

ภาคผนวก ค

ใบรับรองผลการวิเคราะห์

คุณภาพอากาศในบรรยากาศ



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428979

Date Received : Mar 22, 2024
Date Reported : Mar 27, 2024
Report Number: 2936355-1

Page 1 of 1

Sample Description Air Quality
Location นนทบุรี
Date Analysis Commenced Mar 23, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
2428979-1	Mar 15 - Mar 16, 2024	0.048	0.028	759	31
2428979-2	Mar 16 - Mar 17, 2024	0.050	0.026	759	31
2428979-3	Mar 17 - Mar 18, 2024	0.063	0.033	759	33
2428979-4	Mar 18 - Mar 19, 2024	0.078	0.039	759	32
2428979-5	Mar 19 - Mar 20, 2024	0.082	0.042	759	30
2428979-6	Mar 20 - Mar 21, 2024	0.079	0.054	759	28
2428979-7	Mar 21 - Mar 22, 2024	0.113	0.067	759	31
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B
Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Nontachai Uppathamp

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428979
Date Received : Mar 22, 2024
Date Reported : Mar 27, 2024
Report Number: 2936355-2

Page 1 of 1

Sample Description	Air Quality
Location	เขตนครมาบตาพุด
Date Analysis Commenced	Mar 23, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
2428979-8	Mar 15 - Mar 16, 2024	0.046	0.026	759	31
2428979-9	Mar 16 - Mar 17, 2024	0.044	0.025	759	31
2428979-10	Mar 17 - Mar 18, 2024	0.053	0.031	759	33
2428979-11	Mar 18 - Mar 19, 2024	0.065	0.037	759	32
2428979-12	Mar 19 - Mar 20, 2024	0.060	0.039	759	30
2428979-13	Mar 20 - Mar 21, 2024	0.084	0.059	759	28
2428979-14	Mar 21 - Mar 22, 2024	0.115	0.065	759	31
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B
Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Nontachai Uppathamp

Remark :

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Approved by

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Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428979

Date Received : Mar 22, 2024
Date Reported : Mar 27, 2024
Report Number: 2936355-3

Page 1 of 1

Sample Description	Air Quality
Location	บ้านเนินพยอม
Date Analysis Commenced	Mar 23, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
2428979-15	Mar 15 - Mar 16, 2024	0.048	0.022	759	31
2428979-16	Mar 16 - Mar 17, 2024	0.049	0.020	759	31
2428979-17	Mar 17 - Mar 18, 2024	0.051	0.027	759	33
2428979-18	Mar 18 - Mar 19, 2024	0.063	0.031	759	32
2428979-19	Mar 19 - Mar 20, 2024	0.075	0.042	759	30
2428979-20	Mar 20 - Mar 21, 2024	0.098	0.051	759	28
2428979-21	Mar 21 - Mar 22, 2024	0.120	0.058	759	31
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B
Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Nontachai Uppathamp

Remark :

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Approved by

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Thanita Kulsuriwong
Scientist (4)

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คุณภาพอากาศจากปล่องระบายอากาศ



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428970

Date Received : Mar 18, 2024
Date Reported : Mar 23, 2024
Report Number: 2936343-1

Page 1 of 2

Sample Number 2428970-1
Sampled Date Mar 18, 2024
Sample Description Emission from Stationary Source
Location Turbulence dust collector
Date Analysis Commenced Mar 19, 2024
Condition of Sample Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description

Ambient Pressure	756	mmHg	Diameter	0.80	m	Oxygen	20.9	%
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	37.0	°C	Gas Velocity	9.3	m/s
Type of Fuel	-		Moisture	2.59	%	Flow Rate (Actual O2)	15731	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Total Suspended Particulate	09:40 AM - 10:22 AM	mg/m3	-	0.5	<0.5	400	60	United States Environmental Protection Agency, EPA Method 5	Rayong

Guideline : Guideline(1) : Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)
Guideline(2) : Environmental Impact Assessment Report of THAI MMA Co., Ltd.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-9447

Approved by

D. Changchon.

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

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Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428970
Date Received : Mar 18, 2024
Date Reported : Mar 23, 2024
Report Number: 2936343-1

Page 2 of 2

Sample Number 2428970-1
Sampled Date Mar 18, 2024
Sample Description Emission from Stationary Source
Location Turbulence dust collector
Date Analysis Commenced Mar 19, 2024
Condition of Sample Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description

Ambient Pressure	756	mmHg	Diameter	0.80	m	Oxygen	20.9	%
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	37.0	°C	Gas Velocity	9.3	m/s
Type of Fuel	-		Moisture	2.59	%	Flow Rate (Actual O2)	15731	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Total Suspended Particulate *	09:40 AM - 10:22 AM	g/s	-	-	<0.002	-	0.22	Calculated	Rayong

Guideline : Guideline(1) : Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)
Guideline(2) : Environmental Impact Assessment Report of THAI MMA Co., Ltd.

Sampled By : Sathapron Thakarw

Remark :

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ว-323-จ-9447

Approved by

D. Changchon.

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

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428971

Date Received : Mar 18, 2024

Date Reported : Mar 28, 2024

Report Number: 2936345-1

Page 1 of 2

Sample Number 2428971-1
Sampled Date Mar 18, 2024
Sample Description Emission from Stationary Source
Location Main Stack
Date Analysis Commenced Mar 19, 2024
Condition of Sample Extracted into two sorbent tubes, refrigerated

Stack Description

Ambient Pressure	756	mmHg	Diameter	1.60 x 1.60	m	Oxygen	20.9	%
Ambient Temperature	32.0	°C	Shape	Square		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	29.0	°C	Gas Velocity	3.8	m/s
Type of Fuel	-		Moisture	5.81	%	Flow Rate (Actual O2)	32663	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Testing Location
Air Testing								
Butyl acrylate	10:00 AM - 10:15 AM	mg/m3	-	1.0	<1.0	39	United States Environmental Protection Agency, EPA Method 18	Bangkok
Methyl Methacrylate	10:00 AM - 10:15 AM	mg/m3	-	1.0	13.3	520	United States Environmental Protection Agency, EPA Method 18	Bangkok

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428971

Date Received : Mar 18, 2024

Date Reported : Mar 28, 2024

Report Number: 2936345-1

Page 2 of 2

Sample Number 2428971-1
Sampled Date Mar 18, 2024
Sample Description Emission from Stationary Source
Location Main Stack
Date Analysis Commenced Mar 19, 2024
Condition of Sample Extracted into two sorbent tubes, refrigerated

Stack Description

Ambient Pressure	756	mmHg	Diameter	1.60 x 1.60	m	Oxygen	20.9	%
Ambient Temperature	32.0	°C	Shape	Square		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	29.0	°C	Gas Velocity	3.8	m/s
Type of Fuel	-		Moisture	5.81	%	Flow Rate (Actual O2)	32663	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline Limit	Method	Testing Location
Air Testing								
Butyl acrylate	10:00 AM - 10:15 AM	g/s	-	-	<0.01	0.13	Calculated	Bangkok
Methyl Methacrylate	10:00 AM - 10:15 AM	g/s	-	-	0.12	1.73	Calculated	Bangkok

Guideline : Environmental Impact Assessment Report of THAI MMA Co., Ltd.

Sampled By : Naratip Thueakchaikam

Remark :

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

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428973

Date Received : Mar 18, 2024
Date Reported : Mar 26, 2024
Report Number: 2936347-1

Page 1 of 1

Sample Number 2428973-1
Sampled Date Mar 18, 2024
Sample Description Emission from Stationary Source
Location ปล่อง Carbon Absorber
Date Analysis Commenced Mar 19, 2024
Condition of Sample Extracted into one 10-L air sampling bag

Stack Description

Ambient Pressure	756	mmHg	Diameter	0.15	m	Oxygen	20.9	%
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	30.0	°C	Gas Velocity	10.0	m/s
Type of Fuel	-		Moisture	5.81	%	Flow Rate (Actual O2)	589	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Total VOCs as Propane	11:00 AM - 11:10 AM	ppm	-	1.0	13.2	United States Environmental Protection Agency, EPA Method 25A	Bangkok

Sampled By : Naratip Thueakchaikam

Remark :

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Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

TESTING

No.0042

Lot ID: 241564

Date Received : Jan 12, 2024

Date Reported : Jan 19, 2024

Report Number : 2878301-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location: CCS Site 7

Page 1 of 1

Sample Number	241564-1						
Sampled Date	Jan 12, 2024 2:16 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Jan 12, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	39.3	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	76	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	35.3	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	260	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-323-จ-9457

Remark :

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

Technical Management

N. Banongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ๖-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ๖-323-ค-9442

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O :

Project Name : Environmental Monitoring

Project Location: CCS Site 7

Lot ID: 241564

Date Received : Jan 12, 2024

Date Reported : Jan 19, 2024

Report Number : 2878301-2

Page 1 of 1

Sample Number	241564-1						
Sampled Date	Jan 12, 2024 2:16 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Jan 16, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	84.3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-SO4 (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Wanlop Hunchainaw

Remark :

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

Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2411584

Date Received : Feb 09, 2024

Date Reported : Feb 16, 2024

Report Number : 2897871-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location : CCS Site 7

Page 1 of 1

Sample Number	2411584-1						
Sampled Date	Feb 09, 2024 1:50 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Feb 09, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	36.9	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	85	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	6.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	35.4	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	268	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-323-จ-9457

Remark :

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Technical Management

N. Banongkit

Narumon Banchongkit
Supervisor

ทะเบียนเลขที่ ๖-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ๖-323-ค-9442

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2411584

Date Received : Feb 09, 2024

Date Reported : Feb 16, 2024

Report Number : 2897871-2

Page 1 of 1

Sample Number	2411584-1						
Sampled Date	Feb 09, 2024 1:50 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Feb 10, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	55.4	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-SO ₄ (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Wanlop Hunchainaow

Remark :

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

Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2417908

Date Received : Mar 08, 2024

Date Reported : Mar 15, 2024

Report Number : 2911899-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location : CCS Site 7

Page 1 of 1

Sample Number	2417908-1						
Sampled Date	Mar 08, 2024 1:43 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Mar 08, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	66.7	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	138	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	35.8	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	316	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-323-จ-9457

Remark :

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

Technical Management

Photchana S.

Photchana Seeda

Scientist (4)

ทะเบียนเลขที่ ๖-323-จ-9446

Approved by

D. Chumson.

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ๖-323-ค-9442

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location: CCS Site 7

Lot ID: 2417908

Date Received : Mar 08, 2024

Date Reported : Mar 15, 2024

Report Number : 2911899-2

Page 1 of 1

Sample Number	2417908-1						
Sampled Date	Mar 08, 2024 1:43 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Mar 11, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	322	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-SO ₄ (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Wanlop Hunchainaow

Remark :

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

Approved by

Photchana S.

Photchana Seeda
Scientist (4)

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2432118

Date Received : Apr 12, 2024

Date Reported : Apr 23, 2024

Report Number : 2943319-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location : CCS Site 7

Page 1 of 1

Sample Number	2432118-1
Sampled Date	Apr 12, 2024 2:07 PM
Sample Description	Wastewater
Location	บ่อสุดท้าย Cesspool
Date Analysis Commenced	Apr 12, 2024
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	47.6	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	118	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	35.8	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	328	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-323-จ-9457

Remark :

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

N. Banongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ๖-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ๖-323-ค-9442

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2432118

Date Received : Apr 12, 2024
Date Reported : Apr 23, 2024
Report Number : 2943319-2

Page 1 of 1

Sample Number	2432118-1						
Sampled Date	Apr 12, 2024 2:07 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Apr 22, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	99.3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-SO ₄ (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Wanlop Hunchainaw

Remark :

- LOD : Limit of Detection
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Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2446671

Date Received : May 10, 2024

Date Reported : May 17, 2024

Report Number : 2974964-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location : CCS Site 7

Page 1 of 1

Sample Number	2446671-1						
Sampled Date	May 10, 2024 1:50 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	May 10, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	<25	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.6	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	312	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-323-จ-9457

Remark :

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Technical Management

Chontichak

Chonticha Subongkoch

Scientist (3)

ทะเบียนเลขที่ ๖-323-จ-9449

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ๖-323-ค-9442

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2446671

Date Received : May 10, 2024

Date Reported : May 17, 2024

Report Number : 2974964-2

Page 1 of 1

Sample Number	2446671-1						
Sampled Date	May 10, 2024 1:50 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	May 14, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	79.9	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-SO ₄ (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Wanlop Hunchainaw

Remark :

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Approved by

Chontichak

Chonticha Subongkoch
Scientist (3)

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2460103

Date Received : Jun 07, 2024

Date Reported : Jun 14, 2024

Report Number : 3004569-1

Client : THAI MMA Co., Ltd.

88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150

P/O : PMM-23-13

Project Name : Environmental Monitoring

Project Location : CCS Site 7

Page 1 of 1

Sample Number	2460103-1						
Sampled Date	Jun 07, 2024 1:55 PM						
Sample Description	Wastewater						
Location	บ่อบำบัดน้ำเสีย Cesspool						
Date Analysis Commenced	Jun 07, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	34.2	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	77	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.3	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	368	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-323-จ-9457

Remark :

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

Chontichak

Chonticha Subongkoch

Scientist (3)

ทะเบียนเลขที่ ๖-323-จ-9449

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ๖-323-ค-9442

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location: CCS Site 7

Lot ID: 2460103

Date Received : Jun 07, 2024

Date Reported : Jun 14, 2024

Report Number : 3004569-2

Page 1 of 1

Sample Number	2460103-1						
Sampled Date	Jun 07, 2024 1:55 PM						
Sample Description	Wastewater						
Location	บ่อสุดท้าย Cesspool						
Date Analysis Commenced	Jun 08, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Sulfate	mg/L	0.6	2	80.6	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-SO4 (E)	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.029/2567 : General Standards for Wastewater drainage into central wastewater treatment systems in Industrial Estates.

Sampling By : Wanlop Hunchainaow

Remark :

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

Approved by

Chontichak

Chonticha Subongkoch
Scientist (3)

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ระดับเสียง



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428981

Date Received : Mar 22, 2024
Date Reported : Mar 26, 2024
Report Number: 2945897-1

Page 1 of 1

Sample Number 2428981-1
Parameter Noise (Leq 24 hrs.)
Location บ้านบน
Measurement Date Mar 15 - Mar 16, 2024
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	62.3	84.1	60.9
02:00 PM - 03:00 PM	62.1	80.3	61.2
03:00 PM - 04:00 PM	62.6	82.6	61.3
04:00 PM - 05:00 PM	62.2	79.8	61.3
05:00 PM - 06:00 PM	61.9	75.0	61.4
06:00 PM - 07:00 PM	61.8	79.0	61.3
07:00 PM - 08:00 PM	60.8	75.5	47.8
08:00 PM - 09:00 PM	51.7	74.5	43.1
09:00 PM - 10:00 PM	50.1	71.3	42.2
10:00 PM - 11:00 PM	49.6	78.9	42.1
11:00 PM - 12:00 AM	46.7	65.7	41.3
12:00 AM - 01:00 AM	45.8	71.5	40.9
01:00 AM - 02:00 AM	46.3	66.9	41.0
02:00 AM - 03:00 AM	47.2	67.5	41.0
03:00 AM - 04:00 AM	48.5	65.4	41.4
04:00 AM - 05:00 AM	66.9	82.4	40.7
05:00 AM - 06:00 AM	64.1	83.9	57.4
06:00 AM - 07:00 AM	57.3	75.6	51.3
07:00 AM - 08:00 AM	57.5	82.2	49.6
08:00 AM - 09:00 AM	64.1	81.2	62.6
09:00 AM - 10:00 AM	62.8	76.6	62.0
10:00 AM - 11:00 AM	62.8	82.7	61.5
11:00 AM - 12:00 PM	61.6	76.6	61.0
12:00 PM - 01:00 PM	61.7	78.3	60.8

Leq Average 24 hrs. (dB(A)) 60.9
Lmax (dB(A)) 84.1
L90 (dB(A)) 51.3
Ldn (dB(A)) 66.4
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428981

Date Received : Mar 22, 2024
Date Reported : Mar 26, 2024
Report Number: 2945898-1

Page 1 of 1

Sample Number 2428981-2
Parameter Noise (Leq 24 hrs.)
Location บ้านบน
Measurement Date Mar 16 - Mar 17, 2024
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	61.8	79.2	60.9
02:00 PM - 03:00 PM	61.4	76.5	60.4
03:00 PM - 04:00 PM	61.3	72.0	60.4
04:00 PM - 05:00 PM	61.9	75.5	61.0
05:00 PM - 06:00 PM	62.2	73.5	61.4
06:00 PM - 07:00 PM	62.3	70.4	61.5
07:00 PM - 08:00 PM	60.9	71.5	50.0
08:00 PM - 09:00 PM	52.9	78.6	48.7
09:00 PM - 10:00 PM	52.0	74.9	47.8
10:00 PM - 11:00 PM	50.4	71.0	47.0
11:00 PM - 12:00 AM	50.8	73.4	45.8
12:00 AM - 01:00 AM	49.4	70.5	45.2
01:00 AM - 02:00 AM	46.8	64.3	43.7
02:00 AM - 03:00 AM	47.5	71.4	42.9
03:00 AM - 04:00 AM	46.4	65.1	41.6
04:00 AM - 05:00 AM	48.8	65.8	42.5
05:00 AM - 06:00 AM	53.5	71.5	44.4
06:00 AM - 07:00 AM	52.6	74.0	45.9
07:00 AM - 08:00 AM	61.4	70.2	60.8
08:00 AM - 09:00 AM	61.2	74.7	60.8
09:00 AM - 10:00 AM	61.3	67.6	60.8
10:00 AM - 11:00 AM	61.4	86.6	60.9
11:00 AM - 12:00 PM	61.8	91.0	60.9
12:00 PM - 01:00 PM	61.3	71.5	60.8

Leq Average 24 hrs. (dB(A)) 59.2
Lmax (dB(A)) 91.0
L90 (dB(A)) 50.0
Ldn (dB(A)) 60.7
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428981

Date Received : Mar 22, 2024
Date Reported : Mar 26, 2024
Report Number: 2945899-1

Page 1 of 1

Sample Number 2428981-3
Parameter Noise (Leq 24 hrs.)
Location บ้านบน
Measurement Date Mar 17 - Mar 18, 2024
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1073423

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	61.4	92.4	60.6
02:00 PM - 03:00 PM	60.9	68.5	60.5
03:00 PM - 04:00 PM	61.2	70.2	60.7
04:00 PM - 05:00 PM	61.4	72.3	61.0
05:00 PM - 06:00 PM	61.8	73.2	61.2
06:00 PM - 07:00 PM	61.8	69.4	61.4
07:00 PM - 08:00 PM	60.9	69.4	49.4
08:00 PM - 09:00 PM	52.1	71.3	46.1
09:00 PM - 10:00 PM	50.2	74.2	44.8
10:00 PM - 11:00 PM	48.8	70.1	43.8
11:00 PM - 12:00 AM	47.6	59.4	43.0
12:00 AM - 01:00 AM	45.9	66.7	42.1
01:00 AM - 02:00 AM	46.4	67.2	42.3
02:00 AM - 03:00 AM	45.6	62.2	42.2
03:00 AM - 04:00 AM	46.2	64.0	42.0
04:00 AM - 05:00 AM	47.5	63.9	42.3
05:00 AM - 06:00 AM	52.5	76.3	45.9
06:00 AM - 07:00 AM	53.7	73.0	48.2
07:00 AM - 08:00 AM	61.9	82.5	61.0
08:00 AM - 09:00 AM	61.5	82.9	60.7
09:00 AM - 10:00 AM	61.4	80.4	60.6
10:00 AM - 11:00 AM	61.4	77.3	60.6
11:00 AM - 12:00 PM	61.5	69.1	61.1
12:00 PM - 01:00 PM	60.6	69.1	49.1

Leq Average 24 hrs. (dB(A)) 59.0
Lmax (dB(A)) 92.4
L90 (dB(A)) 49.1
Ldn (dB(A)) 60.3
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428981

Date Received : Mar 22, 2024
Date Reported : Mar 26, 2024
Report Number: 2945900-1

Page 1 of 1

Sample Number 2428981-4
Parameter Noise (Leq 24 hrs.)
Location บ้านนาบยา
Measurement Date Mar 15 - Mar 16, 2024
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 597167

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	53.2	82.5	49.7
01:00 PM - 02:00 PM	53.3	69.7	50.0
02:00 PM - 03:00 PM	55.5	77.9	50.4
03:00 PM - 04:00 PM	56.4	77.1	53.0
04:00 PM - 05:00 PM	56.3	75.5	52.2
05:00 PM - 06:00 PM	55.3	69.4	52.0
06:00 PM - 07:00 PM	54.4	75.1	50.6
07:00 PM - 08:00 PM	54.3	73.9	50.9
08:00 PM - 09:00 PM	53.5	74.8	50.2
09:00 PM - 10:00 PM	58.7	77.9	50.1
10:00 PM - 11:00 PM	53.1	73.7	49.8
11:00 PM - 12:00 AM	51.9	72.4	48.3
12:00 AM - 01:00 AM	50.5	65.0	48.4
01:00 AM - 02:00 AM	50.8	66.1	48.1
02:00 AM - 03:00 AM	53.2	71.6	50.9
03:00 AM - 04:00 AM	56.4	74.1	51.2
04:00 AM - 05:00 AM	62.7	77.4	56.3
05:00 AM - 06:00 AM	59.6	76.8	57.7
06:00 AM - 07:00 AM	58.9	85.2	56.3
07:00 AM - 08:00 AM	58.8	89.5	56.6
08:00 AM - 09:00 AM	56.7	89.2	51.7
09:00 AM - 10:00 AM	54.8	79.9	50.3
10:00 AM - 11:00 AM	54.9	74.8	51.3
11:00 AM - 12:00 PM	55.5	75.2	50.8

Leq Average 24 hrs. (dB(A)) 56.4
Lmax (dB(A)) 89.5
L90 (dB(A)) 50.8
Ldn (dB(A)) 63.5
Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428981

Date Received : Mar 22, 2024
Date Reported : Mar 26, 2024
Report Number: 2945901-1

Page 1 of 1

Sample Number 2428981-5
Parameter Noise (Leq 24 hrs.)
Location บ้านนาบยา
Measurement Date Mar 16 - Mar 17, 2024
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 597167

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	53.5	73.2	50.2
01:00 PM - 02:00 PM	54.8	75.1	51.0
02:00 PM - 03:00 PM	54.5	73.4	51.2
03:00 PM - 04:00 PM	56.1	79.3	52.1
04:00 PM - 05:00 PM	56.2	76.2	52.7
05:00 PM - 06:00 PM	56.1	75.9	53.1
06:00 PM - 07:00 PM	55.9	76.2	52.8
07:00 PM - 08:00 PM	55.5	72.2	53.1
08:00 PM - 09:00 PM	55.2	77.5	52.8
09:00 PM - 10:00 PM	55.5	73.2	52.0
10:00 PM - 11:00 PM	53.2	71.0	50.5
11:00 PM - 12:00 AM	53.4	77.9	50.0
12:00 AM - 01:00 AM	52.9	70.0	50.1
01:00 AM - 02:00 AM	54.5	74.6	50.8
02:00 AM - 03:00 AM	57.9	74.1	51.0
03:00 AM - 04:00 AM	57.8	72.3	51.1
04:00 AM - 05:00 AM	55.8	79.4	51.4
05:00 AM - 06:00 AM	55.4	77.3	52.3
06:00 AM - 07:00 AM	54.9	78.4	50.6
07:00 AM - 08:00 AM	54.0	78.7	49.4
08:00 AM - 09:00 AM	53.8	80.3	49.3
09:00 AM - 10:00 AM	52.9	70.7	48.7
10:00 AM - 11:00 AM	53.5	79.2	49.4
11:00 AM - 12:00 PM	54.0	75.5	49.0

Leq Average 24 hrs. (dB(A)) 55.1
Lmax (dB(A)) 80.3
L90 (dB(A)) 51.0
Ldn (dB(A)) 61.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head



Analysis / Test Report

TESTING
No.0042

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2428981

Date Received : Mar 22, 2024
Date Reported : Mar 26, 2024
Report Number: 2945902-1

Page 1 of 1

Sample Number 2428981-6
Parameter Noise (Leq 24 hrs.)
Location บ้านนาบยา
Measurement Date Mar 17 - Mar 18, 2024
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 597167

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	57.5	90.2	49.0
01:00 PM - 02:00 PM	53.3	75.2	48.7
02:00 PM - 03:00 PM	53.2	73.4	49.6
03:00 PM - 04:00 PM	55.0	74.2	51.3
04:00 PM - 05:00 PM	56.0	73.9	51.5
05:00 PM - 06:00 PM	53.9	77.1	50.6
06:00 PM - 07:00 PM	54.4	75.7	50.3
07:00 PM - 08:00 PM	52.5	71.6	49.5
08:00 PM - 09:00 PM	52.2	72.2	49.5
09:00 PM - 10:00 PM	52.6	78.8	49.5
10:00 PM - 11:00 PM	52.4	69.6	49.8
11:00 PM - 12:00 AM	51.3	67.5	48.9
12:00 AM - 01:00 AM	51.8	72.8	48.2
01:00 AM - 02:00 AM	50.8	68.8	48.6
02:00 AM - 03:00 AM	50.6	69.6	48.3
03:00 AM - 04:00 AM	52.0	73.8	49.1
04:00 AM - 05:00 AM	54.5	80.6	50.7
05:00 AM - 06:00 AM	55.4	80.5	52.1
06:00 AM - 07:00 AM	55.2	71.7	51.4
07:00 AM - 08:00 AM	54.0	79.6	49.6
08:00 AM - 09:00 AM	53.6	73.7	48.0
09:00 AM - 10:00 AM	54.2	76.2	46.2
10:00 AM - 11:00 AM	54.1	71.9	49.9
11:00 AM - 12:00 PM	54.7	80.4	50.6

Leq Average 24 hrs. (dB(A)) 53.9
Lmax (dB(A)) 90.2
L90 (dB(A)) 49.5
Ldn (dB(A)) 59.7
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป
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Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

คุณภาพอากาศภายในสถานประกอบการ



Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2411805

Date Received : Feb 08, 2024
Date Reported : Feb 14, 2024
Report Number : 2898239-1

Page 1 of 5

Sample Number : 2411805-1
Sampled Date : Feb 08, 2024
Sample Description : Air Quality
Location : ไอร์เซลล์ออกจากถังซีลน้ำ (Water Seal)
Date Analysis Commenced : Feb 09, 2024
Condition of Sample : Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:30 AM - 09:50 AM	ppm	-	0.10	4.7	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Tinnakorn Kumpasee

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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

ADDRESS 616/10 Moo 5 T. Maenam Khu A. Pluakdaeng Rayong 21140 Thailand | PHONE +66 0 3304 8555 | FAX +66 0 3304 8556
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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2411805

Date Received : Feb 08, 2024
Date Reported : Feb 14, 2024
Report Number : 2898239-1

Page 2 of 5

Sample Number 2411805-2
Sampled Date Feb 08, 2024
Sample Description Air Quality
Location ไอระเหยที่ออกจากขั้นตอนการนำสารที่ได้จากการทำให้บริสุทธิ์ถ่ายลงถังขนาด 200 ลิตร
Date Analysis Commenced Feb 09, 2024
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:30 AM - 09:50 AM	ppm	-	0.10	1.2	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Tinnakorn Kumpasee

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2411805

Date Received : Feb 08, 2024
Date Reported : Feb 14, 2024
Report Number : 2898239-1

Page 3 of 5

Sample Number 2411805-3
Sampled Date Feb 08, 2024
Sample Description Air Quality
Location ไชยระเหยจากการถ่ายของเสียที่ไม่สามารถนำกลับมาใช้ได้เกิดจากกระบวนการลงสู่ถังขนาด 200 ลิตร
Date Analysis Commenced Feb 09, 2024
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:30 AM - 09:50 AM	ppm	-	0.10	0.8	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Tinnakorn Kumpasee

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

Client : THAI MMA Co., Ltd.
88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2411805

Date Received : Feb 08, 2024
Date Reported : Feb 14, 2024
Report Number : 2898239-1

Page 4 of 5

Sample Number 2411805-4
Sampled Date Feb 08, 2024
Sample Description Air Quality
Location บริเวณโหละเหยงขาออกจาก Carbon Absorber
Date Analysis Commenced Feb 09, 2024
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	09:30 AM - 09:50 AM	ppm	-	0.10	13.9	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Tinnakorn Kumpasee

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2411805

Date Received : Feb 08, 2024
Date Reported : Feb 14, 2024
Report Number : 2898239-1

Page 5 of 5

Sample Number : 2411805-5
Sampled Date : Feb 08, 2024
Sample Description : Air Quality
Location : Cutter Zone
Date Analysis Commenced : Feb 09, 2024
Condition of Sample : Drawn into one filter paper placed in plastic cassette
Barometric Pressure : 758 mmHg
Atmospheric Temperature : 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total Dust	09:00 AM - 11:00 AM	mg/m3	-	0.15	<0.15	15	Based on NIOSH (1994), 0500	OSHA	Rayong

Guideline :

OSHA : Occupational Safety and Health Administration

Sampled By : Tinnakorn Kumpasee

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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88/6, 3191 Road, T. Map Ta Phut, A. Muang, Rayong Thailand 21150
P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2446672

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2974965-1

Page 1 of 5

Sample Number 2446672-1
Sampled Date May 02, 2024
Sample Description Air Quality
Location ไอระเหยออกจากถังซีลน้ำ (Water Seal)
Date Analysis Commenced May 03, 2024
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	10:00 AM - 10:20 AM	ppm	-	0.10	0.4	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2446672

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2974965-1

Page 2 of 5

Sample Number 2446672-2
Sampled Date May 02, 2024
Sample Description Air Quality
Location ไอระเหยที่ออกจากขั้นตอนการนำสารที่ได้จากการทำให้บริสุทธิ์ถ่ายลงถังขนาด 200 ลิตร
Date Analysis Commenced May 03, 2024
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	10:00 AM - 10:20 AM	ppm	-	0.10	1.1	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Prasanmit Kueanpet

Remark :

- LOD : Limit of Detection
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Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2446672

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2974965-1

Page 3 of 5

Sample Number 2446672-3
Sampled Date May 02, 2024
Sample Description Air Quality
Location ไหระเหยจากการถ่ายของเสียที่ไม่สามารถนำกลับมาใช้ได้เกิดจากกระบวนการลงสู่ถังขนาด 200 ลิตร
Date Analysis Commenced May 03, 2024
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	10:00 AM - 10:20 AM	ppm	-	0.10	0.1	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2446672

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2974965-1

Page 4 of 5

Sample Number 2446672-4
Sampled Date May 02, 2024
Sample Description Air Quality
Location บริเวณโถงระบายอากาศจาก Carbon Absorber
Date Analysis Commenced May 03, 2024
Condition of Sample Drawn into one 10-L air sampling bag

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total VOC	10:00 AM - 10:20 AM	ppm	-	0.10	0.5	No Standard	Total VOC Analyzer	-	Bangkok

Guideline :

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

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Thanita Kulsuriwong
Scientist (4)

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P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2446672

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number : 2974965-1

Page 5 of 5

Sample Number : 2446672-5
Sampled Date : May 02, 2024
Sample Description : Air Quality
Location : Cutter Zone
Date Analysis Commenced : May 03, 2024
Condition of Sample : Drawn into one filter paper placed in plastic cassette
Barometric Pressure : 758 mmHg
Atmospheric Temperature : 33.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Total Dust	09:00 AM - 11:00 AM	mg/m3	-	0.15	<0.15	15	Based on NIOSH (1994), OSHA 0500		Rayong

Guideline :

OSHA : Occupational Safety and Health Administration

Sampled By : Prasanmit Kueanpet

Remark :

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

Approved by

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Scientist (4)

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P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2446673

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number: 2984523-1

Page 1 of 1

Sample Number 2446673-1
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Process 300
Measurement Date May 02, 2024
Measurement by Jakkarin Manwicha

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	79.4	86.8	79.1
10:00 AM - 11:00 AM	79.3	81.6	79.0
11:00 AM - 12:00 PM	79.9	87.1	79.5
12:00 PM - 01:00 PM	79.8	81.6	79.5
01:00 PM - 02:00 PM	80.0	85.3	79.6
02:00 PM - 03:00 PM	80.0	86.4	79.6
03:00 PM - 04:00 PM	80.2	86.3	79.8
04:00 PM - 05:00 PM	80.0	81.8	79.7

Leq Average 8 hrs. (dB(A))

79.8

Lmax (dB(A))

87.1

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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P/O : PMM-23-13
Project Name : Environmental Monitoring
Project Location : CCS Site 7

Lot ID: 2446673

Date Received : May 02, 2024
Date Reported : May 08, 2024
Report Number: 2984524-1

Page 1 of 1

Sample Number 2446673-2
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Packing
Measurement Date May 02, 2024
Measurement by Jakkarin Manwicha

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	69.6	87.6	67.4
10:00 AM - 11:00 AM	69.4	85.8	67.6
11:00 AM - 12:00 PM	69.1	84.8	66.9
12:00 PM - 01:00 PM	68.7	84.8	66.8
01:00 PM - 02:00 PM	69.9	80.0	67.7
02:00 PM - 03:00 PM	70.0	84.7	67.9
03:00 PM - 04:00 PM	68.7	81.9	67.3
04:00 PM - 05:00 PM	68.5	83.2	66.4

Leq Average 8 hrs. (dB(A))

69.3

Lmax (dB(A))

87.6

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
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