5.81
2:43 PM	3.64	33.41	5.69
2:44 PM	3.53	33.32	5.45
2:45 PM	3.37	34.47	5.48
2:46 PM	3.39	35.26	5.72
2:47 PM	3.34	35.91	5.64
2:48 PM	3.30	36.38	5.76
2:49 PM	3.37	36.87	5.87
2:50 PM	3.36	37.52	5.91
2:51 PM	3.25	37.94	5.80
2:52 PM	3.36	38.20	5.80
2:53 PM	3.33	38.26	5.75
2:54 PM	3.25	37.85	5.74
2:55 PM	3.30	37.56	5.82
2:56 PM	3.27	37.36	5.82
2:57 PM	3.23	36.91	5.93
2:58 PM	3.30	36.62	6.05
2:59 PM	3.33	36.72	5.94
3:00 PM	3.33	36.63	5.88
Average	3.37	36.30	5.77

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: October 8, 2024
 Start time: 3:01 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 380-H1/H2
 Finish time : 3:21 PM
 Serial No.: 121121-10
 Serial No.: 314
 Serial No.: 132
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:01 PM	3.33	36.10	5.91
3:02 PM	3.35	35.73	5.96
3:03 PM	3.45	35.64	6.04
3:04 PM	3.40	35.79	6.00
3:05 PM	3.44	35.96	5.98
3:06 PM	3.38	36.14	5.85
3:07 PM	3.32	36.05	5.78
3:08 PM	3.25	35.61	5.81
3:09 PM	3.20	35.43	5.94
3:10 PM	3.30	35.22	6.08
3:11 PM	3.28	35.03	6.00
3:12 PM	3.38	35.13	6.11
3:13 PM	3.34	35.10	6.07
3:14 PM	3.38	34.82	6.09
3:15 PM	3.42	34.93	6.12
3:16 PM	3.35	35.16	5.97
3:17 PM	3.34	35.13	5.95
3:18 PM	3.20	34.87	5.88
3:19 PM	3.19	34.65	6.02
3:20 PM	3.16	34.91	6.04
3:21 PM	3.07	34.73	6.09
Average	3.31	35.34	5.99

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: October 8, 2024
 Start time: 3:22 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 380-H1/H2
 Finish time : 3:42 PM
 Serial No.: 121121-10
 Serial No.: 314
 Serial No.: 132
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:22 PM	3.15	34.36	6.16
3:23 PM	3.14	34.24	6.27
3:24 PM	3.23	34.23	6.32
3:25 PM	3.21	34.34	6.33
3:26 PM	3.17	34.32	6.38
3:27 PM	3.21	34.18	6.47
3:28 PM	3.15	34.31	6.34
3:29 PM	3.10	34.26	6.39
3:30 PM	3.15	33.98	6.44
3:31 PM	3.09	33.82	6.32
3:32 PM	3.19	33.64	6.38
3:33 PM	3.16	33.95	6.28
3:34 PM	3.27	33.28	6.35
3:35 PM	3.42	34.36	6.27
3:36 PM	3.25	32.81	6.42
3:37 PM	3.31	34.37	6.46
3:38 PM	3.28	32.18	6.28
3:39 PM	3.34	34.63	6.24
3:40 PM	3.41	34.84	6.22
3:41 PM	3.26	34.73	6.22
3:42 PM	3.27	35.12	6.31
Average	3.23	34.09	6.33

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096MON2H-Stk/380-H1/H2
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 08/10/2024
RECEIVED DATE	: 18/10/2024	ANALYTICAL DATE	: 19-29/10/2024
REPORT DATE	: 30/10/2024	SAMPLE CONDITION	: Normal
STACK LOCATION	: 380-H1/H2	OPERATOR	: Mr. Song Hengchwankul
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Fuel gas

STACK DESCRIPTION

Height	: 37.50	m	Gas Velocity	: 6.2	m/s
Diameter	: 1.88	m	Flow rate ^{1/}	: 472	Ncu.m/min
Temperature	: 302.0	°C	Excess Oxygen	: 3.2	%
Moisture	: 11.1	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		3.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	6.00	4.72	0.12	60*/11.61**	0.27**	US. EPA Method 6C
Oxide of Nitrogen	ppm	35.22	27.67	0.52	200*/59.25**	0.99**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist


(Miss Preeda Somjai)

Technical Management Team

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096MON2H-Stk/380-H1/H2
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 08/10/2024
RECEIVED DATE	: 10/10/2024	ANALYTICAL DATE	: 11/10/2024
REPORT DATE	: 18/10/2024	SAMPLE CONDITION	: Normal
STACK LOCATION	: 380-H1/H2	OPERATOR	: Mr. Rommadon Lemmad
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Fuel gas

STACK DESCRIPTION

Height	: 37.50	m	Gas Velocity	: 6.2	m/s
Diameter	: 1.88	m	Flow rate ^{1/}	: 472	Ncu.m/min
Temperature	: 302.0	°C	Excess Oxygen	: 3.2	%
Moisture	: 11.1	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		3.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	1.30	1.02	0.018	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)

Analyst


(Miss Narisa Poowasanetch)

Technical Management Team

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
432-H1
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 10, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.65	4.49	62.89	62.88	53.26
2	4.84	4.70	65.14	65.13	55.88
3	4.85	4.73	62.84	62.83	54.01
Average	4.78	4.64	63.62	63.61	54.38

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.65	4.49	6.58	6.56	5.56
2	4.84	4.70	6.78	6.76	5.80
3	4.85	4.73	6.34	6.32	5.43
Average	4.78	4.64	6.57	6.55	5.60

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 1
Date: October 10, 2024
Start time: 10:40 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: Teledyne 100 EH
Fuel Type : Natural Gas

Location : 432-H1
Finish time : 11:00 AM
Serial No.: 161212-13
Serial No.: 433
Serial No.: 186
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
10:40 AM	4.74	63.83	5.91
10:41 AM	4.65	63.57	6.04
10:42 AM	4.63	63.50	6.10
10:43 AM	4.74	63.37	6.17
10:44 AM	4.62	62.93	6.29
10:45 AM	4.58	62.99	6.30
10:46 AM	4.60	63.34	6.35
10:47 AM	4.54	63.00	6.41
10:48 AM	4.54	62.29	6.51
10:49 AM	4.57	62.69	6.65
10:50 AM	4.61	62.64	6.71
10:51 AM	4.65	63.02	6.67
10:52 AM	4.66	62.68	6.70
10:53 AM	4.72	62.55	6.79
10:54 AM	4.66	62.68	6.87
10:55 AM	4.69	62.87	6.94
10:56 AM	4.69	62.82	6.92
10:57 AM	4.69	62.56	6.91
10:58 AM	4.68	62.35	7.01
10:59 AM	4.73	62.56	7.02
11:00 AM	4.72	62.41	6.96
Average	4.65	62.89	6.58

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: October 10, 2024
 Start time: 11:01 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: Teledyne 200 EM
 SO₂ instrument Model: Teledyne 100 EH
 Fuel Type : Natural Gas

Location : 432-H1
 Finish time : 11:21 AM
 Serial No.: 161212-13
 Serial No.: 433
 Serial No.: 186
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:01 AM	4.69	62.56	6.96
11:02 AM	4.74	63.25	7.11
11:03 AM	4.77	63.70	7.14
11:04 AM	4.74	63.38	7.15
11:05 AM	4.62	63.50	7.20
11:06 AM	4.56	62.79	7.35
11:07 AM	4.24	62.01	7.53
11:08 AM	4.43	63.01	7.56
11:09 AM	4.77	64.26	7.23
11:10 AM	5.65	68.72	6.85
11:11 AM	5.31	69.21	6.36
11:12 AM	4.87	68.54	6.35
11:13 AM	4.95	67.85	6.43
11:14 AM	4.66	67.32	6.18
11:15 AM	4.37	65.18	6.57
11:16 AM	4.66	63.82	6.34
11:17 AM	4.67	64.71	6.96
11:18 AM	5.12	65.94	6.35
11:19 AM	5.32	66.16	5.98
11:20 AM	5.28	66.25	6.45
11:21 AM	5.22	65.88	6.27
Average	4.84	65.14	6.78

Signature 
 (Miss Katesarin Vorradetwittaya)
 Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: October 10, 2024
 Start time: 11:22 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: Teledyne 200 EM
 SO₂ instrument Model: Teledyne 100 EH
 Fuel Type : Natural Gas

Location : 432-H1
 Finish time : 11:42 AM
 Serial No.: 161212-13
 Serial No.: 433
 Serial No.: 186
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:22 AM	5.38	63.31	6.58
11:23 AM	5.31	61.00	7.20
11:24 AM	5.24	60.19	7.10
11:25 AM	5.09	60.14	6.80
11:26 AM	5.17	59.99	6.55
11:27 AM	5.10	60.41	6.41
11:28 AM	4.98	60.34	6.37
11:29 AM	4.86	60.07	6.12
11:30 AM	4.88	60.88	6.08
11:31 AM	4.83	61.39	5.89
11:32 AM	4.71	61.72	5.86
11:33 AM	4.22	62.43	5.79
11:34 AM	4.50	63.18	5.79
11:35 AM	4.36	63.96	6.46
11:36 AM	4.64	63.28	6.43
11:37 AM	4.58	62.88	6.38
11:38 AM	4.82	63.82	6.31
11:39 AM	4.79	66.44	6.34
11:40 AM	4.84	67.41	6.31
11:41 AM	4.93	68.03	6.30
11:42 AM	4.72	68.67	6.14
Average	4.85	62.84	6.34

Signature 
 (Miss Katesarin Vorradetwittaya)
 Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/432-H1
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 10/10/2024
RECEIVED DATE : 18/10/2024 ANALYTICAL DATE : 19-29/10/2024
REPORT DATE : 30/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 432-H1 OPERATOR : Mr. Song Hengchwankul
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 40.84 m Gas Velocity : 6.8 m/s
Diameter : 2.03 m Flow rate ^{1/} : 639 Ncu.m/min
Temperature : 272.3 °C Excess Oxygen : 4.6 %
Moisture : 11.5 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.6%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	6.55	5.60	0.18	60*/11.33**	0.31**	US. EPA Method 6C
Oxide of Nitrogen	ppm	63.61	54.38	1.27	200*/88.50**	1.74**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist


(Miss Preeda Somjai)

Technical Management Team

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT


CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/432-H1
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 10/10/2024
RECEIVED DATE : 15/10/2024 ANALYTICAL DATE : 16/10/2024
REPORT DATE : 19/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 432-H1 OPERATOR : Mr. Kittipong Thakoengsuk
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 40.84 m Gas Velocity : 6.8 m/s
Diameter : 2.03 m Flow rate ^{1/} : 639 Ncu.m/min
Temperature : 272.3 °C Excess Oxygen : 4.6 %
Moisture : 11.5 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.6%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	1.96	1.67	0.038	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)
Analyst


(Miss Narisa Poowasanpetch)
Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
432-H2
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 10, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	3.81	3.74	21.43	21.39	17.33
2	3.76	3.69	21.46	21.43	17.31
3	3.72	3.65	21.38	21.35	17.20
Average	3.76	3.69	21.42	21.39	17.28

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	3.81	3.74	5.45	5.44	4.41
2	3.76	3.69	5.62	5.60	4.52
3	3.72	3.65	5.55	5.52	4.45
Average	3.76	3.69	5.54	5.52	4.46

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Date: October 10, 2024
 Start time: 12:50 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Run # : 1
 Location : 432-H2
 Finish time : 1:10 PM
 Serial No.: 071023-47
 Serial No.: 314
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
12:50 PM	3.93	21.41	5.19
12:51 PM	3.90	21.36	5.30
12:52 PM	3.81	21.48	5.37
12:53 PM	3.76	21.42	5.34
12:54 PM	3.77	21.13	5.39
12:55 PM	3.80	21.17	5.45
12:56 PM	3.80	21.61	5.43
12:57 PM	3.83	21.69	5.45
12:58 PM	3.83	21.54	5.41
12:59 PM	3.88	21.56	5.40
1:00 PM	3.98	21.61	5.43
1:01 PM	3.90	21.51	5.44
1:02 PM	3.84	21.20	5.46
1:03 PM	3.78	21.20	5.48
1:04 PM	3.67	21.40	5.56
1:05 PM	3.66	21.60	5.60
1:06 PM	3.66	21.56	5.65
1:07 PM	3.70	21.34	5.58
1:08 PM	3.79	21.37	5.51
1:09 PM	3.80	21.41	5.52
1:10 PM	3.86	21.55	5.54
Average	3.81	21.43	5.45

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

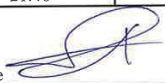
PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Date: October 10, 2024
Start time: 1:11 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Run # : 2
Location : 432-H2
Finish time : 1:31 PM
Serial No.: 071023-47
Serial No.: 314
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
1:11 PM	3.87	21.68	5.52
1:12 PM	3.82	21.64	5.59
1:13 PM	3.79	21.53	5.62
1:14 PM	3.72	21.74	5.55
1:15 PM	3.66	21.76	5.60
1:16 PM	3.63	21.63	5.64
1:17 PM	3.67	21.70	5.67
1:18 PM	3.77	21.51	5.61
1:19 PM	3.83	21.24	5.61
1:20 PM	3.86	21.34	5.66
1:21 PM	3.89	21.67	5.67
1:22 PM	3.89	21.57	5.64
1:23 PM	3.80	21.35	5.62
1:24 PM	3.70	21.29	5.62
1:25 PM	3.64	21.49	5.65
1:26 PM	3.66	21.37	5.63
1:27 PM	3.72	20.90	5.58
1:28 PM	3.72	20.67	5.62
1:29 PM	3.75	21.08	5.64
1:30 PM	3.78	21.73	5.62
1:31 PM	3.78	21.83	5.64
Average	3.76	21.46	5.62

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Date: October 10, 2024
Start time: 1:32 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Run # : 3
Location : 432-H2
Finish time : 1:52 PM
Serial No.: 071023-47
Serial No.: 314
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
1:32 PM	3.80	21.72	5.65
1:33 PM	3.73	21.48	5.70
1:34 PM	3.66	21.50	5.60
1:35 PM	3.62	21.60	5.57
1:36 PM	3.56	21.64	5.59
1:37 PM	3.64	21.62	5.55
1:38 PM	3.71	21.31	5.58
1:39 PM	3.81	21.21	5.57
1:40 PM	3.85	21.15	5.54
1:41 PM	3.79	21.13	5.55
1:42 PM	3.79	21.18	5.51
1:43 PM	3.87	21.37	5.48
1:44 PM	3.77	21.33	5.43
1:45 PM	3.64	21.24	5.50
1:46 PM	3.64	21.38	5.48
1:47 PM	3.67	21.46	5.45
1:48 PM	3.69	21.18	5.52
1:49 PM	3.79	21.14	5.56
1:50 PM	3.75	21.42	5.60
1:51 PM	3.72	21.44	5.58
1:52 PM	3.72	21.41	5.54
Average	3.72	21.38	5.55

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/432-H2
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 10/10/2024
RECEIVED DATE : 18/10/2024 ANALYTICAL DATE : 19-29/10/2024
REPORT DATE : 30/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 432-H2 OPERATOR : Mr. Song Hengchwankul
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 32.06 m Gas Velocity : 5.6 m/s
Diameter : 1.28 m Flow rate ^{1/} : 206 Ncu.m/min
Temperature : 265.2 °C Excess Oxygen : 3.7 %
Moisture : 12.8 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		3.7%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	5.52	4.46	0.05	60*/11.56**	0.08**	US. EPA Method 6C
Oxide of Nitrogen	ppm	21.39	17.28	0.14	200*/84.46**	0.42**	US. EPA Method 7E

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Preeda Somjai)

Technical Management Team

- Remark :**
1. Reported analysis refers to submitted sample only.
 2. This report shall not be reproduced, except in full, without official approval.
 3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.
 4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).
 5. ** The assigned value in EIA report.



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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/432-H2
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 10/10/2024
RECEIVED DATE : 15/10/2024 ANALYTICAL DATE : 16/10/2024
REPORT DATE : 19/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 432-H2 OPERATOR : Mr. Kitipong Thakoengsuk
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 32.06 m Gas Velocity : 5.6 m/s
Diameter : 1.28 m Flow rate ^{1/} : 206 Ncu.m/min
Temperature : 265.2 °C Excess Oxygen : 3.7 %
Moisture : 12.8 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		3.7%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	2.01	1.63	0.012	-	-	US. EPA Method 25A

(Miss Sudaporn Soonthorn)

Analyst

(Miss Narisa Poowasanpetch)

Technical Management Team

- Remark :**
1. Reported analysis refers to submitted sample only.
 2. This report shall not be reproduced, except in full, without official approval.
 3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
432-H3
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 10, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	6.12	6.04	57.78	57.77	54.04
2	6.35	6.26	59.75	59.74	56.72
3	6.27	6.18	57.57	57.56	54.35
Average	6.25	6.16	58.37	58.36	55.03


Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	6.12	6.04	5.23	5.20	4.86
2	6.35	6.26	6.34	6.32	6.00
3	6.27	6.18	5.83	5.82	5.50
Average	6.25	6.16	5.80	5.78	5.45

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Date: October 10, 2024
 Start time: 10:40 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type: Natural Gas

Run # : 1
 Location : 432-H3
 Finish time : 11:00 AM
 Serial No.: 071023-47
 Serial No.: 314
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
10:40 AM	6.15	58.99	5.21
10:41 AM	6.15	58.76	5.20
10:42 AM	6.13	58.54	5.18
10:43 AM	6.15	58.65	5.20
10:44 AM	6.03	58.57	5.17
10:45 AM	6.01	58.27	5.19
10:46 AM	6.08	58.01	5.19
10:47 AM	6.04	57.77	5.19
10:48 AM	6.09	57.60	5.30
10:49 AM	6.13	57.61	5.46
10:50 AM	6.15	57.78	5.42
10:51 AM	6.20	58.05	5.43
10:52 AM	6.18	58.11	5.30
10:53 AM	6.20	57.70	5.12
10:54 AM	6.18	57.36	5.06
10:55 AM	6.15	57.30	5.11
10:56 AM	6.13	57.18	5.23
10:57 AM	6.13	56.98	5.21
10:58 AM	6.10	56.94	5.24
10:59 AM	6.10	56.70	5.26
11:00 AM	6.12	56.56	5.25
Average	6.12	57.78	5.23

Signature 

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: October 10, 2024
 Start time: 11:01 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 432-H3
 Finish time : 11:21 AM
 Serial No.: 071023-47
 Serial No.: 314
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:01 AM	6.12	56.92	5.36
11:02 AM	6.08	57.16	5.48
11:03 AM	6.09	57.42	5.97
11:04 AM	6.02	57.67	6.12
11:05 AM	5.94	57.44	6.35
11:06 AM	5.88	57.14	6.48
11:07 AM	5.72	57.18	6.54
11:08 AM	5.42	57.52	6.37
11:09 AM	6.25	58.55	6.43
11:10 AM	6.38	62.38	6.65
11:11 AM	6.34	62.27	6.55
11:12 AM	6.57	62.29	6.16
11:13 AM	6.74	62.41	5.84
11:14 AM	6.69	62.33	6.32
11:15 AM	6.17	61.90	7.76
11:16 AM	5.91	61.17	7.19
11:17 AM	6.18	60.75	6.61
11:18 AM	6.51	60.71	6.51
11:19 AM	6.94	60.60	6.34
11:20 AM	7.44	60.48	6.14
11:21 AM	7.90	60.52	6.05
Average	6.35	59.75	6.34

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: October 10, 2024
 Start time: 11:22 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 432-H3
 Finish time : 11:42 AM
 Serial No.: 071023-47
 Serial No.: 314
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:22 AM	7.47	59.49	5.79
11:23 AM	6.95	57.68	5.84
11:24 AM	6.66	56.19	6.04
11:25 AM	6.48	55.29	6.06
11:26 AM	6.53	54.56	6.17
11:27 AM	6.46	54.30	6.24
11:28 AM	6.41	54.67	6.14
11:29 AM	6.35	55.15	6.00
11:30 AM	6.43	55.49	5.96
11:31 AM	6.42	55.95	5.91
11:32 AM	6.37	56.42	5.97
11:33 AM	5.96	57.20	5.95
11:34 AM	5.56	57.89	5.99
11:35 AM	5.18	57.89	6.21
11:36 AM	5.12	57.22	6.10
11:37 AM	5.50	57.59	5.86
11:38 AM	5.71	59.30	5.78
11:39 AM	6.09	60.42	5.54
11:40 AM	6.42	61.39	5.21
11:41 AM	6.65	62.08	4.92
11:42 AM	6.90	62.71	4.72
Average	6.27	57.57	5.83

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



บริษัท ซีคอต จำกัด
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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096MON2H-Stk/432-H3
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 10/10/2024
RECEIVED DATE	: 18/10/2024	ANALYTICAL DATE	: 19-29/10/2024
REPORT DATE	: 30/10/2024	SAMPLE CONDITION	: Normal
STACK LOCATION	: 432-H3	OPERATOR	: Mr. Song Hengchwankul
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Fuel gas

STACK DESCRIPTION

Height	: 46.05	m	Gas Velocity	: 9.3	m/s
Diameter	: 2.66	m	Flow rate ^{1/}	: 1,691	Ncu.m/min
Temperature	: 201.3	°C	Excess Oxygen	: 6.2	%
Moisture	: 12.3	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		6.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	5.78	5.45	0.43	60*/12.88**	0.61**	US. EPA Method 6C
Oxide of Nitrogen	ppm	58.36	55.03	3.09	200*/94.63**	3.22**	US. EPA Method 7E

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Preeda Somjai)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096MON2H-Stk/432-H3
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 10/10/2024
RECEIVED DATE	: 15/10/2024	ANALYTICAL DATE	: 16/10/2024
REPORT DATE	: 19/10/2024	SAMPLE CONDITION	: Normal
STACK LOCATION	: 432-H3	OPERATOR	: Mr. Kittipong Thakoengsuk
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Fuel gas

STACK DESCRIPTION

Height	: 46.05	m	Gas Velocity	: 9.3	m/s
Diameter	: 2.66	m	Flow rate ^{1/}	: 1,691	Ncu.m/min
Temperature	: 201.3	°C	Excess Oxygen	: 6.2	%
Moisture	: 12.3	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		6.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	2.60	2.45	0.132	-	-	US. EPA Method 25A

(Miss Sudaporn Soonthorn)

Analyst

(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
320-H1/H2
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 8, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	3.10	3.01	37.78	37.75	29.33
2	3.19	3.09	37.82	37.79	29.49
3	3.33	3.22	36.26	36.24	28.49
Average	3.20	3.11	37.28	37.26	29.11

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	3.10	3.01	5.42	5.39	4.19
2	3.19	3.09	5.49	5.46	4.26
3	3.33	3.22	5.47	5.44	4.28
Average	3.20	3.11	5.46	5.43	4.24

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 1
Date: October 8, 2024
Start time: 2:40 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: Teledyne 100 EH
Fuel Type : Natural Gas
Location : 320-H1/H2
Finish time : 3:00 PM
Serial No.: 161212-13
Serial No.: 433
Serial No.: 186
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
2:40 PM	3.04	37.27	5.16
2:41 PM	3.06	37.52	5.24
2:42 PM	3.17	37.56	5.27
2:43 PM	3.26	37.81	5.32
2:44 PM	3.18	37.80	5.32
2:45 PM	3.14	37.96	5.37
2:46 PM	3.18	38.25	5.37
2:47 PM	3.03	37.99	5.43
2:48 PM	3.07	37.78	5.40
2:49 PM	3.03	37.70	5.46
2:50 PM	2.99	37.46	5.45
2:51 PM	3.07	37.58	5.49
2:52 PM	3.04	37.54	5.50
2:53 PM	3.07	37.69	5.50
2:54 PM	3.17	37.84	5.45
2:55 PM	3.11	37.84	5.51
2:56 PM	3.18	37.71	5.58
2:57 PM	3.18	38.05	5.56
2:58 PM	3.02	38.03	5.47
2:59 PM	3.00	37.85	5.53
3:00 PM	3.01	38.09	5.50
Average	3.10	37.78	5.42

Signature 
(Miss Katesarin Vorradetwittaya)
Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: October 8, 2024
Start time: 3:01 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: Teledyne 100 EH
Fuel Type : Natural Gas

Location : 320-H1/H2
Finish time : 3:21 PM
Serial No.: 161212-13
Serial No.: 433
Serial No.: 186
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:01 PM	2.88	37.69	5.53
3:02 PM	2.86	37.32	5.55
3:03 PM	2.96	37.62	5.55
3:04 PM	3.13	37.67	5.56
3:05 PM	3.26	37.74	5.56
3:06 PM	3.32	38.09	5.59
3:07 PM	3.36	38.37	5.60
3:08 PM	3.33	38.62	5.56
3:09 PM	3.21	38.43	5.58
3:10 PM	3.23	38.30	5.53
3:11 PM	3.05	38.05	5.57
3:12 PM	3.01	37.60	5.61
3:13 PM	2.96	37.31	5.59
3:14 PM	3.32	37.91	5.56
3:15 PM	3.28	38.41	5.55
3:16 PM	3.23	38.66	5.57
3:17 PM	3.31	38.13	5.33
3:18 PM	3.34	37.72	5.11
3:19 PM	3.32	37.15	4.88
3:20 PM	3.27	37.25	5.42
3:21 PM	3.34	36.12	5.40
Average	3.19	37.82	5.49

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: October 8, 2024
Start time: 3:22 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: Teledyne 100 EH
Fuel Type : Natural Gas

Location : 320-H1/H2
Finish time : 3:42 PM
Serial No.: 161212-13
Serial No.: 433
Serial No.: 186
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:22 PM	3.38	35.80	5.48
3:23 PM	3.30	36.14	5.49
3:24 PM	3.32	36.24	5.53
3:25 PM	3.30	36.18	5.57
3:26 PM	3.36	35.03	5.50
3:27 PM	3.44	33.25	5.48
3:28 PM	3.50	33.84	5.49
3:29 PM	3.43	34.96	5.54
3:30 PM	3.45	38.43	5.48
3:31 PM	3.36	37.52	5.44
3:32 PM	3.35	36.75	5.51
3:33 PM	3.24	36.64	5.49
3:34 PM	3.19	36.25	5.51
3:35 PM	3.23	35.65	5.46
3:36 PM	3.29	34.23	5.39
3:37 PM	3.31	38.34	5.34
3:38 PM	3.27	38.15	5.40
3:39 PM	3.24	37.76	5.38
3:40 PM	3.36	36.72	5.46
3:41 PM	3.29	36.81	5.47
3:42 PM	3.25	36.74	5.56
Average	3.33	36.26	5.47

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/320-H1/H2
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 08/10/2024
RECEIVED DATE : 18/10/2024 ANALYTICAL DATE : 19-29/10/2024
REPORT DATE : 30/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 320-H1/H2 OPERATOR : Mr. Song Hengchwankul
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 36.28 m Gas Velocity : 9.7 m/s
Diameter : 1.74 m Flow rate ^{1/} : 615 Ncu.m/min
Temperature : 328.5 °C Excess Oxygen : 3.1 %
Moisture : 10.3 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		3.1%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	5.43	4.24	0.15	60*/12.39**	0.28**	US. EPA Method 6C
Oxide of Nitrogen	ppm	37.26	29.11	0.72	200*/66.49**	1.08**	US. EPA Method 7E

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Preeda Somjai)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/320-H1/H2
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 08/10/2024
RECEIVED DATE : 10/10/2024 ANALYTICAL DATE : 11/10/2024
REPORT DATE : 18/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 320-H1/H2 OPERATOR : Mr. Rommadon Lemmad
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 36.28 m Gas Velocity : 9.7 m/s
Diameter : 1.74 m Flow rate ^{1/} : 615 Ncu.m/min
Temperature : 328.5 °C Excess Oxygen : 3.1 %
Moisture : 10.3 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		3.1%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	1.62	1.27	0.030	-	-	US. EPA Method 25A

(Miss Sudaporn Soonthorn)

Analyst

(Miss Narisa Poowasanpet)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

**The Monitoring Result of Emission Concentration
390-H1**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

October 9, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.33	5.24	31.79	31.78	28.21
2	5.23	5.18	32.80	32.79	28.99
3	5.24	5.22	32.30	32.29	28.62
Average	5.27	5.21	32.29	32.29	28.61

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.33	5.24	4.67	4.63	4.11
2	5.23	5.18	4.69	4.66	4.12
3	5.24	5.22	4.69	4.66	4.13
Average	5.27	5.21	4.69	4.65	4.12

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Date:	October 9, 2024	Run # :	1
Start time:	10:40 AM	Location :	390-H1
O₂ instrument Model:	AMI 70	Finish time :	11:00 AM
NO_x instrument Model:	Teledyne 200 EM	Serial No.:	161212-13
SO₂ instrument Model:	Teledyne 100 EH	Serial No.:	433
Fuel Type :	Natural Gas	Serial No.:	186
		Test Operator :	Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
10:40 AM	5.34	30.03	4.74
10:41 AM	5.48	30.13	4.46
10:42 AM	5.32	30.95	4.39
10:43 AM	5.38	31.04	4.72
10:44 AM	5.44	31.02	4.55
10:45 AM	5.24	30.91	4.40
10:46 AM	5.28	31.25	4.73
10:47 AM	5.29	31.47	4.56
10:48 AM	5.35	31.59	4.70
10:49 AM	5.27	31.93	4.84
10:50 AM	5.30	31.82	4.75
10:51 AM	5.30	31.92	4.31
10:52 AM	5.23	32.27	4.59
10:53 AM	5.48	32.34	4.78
10:54 AM	5.41	32.60	4.77
10:55 AM	5.31	33.06	5.09
10:56 AM	5.39	32.88	4.67
10:57 AM	5.34	32.86	4.73
10:58 AM	5.34	32.39	5.18
10:59 AM	5.26	32.46	4.75
11:00 AM	5.26	32.63	4.45
Average	5.33	31.79	4.67

Signature 

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: October 9, 2024
 Start time: 11:01 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: Teledyne 200 EM
 SO₂ instrument Model: Teledyne 100 EH
 Fuel Type : Natural Gas

Location : 390-H1
 Finish time : 11:21 AM
 Serial No.: 161212-13
 Serial No.: 433
 Serial No.: 186
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:01 AM	5.23	32.27	4.81
11:02 AM	5.12	32.26	4.92
11:03 AM	5.28	33.04	4.77
11:04 AM	5.33	32.94	4.32
11:05 AM	5.31	33.10	4.61
11:06 AM	5.24	33.10	4.81
11:07 AM	5.13	33.10	4.37
11:08 AM	5.27	32.61	4.46
11:09 AM	5.28	32.48	4.34
11:10 AM	5.22	32.54	4.71
11:11 AM	5.02	32.40	5.16
11:12 AM	5.10	32.53	4.62
11:13 AM	5.29	32.81	4.62
11:14 AM	5.30	32.96	5.27
11:15 AM	5.33	32.88	4.56
11:16 AM	5.22	32.87	4.27
11:17 AM	5.28	33.20	4.72
11:18 AM	5.29	32.78	5.02
11:19 AM	5.18	33.07	5.06
11:20 AM	5.05	32.79	4.59
11:21 AM	5.28	32.97	4.51
Average	5.23	32.80	4.69

Signature 

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: October 9, 2024
 Start time: 11:22 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: Teledyne 200 EM
 SO₂ instrument Model: Teledyne 100 EH
 Fuel Type : Natural Gas

Location : 390-H1
 Finish time : 11:42 AM
 Serial No.: 161212-13
 Serial No.: 433
 Serial No.: 186
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:22 AM	5.27	32.64	4.84
11:23 AM	5.33	31.87	4.96
11:24 AM	5.30	32.05	4.48
11:25 AM	5.26	32.02	4.41
11:26 AM	5.32	32.49	4.92
11:27 AM	5.23	32.46	4.92
11:28 AM	5.14	32.47	4.39
11:29 AM	5.12	32.23	4.70
11:30 AM	5.13	31.75	5.33
11:31 AM	5.09	31.75	5.38
11:32 AM	5.28	31.61	4.47
11:33 AM	5.17	31.72	4.42
11:34 AM	5.17	32.54	4.41
11:35 AM	5.41	33.14	4.78
11:36 AM	5.31	33.00	4.66
11:37 AM	5.25	32.71	5.17
11:38 AM	5.32	32.05	4.68
11:39 AM	5.25	32.68	4.36
11:40 AM	5.21	32.82	4.52
11:41 AM	5.27	32.03	4.38
11:42 AM	5.24	32.22	4.32
Average	5.24	32.30	4.69

Signature 

(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/390-H1
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 09/10/2024
RECEIVED DATE : 18/10/2024 ANALYTICAL DATE : 19-29/10/2024
REPORT DATE : 30/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 390-H1 OPERATOR : Mr. Song Hengchwankul
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 34.80 m Gas Velocity : 3.7 m/s
Diameter : 0.89 m Flow rate ^{1/} : 72 Ncu.m/min
Temperature : 226.0 °C Excess Oxygen : 5.2 %
Moisture : 12.0 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	4.65	4.12	0.01	60*/11.50**	0.03**	US. EPA Method 6C
Oxide of Nitrogen	ppm	32.29	28.61	0.07	200*/79.99**	0.15**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist


(Miss Preeda Somjai)

Technical Management Team

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment,
B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/390-H1
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 09/10/2024
RECEIVED DATE : 15/10/2024 ANALYTICAL DATE : 16/10/2024
REPORT DATE : 19/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 390-H1 OPERATOR : Mr. Kittipong Thakoengsuk
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas

STACK DESCRIPTION

Height : 34.80 m Gas Velocity : 3.7 m/s
Diameter : 0.89 m Flow rate ^{1/} : 72 Ncu.m/min
Temperature : 226.0 °C Excess Oxygen : 5.2 %
Moisture : 12.0 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	1.65	1.46	0.004	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)
Analyst


(Miss Narisa Poowasanpetch)
Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
390-H2
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
October 9, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	6.28	6.21	39.65	39.62	37.49
2	6.16	6.11	40.08	40.06	37.65
3	5.86	5.82	39.67	39.66	36.56
Average	6.10	6.05	39.80	39.78	37.23

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	6.28	6.21	5.12	5.10	4.83
2	6.16	6.11	5.25	5.22	4.91
3	5.86	5.82	5.40	5.36	4.94
Average	6.10	6.05	5.26	5.23	4.89

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 1
Date: October 9, 2024
Start time: 10:40 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas
Location : 390-H2
Finish time : 11:00 AM
Serial No.: 071023-47
Serial No.: 314
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
10:40 AM	6.43	38.72	5.23
10:41 AM	6.35	38.91	5.04
10:42 AM	6.35	39.09	5.33
10:43 AM	6.30	39.01	5.18
10:44 AM	6.25	39.06	5.43
10:45 AM	6.21	39.21	5.34
10:46 AM	6.13	39.31	5.13
10:47 AM	6.27	39.31	5.28
10:48 AM	6.22	39.39	5.26
10:49 AM	6.27	39.54	5.21
10:50 AM	6.24	39.82	4.93
10:51 AM	6.22	40.19	5.05
10:52 AM	6.33	40.21	4.96
10:53 AM	6.33	40.15	4.96
10:54 AM	6.36	40.17	4.95
10:55 AM	6.40	40.02	4.90
10:56 AM	6.26	39.89	5.02
10:57 AM	6.25	39.91	5.06
10:58 AM	6.18	40.01	5.03
10:59 AM	6.22	40.21	5.17
11:00 AM	6.23	40.42	5.12
Average	6.28	39.65	5.12

Signature 
(Miss Katesarin Vorradetwittaya)
Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2
Date: October 9, 2024
Start time: 11:01 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas
Location : 390-H2
Finish time : 11:21 AM
Serial No.: 071023-47
Serial No.: 314
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:01 AM	6.24	40.38	5.18
11:02 AM	6.23	40.42	5.19
11:03 AM	6.25	40.24	5.06
11:04 AM	6.27	40.09	5.12
11:05 AM	6.28	40.27	5.09
11:06 AM	6.25	40.31	5.13
11:07 AM	6.25	40.23	5.31
11:08 AM	6.24	39.98	5.21
11:09 AM	6.25	39.92	5.24
11:10 AM	6.22	40.12	5.32
11:11 AM	6.22	40.35	5.32
11:12 AM	6.13	40.31	5.31
11:13 AM	6.05	40.20	5.22
11:14 AM	6.01	40.04	5.20
11:15 AM	6.02	40.00	5.21
11:16 AM	6.06	40.03	5.24
11:17 AM	6.13	39.78	5.28
11:18 AM	6.16	39.70	5.43
11:19 AM	6.10	39.74	5.42
11:20 AM	6.00	39.71	5.48
11:21 AM	5.98	39.78	5.36
Average	6.16	40.08	5.25

Signature 

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3
Date: October 9, 2024
Start time: 11:22 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas
Location : 390-H2
Finish time : 11:42 AM
Serial No.: 071023-47
Serial No.: 314
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:22 AM	6.03	39.80	5.38
11:23 AM	5.97	39.58	5.25
11:24 AM	5.95	39.54	5.27
11:25 AM	5.93	39.71	5.28
11:26 AM	5.94	39.85	5.35
11:27 AM	5.97	39.94	5.41
11:28 AM	5.95	39.91	5.41
11:29 AM	5.89	39.85	5.46
11:30 AM	5.92	39.83	5.44
11:31 AM	5.79	39.70	5.47
11:32 AM	5.80	39.61	5.58
11:33 AM	5.84	39.54	5.51
11:34 AM	5.83	39.56	5.47
11:35 AM	5.84	39.62	5.43
11:36 AM	5.81	39.62	5.33
11:37 AM	5.85	39.62	5.29
11:38 AM	5.79	39.56	5.39
11:39 AM	5.78	39.70	5.40
11:40 AM	5.72	39.78	5.43
11:41 AM	5.72	39.51	5.44
11:42 AM	5.72	39.33	5.34
Average	5.86	39.67	5.40

Signature 

(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096MON2H-Stk/390-H2
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 09/10/2024
RECEIVED DATE	: 18/10/2024	ANALYTICAL DATE	: 19-29/10/2024
REPORT DATE	: 30/10/2024	SAMPLE CONDITION	: Normal
STACK LOCATION	: 390-H2	OPERATOR	: Mr. Song Hengchwankul
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Fuel gas

STACK DESCRIPTION

Height	: 30.00	m	Gas Velocity	: 7.9	m/s
Diameter	: 0.94	m	Flow rate ^{1/}	: 161	Ncu.m/min
Temperature	: 259.7	°C	Excess Oxygen	: 6.1	%
Moisture	: 12.4	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		6.1%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	5.23	4.89	0.04	60*/12.26**	0.06**	US. EPA Method 6C
Oxide of Nitrogen	ppm	39.78	37.23	0.20	200*/59.71**	0.21**	US. EPA Method 7E

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Preeda Somjai)

Technical Management Team

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพฯ 10800

239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND

TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096MON2H-Stk/390-H2
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING DATE	: 09/10/2024
RECEIVED DATE	: 15/10/2024	ANALYTICAL DATE	: 16/10/2024
REPORT DATE	: 19/10/2024	SAMPLE CONDITION	: Normal
STACK LOCATION	: 390-H2	OPERATOR	: Mr. Kittipong Thakoengsuk
SOURCE DESCRIPTION	: Combustion	FUEL TYPE	: Fuel gas

STACK DESCRIPTION

Height	: 30.00	m	Gas Velocity	: 7.9	m/s
Diameter	: 0.94	m	Flow rate ^{1/}	: 161	Ncu.m/min
Temperature	: 259.7	°C	Excess Oxygen	: 6.1	%
Moisture	: 12.4	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		6.1%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	2.00	1.87	0.010	-	-	US. EPA Method 25A

(Miss Sudaporn Soonthorn)

Analyst

(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

**The Monitoring Result of Emission Concentration
940-H1**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

October 7, 2024

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.33	5.28	91.46	91.51	81.43
2	5.27	5.21	92.46	92.51	81.96
3	5.30	5.23	92.40	92.44	82.00
Average	5.30	5.24	92.10	92.15	81.80

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.33	5.28	7.87	7.83	6.97
2	5.27	5.21	8.42	8.39	7.43
3	5.30	5.23	8.44	8.41	7.46
Average	5.30	5.24	8.24	8.21	7.29

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Date: October 7, 2024
 Start time: 2:20 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: Teledyne 200 EM
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Run # : 1
 Location : 940-H1
 Finish time : 2:40 PM
 Serial No.: 161212-14
 Serial No.: 435
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
2:20 PM	5.68	87.10	6.64
2:21 PM	5.62	87.33	6.95
2:22 PM	5.35	88.38	7.05
2:23 PM	5.18	89.35	7.32
2:24 PM	5.46	89.39	7.52
2:25 PM	5.32	89.87	7.70
2:26 PM	5.40	90.72	7.68
2:27 PM	5.25	91.84	7.88
2:28 PM	5.15	92.01	8.07
2:29 PM	5.26	91.73	8.15
2:30 PM	5.34	92.18	8.07
2:31 PM	5.24	92.34	8.10
2:32 PM	5.43	92.67	8.32
2:33 PM	5.24	93.46	8.32
2:34 PM	5.23	93.51	8.25
2:35 PM	5.43	93.70	8.35
2:36 PM	5.43	93.66	8.12
2:37 PM	5.19	93.20	8.17
2:38 PM	5.16	92.91	8.17
2:39 PM	5.37	92.75	8.23
2:40 PM	5.20	92.48	8.22
Average	5.33	91.46	7.87

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2
 Date: October 7, 2024
 Start time: 2:41 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: Teledyne 200 EM
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas
 Location : 940-H1
 Finish time : 3:01 PM
 Serial No.: 161212-14
 Serial No.: 435
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
2:41 PM	5.20	92.35	8.46
2:42 PM	5.23	92.96	8.45
2:43 PM	5.41	93.11	8.23
2:44 PM	5.45	93.30	8.46
2:45 PM	5.32	94.33	8.38
2:46 PM	5.18	94.36	8.21
2:47 PM	5.46	93.80	8.26
2:48 PM	5.24	93.41	8.40
2:49 PM	5.03	92.09	8.30
2:50 PM	5.24	91.43	8.41
2:51 PM	5.23	92.41	8.48
2:52 PM	5.30	92.93	8.48
2:53 PM	5.35	92.40	8.50
2:54 PM	5.26	92.18	8.55
2:55 PM	5.28	92.28	8.57
2:56 PM	5.28	92.25	8.57
2:57 PM	5.37	92.00	8.41
2:58 PM	5.14	91.76	8.54
2:59 PM	5.39	91.43	8.31
3:00 PM	5.07	90.62	8.34
3:01 PM	5.32	90.21	8.47
Average	5.27	92.46	8.42

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3
 Date: October 7, 2024
 Start time: 3:02 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: Teledyne 200 EM
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas
 Location : 940-H1
 Finish time : 3:22 PM
 Serial No.: 161212-14
 Serial No.: 435
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:02 PM	5.17	90.80	8.57
3:03 PM	5.29	91.44	8.48
3:04 PM	5.25	91.56	8.63
3:05 PM	5.35	91.96	8.67
3:06 PM	5.40	92.09	8.50
3:07 PM	5.34	92.46	8.55
3:08 PM	5.29	92.63	8.40
3:09 PM	5.31	92.00	8.42
3:10 PM	5.42	92.12	8.50
3:11 PM	5.16	92.71	8.49
3:12 PM	5.20	92.03	8.34
3:13 PM	5.38	91.92	8.40
3:14 PM	5.43	92.78	8.29
3:15 PM	5.27	92.99	8.34
3:16 PM	5.28	93.30	8.36
3:17 PM	5.26	93.55	8.34
3:18 PM	5.41	93.30	8.34
3:19 PM	5.20	92.78	8.43
3:20 PM	5.39	92.44	8.49
3:21 PM	5.18	92.88	8.41
3:22 PM	5.22	92.60	8.35
Average	5.30	92.40	8.44

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/940-H1 (Boiler)
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 07/10/2024
RECEIVED DATE : 18/10/2024 ANALYTICAL DATE : 19-29/10/2024
REPORT DATE : 30/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 940-H1 (Boiler) OPERATOR : Mr. Song Hengchwankul
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas
STACK DESCRIPTION

Height : 30.00 m Gas Velocity : 5.7 m/s
Diameter : 1.35 m Flow rate ^{1/} : 142 Ncu.m/min
Temperature : 160.8 °C Excess Oxygen : 5.2 %
Moisture : 12.8 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	8.21	7.29	0.05	60*/10.39**	0.15**	US. EPA Method 6C
Oxide of Nitrogen	ppm	92.15	81.80	0.41	200*/102.19**	1.06**	US. EPA Method 7E

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

Preeda S.

(Miss Preeda Somjai)

Technical Management Team

Remarks : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment,
B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 224096MON2H-Stk/940-H1 (Boiler)
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 07/10/2024
RECEIVED DATE : 10/10/2024 ANALYTICAL DATE : 11/10/2024
REPORT DATE : 18/10/2024 SAMPLE CONDITION : Normal
STACK LOCATION : 940-H1 (Boiler) OPERATOR : Mr. Kittipong Thakoengsuk
SOURCE DESCRIPTION : Combustion FUEL TYPE : Fuel gas
STACK DESCRIPTION

Height : 30.00 m Gas Velocity : 5.7 m/s
Diameter : 1.35 m Flow rate ^{1/} : 142 Ncu.m/min
Temperature : 160.8 °C Excess Oxygen : 5.2 %
Moisture : 12.8 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	1.35	1.20	0.006	-	-	US. EPA Method 25A

Sudaporn S.

(Miss Sudaporn Soonthorn)

Analyst

Naris Poowasanpetch

(Miss Narisa Poowasanpetch)

Technical Management Team

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

ภาคผนวก ง.2

ใบรับรองผลการตรวจวัดคุณภาพอากาศในบรรยากาศ



Meteorological Monitoring Results : Wind Rose

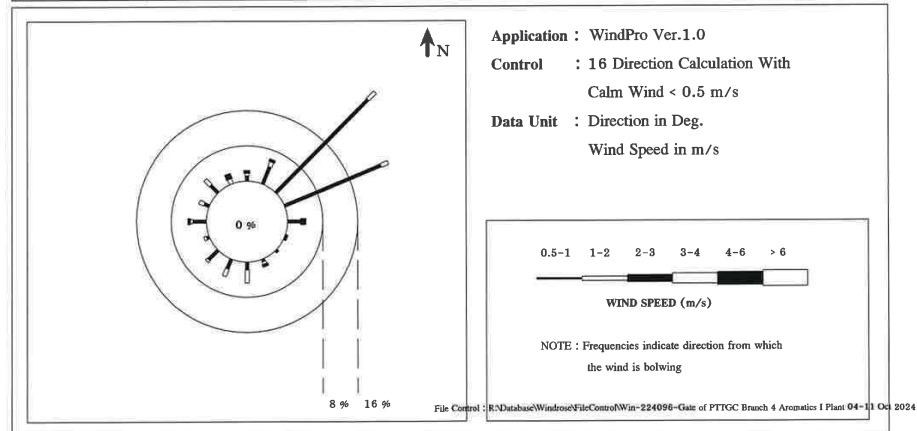
MTR-PTTGC4

Location : Gate of PTTGC Branch 4 Aromatics I Plant Monitor period : 04-11 Oct 2024


Wind Speed Model : Novalynx NL-32 Serial No : 1203

Wind Direction Model : Novalynx NL-32 Serial No : 1203

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0119	0.0060	0.0060	0.0000	0.0000	0.0000	0.0238
NNE	0.0417	0.0119	0.0060	0.0000	0.0000	0.0000	0.0595
NE	0.2976	0.0238	0.0000	0.0000	0.0000	0.0000	0.3214
ENE	0.2381	0.0179	0.0000	0.0000	0.0000	0.0000	0.2560
E	0.0298	0.0000	0.0119	0.0000	0.0000	0.0000	0.0417
ESE	0.0000	0.0000	0.0060	0.0000	0.0000	0.0000	0.0060
SE	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
SSE	0.0060	0.0060	0.0060	0.0000	0.0000	0.0000	0.0179
S	0.0179	0.0298	0.0000	0.0000	0.0000	0.0000	0.0476
SSW	0.0238	0.0179	0.0000	0.0000	0.0000	0.0000	0.0417
SW	0.0298	0.0060	0.0000	0.0000	0.0000	0.0000	0.0357
WSW	0.0060	0.0060	0.0000	0.0000	0.0000	0.0000	0.0119
W	0.0298	0.0060	0.0060	0.0000	0.0000	0.0000	0.0417
WNW	0.0119	0.0119	0.0000	0.0000	0.0000	0.0000	0.0238
NW	0.0238	0.0179	0.0000	0.0000	0.0000	0.0000	0.0417
NNW	0.0000	0.0119	0.0119	0.0000	0.0000	0.0000	0.0238
CALM	0.0000						




(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose

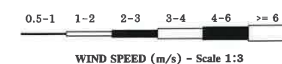
MTR-PTTGC4

Location : Gate of PTTGC Branch 4 Aromatics I Plant Monitor period : 04-11 Oct 2024

Wind Speed Model : Novalynx NL-32 Serial No : 1203


Wind Direction Model : Novalynx NL-32 Serial No : 1203

Time	04-05 Oct 2024		05-06 Oct 2024		06-07 Oct 2024		07-08 Oct 2024	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
08:00 - 09:00	0.9	SSW	1.0	NNE	0.6	NE	0.5	ENE
09:00 - 10:00	1.4	SSW	0.6	NE	0.5	NE	0.7	E
10:00 - 11:00	0.8	SSW	0.5	ENE	0.5	E	2.4	E
11:00 - 12:00	0.7	SW	1.2	SSW	0.6	SSE	1.0	S
12:00 - 13:00	1.3	WNW	1.2	SSW	1.4	S	0.7	SSW
13:00 - 14:00	0.6	WNW	0.8	SW	0.7	SW	0.7	SW
14:00 - 15:00	0.7	S	0.8	WSW	0.7	S	0.8	W
15:00 - 16:00	0.6	ENE	1.0	SSE	1.7	ENE	1.0	N
16:00 - 17:00	0.6	NE	2.1	W	1.0	NW	1.1	NW
17:00 - 18:00	0.6	ENE	1.7	NW	0.6	NW	1.9	N
18:00 - 19:00	0.7	ENE	1.6	W	2.2	NNE	0.5	ENE
19:00 - 20:00	0.6	ENE	1.8	S	0.7	ENE	0.6	ENE
20:00 - 21:00	0.5	ENE	1.0	WSW	0.6	ENE	0.5	NE
21:00 - 22:00	0.5	NE	2.0	SSE	0.5	ENE	0.5	ENE
22:00 - 23:00	0.6	ENE	0.5	SE	0.5	ENE	0.5	ENE
23:00 - 24:00	0.5	NE	1.4	ENE	0.5	E	0.5	ENE
00:00 - 01:00	0.6	ENE	0.6	NE	0.6	ENE	0.7	ENE
01:00 - 02:00	0.7	NE	0.7	ENE	0.6	ENE	0.5	NE
02:00 - 03:00	0.7	ENE	0.5	E	0.6	NNE	0.7	NE
03:00 - 04:00	0.6	NE	0.6	NE	0.6	ENE	0.8	NE
04:00 - 05:00	0.6	NE	0.7	NE	0.6	NE	0.8	NE
05:00 - 06:00	1.0	NNE	0.5	ENE	0.5	NE	1.2	NE
06:00 - 07:00	1.1	NNE	0.7	NE	0.7	NE	0.9	NE
07:00 - 08:00	0.6	NNE	0.6	NNE	0.7	NE	0.9	NE



File Control : R:\Database\Windrose\FileControl\Win-224096-Gate of PTTGC Branch 4 Aromatics I Plant 04-11 Oct 2024


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-PTTGC4

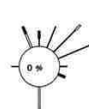
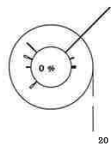
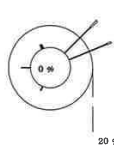
Location : Gate of PTTGC Branch 4 Aromatics I Plant Monitor period : 04-11 Oct 2024

Wind Speed Model : Novalynx NL-32 Serial No : 1203

Wind Direction Model : Novalynx NL-32 Serial No : 1203

Time	08-09 Oct 2024		09-10 Oct 2024		10-11 Oct 2024		
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	
08:00 - 09:00	0.6	NE	2.5	E	0.7	E	
09:00 - 10:00	0.7	NE	1.4	WNW	2.3	ESE	
10:00 - 11:00	0.7	NE	0.6	WNW	1.0	S	
11:00 - 12:00	0.6	NE	0.6	NW	1.9	S	
12:00 - 13:00	0.7	NE	0.5	NW	1.8	S	
13:00 - 14:00	0.7	NE	0.9	NE	1.4	NNW	
14:00 - 15:00	0.7	W	1.9	SW	0.6	W	
15:00 - 16:00	0.8	SSW	0.5	SW	1.7	NE	
16:00 - 17:00	0.6	W	0.6	W	0.7	NE	
17:00 - 18:00	2.5	NNW	0.6	NW	1.1	NNW	
18:00 - 19:00	1.8	ENE	0.8	NE	2.2	N	
19:00 - 20:00	0.6	ENE	0.5	NE	0.5	N	
20:00 - 21:00	0.5	ENE	0.8	NE	0.6	ENE	
21:00 - 22:00	0.5	ENE	0.8	NE	0.6	ENE	
22:00 - 23:00	0.7	ENE	0.5	NE	0.5	NE	
23:00 - 24:00	0.7	ENE	0.7	NE	0.7	NNE	
00:00 - 01:00	0.5	ENE	0.5	NE	0.6	NE	
01:00 - 02:00	0.6	ENE	0.7	NE	0.6	NNE	
02:00 - 03:00	0.6	ENE	0.9	NE	0.5	NE	
03:00 - 04:00	0.7	NE	0.6	NE	0.5	ENE	
04:00 - 05:00	1.4	NE	0.7	NE	0.6	ENE	
05:00 - 06:00	1.1	NE	0.6	NE	0.7	NNE	
06:00 - 07:00	0.7	NE	0.7	NE	0.6	ENE	
07:00 - 08:00	0.7	ENE	0.7	ENE	2.3	NNW	

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-224096-Gate of PTTGC Branch 4 Aromatics I Plant 04-11 Oct 2024

(Miss Katesarin Vorradetwittaya)
Environmental Scientist(Miss Preeda Somjai)
Technical Management Team

Ambient Air Monitoring Results : Nitrogen dioxide MTR-PTTGC4

Location : Gate of PTTGC Branch 4 Aromatics I Plant

Monitor Period : 04-11 Oct 2024

Analyzer Model : API 200A

Station No : SCT-16

Serial No : 2384

Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Teledyne 700E

Serial No : 587

Calibration Gas Cylinder I.D.: EB0102326

Certified Date : 05 Jan 2024

Cal Concentration (ppb) : 0,100,200,400

Expire Date : 04 Jan 2025

Time	NO2 Concentration (ppb)						
	04-05 Oct 2024	05-06 Oct 2024	06-07 Oct 2024	07-08 Oct 2024	08-09 Oct 2024	09-10 Oct 2024	10-11 Oct 2024
08:00 - 09:00	9.6	4.1	7.5	3.9	9.6	9.6	5.1
09:00 - 10:00	8.0	4.7	3.9	5.0	9.0	3.6	3.6
10:00 - 11:00	11.3	4.6	7.3	9.4	9.9	6.5	7.6
11:00 - 12:00	5.9	5.5	6.3	9.1	6.5	3.0	2.9
12:00 - 13:00	5.4	4.7	12.1	4.7	11.0	9.7	16.4
13:00 - 14:00	10.4	4.0	4.1	7.4	12.1	8.9	13.8
14:00 - 15:00	17.1	6.3	10.0	20.1	10.1	11.7	19.8
15:00 - 16:00	4.7	7.0	12.2	23.6	13.7	15.6	17.1
16:00 - 17:00	17.3	10.1	11.7	15.6	8.8	16.4	13.0
17:00 - 18:00	16.5	8.2	8.2	17.3	18.0	15.9	15.5
18:00 - 19:00	22.4	11.6	13.9	25.1	15.0	14.5	18.6
19:00 - 20:00	9.9	12.3	18.0	24.1	8.6	12.3	21.3
20:00 - 21:00	17.7	20.3	11.7	23.8	7.6	7.6	13.9
21:00 - 22:00	11.2	18.9	4.1	13.2	10.5	6.5	9.2
22:00 - 23:00	10.6	8.2	7.2	15.6	8.8	5.1	7.1
23:00 - 00:00	9.7	12.2	6.3	14.6	10.6	4.2	9.5
00:00 - 01:00	6.5	4.7	4.9	4.8	4.1	6.7	5.5
01:00 - 02:00	4.7	4.0	7.3	9.2	4.9	4.9	4.0
02:00 - 03:00	7.6	4.8	12.1	7.5	6.8	2.9	4.8
03:00 - 04:00	7.8	6.7	6.7	7.0	3.0	5.6	4.9
04:00 - 05:00	5.2	7.6	5.4	4.6	4.3	5.4	9.1
05:00 - 06:00	4.4	9.0	7.0	8.8	3.3	9.6	11.3
06:00 - 07:00	5.4	11.9	7.4	19.5	4.2	10.2	9.0
07:00 - 08:00	5.3	5.0	11.3	7.4	12.0	6.8	7.6

Average-24Hr*	9.8	8.2	8.6	12.6	8.9	8.5	10.4
Max-1Hr	22.4	20.3	18.0	25.1	18.0	16.4	21.3
Min-1Hr	4.4	4.0	3.9	3.9	3.0	2.9	2.9

Standard-1Hr	170 ppb(320 ug/cu.m)						
Standard-24Hr	-						

Remark : * Average time between 08:00-08:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-PTTGC4


Location : Chaklukya Community	Monitor Period : 04-11 Oct 2024
Analyzer Model : API 200A	Station No : SCT-18
Serial No : 1523	Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Teledyne 700E	Serial No : 587
Calibration Gas Cylinder I.D.: EB0102326	
Certified Date : 05 Jan 2024	Cal Concentration (ppb) : 0,100,200,400
Expire Date : 04 Jan 2025	

Time	NO2 Concentration (ppb)						
	04-05 Oct 2024	05-06 Oct 2024	06-07 Oct 2024	07-08 Oct 2024	08-09 Oct 2024	09-10 Oct 2024	10-11 Oct 2024
09:00 - 10:00	8.9	4.4	3.4	8.5	9.3	2.8	6.7
10:00 - 11:00	5.5	3.2	6.0	11.0	2.2	2.4	4.0
11:00 - 12:00	5.3	4.7	7.8	2.4	7.1	6.2	10.9
12:00 - 13:00	9.3	3.8	6.2	10.4	7.6	9.7	19.3
13:00 - 14:00	18.1	4.7	8.0	16.0	6.8	9.6	16.4
14:00 - 15:00	6.8	3.4	10.7	21.6	11.2	17.9	13.4
15:00 - 16:00	14.7	7.9	11.1	14.3	8.5	14.7	16.3
16:00 - 17:00	17.7	10.7	10.3	20.6	20.0	17.6	19.3
17:00 - 18:00	12.8	6.7	21.0	25.3	18.5	19.7	16.5
18:00 - 19:00	11.8	6.6	12.4	25.5	9.6	19.1	14.9
19:00 - 20:00	18.3	11.7	9.8	25.6	10.2	7.7	19.8
20:00 - 21:00	10.8	16.1	3.5	17.1	8.2	2.5	5.7
21:00 - 22:00	8.4	8.6	2.2	13.5	10.3	2.4	8.6
22:00 - 23:00	10.3	8.5	4.8	11.0	5.7	2.8	5.0
23:00 - 00:00	5.4	4.3	3.4	1.9	2.8	4.1	1.1
00:00 - 01:00	5.7	4.9	2.3	8.6	4.8	5.0	3.6
01:00 - 02:00	3.6	4.1	11.0	6.0	4.8	2.9	3.7
02:00 - 03:00	2.9	5.1	3.7	4.9	3.0	2.3	1.9
03:00 - 04:00	3.6	4.8	5.8	5.1	5.3	4.8	9.3
04:00 - 05:00	5.8	8.3	5.5	10.2	2.2	9.6	5.1
05:00 - 06:00	5.8	7.2	10.4	11.2	2.9	6.2	7.0
06:00 - 07:00	3.8	4.6	6.8	7.2	6.8	2.8	5.7
07:00 - 08:00	6.2	3.4	5.3	6.5	6.8	4.7	3.3
08:00 - 09:00	6.1	3.9	3.7	10.6	2.5	2.6	4.0
Average-24Hr*	8.7	6.8	7.3	12.3	7.4	7.5	9.2
Max-1Hr	18.3	16.1	21.0	25.6	20.0	19.7	19.8
Min-1Hr	2.9	3.2	2.2	1.9	2.2	2.3	1.1
Standard-1Hr	170 ppb(320 ug/cu.m)						
Standard-24Hr	-						

Remark : * Average time between 09:00-09:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-PTTGC4


Location : Gate of PTTGC Branch 4 Aromatics I Plant	Monitor Period : 04-11 Oct 2024
Analyzer Model : API 100A	Station No : SCT-16
Serial No : 342	Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Teledyne 700E	Serial No : 587
Calibration Gas Cylinder I.D.: EB0102326	
Certified Date : 05 Jan 2024	Cal Concentration (ppb) : 0,100,200,400
Expire Date : 04 Jan 2025	

Time	SO2 Concentration (ppb)						
	04-05 Oct 2024	05-06 Oct 2024	06-07 Oct 2024	07-08 Oct 2024	08-09 Oct 2024	09-10 Oct 2024	10-11 Oct 2024
08:00 - 09:00	8.2	7.6	6.0	8.5	6.8	8.8	8.0
09:00 - 10:00	8.4	5.9	5.4	8.0	8.8	5.5	6.5
10:00 - 11:00	6.4	6.0	5.4	8.1	6.7	8.0	6.4
11:00 - 12:00	5.4	8.2	6.4	5.3	7.0	6.3	8.8
12:00 - 13:00	6.3	8.3	6.5	5.9	8.2	5.2	6.8
13:00 - 14:00	7.7	8.2	7.8	11.3	7.7	8.4	7.2
14:00 - 15:00	7.9	8.1	6.8	9.1	5.2	6.6	7.1
15:00 - 16:00	8.9	6.2	7.0	9.1	5.6	16.6	6.9
16:00 - 17:00	5.8	6.7	5.5	6.1	7.6	5.9	8.0
17:00 - 18:00	8.6	8.9	9.1	8.9	7.7	7.9	7.5
18:00 - 19:00	8.0	8.4	6.9	5.7	7.5	6.6	6.8
19:00 - 20:00	5.3	6.8	5.6	7.3	7.9	8.7	6.0
20:00 - 21:00	5.5	5.9	7.7	8.2	7.5	5.4	7.7
21:00 - 22:00	7.6	7.4	7.7	6.1	6.5	5.9	5.3
22:00 - 23:00	5.1	6.2	5.1	7.3	6.9	6.8	7.8
23:00 - 00:00	8.6	9.0	7.6	7.6	7.3	9.0	7.5
00:00 - 01:00	7.5	6.9	7.8	8.9	6.3	8.8	7.6
01:00 - 02:00	8.8	7.7	5.5	6.2	7.4	5.4	6.4
02:00 - 03:00	5.5	6.3	8.7	7.1	6.9	5.6	7.0
03:00 - 04:00	8.8	7.4	5.3	8.5	6.6	6.9	5.7
04:00 - 05:00	5.6	6.4	6.1	5.8	7.7	5.2	9.2
05:00 - 06:00	5.8	8.2	8.3	9.0	7.7	5.3	5.5
06:00 - 07:00	5.2	9.0	5.4	8.6	9.2	7.6	6.3
07:00 - 08:00	8.6	6.4	7.7	7.4	6.3	6.9	5.5
Average-24Hr*	7.1	7.3	6.7	7.7	7.2	7.2	7.0
Max-1Hr	8.9	9.0	9.1	11.3	9.2	16.6	9.2
Min-1Hr	5.1	5.9	5.1	5.3	5.2	5.2	5.3
Standard-1Hr	300 ppb(780 ug/cu.m)						
Standard-24Hr	120 ppb(300 ug/cu.m)						

Remark : * Average time between 08:00-08:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-PTTGC4

Location : Chaklukya Community Monitor Period : 04-11 Oct 2024
Analyzer Model : Teledyne T100 Station No : SCT-18
Serial No : 119 Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0102326
Certified Date : 05 Jan 2024 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 04 Jan 2025

Time	SO2 Concentration (ppb)						
	04-05 Oct 2024	05-06 Oct 2024	06-07 Oct 2024	07-08 Oct 2024	08-09 Oct 2024	09-10 Oct 2024	10-11 Oct 2024
09:00 - 10:00	5.6	7.0	2.9	3.8	5.0	5.0	6.4
10:00 - 11:00	4.3	3.6	5.8	4.5	3.7	6.5	3.5
11:00 - 12:00	6.3	5.9	3.0	4.4	3.1	3.9	2.8
12:00 - 13:00	4.8	6.0	3.3	4.5	4.3	4.6	5.7
13:00 - 14:00	3.3	3.3	6.4	5.3	4.5	6.7	4.1
14:00 - 15:00	6.4	4.7	6.2	8.7	5.4	6.3	5.0
15:00 - 16:00	6.9	5.5	3.2	6.6	4.3	4.7	4.2
16:00 - 17:00	3.2	3.5	3.8	5.9	6.7	13.4	3.4
17:00 - 18:00	6.5	5.0	5.7	3.1	4.0	4.2	3.4
18:00 - 19:00	5.9	3.8	5.5	3.8	6.8	3.7	6.5
19:00 - 20:00	4.1	5.5	6.2	3.7	5.4	3.3	4.3
20:00 - 21:00	5.0	5.4	6.6	5.3	3.7	6.0	5.4
21:00 - 22:00	5.1	4.8	5.6	6.4	6.5	5.3	6.0
22:00 - 23:00	3.1	6.9	3.7	3.7	4.7	3.1	4.3
23:00 - 00:00	3.5	3.1	5.1	5.3	2.9	2.8	5.0
00:00 - 01:00	6.0	4.2	4.3	3.7	3.5	6.1	5.4
01:00 - 02:00	5.1	5.9	5.6	5.7	5.1	3.2	3.2
02:00 - 03:00	3.0	4.1	3.2	5.9	4.5	4.3	5.4
03:00 - 04:00	3.7	4.6	5.2	2.8	5.6	4.6	6.2
04:00 - 05:00	5.6	3.3	3.1	3.0	3.5	4.9	5.4
05:00 - 06:00	6.8	5.6	3.4	4.3	5.4	6.2	4.4
06:00 - 07:00	5.7	6.9	2.9	5.2	6.8	6.4	4.9
07:00 - 08:00	4.7	6.8	5.9	3.1	3.0	6.5	3.3
08:00 - 09:00	5.7	5.3	5.9	3.4	4.5	6.0	6.2
Average-24Hr*	5.0	5.0	4.7	4.7	4.7	5.3	4.8
Max-1Hr	6.9	7.0	6.6	8.7	6.8	13.4	6.5
Min-1Hr	3.0	3.1	2.9	2.8	2.9	2.8	2.8
Standard-1Hr	300 ppb(780 ug/cu.m)						
Standard-24Hr	120 ppb(300 ug/cu.m)						

Remark : * Average time between 09:00-09:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



บริษัท ซีคอต จำกัด SECOT CO., LTD.

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239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND
TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1460/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 22/07/2024
SAMPLING DATE : 15-16/07/2024 SAMPLE CONDITION : Normal
SAMPLING TIME : 10:00-09:55 FILE CODE : 224096_TO-15_July
RECEIVED DATE : 17/07/2024
REPORT DATE : 24/07/2024

Compound	SAMPLING LOCATION				STANDARD ($\mu\text{g}/\text{m}^3$)
	Non Detection		Branch 4 : North		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	0.59	1.88	-
Cyclohexane	0.02	0.07	0.91	3.13	-
Toluene	0.02	0.08	5.59	21.06	-
m,p-xylene	0.04	0.17	0.54	2.35	-
o-xylene	0.02	0.09	0.19	0.83	-
Total xylene	0.06	0.26	0.73	3.18	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

(Miss Siriwan Chimsa-nga)

Analyst

(Mrs. Araya Tipparuk)

Technical Management Team

- Remark : 1. Reported analysis refers to submitted sample only.
2. This report shall not be reproduce, except in full, without official approval.
3. - Not available.



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TEL. (662) 959-3600 FAX (662) 959-3535 Website: secot.co.th E-mail: envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1460/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 22/07/2024
SAMPLING DATE	: 15-16/07/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 09:40-09:45	FILE CODE	: 224096_TO-15_July
RECEIVED DATE	: 17/07/2024		
REPORT DATE	: 24/07/2024		

Compound	SAMPLING LOCATION				STANDARD ($\mu\text{g}/\text{m}^3$)
	Non Detection		Branch 4 : South		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	0.24	0.77	-
Cyclohexane	0.02	0.07	0.17	0.59	-
Toluene	0.02	0.08	0.58	2.18	-
m,p-xylene	0.04	0.17	0.10	0.43	-
o-xylene	0.02	0.09	0.04	0.17	-
Total xylene	0.06	0.26	0.14	0.60	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Analyst

NT

(Mrs. Araya Tipparuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1460/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 22/07/2024
SAMPLING DATE	: 15-16/07/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 10:30-10:30	FILE CODE	: 224096_TO-15_July
RECEIVED DATE	: 17/07/2024		
REPORT DATE	: 24/07/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	6.80	21.72	-
Cyclohexane	0.02	0.07	1.25	4.30	-
Toluene	0.02	0.08	2.18	8.21	-
m,p-xylene	0.04	0.17	0.35	1.52	-
o-xylene	0.02	0.09	0.10	0.43	-
Total xylene	0.06	0.26	0.45	1.95	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Analyst

NT

(Mrs. Araya Tipparuk)

Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1460/67
(Branch 4 : Aromatics I Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 22/07/2024
SAMPLING DATE : 15-16/07/2024 SAMPLE CONDITION : Normal
SAMPLING TIME : 10:15-10:10 FILE CODE : 224096_TO-15_July
RECEIVED DATE : 17/07/2024
REPORT DATE : 24/07/2024

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 8 : South		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	0.70	2.24	-
Cyclohexane	0.02	0.07	0.73	2.51	-
Toluene	0.02	0.08	2.07	7.80	-
m,p-xylene	0.04	0.17	1.03	4.47	-
o-xylene	0.02	0.09	0.27	1.17	-
Total xylene	0.06	0.26	1.30	5.64	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Sirwan Chimsa-nga
(Miss Sirwan Chimsa-nga)

Analyst

M.T.
(Mrs. Araya Tipparak)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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R:\Database\Windrose\FileControl\Win-224096-North of Branch 4 15-16 Jul 2024



Meteorological Monitoring Results : Wind Rose
MTR-PTTGC 4

Location : North of Branch 4

Monitor period : 15-16 Jul 2024

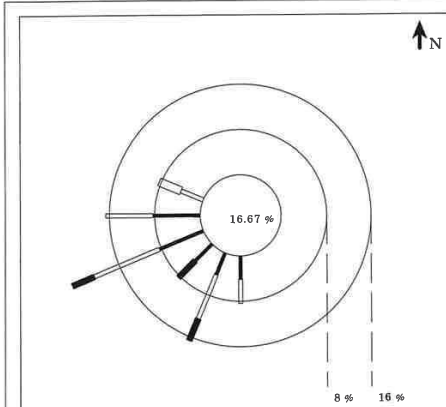
Wind Speed Model : Novalynx WS-25

Serial No : A5092

Wind Direction Model : Novalynx WS-25

Serial No : A5092

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
SSW	0.0417	0.0833	0.0417	0.0000	0.0000	0.0000	0.1667
SW	0.0417	0.0000	0.0417	0.0000	0.0000	0.0000	0.0833
WSW	0.0833	0.1250	0.0417	0.0000	0.0000	0.0000	0.2500
W	0.0833	0.0833	0.0000	0.0000	0.0000	0.0000	0.1667
WNW	0.0000	0.0417	0.0000	0.0417	0.0000	0.0000	0.0833
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.1667						



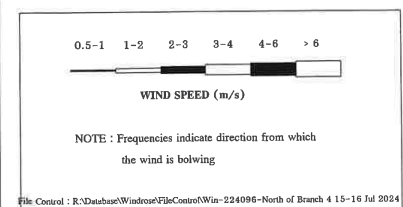
Application : WindPro Ver.1.0

Control : 16 Direction Calculation With

Calm Wind < 0.5 m/s

Data Unit : Direction in Deg.

Wind Speed in m/s



NOTE : Frequencies indicate direction from which the wind is blowing

File Control : R:\Database\Windrose\FileControl\Win-224096-North of Branch 4 15-16 Jul 2024

Katesarin Vorradetwittaya
(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

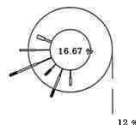


Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 15-16 Jul 2024
 Wind Speed Model : Novalynx WS-25 Serial No : A5092
 Wind Direction Model : Novalynx WS-25 Serial No : A5092

Time	15-16 Jul 2024	
	WS(m/s)	WD
10:00 - 11:00	1.8	SSW
11:00 - 12:00	2.1	SSW
12:00 - 13:00	2.4	WSW
13:00 - 14:00	3.3	WNW
14:00 - 15:00	0.2	NW
15:00 - 16:00	1.0	W
16:00 - 17:00	1.7	W
17:00 - 18:00	0.3	SW
18:00 - 19:00	0.6	W
19:00 - 20:00	0.8	WSW
20:00 - 21:00	1.0	WSW
21:00 - 22:00	1.6	WSW
22:00 - 23:00	1.0	S
23:00 - 24:00	0.4	SW
00:00 - 01:00	0.6	S
01:00 - 02:00	0.3	SSW
02:00 - 03:00	0.5	SW
03:00 - 04:00	1.6	WSW
04:00 - 05:00	0.6	SSW
05:00 - 06:00	0.9	W
06:00 - 07:00	1.4	WNW
07:00 - 08:00	0.8	WSW
08:00 - 09:00	1.7	SSW
09:00 - 10:00	2.1	SW

Wind Rose



0.5-1 1-2 2-3 3-4 4-6 >= 6

WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-224096-North of Branch 4 15-16 Jul 2024

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1655/67
 (Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
 SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 19/08/2024
 SAMPLING DATE : 13-14/08/2024 SAMPLE CONDITION : Normal
 RECEIVED DATE : 15/08/2024 FILE CODE : 224096_TO-15_August
 REPORT DATE : 23/08/2024

Compound	SAMPLING LOCATION				STANDARD ($\mu\text{g}/\text{m}^3$)
	Non Detection		Branch 4 : North		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	0.42	1.34	-
Cyclohexane	0.02	0.07	27.56	94.91	-
Toluene	0.02	0.08	1.47	5.54	-
m,p-xylene	0.04	0.17	0.37	1.61	-
o-xylene	0.02	0.09	0.10	0.43	-
Total xylene	0.06	0.26	0.47	2.04	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Siriwan Chimsa-nga
(Miss Siriwan Chimsa-nga)

Analyst

Mr. Araya Tipparak
(Mrs. Araya Tipparak)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1655/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 19/08/2024
SAMPLING DATE : 13-14/08/2024 SAMPLE CONDITION : Normal
SAMPLING TIME : 09:37-10:11 FILE CODE : 224096_TO-15_August
RECEIVED DATE : 15/08/2024
REPORT DATE : 23/08/2024

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 4 : South		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	0.18	0.57	-
Cyclohexane	0.02	0.07	0.09	0.31	-
Toluene	0.02	0.08	0.48	1.81	-
m,p-xylene	0.04	0.17	0.25	1.09	-
o-xylene	0.02	0.09	0.06	0.26	-
Total xylene	0.06	0.26	0.31	1.35	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Siriwan Chimsa-nga
(Miss Siriwan Chimsa-nga)

Analyst

Araya Tipparuk
(Mrs. Araya Tipparuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1655/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 19/08/2024
SAMPLING DATE : 13-14/08/2024 SAMPLE CONDITION : Normal
SAMPLING TIME : 10:35-10:42 FILE CODE : 224096_TO-15_August
RECEIVED DATE : 15/08/2024
REPORT DATE : 23/08/2024

Compound	SAMPLING LOCATION				STANDARD (µg/m ³)
	Non Detection		Branch 8 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	2.90	9.26	-
Cyclohexane	0.02	0.07	5.94	20.46	-
Toluene	0.02	0.08	1.68	6.33	-
m,p-xylene	0.04	0.17	5.60	24.32	-
o-xylene	0.02	0.09	0.19	0.83	-
Total xylene	0.06	0.26	5.79	25.15	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Siriwan Chimsa-nga
(Miss Siriwan Chimsa-nga)

Analyst

Araya Tipparuk
(Mrs. Araya Tipparuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1655/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 19/08/2024
SAMPLING DATE : 13-14/08/2024 SAMPLE CONDITION : Normal
SAMPLING TIME : 10:25-10:55 FILE CODE : 224096_TO-15_August
RECEIVED DATE : 15/08/2024
REPORT DATE : 23/08/2024

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	0.29	0.93	-
Cyclohexane	0.02	0.07	8.16	28.10	-
Toluene	0.02	0.08	0.97	3.65	-
m,p-xylene	0.04	0.17	0.19	0.83	-
o-xylene	0.02	0.09	0.04	0.17	-
Total xylene	0.06	0.26	0.23	1.00	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Sirivan Chimsa-nga
(Miss Sirivan Chimsa-nga)

Analyst

Araya Tipparuk
(Mrs. Araya Tipparuk)

Technical Management Team

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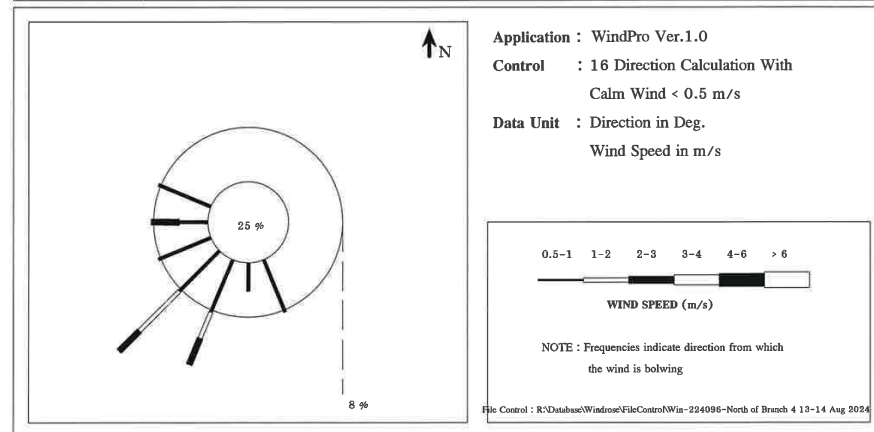
R:\Database\Window\FileControl\Win-224096-North of Branch 4 13-14 Aug 2024



Meteorological Monitoring Results : Wind Rose
MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 13-14 Aug 2024
Wind Speed Model : Novalynx WS-25 Serial No : A5091
Wind Direction Model : Novalynx WS-25 Serial No : A5091

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.0833
S	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
SSW	0.0833	0.0417	0.0417	0.0000	0.0000	0.0000	0.1667
SW	0.0833	0.0833	0.0417	0.0000	0.0000	0.0000	0.2083
WSW	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.0833
W	0.0417	0.0000	0.0417	0.0000	0.0000	0.0000	0.0833
WNW	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.0833
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.2500						



Katesarin Vorradetwittaya
(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 13-14 Aug 2024
Wind Speed Model : Novalynx WS-25 Serial No : A5091
Wind Direction Model : Novalynx WS-25 Serial No : A5091

Time	13-14 Aug 2024	
	WS(m/s)	WD
09:00 - 10:00	2.0	SW
10:00 - 11:00	0.7	WNW
11:00 - 12:00	2.3	W
12:00 - 13:00	1.8	SW
13:00 - 14:00	1.2	SSW
14:00 - 15:00	1.4	SW
15:00 - 16:00	0.9	WSW
16:00 - 17:00	0.7	S
17:00 - 18:00	0.8	WSW
18:00 - 19:00	0.9	SW
19:00 - 20:00	0.4	WSW
20:00 - 21:00	0.8	W
21:00 - 22:00	0.5	WNW
22:00 - 23:00	0.4	SSW
23:00 - 24:00	0.9	SSW
00:00 - 01:00	0.4	SW
01:00 - 02:00	0.8	SSE
02:00 - 03:00	0.2	SW
03:00 - 04:00	0.6	SSE
04:00 - 05:00	0.2	S
05:00 - 06:00	2.5	SSW
06:00 - 07:00	0.4	S
07:00 - 08:00	0.9	SSW
08:00 - 09:00	0.8	SW

Wind Rose



0.5-1 1-2 2-3 3-4 4-6 >= 6
WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-224096-North of Branch 4 13-14 Aug 2024

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(Miss Preeda Somjai)
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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1813/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 11/09/2024
SAMPLING DATE : 02-03/09/2024 SAMPLE CONDITION : Normal
SAMPLING TIME : 10:15-11:05 FILE CODE : 224096_TO-15_September
RECEIVED DATE : 04/09/2024
REPORT DATE : 16/09/2024

Compound	SAMPLING LOCATION				STANDARD (µg/m ³)
	Non Detection		Branch 4 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	0.33	1.05	-
Cyclohexane	0.02	0.07	8.27	28.48	-
Toluene	0.02	0.08	1.30	4.90	-
m,p-xylene	0.04	0.17	0.39	1.69	-
o-xylene	0.02	0.09	0.12	0.52	-
Total xylene	0.06	0.26	0.51	2.21	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

(Miss Siriwan Chimsa-nga)

Analyst

(Mrs. Araya Tipparak)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1813/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 11/09/2024
SAMPLING DATE	: 02-03/09/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 09:50-10:50	FILE CODE	: 224096_TO-15_September
RECEIVED DATE	: 04/09/2024		
REPORT DATE	: 16/09/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 4 : South		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	0.53	1.69	-
Cyclohexane	0.02	0.07	1.02	3.51	-
Toluene	0.02	0.08	1.99	7.50	-
m,p-xylene	0.04	0.17	2.27	9.86	-
o-xylene	0.02	0.09	0.10	0.43	-
Total xylene	0.06	0.26	2.37	10.29	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15.1999

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Analyst

NT

(Mrs. Araya Tippasuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1813/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 11/09/2024
SAMPLING DATE	: 02-03/09/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 10:45-11:45	FILE CODE	: 224096_TO-15_September
RECEIVED DATE	: 04/09/2024		
REPORT DATE	: 16/09/2024		

Compound	SAMPLING LOCATION				STANDARD (µg/m ³)
	Non Detection		Branch 8 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	19.07	60.91	-
Cyclohexane	0.02	0.07	7.24	24.93	-
Toluene	0.02	0.08	3.65	13.75	-
m,p-xylene	0.04	0.17	4.08	17.72	-
o-xylene	0.02	0.09	0.21	0.91	-
Total xylene	0.06	0.26	4.29	18.63	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15.1999

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Analyst

NT

(Mrs. Araya Tippasuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1813/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 11/09/2024
SAMPLING DATE	: 02-03/09/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 10:55-11:55	FILE CODE	: 224096_TO-15_September
RECEIVED DATE	: 04/09/2024		
REPORT DATE	: 16/09/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	1.74	5.56	-
Cyclohexane	0.02	0.07	8.23	28.34	-
Toluene	0.02	0.08	3.13	11.79	-
m,p-xylene	0.04	0.17	2.45	10.64	-
o-xylene	0.02	0.09	0.44	1.91	-
Total xylene	0.06	0.26	2.89	12.55	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd EPA Methods TO-15,1992

Sirwan Chimsa-nga

(Miss Sirivan Chimsa-nga)

Analyst

(Mrs. Araya Tipparuk)

(Mrs. Araya Tipparuk)

Technical Management Team

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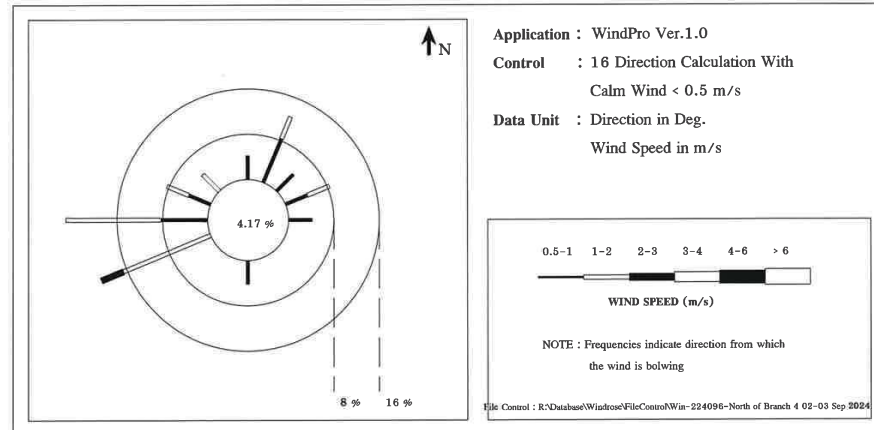
R:\Database\Winbase\FileControl\Win-224096-North of Branch 4 02-03 Sep 2024



Meteorological Monitoring Results : Wind Rose
MTR-PTTGC 4

Location	: North of Branch 4	Monitor period	: 02-03 Sep 2024
Wind Speed Model	: Campbell CR510	Serial No	: 10853
Wind Direction Model	: Campbell CR510	Serial No	: 10853

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NNE	0.0833	0.0417	0.0000	0.0000	0.0000	0.0000	0.1250
NE	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
ENE	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
E	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
SSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WSW	0.0000	0.1667	0.0417	0.0000	0.0000	0.0000	0.2083
W	0.0833	0.1667	0.0000	0.0000	0.0000	0.0000	0.2500
WNW	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
NW	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.0417						



(Miss Katesarin Vorradetwittaya)

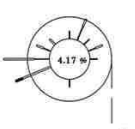
(Miss Katesarin Vorradetwittaya)
Environmental Scientist

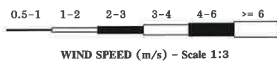
Preeda S.

(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4		Monitor period : 02-03 Sep 2024	
Wind Speed Model : Campbell CR510		Serial No : 10853	
Wind Direction Model : Campbell CR510		Serial No : 10853	
Time	02-03 Sep 2024		WD
	WS(m/s)		
10:00 - 11:00	1.3		WSW
11:00 - 12:00	1.2		W
12:00 - 13:00	1.9		WSW
13:00 - 14:00	2.0		WSW
14:00 - 15:00	1.3		WNW
15:00 - 16:00	1.3		WSW
16:00 - 17:00	1.2		WSW
17:00 - 18:00	0.6		W
18:00 - 19:00	1.0		NNE
19:00 - 20:00	0.9		NNE
20:00 - 21:00	0.5		N
21:00 - 22:00	1.1		ENE
22:00 - 23:00	0.7		E
23:00 - 24:00	0.7		ENE
00:00 - 01:00	0.7		NE
01:00 - 02:00	0.7		NNE
02:00 - 03:00	1.3		NW
03:00 - 04:00	0.9		WNW
04:00 - 05:00	1.2		W
05:00 - 06:00	1.4		W
06:00 - 07:00	0.5		W
07:00 - 08:00	0.4		WSW
08:00 - 09:00	0.9		S
09:00 - 10:00	1.3		W
Wind Rose			



File Control : R:\Database\Windrose\FileControl\Win-224096-North of Branch 4 02-03 Sep 2024

(Miss Katesarin Vorradetwittaya)
Environmental Scientist(Miss Preeda Somjai)
Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2160/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 27/10/2024
SAMPLING DATE	: 22-23/10/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 15:12-14:30	FILE CODE	: 224096_TO-15_October
RECEIVED DATE	: 24/10/2024		
REPORT DATE	: 04/11/2024		

Compound	SAMPLING LOCATION				STANDARD (µg/m ³)
	Non Detection		Branch 4 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	2.35	7.51	-
Cyclohexane	0.02	0.07	1.40	4.82	-
Toluene	0.02	0.08	4.90	18.46	-
m,p-xylene	0.04	0.17	0.99	4.30	-
o-xylene	0.02	0.09	0.31	1.35	-
Total xylene	0.06	0.26	1.30	5.65	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

(Miss Siriwan Chimsa-nga)

Analyst

(Mrs. Araya Tipparuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 2160/67
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 22-23/10/2024	ANALYTICAL DATE	: 27/10/2024
SAMPLING TIME	: 15:30-14:42	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 24/10/2024	FILE CODE	: 224096_TO-15_October
REPORT DATE	: 04/11/2024		

Compound	SAMPLING LOCATION				STANDARD ($\mu\text{g}/\text{m}^3$)
	Non Detection		Branch 4 : South		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	1.85	5.91	-
Cyclohexane	0.02	0.07	5.46	18.80	-
Toluene	0.02	0.08	5.01	18.87	-
m,p-xylene	0.04	0.17	8.01	34.79	-
o-xylene	0.02	0.09	0.27	1.17	-
Total xylene	0.06	0.26	8.28	35.96	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Sitthran Chimsa-nga

(Miss Siriwan Chimsa-nga)

Analyst

M R

(Mrs. Araya Tipparuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 2160/67
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 22-23/10/2024	ANALYTICAL DATE	: 27/10/2024
SAMPLING TIME	: 11:34-10:44	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 24/10/2024	FILE CODE	: 224096_TO-15_October
REPORT DATE	: 04/11/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	4.18	13.35	-
Cyclohexane	0.02	0.07	2.18	7.51	-
Toluene	0.02	0.08	5.10	19.21	-
m,p-xylene	0.04	0.17	1.85	8.04	-
o-xylene	0.02	0.09	0.50	2.17	-
Total xylene	0.06	0.26	2.35	10.21	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Sitthran Chimsa-nga

(Miss Siriwan Chimsa-nga)

Analyst

M R

(Mrs. Araya Tipparuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 2160/67
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 22-23/10/2024	ANALYTICAL DATE	: 27/10/2024
SAMPLING TIME	: 11:41-10:51	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 24/10/2024	FILE CODE	: 224096_TO-15_October
REPORT DATE	: 04/11/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 8 : South		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	4.66	14.89	-
Cyclohexane	0.02	0.07	3.48	11.98	-
Toluene	0.02	0.08	5.23	19.70	-
m,p-xylene	0.04	0.17	2.04	8.86	-
o-xylene	0.02	0.09	0.69	3.00	-
Total xylene	0.06	0.26	2.73	11.86	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd EPA Methods TO-15,1999


(Miss Siriwan Chimsa-nga)

Analyst


(Mrs. Araya Tipparuk)

Technical Management Team

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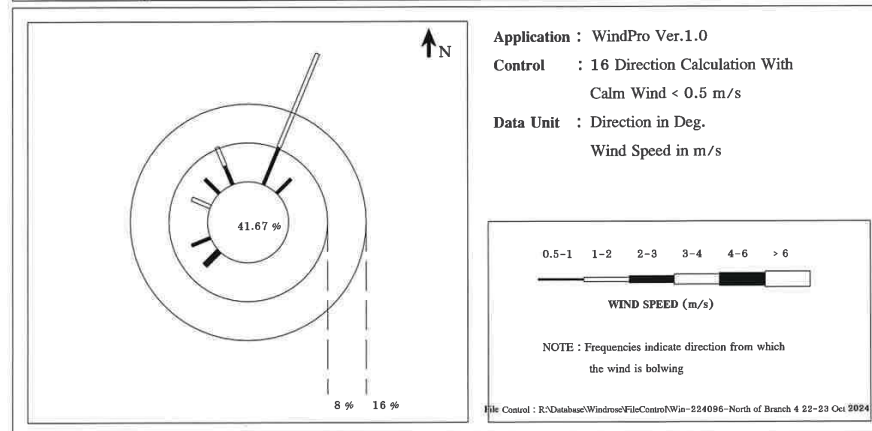
R:\Database\Windows\FileControl\Win-224096-North of Branch 4 22-23 Oct 2024




Meteorological Monitoring Results : Wind Rose
MTR-PTTGC 4

Location : North of Branch 4	Monitor period : 22-23 Oct 2024
Wind Speed Model : Scarlet WS-21	Serial No : AD:64
Wind Direction Model : Scarlet WS-21	Serial No : AD:64

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	Total
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0833	0.2083	0.0000	0.0000	0.0000	0.0000	0.2917
NE	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SW	0.0000	0.0000	0.0417	0.0000	0.0000	0.0000	0.0417
WSW	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WNW	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
NW	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NNW	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
CALM	0.4167						




(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 22-23 Oct 2024

Wind Speed Model : Scarlet WS-21

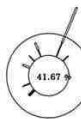
Serial No : AD:64

Wind Direction Model : Scarlet WS-21

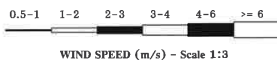
Serial No : AD:64

Time	22-23 Oct 2024	
	WS(m/s)	WD
15:00 - 16:00	0.8	NW
16:00 - 17:00	0.5	NNE
17:00 - 18:00	0.3	E
18:00 - 19:00	0.2	ENE
19:00 - 20:00	0.1	ENE
20:00 - 21:00	0.1	ENE
21:00 - 22:00	0.1	NE
22:00 - 23:00	0.3	ENE
23:00 - 24:00	0.3	ENE
00:00 - 01:00	0.3	ENE
01:00 - 02:00	0.1	ENE
02:00 - 03:00	0.3	NE
03:00 - 04:00	0.7	NNE
04:00 - 05:00	1.0	NNE
05:00 - 06:00	1.1	NNW
06:00 - 07:00	0.9	NNW
07:00 - 08:00	1.0	NNE
08:00 - 09:00	1.3	NNE
09:00 - 10:00	1.2	NNE
10:00 - 11:00	0.9	NE
11:00 - 12:00	1.0	NNE
12:00 - 13:00	1.1	WNW
13:00 - 14:00	2.1	SW
14:00 - 15:00	0.5	WSW

Wind Rose



12 %



File Control :R:\Database\Windrose\FileControl\Win-224096-North of Branch 4 22-23 Oct 2024

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2467/67
	(Branch 4 : Aromatics I Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 06/12/2024
SAMPLING DATE	: 26-27/11/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 09:58-09:38	FILE CODE	: 224096_TO-15_November
RECEIVED DATE	: 28/11/2024		
REPORT DATE	: 09/12/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 4 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	1.03	3.29	☐
Cyclohexane	0.02	0.07	2.03	6.99	☐
Toluene	0.02	0.08	2.68	10.10	☐
m,p-xylene	0.04	0.17	0.64	2.78	☐
o-xylene	0.02	0.09	0.23	1.00	☐
Total xylene	0.06	0.26	0.87	3.78	☐

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Siriwan Chimsa-naga
(Miss Siriwan Chimsa-naga)

Analyst

Araya Tipparuk
(Mrs. Araya Tipparuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2467/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 06/12/2024
SAMPLING DATE	: 26-27/11/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 09:44-09:28	FILE CODE	: 224096_TO-15_November
RECEIVED DATE	: 28/11/2024		
REPORT DATE	: 09/12/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 4 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	0.64	2.04	-
Cyclohexane	0.02	0.07	0.17	0.59	-
Toluene	0.02	0.08	1.30	4.90	-
m,p-xylene	0.04	0.17	0.76	3.30	-
o-xylene	0.02	0.09	0.12	0.52	-
Total xylene	0.06	0.26	0.88	3.82	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Siriwan Chimsa-nga
(Miss Siriwan Chimsa-nga)

Analyst

Araya Tippiarak
(Mrs. Araya Tippiarak)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2467/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 06/12/2024
SAMPLING DATE	: 26-27/11/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 11:00-10:25	FILE CODE	: 224096_TO-15_November
RECEIVED DATE	: 28/11/2024		
REPORT DATE	: 09/12/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 8 : North		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	1.74	5.56	-
Cyclohexane	0.02	0.07	0.60	2.07	-
Toluene	0.02	0.08	1.86	7.01	-
m,p-xylene	0.04	0.17	0.39	1.69	-
o-xylene	0.02	0.09	0.10	0.43	-
Total xylene	0.06	0.26	0.49	2.12	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Siriwan Chimsa-nga
(Miss Siriwan Chimsa-nga)

Analyst

Araya Tippiarak
(Mrs. Araya Tippiarak)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2467/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 06/12/2024
SAMPLING DATE	: 26-27/11/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 10:23-10:00	FILE CODE	: 224096_TO-15_November
RECEIVED DATE	: 28/11/2024		
REPORT DATE	: 09/12/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 8 : South		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	2.64	8.43	-
Cyclohexane	0.02	0.07	1.43	4.92	-
Toluene	0.02	0.08	2.70	10.17	-
m,p-xylene	0.04	0.17	2.82	12.25	-
o-xylene	0.02	0.09	0.48	2.08	-
Total xylene	0.06	0.26	3.30	14.33	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Siriwan Chimsa-nga
(Miss Siriwan Chimsa-nga)

Analyst

(Mrs. Araya Tipparak)

Technical Management Team

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R:\Database\Windrose\FileControl\Win-224096-North of Branch 4 26-27 Nov 2024

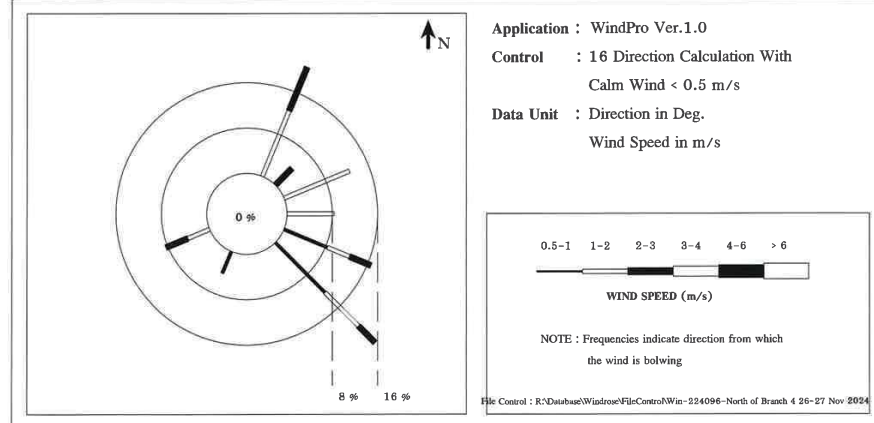


Meteorological Monitoring Results : Wind Rose

MTR-PTTGC 4

Location	: North of Branch 4	Monitor period	: 26-27 Nov 2024
Wind Speed Model	: Campbell CR510	Serial No	: 1632
Wind Direction Model	: Campbell CR510	Serial No	: 1632

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	Total
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0000	0.1250	0.0833	0.0000	0.0000	0.0000	0.2083
NE	0.0000	0.0000	0.0417	0.0000	0.0000	0.0000	0.0417
ENE	0.0000	0.1250	0.0000	0.0000	0.0000	0.0000	0.1250
E	0.0000	0.0833	0.0000	0.0000	0.0000	0.0000	0.0833
ESE	0.0833	0.0417	0.0417	0.0000	0.0000	0.0000	0.1667
SE	0.1250	0.0833	0.0417	0.0000	0.0000	0.0000	0.2500
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
SW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WSW	0.0000	0.0417	0.0417	0.0000	0.0000	0.0000	0.0833
W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.0000						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 26-27 Nov 2024

Wind Speed Model : Campbell CR510

Serial No : 1632

Wind Direction Model : Campbell CR510

Serial No : 1632

Time	26-27 Nov 2024	
	WS(m/s)	WD
09:00 - 10:00	2.1	NE
10:00 - 11:00	1.8	ENE
11:00 - 12:00	1.9	E
12:00 - 13:00	1.6	ENE
13:00 - 14:00	1.5	E
14:00 - 15:00	2.0	ESE
15:00 - 16:00	2.5	SE
16:00 - 17:00	1.9	SE
17:00 - 18:00	2.1	WSW
18:00 - 19:00	1.8	WSW
19:00 - 20:00	0.9	SSW
20:00 - 21:00	0.6	SE
21:00 - 22:00	0.9	SE
22:00 - 23:00	1.0	SE
23:00 - 24:00	0.6	ESE
00:00 - 01:00	1.0	ESE
01:00 - 02:00	0.7	ESE
02:00 - 03:00	0.6	SE
03:00 - 04:00	1.6	ENE
04:00 - 05:00	1.9	NNE
05:00 - 06:00	1.5	NNE
06:00 - 07:00	1.5	NNE
07:00 - 08:00	2.1	NNE
08:00 - 09:00	2.3	NNE

Wind Rose

0.5-1 1-2 2-3 3-4 4-6 >= 6
WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-224096-North of Branch 4 26-27 Nov 2024

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2652/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 21/12/2024
SAMPLING DATE	: 17-18/12/2024	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 14:21-14:10	FILE CODE	: 224096_TO-15_December
RECEIVED DATE	: 19/12/2024		
REPORT DATE	: 24/12/2024		

Compound	SAMPLING LOCATION				STANDARD* (µg/m ³)
	Non Detection		Branch 4 North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	2.09	6.68	-
Cyclohexane	0.02	0.07	1.04	3.58	-
Toluene	0.02	0.08	1.81	6.82	-
m,p-xylene	0.04	0.17	0.72	3.13	-
o-xylene	0.02	0.09	0.17	0.74	-
Total xylene	0.06	0.26	0.89	3.87	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

(Miss Siriwan Chimsa-ngo)

Analyst

(Mrs. Araya Tipparak)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 2652/67
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 17-18/12/2024	ANALYTICAL DATE	: 21/12/2024
SAMPLING TIME	: 14:00-13:57	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 19/12/2024	FILE CODE	: 224096_TO-15_December
REPORT DATE	: 24/12/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD* (µg/m ³)
			Branch 4 South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	1.06	3.39	-
Cyclohexane	0.02	0.07	0.17	0.59	-
Toluene	0.02	0.08	1.27	4.78	-
m,p-xylene	0.04	0.17	0.56	2.43	-
o-xylene	0.02	0.09	0.17	0.74	-
Total xylene	0.06	0.26	0.73	3.17	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Analyst

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 2652/67
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 17-18/12/2024	ANALYTICAL DATE	: 21/12/2024
SAMPLING TIME	: 14:50-14:33	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 19/12/2024	FILE CODE	: 224096_TO-15_December
REPORT DATE	: 24/12/2024		

Compound	Non Detection		SAMPLING LOCATION		STANDARD* ($\mu\text{g}/\text{m}^3$)
			Branch 8 North		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	1.36	4.34	-
Cyclohexane	0.02	0.07	0.22	0.76	-
Toluene	0.02	0.08	1.97	7.42	-
m,p-xylene	0.04	0.17	0.23	1.00	-
o-xylene	0.02	0.09	0.08	0.35	-
Total xylene	0.06	0.26	0.31	1.35	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Analyst

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 2652/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 21/12/2024
SAMPLING DATE : 17-18/12/2024 SAMPLE CONDITION : Normal
SAMPLING TIME : 15:01-14:41 FILE CODE : 224096_TO-15_December
RECEIVED DATE : 19/12/2024
REPORT DATE : 24/12/2024

Compound	Non Detection		SAMPLING LOCATION		STANDARD* (µg/m ³)
			Branch 8 South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	8.32	26.58	-
Cyclohexane	0.02	0.07	3.76	12.95	-
Toluene	0.02	0.08	8.01	30.17	-
m,p-xylene	0.04	0.17	9.17	39.83	-
o-xylene	0.02	0.09	0.62	2.69	-
Total xylene	0.06	0.26	9.79	42.52	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Siriwan Chimsa-nga
(Miss Siriwan Chimsa-nga)

Analyst

(Mrs. Araya Tipparuk)

Technical Management Team

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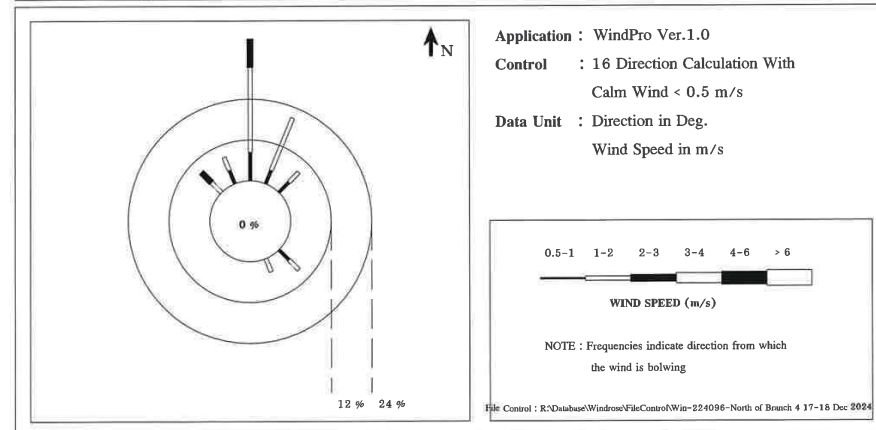
R:\Database\Wincontrol\FileControl\Win-224096-North of Branch 4 17-18 Dec 2024



Meteorological Monitoring Results : Wind Rose
MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 17-18 Dec 2024
Wind Speed Model : Novalynx WS-25 Serial No : A4904
Wind Direction Model : Novalynx WS-25 Serial No : A4904

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0833	0.2500	0.0833	0.0000	0.0000	0.0000	0.4167
NNE	0.0417	0.1667	0.0000	0.0000	0.0000	0.0000	0.2083
NE	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
SSE	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0417	0.0417	0.0000	0.0000	0.0000	0.0833
NNW	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
CALM	0.0000						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



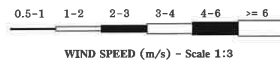
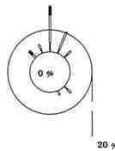
Meteorological Monitoring Results : Wind Rose

MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 17-18 Dec 2024
 Wind Speed Model : Novalynx WS-25 Serial No : A4904
 Wind Direction Model : Novalynx WS-25 Serial No : A4904

Time	17-18 Dec 2024	
	WS(m/s)	WD
14:00 - 15:00	1.4	N
15:00 - 16:00	1.0	NNW
16:00 - 17:00	1.9	SSE
17:00 - 18:00	0.7	SE
18:00 - 19:00	1.7	SE
19:00 - 20:00	0.8	N
20:00 - 21:00	1.2	N
21:00 - 22:00	0.6	N
22:00 - 23:00	2.0	N
23:00 - 24:00	0.9	NNW
00:00 - 01:00	1.5	N
01:00 - 02:00	1.8	N
02:00 - 03:00	0.8	NNE
03:00 - 04:00	1.1	NE
04:00 - 05:00	1.6	NNE
05:00 - 06:00	1.9	N
06:00 - 07:00	1.2	NW
07:00 - 08:00	2.0	NW
08:00 - 09:00	1.6	NNE
09:00 - 10:00	1.2	N
10:00 - 11:00	1.1	NNE
11:00 - 12:00	0.8	NE
12:00 - 13:00	2.0	N
13:00 - 14:00	1.4	NNE

Wind Rose



File Control :R:\Database\Windrose\FileControl\Win-224096-North of Branch 4 17-18 Dec 2024

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

ภาคผนวก ง.3

ใบรับรองผลการตรวจวัดคุณภาพน้ำ



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1350/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 14:28
SAMPLING DATE	: 03/07/2024	ANALYTICAL DATE	: 04-10/07/2024
RECEIVED DATE	: 04/07/2024	SITE OPERATOR	: Miss Wiraya Patchimboon
REPORT DATE	: 11/07/2024	FILE CODE	: 224096_WW_July
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND	STATION	STANDARD
			(non-detectable)	Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.69	-
Total Suspended Solids	mg/l	2540 D	< 5	29	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	-
BOD ₅	mg/l	5210 B	< 1.0	67.5	-
COD	mg/l	5220 C	< 15.00	99.74	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0019	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED., 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

REG. NO. ๖-239-ก-0005

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. ๖-239-ก-0004

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1350/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 14:23
SAMPLING DATE	: 03/07/2024	ANALYTICAL DATE	: 04-10/07/2024
RECEIVED DATE	: 04/07/2024	SITE OPERATOR	: Miss Wiraya Patchimboon
REPORT DATE	: 11/07/2024	FILE CODE	: 224096_WW_July
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND	STATION	STANDARD ^{1/}
			(non-detectable)	Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.24	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	< 15.00	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED., 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

REG. NO. ๖-239-ก-0005

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. ๖-239-ก-0004

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 3. ^{1/} Notification of the Ministry of Natural Resources and Environment, B.E.2559 (2016) and
Notification of the Ministry of Industry, B.E.2560 (2017).
 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1350/67
	: (Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 14:37
SAMPLING DATE	: 03/07/2024	ANALYTICAL DATE	: 04-10/07/2024
RECEIVED DATE	: 04/07/2024	SITE OPERATOR	: Miss Wiraya Patchimboon
REPORT DATE	: 11/07/2024	FILE CODE	: 224096_WW_July
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	8.77	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 50	1,016	≤ 35,720 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	17.62	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 2-239-ก-0005

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 2-239-ก-0004

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 3. ^{1/} Notification of the Ministry of Natural Resources and Environment, B.E.2559 (2016) and Notification of the Ministry of Industry, B.E.2560 (2017).
 4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l (TDS valve in the last month in receiving water = 30,720 mg/l).
 5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1589/67
	: (Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 10:34
SAMPLING DATE	: 07/08/2024	ANALYTICAL DATE	: 08-16/08/2024
RECEIVED DATE	: 08/08/2024	SITE OPERATOR	: Mr. Siwanon Kulwong
REPORT DATE	: 17/08/2024	FILE CODE	: 224096_WW_August
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD
				Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.32	-
Total Suspended Solids	mg/l	2540 D	< 5	32	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	-
BOD ₅	mg/l	5210 B	< 1.0	68.0	-
COD	mg/l	5220 C	< 15.00	101	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0096	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 2-239-ก-0005

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 2-239-ก-0004

- Remark :**
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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1589/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 10:24
SAMPLING DATE	: 07/08/2024	ANALYTICAL DATE	: 08-16/08/2024
RECEIVED DATE	: 08/08/2024	SITE OPERATOR	: Mr. Siwanon Kulwong
REPORT DATE	: 17/08/2024	FILE CODE	: 224096_WW_August
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.75	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	38.66	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ก-0005

(Mrs. Araya Tippiaruk)

(Mrs. Araya Tippiaruk)

Technical Management Team

REG. NO. 7-239-ก-0004

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 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1589/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 10:45
SAMPLING DATE	: 07/08/2024	ANALYTICAL DATE	: 08-16/08/2024
RECEIVED DATE	: 08/08/2024	SITE OPERATOR	: Mr. Siwanon Kulwong
REPORT DATE	: 17/08/2024	FILE CODE	: 224096_WW_August
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	8.09	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 50	1,708	≤ 26,200 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	33.10	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ก-0005

(Mrs. Araya Tippiaruk)

(Mrs. Araya Tippiaruk)

Technical Management Team

REG. NO. 7-239-ก-0004

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 4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l (TDS valve in the last month in receiving water = 21,200 mg/l).
 5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1828/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 13:43
SAMPLING DATE	: 04/09/2024	ANALYTICAL DATE	: 05-11/09/2024
RECEIVED DATE	: 05/09/2024	SITE OPERATOR	: Miss Mareeyanee Hawae
REPORT DATE	: 16/09/2024	FILE CODE	: 224096_WW_September
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD
		METHODS	(non-detectable)	Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.57	-
Total Suspended Solids	mg/l	2540 D	< 5	7	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	-
BOD ₅	mg/l	5210 B	< 1.0	20.6	-
COD	mg/l	5220 C	< 15.00	49.92	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0019	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ก-0005

(Mrs. Araya Tipparak)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1828/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 13:35
SAMPLING DATE	: 04/09/2024	ANALYTICAL DATE	: 05-11/09/2024
RECEIVED DATE	: 05/09/2024	SITE OPERATOR	: Miss Mareeyanee Hawae
REPORT DATE	: 16/09/2024	FILE CODE	: 224096_WW_September
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}
		METHODS	(non-detectable)	Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.59	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	21.73	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ก-0005

(Mrs. Araya Tipparak)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1828/67
	: (Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 13:50
SAMPLING DATE	: 04/09/2024	ANALYTICAL DATE	: 05-11/09/2024
RECEIVED DATE	: 05/09/2024	SITE OPERATOR	: Miss Mareeyanee Hawae
REPORT DATE	: 16/09/2024	FILE CODE	: 224096_WW_September
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	8.24	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 50	1,074	≤ 36,280 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	29.49	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

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4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l
(TDS valve in the last month in receiving water = 31,280 mg/l).

5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2006/67
	: (Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 10:16
SAMPLING DATE	: 02/10/2024	ANALYTICAL DATE	: 03-10/10/2024
RECEIVED DATE	: 03/10/2024	SITE OPERATOR	: Miss Salisa Ainree
REPORT DATE	: 11/10/2024	FILE CODE	: 224096_WW_October
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD
				Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.94	-
Total Suspended Solids	mg/l	2540 D	< 5	45	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	3.4	-
BOD ₅	mg/l	5210 B	< 1.0	85.0	-
COD	mg/l	5220 C	< 15.00	98.90	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0284	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 2-239-ก-0005

Araya Tipparuk

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 2006/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Grab
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 10:21
SAMPLING DATE : 02/10/2024 ANALYTICAL DATE : 03-10/10/2024
RECEIVED DATE : 03/10/2024 SITE OPERATOR : Miss Salisa Ainree
REPORT DATE : 11/10/2024 FILE CODE : 224096_WW_October
SAMPLE CONDITION : Normal

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.92	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	< 15.00	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

REG. NO. 2-239-ก-0005

(Mrs. Araya Tipparuk)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 2183/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Grab
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 14:10
SAMPLING DATE : 28/10/2024 ANALYTICAL DATE : 29/10/2024-03/11/2024
RECEIVED DATE : 29/10/2024 SITE OPERATOR : Mr. Tanachot Changlor
REPORT DATE : 05/11/2024 FILE CODE : 224096_WW_October
SAMPLE CONDITION : Normal

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	8.36	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 50	1,966	≤ 36,860 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	1.1	≤ 20
COD	mg/l	5220 C	< 15.00	43.58	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

REG. NO. 2-239-ก-0005

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 2-239-ก-0004

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 4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l (TDS valve in the last month in receiving water = 31,860 mg/l).
 5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2247/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 09:55
SAMPLING DATE	: 06/11/2024	ANALYTICAL DATE	: 07-14/11/2024
RECEIVED DATE	: 07/11/2024	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 15/11/2024	FILE CODE	: 224096_WW_November
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD
				Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.74	-
Total Suspended Solids	mg/l	2540 D	< 5	38	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	-
BOD ₅	mg/l	5210 B	< 1.0	31.6	-
COD	mg/l	5220 C	< 15.00	74.27	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0070	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED.2017 (AWWA,APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. ๖-239-ก-0005

(Mrs. Araya Tipparuk)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2247/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 09:50
SAMPLING DATE	: 06/11/2024	ANALYTICAL DATE	: 07-14/11/2024
RECEIVED DATE	: 07/11/2024	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 15/11/2024	FILE CODE	: 224096_WW_November
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.80	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 5	<5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	< 15.00	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0006	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED.2017 (AWWA,APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. ๖-239-ก-0005

(Mrs. Araya Tipparuk)

(Mrs. Araya Tipparuk)

Technical Management Team

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 2247/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Grab
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 10:00
SAMPLING DATE : 06/11/2024 ANALYTICAL DATE : 07-14/11/2024
RECEIVED DATE : 07/11/2024 SITE OPERATOR : Mr.Chanapon Oakkharaplon
REPORT DATE : 15/11/2024 FILE CODE : 224096_WW_November
SAMPLE CONDITION : Normal

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	8.07	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 50	2,530	≤ 30,280 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	43.89	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 2-239-ก-0005

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 2-239-ก-0004

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3. ^{1/} Notification of the Ministry of Natural Resources and Environment, B.E.2559 (2016) and
Notification of the Ministry of Industry, B.E.2560 (2017).

4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l
(TDS valve in the last month in receiving water = 25,280 mg/l).

5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 2538/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Grab
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 14:14
SAMPLING DATE : 04/12/2024 ANALYTICAL DATE : 05-12/12/2024
RECEIVED DATE : 05/12/2024 SITE OPERATOR : Mr.Chanapon Oakkharaplon
REPORT DATE : 12/12/2024 FILE CODE : 224096_WW_December
SAMPLE CONDITION : Normal

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD
				Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.17	-
Total Suspended Solids	mg/l	2540 D	< 5	43	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	2.4	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	-
BOD ₅	mg/l	5210 B	< 1.0	99.5	-
COD	mg/l	5220 C	< 15.00	155	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0057	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2538/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 14:08
SAMPLING DATE	: 04/12/2024	ANALYTICAL DATE	: 05-12/12/2024
RECEIVED DATE	: 05/12/2024	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 12/12/2024	FILE CODE	: 224096_WW_December
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.97	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	39.83	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA-APHA-WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ก-0005

(Mrs. Araya Tipparuk)

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 7-239-ก-0004

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 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2538/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 14:23
SAMPLING DATE	: 04/12/2024	ANALYTICAL DATE	: 05-12/12/2024
RECEIVED DATE	: 05/12/2024	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 12/12/2024	FILE CODE	: 224096_WW_December
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	8.36	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 50	1,892	≤ 35,640 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	45.52	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA-APHA-WEF)

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(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ก-0005

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 4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l (TDS valve in the last month in receiving water = 30,640 mg/l).
 5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2247/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 10:25
SAMPLING DATE	: 06/11/2024	ANALYTICAL DATE	: 07-14/11/2024
RECEIVED DATE	: 07/11/2024	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 15/11/2024	FILE CODE	: 224096_WW_November
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}
		METHODS	(non-detectable)	Upstream	
pH	-	4500-H ⁺ B	< 0.10	8.51	-
Total Suspended Solids	mg/l	2540 D	< 5	38	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	-
BOD ₅	mg/l	5210 B	< 1.0	2.5	-
COD	mg/l	5220 C	< 15.00	33.08	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA.APHA.WEF)

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(Miss Khemchuda Insorn)

Analyst

REG. NO. 2-239-ก-0005

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 3. ^{1/} The Standard Values of Surface Water Quality for Class 5, Notification by the National Environment Board No.8, B.E.2537 (1994).
 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 2247/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 10:31
SAMPLING DATE	: 06/11/2024	ANALYTICAL DATE	: 07-14/11/2024
RECEIVED DATE	: 07/11/2024	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 15/11/2024	FILE CODE	: 224096_WW_November
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}
		METHODS	(non-detectable)	Downstream	
pH	-	4500-H ⁺ B	< 0.10	8.49	-
Total Suspended Solids	mg/l	2540 D	< 5	48	-
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	-
BOD ₅	mg/l	5210 B	< 1.0	3.0	-
COD	mg/l	5220 C	< 15.00	15.53	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA.APHA.WEF)

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REG. NO. 2-239-ก-0005

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 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1430/67
	: (Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 13:30
SAMPLING DATE	: 11/07/2024	ANALYTICAL DATE	: 12-13/07/2024
RECEIVED DATE	: 12/07/2024	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 19/07/2024	FILE CODE	: 224096_CW_Apirl
SAMPLE CONDITION	: Normal		

LOCATION DESCRIPTION 1.ระยะห่างจากจุดระบายน้ำทิ้งของนิคมฯมาบตาพุด (ปากคลองชักหาหมาก) 500 เมตร

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION 1	STANDARD
Total Dissolved Solids	mg/l	2540 C	< 25	21,200	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

(Mrs. Araya Tipparuk)

Technical Management Team

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1607/67
	: (Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Grab
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 09:55
SAMPLING DATE	: 08/08/2024	ANALYTICAL DATE	: 13-14/08/2024
RECEIVED DATE	: 09/08/2024	SITE OPERATOR	: Mr. Chitpon Somprasong
REPORT DATE	: 16/08/2024	FILE CODE	: 224096_CW_August
SAMPLE CONDITION	: Normal		

LOCATION DESCRIPTION 1.ระยะห่างจากจุดระบายน้ำทิ้งของนิคมฯมาบตาพุด (ปากคลองชักหาหมาก) 500 เมตร

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION 1	STANDARD
Total Dissolved Solids	mg/l	2540 C	< 25	31,280	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1899/67
: (Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Grab
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 13:30
SAMPLING DATE : 12/09/2024 ANALYTICAL DATE : 13, 16/09/2024
RECEIVED DATE : 13/09/2024 SITE OPERATOR : Mr.Chanapon Oakkharaplon
REPORT DATE : 20/09/2024 FILE CODE : 224096_CW_September
SAMPLE CONDITION : Normal
LOCATION DESCRIPTION : 1.ระยะห่างจากจุดระบายน้ำทิ้งของนิคมฯมาบตาพุด (ปากคลองชักหาหมาก) 500 เมตร

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION 1	STANDARD
Total Dissolved Solids	mg/l	2540 C	< 25	31,860	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

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Technical Management Team

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 2090/67
: (Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Grab
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 10:45
SAMPLING DATE : 10/10/2024 ANALYTICAL DATE : 11-12/10/2024
RECEIVED DATE : 11/10/2024 SITE OPERATOR : Mr.Rommadon Lemmad
REPORT DATE : 19/10/2024 FILE CODE : 224096_CW_October
SAMPLE CONDITION : Normal
LOCATION DESCRIPTION : 1.ระยะห่างจากจุดระบายน้ำทิ้งของนิคมฯมาบตาพุด (ปากคลองชักหาหมาก) 500 เมตร

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION 1	STANDARD
Total Dissolved Solids	mg/l	2540 C	< 25	25,280	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	2354/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	Grab
SAMPLING BY	SECOT Co., Ltd.	SAMPLING TIME	13:40
SAMPLING DATE	14/11/2024	ANALYTICAL DATE	18-19/11/2024
RECEIVED DATE	15/11/2024	SITE OPERATOR	Mr.Tanachot Changlor
REPORT DATE	20/11/2024	FILE CODE	224096_CW_November
SAMPLE CONDITION	Normal		

LOCATION DESCRIPTION 1.ระยะห่างจากจุดระบายน้ำทิ้งของนิคมฯมาบตาพุด (ปากคลองชักหามก) 500 เมตร

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION 1	STANDARD
Total Dissolved Solids	mg/l	2540 C	< 25	30,640	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	2607/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	Grab
SAMPLING BY	SECOT Co., Ltd.	SAMPLING TIME	13:30
SAMPLING DATE	12/12/2024	ANALYTICAL DATE	16-17/12/2027
RECEIVED DATE	13/12/2024	SITE OPERATOR	Mr. Jeerawat Khothamhan
REPORT DATE	20/12/2024	FILE CODE	224096_CW_December
SAMPLE CONDITION	Normal		

LOCATION DESCRIPTION 1.ระยะห่างจากจุดระบายน้ำทิ้งของนิคมฯมาบตาพุด (ปากคลองชักหามก) 500 เมตร

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION 1	STANDARD
Total Dissolved Solids	mg/l	2540 C	< 25	38,940	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

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ภาคผนวก ง.4

ใบรับรองผลการตรวจวัดคุณภาพน้ำใต้ดิน



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

GROUND WATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1957/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Pneumatic Bladder Pump
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 11:07-11:12
SAMPLING DATE : 23/09/2024 ANALYTICAL DATE : 24/09/2024
RECEIVED DATE : 24/09/2024 SITE OPERATOR : Mr. Jeerawat Khothamhan
REPORT DATE : 30/09/2024 FILE CODE : 224096_GW_September
SAMPLE CONDITION : Normal

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-01	STANDARD ^{1/}
Benzene	mg/l	6200 B	< 0.0002	ND	≤ 0.2
Toluene	mg/l	6200 B	< 0.0002	ND	≤ 5.0
m-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
o-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
p-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
Total Xylenes	mg/l	6200 B	< 0.0006	ND	≤ 24

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED., 2017 (AWWA, APHA, WEF)

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

REG. NO. 2-239-0-0022

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 2-239-0-0004

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GROUND WATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1957/67
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Pneumatic Bladder Pump
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 11:07-11:12
SAMPLING DATE : 23/09/2024 ANALYTICAL DATE : 27/09/2024
RECEIVED DATE : 24/09/2024 SITE OPERATOR : Mr. Jeerawat Khothamhan
REPORT DATE : 30/09/2024 FILE CODE : 224096_GW_September
SAMPLE CONDITION : Normal

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-01	STANDARD ^{1/}
Mercury (Hg)	mg/l	3112 B	< 0.0001	ND	≤ 0.7

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED., 2017 (AWWA, APHA, WEF)

(Miss Krisana Chanthoom)

Analyst

REG. NO. 2-239-0-0017

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 2-239-0-0004

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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.:	1957/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Pneumatic Bladder Pump
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 10:27-10:32
SAMPLING DATE	: 23/09/2024	ANALYTICAL DATE	: 24/09/2024
RECEIVED DATE	: 24/09/2024	SITE OPERATOR	: Mr. Jeerawat Khothamhan
REPORT DATE	: 30/09/2024	FILE CODE	: 224096_GW_September
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-06	STANDARD ^{1/}
Benzene	mg/l	6200 B	< 0.0002	ND	≤ 0.2
Toluene	mg/l	6200 B	< 0.0002	ND	≤ 5.0
m-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
o-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
p-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
Total Xylenes	mg/l	6200 B	< 0.0006	ND	≤ 24

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

REG. NO. 2-239-ก-0022

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 2-239-ก-0004

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.:	1957/67
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Pneumatic Bladder Pump
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING TIME	: 10:27-10:32
SAMPLING DATE	: 23/09/2024	ANALYTICAL DATE	: 27/09/2024
RECEIVED DATE	: 24/09/2024	SITE OPERATOR	: Mr. Jeerawat Khothamhan
REPORT DATE	: 30/09/2024	FILE CODE	: 224096_GW_September
SAMPLE CONDITION	: Normal		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-06	STANDARD ^{1/}
Mercury (Hg)	mg/l	3112 B	< 0.0001	ND	≤ 0.7

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

Krisana Chanthoom

(Miss Krisana Chanthoom)

Analyst

REG. NO. 2-239-ก-0017

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 2-239-ก-0004

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

GROUND WATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1957/67
(Branch 8 : Tank Farm Plant) SAMPLING METHOD : Pneumatic Bladder Pump
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 13:56-14:01
SAMPLING DATE : 23/09/2024 ANALYTICAL DATE : 24/09/2024
RECEIVED DATE : 24/09/2024 SITE OPERATOR : Mr. Jeerawat Khothamhan
REPORT DATE : 30/09/2024 FILE CODE : 224096_GW_September
SAMPLE CONDITION : Normal

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-10	STANDARD ^{1/}
Benzene	mg/l	6200 B	< 0.0002	0.0003	≤ 0.2
Toluene	mg/l	6200 B	< 0.0002	ND	≤ 5.0
m-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
o-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
p-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
Total Xylenes	mg/l	6200 B	< 0.0006	ND	≤ 24

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

REG. NO. ๓-239-๓-0022

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

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GROUND WATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1957/67
(Branch 8 : Tank Farm Plant) SAMPLING METHOD : Pneumatic Bladder Pump
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 13:56-14:01
SAMPLING DATE : 23/09/2024 ANALYTICAL DATE : 27/09/2024
RECEIVED DATE : 24/09/2024 SITE OPERATOR : Mr. Jeerawat Khothamhan
REPORT DATE : 30/09/2024 FILE CODE : 224096_GW_September
SAMPLE CONDITION : Normal

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-10	STANDARD ^{1/}
Mercury (Hg)	mg/l	3112 B	< 0.0001	ND	≤ 0.7

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

Krisana Chanthoom

(Miss Krisana Chanthoom)

Analyst

REG. NO. ๓-239-๓-0017

Araya Tipparuk

(Mrs. Araya Tipparuk)

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GROUND WATER ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1957/67
(Branch 8 : Tank Farm Plant) SAMPLING METHOD : Pneumatic Bladder Pump
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 14:32-14:38
SAMPLING DATE : 23/09/2024 ANALYTICAL DATE : 24/09/2024
RECEIVED DATE : 24/09/2024 SITE OPERATOR : Mr. Jeerawat Khothamhan
REPORT DATE : 30/09/2024 FILE CODE : 224096_GW_September
SAMPLE CONDITION : Normal

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-13	STANDARD ^{1/}
Benzene	mg/l	6200 B	< 0.0002	ND	≤ 0.2
Toluene	mg/l	6200 B	< 0.0002	ND	≤ 5.0
m-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
o-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
p-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
Total Xylenes	mg/l	6200 B	< 0.0006	ND	≤ 24

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

REG. NO. ๓-239-๓-0022

Mrs. Araya Tipparuk

(Mrs. Araya Tipparuk)

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GROUND WATER ANALYSIS REPORT

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(Branch 8 : Tank Farm Plant) SAMPLING METHOD : Pneumatic Bladder Pump
SAMPLING BY : SECOT Co., Ltd. SAMPLING TIME : 14:32-14:38
SAMPLING DATE : 23/09/2024 ANALYTICAL DATE : 27/09/2024
RECEIVED DATE : 24/09/2024 SITE OPERATOR : Mr. Jeerawat Khothamhan
REPORT DATE : 30/09/2024 FILE CODE : 224096_GW_September
SAMPLE CONDITION : Normal

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-13	STANDARD ^{1/}
Mercury (Hg)	mg/l	3112 B	< 0.0001	ND	≤ 0.7

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

Krisana Chanthoom

(Miss Krisana Chanthoom)

Analyst

REG. NO. ๓-239-๓-0017

Mrs. Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

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ภาคผนวก ง.5

ใบรับรองผลการตรวจวัดระดับเสียงทั่วไป

**Noise Monitoring Result : Community Noise**
MTR-PTTGC 4


Location : Northern Area of PTTGC Branch 4 Aramatics Monitor Period : 02-09 Aug 2024
SLM Model : Cirrus CR162B Serial No : G302740
Site Operator : Mr. Phuwadech Kaewjirakulsri


Calibrator Model : Cirrus CR:515 Serial No : 94296
Calibration Ref dB(A) : 94.0 Certified Date : 14 Feb 2024
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Feb 2025
Cal Sheet No.: CR-515-2024-231

Time	Equivalent Sound Pressure Level (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
10:00 - 11:00	67.5	65.5	64.0	66.4	66.9	66.2	66.4
11:00 - 12:00	67.9	66.2	63.7	66.3	66.5	66.4	66.1
12:00 - 13:00	67.8	66.4	64.9	66.1	66.2	65.9	66.3
13:00 - 14:00	67.6	67.2	62.7	66.8	66.9	66.5	66.3
14:00 - 15:00	67.3	65.9	62.8	67.5	66.2	66.2	65.9
15:00 - 16:00	67.8	66.6	65.5	67.4	66.2	65.8	66.0
16:00 - 17:00	67.5	66.5	63.6	67.5	67.2	66.5	66.2
17:00 - 18:00	67.8	67.7	69.4	68.7	67.2	66.6	66.8
18:00 - 19:00	68.1	67.8	66.5	68.6	66.7	66.6	66.6
19:00 - 20:00	65.6	65.1	64.3	65.8	64.3	64.3	63.6
20:00 - 21:00	66.5	63.2	62.9	64.3	62.9	65.1	64.5
21:00 - 22:00	60.8	62.1	61.3	61.3	61.3	59.9	59.4
22:00 - 23:00	61.1	60.4	60.4	59.8	60.4	59.8	58.8
23:00 - 00:00	60.5	62.0	61.6	61.5	59.3	58.7	58.4
00:00 - 01:00	60.1	62.5	62.7	59.2	58.6	58.6	58.6
01:00 - 02:00	60.0	59.6	60.2	58.5	58.3	58.7	58.4
02:00 - 03:00	58.9	59.8	60.0	58.0	57.5	57.7	57.5
03:00 - 04:00	59.5	60.5	59.2	59.6	56.7	57.7	57.5
04:00 - 05:00	60.8	59.3	60.8	59.4	58.6	58.7	59.7
05:00 - 06:00	63.2	62.3	63.2	62.3	61.5	60.7	60.8
06:00 - 07:00	68.5	67.1	68.5	68.5	68.3	67.9	67.2
07:00 - 08:00	69.8	68.8	69.3	69.9	69.4	69.5	68.9
08:00 - 09:00	68.3	66.4	68.2	68.6	68.3	68.3	67.7
09:00 - 10:00	66.7	64.1	66.4	66.7	66.6	66.4	66.1
Leq(24)*	66.2	65.2	64.9	65.9	65.3	65.1	64.9
Ldn	70.1	69.5	69.9	69.8	69.2	69.0	68.6
Lmax **	95.5	94.1	96.2	92.1	91.5	93.6	93.6
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 10:00-10:00

** Maximum Sound Pressure Level between 10:00-10:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team

**Noise Monitoring Result : Background Noise**
MTR-PTTGC 4


Location : Northern Area of PTTGC Branch 4 Aramatics Monitor Period : 02-09 Aug 2024
SLM Model : Cirrus CR162B Serial No : G302740
Site Operator : Mr. Phuwadech Kaewjirakulsri

Calibrator Model : Cirrus CR:515 Serial No : 94296
Calibration Ref dB(A) : 94.0 Certified Date : 14 Feb 2024
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Feb 2025
Cal Sheet No.: CR-515-2024-231

Time	L90 (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
10:00 - 11:00	64.3	55.8	55.2	62.8	63.4	63.0	62.8
11:00 - 12:00	64.3	56.1	54.9	62.7	63.4	63.0	62.7
12:00 - 13:00	64.0	56.0	54.9	62.7	63.1	62.7	62.6
13:00 - 14:00	64.1	57.9	55.3	62.5	63.5	63.0	63.0
14:00 - 15:00	64.0	56.0	55.1	64.2	63.2	62.8	62.8
15:00 - 16:00	64.3	56.5	55.2	64.0	63.2	62.7	62.8
16:00 - 17:00	64.5	57.4	55.6	63.9	63.5	62.8	63.0
17:00 - 18:00	59.8	57.7	56.0	60.7	58.7	58.6	58.3
18:00 - 19:00	59.0	57.8	57.6	59.5	57.7	58.0	57.7
19:00 - 20:00	57.1	55.5	55.4	56.7	55.4	55.6	55.3
20:00 - 21:00	55.7	54.8	55.0	56.1	55.0	54.6	54.5
21:00 - 22:00	55.3	54.4	54.6	55.7	54.6	54.7	54.0
22:00 - 23:00	55.8	54.6	54.8	55.3	54.7	54.4	53.8
23:00 - 00:00	55.9	55.5	55.2	55.4	54.3	54.5	54.0
00:00 - 01:00	55.8	58.3	58.3	55.5	54.9	54.1	54.0
01:00 - 02:00	56.0	57.2	57.4	55.2	55.0	53.7	54.1
02:00 - 03:00	56.0	56.6	56.6	55.1	54.6	54.2	54.2
03:00 - 04:00	56.0	56.1	56.0	55.7	54.1	54.1	54.1
04:00 - 05:00	56.8	56.0	56.9	55.8	54.3	54.2	54.2
05:00 - 06:00	56.7	56.7	56.7	56.4	55.0	55.1	54.4
06:00 - 07:00	59.1	58.2	59.1	59.2	58.9	58.4	57.9
07:00 - 08:00	61.7	59.2	62.1	63.0	62.4	61.9	62.2
08:00 - 09:00	57.8	56.1	63.5	64.2	63.7	63.5	63.4
09:00 - 10:00	56.1	55.5	62.8	63.4	63.2	62.8	62.9
L90(avg)*	60.7	56.7	57.8	60.8	60.5	60.1	60.0

Remark : * Average time between 10:00-10:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Southern Area of PTTGC Branch 4 Aromatics Monitor Period : 02-09 Aug 2024
SLM Model : Cirrus CR162B Serial No : G302741
Site Operator : Mr. Phuwadech Kaewjirakulsri

Calibrator Model : Cirrus CR:515 Serial No : 94296
Calibration Ref dB(A) : 94.0 Certified Date : 14 Feb 2024
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Feb 2025
Cal Sheet No.: CR-515-2024-231

Time	Equivalent Sound Pressure Level (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
08:00 - 09:00	56.7	57.3	59.3	54.6	55.3	55.2	63.3
09:00 - 10:00	57.3	57.3	58.8	55.4	54.6	54.2	63.6
10:00 - 11:00	57.2	57.3	62.5	56.3	55.4	54.1	63.8
11:00 - 12:00	55.3	56.7	57.3	56.3	54.4	54.4	62.7
12:00 - 13:00	54.8	57.0	55.3	56.6	53.6	55.9	62.0
13:00 - 14:00	56.3	57.2	54.8	56.4	54.6	57.9	62.8
14:00 - 15:00	55.1	57.2	61.4	55.8	55.7	60.7	62.1
15:00 - 16:00	55.7	56.9	55.2	55.4	55.7	61.1	61.9
16:00 - 17:00	55.0	57.2	55.9	55.4	57.1	61.3	61.3
17:00 - 18:00	57.0	57.6	55.9	55.2	56.3	61.7	61.4
18:00 - 19:00	57.4	58.5	56.6	55.0	55.1	61.9	62.0
19:00 - 20:00	57.1	58.3	58.0	57.0	55.7	61.9	62.0
20:00 - 21:00	56.6	58.0	57.1	57.4	56.4	63.3	61.4
21:00 - 22:00	56.7	57.7	56.6	57.3	57.1	64.0	60.9
22:00 - 23:00	57.1	57.8	56.7	57.5	57.7	65.3	61.2
23:00 - 00:00	57.2	59.3	57.1	57.7	57.7	65.6	61.5
00:00 - 01:00	57.4	58.0	57.2	57.2	56.2	65.3	61.5
01:00 - 02:00	57.6	57.4	57.5	57.5	57.2	65.4	61.5
02:00 - 03:00	56.4	57.5	58.7	57.7	57.4	65.0	61.3
03:00 - 04:00	56.4	57.6	58.1	57.6	57.5	64.0	61.2
04:00 - 05:00	55.6	58.0	57.9	56.4	57.7	64.1	61.4
05:00 - 06:00	57.0	57.5	57.7	56.4	58.7	63.7	61.5
06:00 - 07:00	55.3	57.1	57.0	55.6	57.6	64.3	61.3
07:00 - 08:00	57.5	58.2	55.3	55.8	56.3	63.9	61.3
Leq(24)*	56.6	57.6	57.8	56.5	56.5	62.7	61.9
Ldn	63.1	64.2	64.1	63.4	63.7	70.8	67.9
Lmax **	75.8	85.4	87.4	72.9	76.8	78.0	77.8
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 08:00-08:00

** Maximum Sound Pressure Level between 08:00-08:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Southern Area of PTTGC Branch 4 Aromatics Monitor Period : 02-09 Aug 2024
SLM Model : Cirrus CR162B Serial No : G302741
Site Operator : Mr. Phuwadech Kaewjirakulsri

Calibrator Model : Cirrus CR:515 Serial No : 94296
Calibration Ref dB(A) : 94.0 Certified Date : 14 Feb 2024
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Feb 2025
Cal Sheet No.: CR-515-2024-231

Time	L90 (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
08:00 - 09:00	55.0	55.5	57.3	53.7	53.6	54.2	62.1
09:00 - 10:00	55.9	55.5	57.0	54.4	53.3	53.1	62.0
10:00 - 11:00	55.5	55.9	58.2	54.9	53.7	52.7	61.9
11:00 - 12:00	53.7	55.0	54.7	54.9	52.8	52.9	60.9
12:00 - 13:00	53.3	55.3	53.7	55.0	52.0	53.2	60.2
13:00 - 14:00	53.8	55.4	53.3	54.7	52.7	53.5	61.0
14:00 - 15:00	53.9	55.5	53.6	53.9	53.3	59.0	60.5
15:00 - 16:00	54.1	55.5	53.4	53.4	53.5	59.4	60.3
16:00 - 17:00	53.8	55.8	54.1	53.5	54.9	59.5	59.6
17:00 - 18:00	55.5	56.4	54.4	53.8	53.8	60.1	59.7
18:00 - 19:00	56.3	57.2	54.8	53.8	53.9	60.8	60.7
19:00 - 20:00	55.7	57.0	57.0	55.5	54.1	60.6	60.9
20:00 - 21:00	55.6	56.8	55.7	56.3	55.1	62.1	60.4
21:00 - 22:00	55.8	56.3	55.6	56.1	55.6	62.8	59.9
22:00 - 23:00	56.2	56.1	55.8	56.4	56.6	64.1	60.2
23:00 - 00:00	55.4	56.4	56.2	56.5	56.5	64.2	60.6
00:00 - 01:00	56.7	56.7	56.4	56.0	55.1	63.7	60.8
01:00 - 02:00	56.7	56.4	56.8	56.4	55.4	63.8	60.7
02:00 - 03:00	55.4	56.4	57.9	56.9	56.7	63.4	60.4
03:00 - 04:00	55.5	56.5	57.3	56.7	56.8	62.5	60.4
04:00 - 05:00	54.5	56.9	57.1	55.4	57.0	62.7	60.6
05:00 - 06:00	55.8	55.7	56.9	55.5	57.8	62.3	60.5
06:00 - 07:00	54.4	56.0	55.8	54.5	56.4	62.8	60.4
07:00 - 08:00	55.7	56.7	54.4	54.4	55.2	62.5	60.3
L90(avg)*	55.3	56.2	56.0	55.2	55.1	61.2	60.7

Remark : * Average time between 08:00-08:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

**Noise Monitoring Result : Community Noise**
MTR-PTTGC 4

Location : Eastern Area of PTTGC Branch 4 Aromatics
SLM Model : Cirrus CR162B
Site Operator : Mr. Phuwadech Kaewjirakulsi

Monitor Period : 02-09 Aug 2024
Serial No : G300990

Calibrator Model : Cirrus CR:515
Calibration Ref dB(A) : 94.0
SLM Reading / Adjust dB(A) : 93.7/0.0
Cal Sheet No.: CR-515-2024-231

Serial No : 94296
Certified Date : 14 Feb 2024
Expire Date : 13 Feb 2025

Time	Equivalent Sound Pressure Level (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
09:00 - 10:00	68.1	66.1	65.2	65.4	65.8	66.2	66.2
10:00 - 11:00	67.3	65.5	63.5	64.3	65.2	63.8	65.5
11:00 - 12:00	65.1	65.0	60.8	61.8	65.2	63.0	65.2
12:00 - 13:00	64.6	63.1	61.0	61.6	65.2	62.4	64.3
13:00 - 14:00	62.2	63.3	61.4	62.5	65.3	62.5	64.4
14:00 - 15:00	63.5	62.8	61.6	62.8	62.9	62.4	65.2
15:00 - 16:00	65.6	63.5	61.6	63.0	63.7	61.6	63.8
16:00 - 17:00	66.6	64.6	62.1	61.5	64.4	61.9	64.3
17:00 - 18:00	67.2	66.7	66.8	62.9	64.6	63.3	65.0
18:00 - 19:00	67.3	66.3	66.5	64.3	65.5	65.2	66.3
19:00 - 20:00	67.3	66.2	66.5	66.7	66.6	66.7	66.6
20:00 - 21:00	67.2	66.2	66.4	66.6	66.5	66.7	66.8
21:00 - 22:00	67.0	66.3	66.5	66.5	66.4	66.6	66.5
22:00 - 23:00	67.1	66.2	66.6	66.5	66.0	66.4	66.2
23:00 - 00:00	67.3	66.8	66.6	66.4	66.1	66.5	66.2
00:00 - 01:00	67.3	67.6	66.6	66.5	66.2	66.4	66.2
01:00 - 02:00	67.2	67.4	66.5	66.4	66.2	66.2	66.4
02:00 - 03:00	67.2	67.1	66.5	66.3	66.1	66.3	66.3
03:00 - 04:00	67.0	67.1	66.5	66.3	66.1	66.3	66.3
04:00 - 05:00	66.9	67.2	66.5	66.4	66.2	66.4	66.3
05:00 - 06:00	67.1	67.3	66.5	66.3	66.4	66.4	66.2
06:00 - 07:00	67.3	67.6	66.6	66.5	66.7	66.5	66.5
07:00 - 08:00	67.2	68.1	67.1	67.1	67.0	67.0	67.0
08:00 - 09:00	66.2	66.0	66.2	66.5	66.5	66.4	66.5
Leq(24)*	66.7	66.2	65.6	65.4	65.8	65.5	65.9
Ldn	73.5	73.4	72.7	72.6	72.5	72.6	72.6
Lmax **	85.8	91.5	83.7	90.4	89.4	82.1	81.6
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 09:00-09:00

** Maximum Sound Pressure Level between 09:00-09:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

**Noise Monitoring Result : Background Noise**
MTR-PTTGC 4

Location : Eastern Area of PTTGC Branch 4 Aromatics
SLM Model : Cirrus CR162B
Site Operator : Mr. Phuwadech Kaewjirakulsi

Monitor Period : 02-09 Aug 2024
Serial No : G300990

Calibrator Model : Cirrus CR:515
Calibration Ref dB(A) : 94.0
SLM Reading / Adjust dB(A) : 93.7/0.0
Cal Sheet No.: CR-515-2024-231

Serial No : 94296
Certified Date : 14 Feb 2024
Expire Date : 13 Feb 2025

Time	L90 (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
09:00 - 10:00	67.0	65.6	64.6	64.5	65.0	65.6	65.7
10:00 - 11:00	65.7	64.9	61.7	63.1	64.7	63.0	64.8
11:00 - 12:00	64.3	64.0	60.2	61.0	64.5	62.2	64.7
12:00 - 13:00	63.2	62.3	60.6	61.2	64.8	61.9	63.1
13:00 - 14:00	61.7	62.5	60.9	61.5	64.6	62.0	62.9
14:00 - 15:00	62.2	62.3	61.2	62.3	62.1	61.7	64.4
15:00 - 16:00	64.2	62.8	60.9	61.7	62.9	60.8	62.8
16:00 - 17:00	66.0	63.1	60.8	61.0	63.7	61.1	62.8
17:00 - 18:00	66.7	65.8	66.1	62.3	64.1	62.6	64.6
18:00 - 19:00	66.9	65.9	66.2	66.2	66.1	66.2	66.3
19:00 - 20:00	66.9	65.9	66.2	66.2	66.1	66.3	66.3
20:00 - 21:00	66.7	65.9	66.1	66.2	66.1	66.3	66.3
21:00 - 22:00	66.7	66.0	66.2	66.2	66.0	66.2	66.2
22:00 - 23:00	66.7	65.9	66.3	66.2	65.7	66.1	66.0
23:00 - 00:00	67.0	66.1	66.4	66.2	65.8	66.2	65.9
00:00 - 01:00	67.0	67.1	66.3	66.3	65.9	66.1	66.0
01:00 - 02:00	67.0	67.1	66.3	66.2	66.0	66.0	66.1
02:00 - 03:00	66.9	66.9	66.3	66.1	65.8	66.0	66.1
03:00 - 04:00	66.7	66.9	66.3	66.1	65.9	66.0	66.0
04:00 - 05:00	66.6	66.9	66.2	66.1	66.0	66.1	66.0
05:00 - 06:00	66.8	67.1	66.2	66.0	66.0	66.1	65.9
06:00 - 07:00	66.8	67.1	66.3	66.1	66.2	66.1	66.0
07:00 - 08:00	66.0	67.1	66.2	66.1	66.1	66.2	66.0
08:00 - 09:00	65.7	65.2	65.7	65.8	66.0	66.0	65.9
L90(avg)*	66.1	65.7	65.1	64.9	65.3	65.0	65.4

Remark : * Average time between 09:00-09:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team




Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Western Area of PTTGC Branch 4 Aromatics				Monitor Period : 02-09 Aug 2024			
SLM Model : Cirrus CR162B				Serial No : G302742			
Site Operator : Mr. Phuwadach Kaewjirakulsi							
Calibrator Model : Cirrus CR:515				Serial No : 94296			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Feb 2024			
SLM Reading / Adjust dB(A) : 93.7/0.0				Expire Date : 13 Feb 2025			
Cal Sheet No.: CR-515-2024-231							
Time	Equivalent Sound Pressure Level (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
09:00 - 10:00	65.6	65.4	66.1	67.0	66.5	66.4	66.2
10:00 - 11:00	65.8	64.8	65.9	66.9	66.5	66.3	66.2
11:00 - 12:00	64.7	64.4	65.7	66.3	66.2	66.1	65.6
12:00 - 13:00	66.1	64.9	65.7	66.5	66.0	66.8	65.8
13:00 - 14:00	66.4	65.3	66.2	66.6	65.8	66.4	64.7
14:00 - 15:00	65.9	64.7	66.3	66.3	64.9	65.6	64.9
15:00 - 16:00	65.0	64.6	66.3	66.4	65.6	66.2	65.9
16:00 - 17:00	65.1	64.8	66.6	66.1	66.2	66.1	65.5
17:00 - 18:00	65.2	64.9	66.7	66.4	66.1	66.1	65.8
18:00 - 19:00	65.1	64.9	66.8	66.9	66.3	66.4	65.8
19:00 - 20:00	65.2	64.9	66.7	67.0	66.4	66.9	66.1
20:00 - 21:00	65.3	64.8	66.7	67.1	66.4	66.7	66.2
21:00 - 22:00	65.1	64.9	66.7	67.0	66.4	66.7	66.4
22:00 - 23:00	65.1	66.1	66.7	67.1	66.5	66.7	66.2
23:00 - 00:00	64.9	64.8	66.4	66.7	66.5	66.1	66.1
00:00 - 01:00	64.8	66.0	66.4	66.6	66.4	64.9	66.4
01:00 - 02:00	65.6	65.1	66.8	66.5	66.4	64.8	67.2
02:00 - 03:00	66.2	64.6	66.9	66.6	66.5	65.1	67.2
03:00 - 04:00	64.8	64.6	66.6	66.8	66.6	65.6	67.1
04:00 - 05:00	64.4	66.0	66.6	66.6	66.7	66.2	67.1
05:00 - 06:00	64.6	65.7	66.8	66.8	66.7	66.6	67.1
06:00 - 07:00	64.9	65.6	66.9	66.8	66.8	66.8	67.1
07:00 - 08:00	64.9	66.2	66.7	66.7	66.6	66.9	67.2
08:00 - 09:00	65.6	66.2	66.8	66.5	66.5	65.6	67.2
Leq(24)*	65.3	65.2	66.5	66.7	66.3	66.2	66.4
Ldn	71.5	71.8	73.1	73.1	72.9	72.4	73.2
Lmax **	79.0	81.9	84.7	81.9	84.5	84.5	82.3
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 09:00-09:00

** Maximum Sound Pressure Level between 09:00-09:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team




Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Western Area of PTTGC Branch 4 Aromatics				Monitor Period : 02-09 Aug 2024			
SLM Model : Cirrus CR162B				Serial No : G302742			
Site Operator : Mr. Phuwadech Kaewjirakulsi							
Calibrator Model : Cirrus CR:515				Serial No : 94296			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Feb 2024			
SLM Reading / Adjust dB(A) : 93.7/0.0				Expire Date : 13 Feb 2025			
Cal Sheet No.: CR-515-2024-231							
Time	L90 (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
09:00 - 10:00	64.7	64.5	65.7	66.4	66.0	66.0	65.7
10:00 - 11:00	64.5	64.2	65.4	66.3	66.0	65.8	65.8
11:00 - 12:00	64.1	64.0	65.2	65.9	65.7	65.6	64.7
12:00 - 13:00	65.7	64.1	65.3	66.0	65.6	65.5	64.5
13:00 - 14:00	66.0	64.4	65.6	66.0	65.0	65.5	64.1
14:00 - 15:00	64.8	64.2	65.9	65.7	64.6	64.5	64.5
15:00 - 16:00	64.6	64.3	65.9	65.6	64.5	65.7	64.8
16:00 - 17:00	64.7	64.4	66.2	65.6	65.7	65.7	65.0
17:00 - 18:00	64.8	64.5	66.4	65.9	65.7	65.6	65.3
18:00 - 19:00	64.8	64.6	66.4	66.4	65.9	65.9	65.3
19:00 - 20:00	64.9	64.6	66.4	66.5	65.9	66.4	65.5
20:00 - 21:00	64.9	64.4	66.4	66.6	65.9	66.4	65.7
21:00 - 22:00	64.8	64.4	66.3	66.6	66.0	66.4	65.9
22:00 - 23:00	64.7	65.6	66.3	66.7	66.1	66.3	65.8
23:00 - 00:00	64.5	64.2	66.1	66.2	66.1	65.6	65.7
00:00 - 01:00	64.4	64.9	66.1	66.1	66.0	64.4	65.7
01:00 - 02:00	64.5	64.5	66.4	66.1	66.0	64.2	66.8
02:00 - 03:00	65.6	64.3	66.5	66.2	66.1	64.5	66.8
03:00 - 04:00	64.0	64.3	66.3	66.4	66.2	64.5	66.8
04:00 - 05:00	64.0	64.6	66.2	66.3	66.3	65.6	66.8
05:00 - 06:00	64.0	64.7	66.4	66.4	66.3	66.2	66.8
06:00 - 07:00	64.5	64.7	66.5	66.4	66.4	66.4	66.8
07:00 - 08:00	64.5	65.7	66.3	66.2	66.2	66.5	66.8
08:00 - 09:00	64.7	65.8	66.2	66.0	66.2	64.7	66.8
L90(avg)*	64.7	64.6	66.1	66.2	65.9	65.6	65.9

Remark : * Average time between 09:00-09:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team

**Noise Monitoring Result : Community Noise**
MTR-PTTGC 4

Location : Gate of PTTGC Branch 8 Aromatics Monitor Period : 02-09 Aug 2024
SLM Model : Cirrus CR162C Serial No : G300838
Site Operator : Mr. Phuwadach Kaewjirakulsri


Calibrator Model : Cirrus CR:515 Serial No : 94296
Calibration Ref dB(A) : 94.0 Certified Date : 14 Feb 2024
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Feb 2025
Cal Sheet No.: CR-515-2024-231

Time	Equivalent Sound Pressure Level (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
10:00 - 11:00	62.2	63.8	63.8	61.1	61.1	64.4	65.0
11:00 - 12:00	63.2	62.0	62.2	62.0	62.0	67.4	65.0
12:00 - 13:00	66.3	68.9	63.2	63.5	62.9	63.5	65.3
13:00 - 14:00	64.0	63.3	66.3	63.1	63.7	63.8	64.2
14:00 - 15:00	61.8	69.7	64.0	63.7	64.8	63.8	64.1
15:00 - 16:00	61.8	63.6	63.6	65.6	67.8	63.8	64.3
16:00 - 17:00	61.8	66.6	64.5	65.7	67.8	64.2	64.8
17:00 - 18:00	62.0	66.1	66.1	66.1	67.9	65.0	65.2
18:00 - 19:00	62.4	64.4	64.4	64.4	68.1	64.3	65.5
19:00 - 20:00	62.3	67.1	64.4	64.4	67.4	64.3	65.4
20:00 - 21:00	62.8	66.9	64.1	64.1	67.1	64.5	65.0
21:00 - 22:00	63.6	66.4	64.5	64.5	66.9	63.7	64.8
22:00 - 23:00	63.0	68.1	63.7	63.7	66.4	63.1	64.1
23:00 - 00:00	62.5	69.3	63.0	63.4	66.0	63.0	64.0
00:00 - 01:00	62.7	62.8	62.8	63.1	65.7	62.8	65.3
01:00 - 02:00	66.3	65.1	62.7	62.0	62.8	62.7	63.8
02:00 - 03:00	62.5	66.6	61.5	61.5	62.9	62.2	63.8
03:00 - 04:00	67.5	63.3	62.5	62.5	63.0	62.4	63.4
04:00 - 05:00	62.9	64.8	61.9	61.9	63.3	62.7	63.5
05:00 - 06:00	62.6	66.4	62.9	63.2	64.8	62.8	63.4
06:00 - 07:00	63.2	65.1	62.6	62.1	66.4	64.5	64.1
07:00 - 08:00	64.3	65.2	63.2	63.3	64.9	65.1	65.7
08:00 - 09:00	62.1	66.5	61.0	61.0	65.4	65.2	64.7
09:00 - 10:00	63.7	62.8	63.1	63.1	64.2	66.5	64.4
Leq(24)*	63.5	66.1	63.6	63.5	65.6	64.2	64.6
Ldn	70.4	72.6	69.3	69.3	71.4	69.7	70.5
Lmax **	85.2	90.5	88.0	88.0	90.8	94.0	92.7
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 10:00-10:00

** Maximum Sound Pressure Level between 10:00-10:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team

**Noise Monitoring Result : Background Noise**
MTR-PTTGC 4


Location : Gate of PTTGC Branch 8 Aromatics Monitor Period : 02-09 Aug 2024
SLM Model : Cirrus CR162C Serial No : G300838
Site Operator : Mr. Phuwadach Kaewjirakulsri

Calibrator Model : Cirrus CR:515 Serial No : 94296
Calibration Ref dB(A) : 94.0 Certified Date : 14 Feb 2024
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Feb 2025
Cal Sheet No.: CR-515-2024-231

Time	L90 (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
10:00 - 11:00	61.8	57.8	57.8	57.5	57.5	62.3	62.4
11:00 - 12:00	62.3	57.8	61.8	57.8	57.8	58.6	62.5
12:00 - 13:00	62.5	67.8	62.3	58.2	57.8	61.8	62.1
13:00 - 14:00	61.8	62.9	62.5	58.4	57.7	62.4	62.5
14:00 - 15:00	61.7	67.1	61.8	58.0	58.2	61.8	62.6
15:00 - 16:00	61.7	58.0	58.0	59.4	66.7	62.1	62.6
16:00 - 17:00	61.7	62.3	59.4	59.2	66.6	62.3	62.8
17:00 - 18:00	61.8	59.5	59.5	59.5	66.6	62.6	63.0
18:00 - 19:00	61.9	59.8	59.8	59.8	66.7	62.5	63.4
19:00 - 20:00	62.0	66.2	60.3	60.3	66.6	62.3	63.3
20:00 - 21:00	62.1	66.1	59.9	59.9	66.2	62.7	63.3
21:00 - 22:00	63.4	65.7	59.8	59.8	66.1	62.6	62.9
22:00 - 23:00	62.7	66.7	59.7	59.7	65.7	62.0	62.9
23:00 - 00:00	62.3	67.8	62.7	59.4	65.3	62.0	62.8
00:00 - 01:00	62.3	62.1	62.1	59.3	65.0	61.9	62.9
01:00 - 02:00	63.6	64.4	62.3	59.0	62.1	61.6	62.7
02:00 - 03:00	57.8	63.1	59.1	59.1	62.3	61.7	63.1
03:00 - 04:00	62.9	62.6	59.2	59.2	62.3	61.9	62.6
04:00 - 05:00	62.8	62.8	59.3	59.3	62.6	62.0	62.6
05:00 - 06:00	62.2	63.2	62.8	59.3	62.8	61.9	62.7
06:00 - 07:00	62.1	62.3	62.2	58.1	63.2	61.9	62.5
07:00 - 08:00	57.7	61.7	62.1	58.0	62.3	62.3	62.9
08:00 - 09:00	57.6	61.7	57.5	57.5	62.4	61.7	62.6
09:00 - 10:00	58.2	61.9	57.7	57.7	62.4	61.7	62.6
L90(avg)*	61.8	63.9	60.7	59.0	64.0	62.0	62.8

Remark : * Average time between 10:00-10:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Northern Area of PTTGC Branch 8 Aromatics				Monitor Period : 02-09 Aug 2024			
SLM Model : Cirrus CR162B				Serial No : G300769			
Site Operator : Mr. Phuwadech Kaewjirakulsi							
Calibrator Model : Cirrus CR:515				Serial No : 94296			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Feb 2024			
SLM Reading / Adjust dB(A) : 93.7/0.0				Expire Date : 13 Feb 2025			
Cal Sheet No.: CR-515-2024-231							
Time	Equivalent Sound Pressure Level (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
11:00 - 12:00	66.7	67.9	67.9	67.0	66.5	68.6	68.4
12:00 - 13:00	67.4	65.7	65.9	66.3	66.2	66.2	65.7
13:00 - 14:00	66.4	66.1	65.7	66.4	66.7	67.1	67.4
14:00 - 15:00	66.2	67.3	66.4	69.1	66.9	66.9	69.9
15:00 - 16:00	66.6	67.8	68.6	69.1	66.8	67.3	70.2
16:00 - 17:00	66.7	68.7	67.0	68.7	67.0	66.7	68.1
17:00 - 18:00	66.5	67.4	66.4	67.3	67.1	66.6	66.5
18:00 - 19:00	66.5	66.4	66.3	67.2	67.2	66.9	66.6
19:00 - 20:00	66.5	66.2	66.4	67.3	67.1	67.0	66.9
20:00 - 21:00	66.3	66.3	66.3	67.3	67.1	67.0	66.9
21:00 - 22:00	66.2	66.4	66.4	67.4	67.2	67.0	66.8
22:00 - 23:00	66.5	66.4	66.2	67.3	67.2	67.0	66.8
23:00 - 00:00	66.7	66.6	66.3	66.9	66.6	66.5	66.4
00:00 - 01:00	67.8	68.3	67.4	67.3	69.4	67.4	67.9
01:00 - 02:00	68.2	68.4	67.9	67.6	70.2	67.8	68.3
02:00 - 03:00	68.3	68.1	67.9	67.5	70.3	67.9	68.3
03:00 - 04:00	67.9	68.0	68.1	67.8	70.3	68.0	68.3
04:00 - 05:00	68.2	68.0	68.2	67.8	70.4	68.0	68.4
05:00 - 06:00	68.0	68.1	68.2	67.7	70.4	68.0	68.4
06:00 - 07:00	68.0	68.3	68.2	67.8	70.3	68.2	68.6
07:00 - 08:00	68.1	68.1	67.9	67.3	70.4	67.8	68.7
08:00 - 09:00	67.9	67.8	67.9	67.0	70.3	67.5	68.5
09:00 - 10:00	68.0	68.0	67.1	67.4	70.0	68.0	68.3
10:00 - 11:00	69.2	68.6	67.4	67.1	69.9	69.4	68.3
Leq(24)*	67.4	67.5	67.3	67.5	68.7	67.5	68.0
Ldn	74.1	74.2	74.0	73.9	75.9	74.0	74.4
Lmax **	89.4	93.9	89.5	93.9	84.3	92.9	93.1
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 11:00-11:00

** Maximum Sound Pressure Level between 11:00-11:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Northern Area of PTTGC Branch 8 Aromatics				Monitor Period : 02-09 Aug 2024			
SLM Model : Cirrus CR162B				Serial No : G300769			
Site Operator : Mr. Phuwadech Kaewjirakulsi							
Calibrator Model : Cirrus CR:515				Serial No : 94296			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Feb 2024			
SLM Reading / Adjust dB(A) : 93.7/0.0				Expire Date : 13 Feb 2025			
Cal Sheet No.: CR-515-2024-231							
Time	L90 (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
11:00 - 12:00	64.9	65.6	66.2	65.8	65.5	64.9	64.4
12:00 - 13:00	65.1	64.8	64.8	65.6	65.5	65.1	65.0
13:00 - 14:00	64.9	64.8	64.7	65.6	65.6	66.0	65.6
14:00 - 15:00	65.3	65.5	65.0	66.3	65.8	65.8	67.3
15:00 - 16:00	65.7	65.7	65.2	66.1	66.1	65.7	66.4
16:00 - 17:00	65.9	65.4	65.3	65.4	66.2	65.7	65.7
17:00 - 18:00	65.7	65.7	65.4	66.4	66.3	65.7	65.7
18:00 - 19:00	65.7	65.5	65.4	66.5	66.4	66.1	65.8
19:00 - 20:00	65.6	65.4	65.4	66.5	66.4	66.2	66.1
20:00 - 21:00	65.4	65.5	65.4	66.5	66.3	66.3	66.1
21:00 - 22:00	65.3	65.5	65.4	66.7	66.5	66.3	66.1
22:00 - 23:00	65.7	65.5	65.4	66.5	66.5	66.3	66.0
23:00 - 00:00	65.9	65.7	65.4	65.8	65.2	65.5	65.3
00:00 - 01:00	66.1	67.1	65.6	66.4	65.7	66.0	65.6
01:00 - 02:00	67.7	67.8	67.2	66.8	69.5	66.6	67.6
02:00 - 03:00	67.6	67.6	67.3	66.6	69.6	66.8	67.5
03:00 - 04:00	67.3	67.5	67.5	66.7	69.6	67.0	67.6
04:00 - 05:00	67.6	67.6	67.6	66.7	69.7	67.0	67.6
05:00 - 06:00	67.4	67.6	67.6	66.8	69.7	67.0	67.7
06:00 - 07:00	67.4	67.8	67.6	66.7	69.6	67.1	67.9
07:00 - 08:00	67.3	67.6	67.2	66.5	69.6	66.7	67.7
08:00 - 09:00	67.2	67.1	66.8	66.2	69.5	66.3	67.6
09:00 - 10:00	67.3	67.4	66.3	66.1	69.2	66.3	67.6
10:00 - 11:00	67.5	67.4	66.4	66.1	69.1	66.6	67.6
L90(avg)*	66.4	66.5	66.2	66.3	67.8	66.2	66.7

Remark : * Average time between 11:00-11:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Southern Area of PTTGC Branch 8 Aromatics Monitor Period : 02-09 Aug 2024
SLM Model : Cirrus CR162B Serial No : G302743
Site Operator : Mr. Phuwadech Kaewjirakulsri

Calibrator Model : Cirrus CR:515 Serial No : 94296
Calibration Ref dB(A) : 94.0 Certified Date : 14 Feb 2024
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Feb 2025
Cal Sheet No.: CR-515-2024-231

Time	Equivalent Sound Pressure Level (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
09:00 - 10:00	54.9	52.8	52.3	51.7	56.4	54.1	54.8
10:00 - 11:00	52.5	54.1	51.2	52.1	53.9	54.4	57.1
11:00 - 12:00	54.5	53.1	52.4	52.9	56.3	53.0	54.2
12:00 - 13:00	57.2	57.2	52.5	55.7	55.0	52.6	58.5
13:00 - 14:00	54.9	53.6	54.5	52.7	54.1	54.9	55.7
14:00 - 15:00	55.9	53.2	57.2	54.1	53.0	57.2	55.7
15:00 - 16:00	54.0	52.1	54.9	52.8	54.5	54.3	52.7
16:00 - 17:00	53.5	51.7	53.2	54.7	53.7	54.9	54.1
17:00 - 18:00	52.0	56.4	52.1	56.7	54.6	54.7	53.2
18:00 - 19:00	51.0	51.1	51.1	57.4	53.9	64.8	54.9
19:00 - 20:00	50.5	50.4	56.4	52.9	53.7	66.5	52.8
20:00 - 21:00	50.8	50.5	51.7	52.3	53.7	62.7	52.9
21:00 - 22:00	51.1	51.7	50.8	52.7	52.5	53.2	53.0
22:00 - 23:00	51.1	57.5	51.3	51.5	52.2	52.0	52.6
23:00 - 00:00	51.0	57.7	51.0	51.5	52.1	51.5	52.1
00:00 - 01:00	51.1	54.6	51.0	51.3	51.2	50.8	54.3
01:00 - 02:00	50.8	51.6	50.4	51.7	51.2	51.3	50.8
02:00 - 03:00	53.5	51.4	50.6	51.2	50.7	51.0	50.5
03:00 - 04:00	52.0	50.3	51.2	50.4	50.6	51.0	50.7
04:00 - 05:00	57.0	52.9	53.7	50.1	50.2	50.5	50.5
05:00 - 06:00	55.8	53.4	53.5	50.4	49.0	50.7	50.4
06:00 - 07:00	54.4	52.9	52.0	50.5	49.1	50.8	50.6
07:00 - 08:00	53.0	51.7	57.0	56.2	50.3	51.1	50.5
08:00 - 09:00	52.6	52.1	55.8	55.5	53.1	51.3	50.7
Leq(24)*	53.6	53.7	53.4	53.4	53.2	57.5	53.7
Ldn	60.0	60.6	58.6	58.1	57.9	60.0	58.6
Lmax **	91.0	93.2	93.2	84.1	80.3	89.9	92.9
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 09:00-09:00

** Maximum Sound Pressure Level between 09:00-09:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Southern Area of PTTGC Branch 8 Aromatics Monitor Period : 02-09 Aug 2024
SLM Model : Cirrus CR162B Serial No : G302743
Site Operator : Mr. Phuwadech Kaewjirakulsri

Calibrator Model : Cirrus CR:515 Serial No : 94296
Calibration Ref dB(A) : 94.0 Certified Date : 14 Feb 2024
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Feb 2025
Cal Sheet No.: CR-515-2024-231

Time	L90 (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
09:00 - 10:00	51.8	51.1	49.3	49.2	52.2	51.2	50.8
10:00 - 11:00	51.1	50.9	49.3	49.4	51.5	51.5	52.4
11:00 - 12:00	51.8	51.5	49.6	49.2	51.8	50.8	51.8
12:00 - 13:00	52.2	51.8	51.1	51.7	52.4	50.6	51.9
13:00 - 14:00	52.1	51.9	51.8	51.0	51.6	51.8	52.0
14:00 - 15:00	51.5	51.6	52.2	51.7	51.3	52.2	51.7
15:00 - 16:00	51.6	50.7	52.1	51.0	52.4	51.4	51.0
16:00 - 17:00	51.6	50.4	51.6	51.0	52.4	52.3	51.7
17:00 - 18:00	51.0	50.4	50.7	52.2	52.8	51.9	51.5
18:00 - 19:00	50.0	49.9	49.9	52.3	52.0	61.6	52.0
19:00 - 20:00	49.8	49.5	50.4	51.5	52.0	66.2	51.0
20:00 - 21:00	50.0	49.5	50.4	51.1	51.5	52.2	51.0
21:00 - 22:00	50.3	49.7	50.0	51.2	51.2	51.5	51.4
22:00 - 23:00	50.3	53.1	50.4	50.7	51.1	51.0	51.4
23:00 - 00:00	50.4	53.5	50.5	50.8	50.8	50.4	50.7
00:00 - 01:00	50.3	52.5	50.3	50.7	50.4	50.0	50.2
01:00 - 02:00	50.2	50.2	49.9	51.0	50.4	50.4	50.0
02:00 - 03:00	51.2	49.8	50.0	50.4	50.0	50.5	49.8
03:00 - 04:00	50.8	49.3	49.9	49.8	49.8	50.3	50.1
04:00 - 05:00	51.1	49.8	51.5	49.6	49.5	49.8	49.9
05:00 - 06:00	52.4	49.8	51.2	49.9	48.5	50.0	49.9
06:00 - 07:00	51.5	49.2	50.8	49.9	48.4	50.0	50.0
07:00 - 08:00	50.8	49.2	51.1	50.1	49.1	50.3	49.9
08:00 - 09:00	50.6	49.4	52.4	52.2	49.6	50.5	50.1
L90(avg)*	51.1	50.8	50.8	50.8	51.1	55.4	51.0

Remark : * Average time between 09:00-09:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Western Area of PTTGC Branch 8 Aromatics Monitor Period : 02-09 Aug 2024
SLM Model : Cirrus CR162B Serial No : G301027
Site Operator : Mr. Phuwadech Kaewjirakulsri


Calibrator Model : Cirrus CR:515 Serial No : 94296
Calibration Ref dB(A) : 94.0 Certified Date : 14 Feb 2024
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Feb 2025
Cal Sheet No.: CR-515-2024-231

Time	Equivalent Sound Pressure Level (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
10:00 - 11:00	61.3	68.0	67.3	65.5	64.4	65.5	67.3
11:00 - 12:00	66.9	64.5	66.5	67.0	65.9	66.2	66.5
12:00 - 13:00	67.5	64.6	66.4	67.5	63.1	63.0	66.4
13:00 - 14:00	67.0	64.5	66.5	67.0	65.5	64.4	66.5
14:00 - 15:00	67.1	64.7	66.4	67.1	66.7	66.9	66.4
15:00 - 16:00	67.6	64.9	66.2	67.6	66.0	65.9	66.9
16:00 - 17:00	68.1	64.7	66.2	68.0	65.8	64.7	69.3
17:00 - 18:00	68.1	64.7	66.1	64.1	65.1	64.7	69.7
18:00 - 19:00	69.8	64.9	66.0	65.2	65.6	64.9	67.3
19:00 - 20:00	69.7	64.9	65.8	65.4	63.3	64.9	67.8
20:00 - 21:00	69.1	64.9	65.9	65.6	65.6	64.9	67.9
21:00 - 22:00	67.8	65.0	64.9	65.7	65.3	65.0	69.1
22:00 - 23:00	68.0	64.8	64.8	65.3	65.9	65.3	68.6
23:00 - 00:00	68.4	65.5	65.5	65.2	65.7	65.2	65.8
00:00 - 01:00	68.6	66.3	66.3	65.4	63.5	65.4	63.0
01:00 - 02:00	68.6	65.9	65.9	66.4	65.4	66.4	68.8
02:00 - 03:00	68.8	66.0	66.6	66.6	66.7	66.6	69.9
03:00 - 04:00	68.7	66.1	67.9	67.9	66.3	67.9	69.9
04:00 - 05:00	69.2	66.0	65.6	65.6	66.6	65.6	68.9
05:00 - 06:00	68.9	66.3	65.5	65.5	66.6	66.3	67.6
06:00 - 07:00	68.9	66.3	64.7	64.4	64.7	66.3	64.5
07:00 - 08:00	68.6	66.6	63.3	63.9	63.3	66.6	65.4
08:00 - 09:00	68.4	66.5	63.3	63.5	63.3	66.5	66.2
09:00 - 10:00	68.9	67.2	63.8	63.5	63.8	67.2	67.2
Leq(24)*	68.3	65.7	65.9	66.0	65.3	65.8	67.7
Ldn	75.0	72.3	72.4	72.1	72.1	72.5	74.3
Lmax **	84.8	75.5	83.1	87.7	85.7	87.7	81.9
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 10:00-10:00

** Maximum Sound Pressure Level between 10:00-10:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4


Location : Western Area of PTTGC Branch 8 Aromatics Monitor Period : 02-09 Aug 2024
SLM Model : Cirrus CR162B Serial No : G301027
Site Operator : Mr. Phuwadech Kaewjirakulsri

Calibrator Model : Cirrus CR:515 Serial No : 94296
Calibration Ref dB(A) : 94.0 Certified Date : 14 Feb 2024
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Feb 2025
Cal Sheet No.: CR-515-2024-231

Time	L90 (dB(A))						
	02-03 Aug 2024	03-04 Aug 2024	04-05 Aug 2024	05-06 Aug 2024	06-07 Aug 2024	07-08 Aug 2024	08-09 Aug 2024
10:00 - 11:00	60.4	64.7	66.6	63.2	63.5	63.2	66.6
11:00 - 12:00	66.2	64.1	65.7	64.8	63.2	62.8	65.7
12:00 - 13:00	67.1	64.2	65.9	67.1	62.8	62.7	65.9
13:00 - 14:00	66.6	64.1	66.0	66.6	62.6	62.7	66.0
14:00 - 15:00	66.7	64.3	65.9	66.7	62.9	64.9	65.9
15:00 - 16:00	67.2	64.5	65.7	67.2	63.2	62.9	63.3
16:00 - 17:00	67.7	64.4	65.7	67.7	63.3	63.9	67.4
17:00 - 18:00	67.5	64.4	65.7	62.6	63.0	64.4	67.6
18:00 - 19:00	69.5	64.5	65.5	64.8	63.3	64.5	63.9
19:00 - 20:00	69.4	64.5	65.5	65.1	63.0	64.5	64.2
20:00 - 21:00	68.0	64.5	65.5	65.3	63.3	64.5	63.7
21:00 - 22:00	67.5	64.5	64.5	65.3	63.4	64.5	67.4
22:00 - 23:00	67.7	64.5	64.5	64.9	65.0	64.9	64.4
23:00 - 00:00	68.1	64.6	64.6	64.8	63.2	64.8	62.9
00:00 - 01:00	68.3	65.8	65.8	64.8	63.3	64.8	62.7
01:00 - 02:00	68.4	65.5	65.5	64.9	63.5	64.9	62.9
02:00 - 03:00	68.5	65.6	65.2	65.2	65.5	65.2	65.8
03:00 - 04:00	68.5	65.6	65.4	65.4	65.3	65.4	68.5
04:00 - 05:00	69.0	65.3	65.3	65.3	65.4	65.3	64.2
05:00 - 06:00	68.6	65.6	65.0	65.0	65.5	65.6	63.7
06:00 - 07:00	68.7	65.6	63.5	64.1	63.5	65.6	63.3
07:00 - 08:00	68.4	66.1	63.0	63.5	63.0	66.1	63.8
08:00 - 09:00	68.2	65.6	63.0	63.2	63.0	65.6	64.0
09:00 - 10:00	67.9	66.7	63.2	63.1	63.2	66.7	65.0
L90(avg)*	67.9	65.0	65.2	65.2	63.7	64.7	65.3

Remark : * Average time between 10:00-10:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team

ภาคผนวก ง.6

ใบรับรองผลการตรวจวัดระดับเสียงภายในสถานประกอบการ



Noise Monitoring Result : Working Noise

MTR-PTTGC4


LOCATION	: Gate House B	MEASUREMENT DATE	: 14-11-2024
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 820725
SITE OPERATOR	: Miss Salisa Ainree		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 94296
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14-02-2024
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13-02-2025
CAL SHEET No.	: CAL-2411-0010-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	14-11-2024	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	64.6	
09:00 - 10:00	64.0	
10:00 - 11:00	63.9	
11:00 - 12:00	63.7	
12:00 - 13:00	63.9	
13:00 - 14:00	64.3	
14:00 - 15:00	65.8	
15:00 - 16:00	64.7	
16:00 - 17:00		
17:00 - 18:00		
18:00 - 19:00		
19:00 - 20:00		
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(8)	64.4	
Lmax	86.9	
Standard*	90 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Notification of Ministry of Industry, B.E.2546


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise

MTR-PTTGC4

LOCATION	: Gate House B	MEASUREMENT DATE	: 14-11-2024
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 820725
SITE OPERATOR	: Miss Salisa Ainree		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 94296
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14-02-2024
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13-02-2025
CAL SHEET No.	: CAL-2411-0010-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	14-11-2024	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	64.6	
09:00 - 10:00	64.0	
10:00 - 11:00	63.9	
11:00 - 12:00	63.7	
12:00 - 13:00	63.9	
13:00 - 14:00	64.3	
14:00 - 15:00	65.8	
15:00 - 16:00	64.7	
16:00 - 17:00	64.1	
17:00 - 18:00	65.6	
18:00 - 19:00	65.9	
19:00 - 20:00	65.2	
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(12)	64.7	
Lmax	86.9	
Standard*	87 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Notification of Ministry of Industry, B.E.2546


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise

MTR-PTTGC4


LOCATION	: Pump Station	MEASUREMENT DATE	: 15-11-2024
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 820722
SITE OPERATOR	: Miss Salisa Ainree		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 94296
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14-02-2024
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13-02-2025
CAL SHEET No.	: CAL-2411-0010-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	15-11-2024	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00		
09:00 - 10:00	84.6	
10:00 - 11:00	84.7	
11:00 - 12:00	84.6	
12:00 - 13:00	84.8	
13:00 - 14:00	84.8	
14:00 - 15:00	84.6	
15:00 - 16:00	84.6	
16:00 - 17:00	84.6	
17:00 - 18:00		
18:00 - 19:00		
19:00 - 20:00		
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(8)	84.7	
Lmax	88.2	
Standard*	90 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Notification of Ministry of Industry, B.E.2546


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise

MTR-PTTGC4


LOCATION	: Pump Station	MEASUREMENT DATE	: 15-11-2024
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 820722
SITE OPERATOR	: Miss Salisa Ainree		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 94296
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14-02-2024
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13-02-2025
CAL SHEET No.	: CAL-2411-0010-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	15-11-2024	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00		
09:00 - 10:00	84.6	
10:00 - 11:00	84.7	
11:00 - 12:00	84.6	
12:00 - 13:00	84.8	
13:00 - 14:00	84.8	
14:00 - 15:00	84.6	
15:00 - 16:00	84.6	
16:00 - 17:00	84.6	
17:00 - 18:00	84.5	
18:00 - 19:00	84.5	
19:00 - 20:00	84.6	
20:00 - 21:00	84.6	
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(12)	84.6	
Lmax	88.2	
Standard*	87 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Notification of Ministry of Industry, B.E.2546


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise

MTR-PTTGC4


LOCATION	: Truck Loading I-17	MEASUREMENT DATE	: 15-11-2024
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 820725
SITE OPERATOR	: Miss Salisa Ainree		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 94296
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14-02-2024
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13-02-2025
CAL SHEET No.	: CAL-2411-0010-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	15-11-2024	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00		
09:00 - 10:00	63.8	
10:00 - 11:00	64.4	
11:00 - 12:00	65.5	
12:00 - 13:00	62.3	
13:00 - 14:00	62.6	
14:00 - 15:00	62.7	
15:00 - 16:00	63.9	
16:00 - 17:00	64.2	
17:00 - 18:00		
18:00 - 19:00		
19:00 - 20:00		
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(8)	63.8	
Lmax	85.6	
Standard*	90 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Notification of Ministry of Industry, B.E.2546


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise

MTR-PTTGC4


LOCATION	: Truck Loading I-17	MEASUREMENT DATE	: 15-11-2024
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 820725
SITE OPERATOR	: Miss Salisa Ainree		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 94296
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14-02-2024
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13-02-2025
CAL SHEET No.	: CAL-2411-0010-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	15-11-2024	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00		
09:00 - 10:00	63.8	
10:00 - 11:00	64.4	
11:00 - 12:00	65.5	
12:00 - 13:00	62.3	
13:00 - 14:00	62.6	
14:00 - 15:00	62.7	
15:00 - 16:00	63.9	
16:00 - 17:00	64.2	
17:00 - 18:00	63.7	
18:00 - 19:00	63.9	
19:00 - 20:00	63.7	
20:00 - 21:00	63.9	
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(12)	63.8	
Lmax	85.6	
Standard*	87 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Notification of Ministry of Industry, B.E.2546


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team

ภาคผนวก ง.7

ใบรับรองผลการตรวจวัดระดับเสียงที่ถูกรับ
เฉลี่ยตลอดระยะเวลาการทำงาน (TWA)



บริษัท ซีคोट จำกัด
SECOT CO., LTD.


239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพฯ 10800
239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND
TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

NOISE MEASUREMENT REPORT : NOISE DOSE

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096/MON2H/Noise Dose
	(Aromatics 1 Plant)		
MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Noise Dosimeter
MEASUREMENT DATE	: 22-08-2024	CALIBRATOR TYPE	: Cirrus RC:110A
MEASUREMENT LOCATION	: PTTGC4	SERIAL NO.	: 95167
SITE OPERATOR	: Miss Wiraya Patchimboon	CALIBRATOR REF.	: 114 dB @ 1kHz

USER NAME	AREA/PLANT	TIME	SOUND PRESSURE LEVEL (dB(A))		
			TWA (12-hr)	%DOSE	STANDARD *
ID : 26002441	Reformer 1	08:40-18:56	80.1	48.9	83.0
ID : 26001221	Reformer 2	08:44-18:58	81.2	61.9	83.0
ID : 26002469	Reformer 2	08:48-18:56	78.6	34.5	83.0
ID : 26008131	Reformer 2	08:56-18:59	70.7	5.5	83.0
ID : 26009800	Workshop	08:10-18:41	55.1	0.1	83.0
ID : 26006934	WWT	08:48-18:55	73.7	11.0	83.0


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team

- Remark :
1. Reported analysis refers to submitted sample only.
 2. This report shall not be reproduced, except in full, without official approval.
 - 3.* Notification of Department of Labour Protection and Welfare B.E.2561 (2018).
 4. TWA means Time Weighted Average.



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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

NOISE MEASUREMENT REPORT : NOISE DOSE

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096/MON2H/Noise Dose
	(Aromatics 1 Plant)		
MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Noise Dosimeter
MEASUREMENT DATE	: 23-08-2024	CALIBRATOR TYPE	: Cirrus RC:110A
MEASUREMENT LOCATION	: PTTGC4	SERIAL NO.	: 95167
SITE OPERATOR	: Miss Wiraya Patchimboon	CALIBRATOR REF.	: 114 dB @ 1kHz

USER NAME	AREA/PLANT	TIME	SOUND PRESSURE LEVEL (dB(A))		
			TWA (12-hr)	%DOSE	STANDARD *
ID : 26002116	Aromatics 1	08:42-19:00	76.0	18.7	83.0
ID : 26002461	Aromatics 1	08:38-19:00	72.9	9.2	83.0
ID : 26002080	Aromatics 2	08:40-18:56	52.4	0.1	83.0
ID : 26002448	Aromatics 2	08:42-19:00	74.4	12.8	83.0
ID : 26001467	Aromatics 3	09:00-19:00	78.8	35.8	83.0
ID : 26002428	Unit 390	08:39-19:00	78.3	31.8	83.0


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team

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 4. TWA means Time Weighted Average.



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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

NOISE MEASUREMENT REPORT : NOISE DOSE

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096/MON2H/Noise Dose
	(Aromatics 1 Plant)		
MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Noise Dosimeter
MEASUREMENT DATE	: 20-09-2024	CALIBRATOR TYPE	: Citrus RC:110A
MEASUREMENT LOCATION	: PTTGC4	SERIAL NO.	: 95167
SITE OPERATOR	: Miss Salisa Ainree	CALIBRATOR REF.	: 114 dB @ 1kHz

USER NAME	AREA/PLANT	TIME	SOUND PRESSURE LEVEL (dB(A))		
			TWA (12-hr)	%DOSE	STANDARD *
ID : 26009138	Aromatics 3	07:31-18:57	74.6	13.6	83.0

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Sununta Sirawuttinanon)

Technical Management Team

- Remark :**
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 4. TWA means Time Weighted Average.



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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

NOISE MEASUREMENT REPORT : NOISE DOSE

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 224096/MON2H/Noise Dose
	(Aromatics 1 Plant)		
MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Noise Dosimeter
MEASUREMENT DATE	: 21-10-2024	CALIBRATOR TYPE	: Pulsar Model 22R
MEASUREMENT LOCATION	: PTTGC4	SERIAL NO.	: 79781
SITE OPERATOR	: Miss Salisa Ainree	CALIBRATOR REF.	: 114 dB @ 1kHz

USER NAME	AREA/PLANT	TIME	SOUND PRESSURE LEVEL (dB(A))		
			TWA (12-hr)	%DOSE	STANDARD *
ID : 26002473	Utility	07:42-18:17	81.8	71.6	83.0

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Sununta Sirawuttinanon)

Technical Management Team

- Remark :**
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 2. This report shall not be reproduced, except in full, without official approval.
 - 3.* Notification of Department of Labour Protection and Welfare B.E.2561 (2018).
 4. TWA means Time Weighted Average.

ภาคผนวก ง.8

ใบรับรองผลการตรวจวัดคุณภาพอากาศภายในสถานประกอบการ

คุณภาพอากาศภายในสถานประกอบการแบบติดตั้งกับพื้นที่



บริษัท ซีคอต จำกัด
SECOT CO., LTD.

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239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND

TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1751/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 23/08/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut,	Received Date	: 26/08/2024
	Muang Rayong , Rayong 21150	Test Date	: 27/08/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 04/09/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sorbent Adsorption
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
Loading Area สถานี 8	23/08/2024 10.00-14.00	Benzene	NIOSH 1501/GC FID	< 0.02	ND	1
		Toluene	NIOSH 1501/GC FID	< 0.02	ND	200
		Total xylene	NIOSH 1501/GC FID	< 0.03	ND	100
		Cyclohexane	NIOSH 1500/GC FID	< 0.01	0.58	300

Analyst By :

Sudaporn S.

(Miss Sudaporn Soonthorn)

Approved By :

Maia Poowanapetch

(Miss Narisa Poowanapetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. Notification of the Department of Labour Protection and Welfare, B.E.2560 (2017).

4. ND = non-detectable.



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239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND

TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2393/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 15/11/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut,	Received Date	: 19/11/2024
	Muang Rayong , Rayong 21150	Test Date	: 21/11/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/11/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sorbent Adsorption
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
Loading Area สถานี 8	15/11/2024 09:50-13:50	Benzene	NIOSH 1501/GC FID	< 0.02	ND	1
		Toluene	NIOSH 1501/GC FID	< 0.02	ND	200
		Total xylene	NIOSH 1501/GC FID	< 0.03	ND	100
		Cyclohexane	NIOSH 1500/GC FID	< 0.01	ND	300

Analyst By :

Sudaporn S.

(Miss Sudaporn Soonthorn)

Approved By :

Maia Poowanapetch

(Miss Narisa Poowanapetch)

Technical Management Team

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SECOT CO., LTD.

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1752/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 22/08/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong , Rayong 21150	Received Date	: 26/08/2024
		Test Date	: 27/08/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 06/09/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26002441	22/08/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Reformer 1	08:40-13:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1752/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 22/08/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong , Rayong 21150	Received Date	: 26/08/2024
		Test Date	: 27/08/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 06/09/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26002469	22/08/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area: Reformer 2	08:48-13:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND

TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1752/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 23/08/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong , Rayong 21150	Received Date	: 26/08/2024
		Test Date	: 27/08/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 06/09/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26002116	23/08/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 1	08:40-13:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100
ID : 26002080	23/08/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 2	08:40-13:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100
ID : 26001467	23/08/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 3	09:09-13:09	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Maiaa Poowasanpet
(Miss Narisa Poowasanpet)
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1752/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 23/08/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong , Rayong 21150	Received Date	: 26/08/2024
		Test Date	: 27/08/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 06/09/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26006934	23/08/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area: Water treatment	08:48-13:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Maiaa Poowasanpet
(Miss Narisa Poowasanpet)
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1752/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 23/08/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 26/08/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Test Date	: 27/08/2024
		Report Date	: 06/09/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26001031	23/08/2024	Cyclohexane	ISO 16200-2/GC FID	< 0.04	ND	300
Area : Cyclohexane	09:24-13:25					

Analyst By: Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By: Na-Na Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 1752/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 23/08/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 26/08/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Test Date	: 27/08/2024
		Report Date	: 06/09/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26002428	23/08/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area: Unit 390	08:39-13:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By: Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By: Na-Na Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2394/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 14/11/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong , Rayong 21150	Received Date	: 19/11/2024
		Test Date	: 21/11/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/11/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26002469	14/11/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Reformer 1	09:09-13:09	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100
ID : 26002351	14/11/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Reformer 2	08:33-12:33	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Mairisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2394/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 15/11/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong , Rayong 21150	Received Date	: 19/11/2024
		Test Date	: 21/11/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/11/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26001031	15/11/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 1	09:20-13:20	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100
ID : 26001467	15/11/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 2	09:20-13:30	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Mairisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2394/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 14/11/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong , Rayong 21150	Received Date	: 19/11/2024
		Test Date	: 21/11/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/11/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26006934	14/11/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area: Water treatment	08:38-12:38	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2394/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 15/11/2024
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong , Rayong 21150	Received Date	: 19/11/2024
		Test Date	: 21/11/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/11/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26006412	15/11/2024	Cyclohexane	ISO 16200-2/GC FID	< 0.04	ND	300
Area : Cyclohexane	09:12-13:12					

Analyst By : _____
(Miss Sudaporn Soonthorn)

Approved By : _____
(Miss Narisa Poowasanpetch)
Technical Management Team

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ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2394/67
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 15/11/2024
Address	: No.4, 1-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 19/11/2024
		Test Date	: 21/11/2024
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/11/2024

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID : 26009138	15/11/2024	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Unit 390	09:35-13:35	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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