

Request No. LA67-0344

Report No. 6704-0056

TEST REPORT

CUSTOMER : B. Grimm Power (WHA) 1 Limited
 ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Srirach, Chonburi 20230
 SAMPLE SOURCE : B. Grimm Power (WHA) 1 Limited
 SAMPLE POINT : ปล่องหน่วยผลิตไอน้ำ (HRSG)#11
 SAMPLING DATE : 19/03/2024
 RECEIVED DATE : 25/03/2024
 TESTED DATE : 25-28/03/2024
 STACK DESCRIPTION[®]

Height :	45.00	m	Type of Process :	Combustion
Diameter :	2.89	m	Type of Fuel :	Natural Gas
Temperature :	95.00	°C	Operation Capacity :	34.43 MW
Air Velocity :	19.33	m/s	Oxygen Content :	14.26 %
Flow rate ⁴ :	338,648	Nm ³ /hr	Barometric Pressure :	748.37 mmHg
Moisture Content :	6.89	%	Atmospheric Temperature :	35.00 °C
Shape :	Circle		Carbon Dioxide :	3.90 %

PARAMETER	TEST METHOD	TIME	RESULT ⁴		STD	UNIT
			14.26 % O ₂	7 % O ₂		
Total Suspended Particulate	Isokinetic, Gravimetric	10:40-11:15	0.4	0.8	60 ¹ , 320 ² , 6.85 ³	mg/m ³
(TSP)	(U.S. EPA Method 5)		0.0376 [®]	-	0.45 ³	g/s

REMARK:

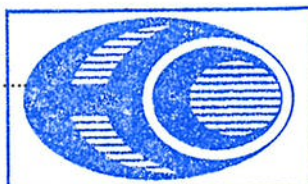
- 1.¹ Notification of The Ministry of Industry B.E. 2547 (2004)
- 2.² Notification of The Ministry of Industry B.E. 2549 (2006)
- 3.³ ค่ามาตรฐานคุณภาพอากาศจากปล่อง ตามที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อม (EIA)
- 4.⁴ Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- 5.[®] These Data Outside The Scope of The Registration of The Department of Industrial Works.
6. Sampling By Mr. Nitchaphon Tonglor (ว-003-ค-0032)
7. GPS 47P 726905, 1445206

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

06/04/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

06/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA67-0344

Report No. 6704-0057

TEST REPORT

CUSTOMER : B. Grimm Power (WHA) 1 Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Srirach, Chonburi 20230
SAMPLE SOURCE : B. Grimm Power (WHA) 1 Limited
SAMPLE POINT : ปล่องหน่วยผลิตไอน้ำ (HRSG)#11
SAMPLING DATE : 19/03/2024 SAMPLE NO. : 00785
RECEIVED DATE : 25/03/2024 SAMPLING TIME : 10:40-11:10
TESTED DATE : 25-29/03/2024 REPORTED DATE : 06/04/2024
STACK DESCRIPTION @

Height : 45.00 m	Type of Process : Combustion
Diameter : 2.89 m	Type of Fuel : Natural Gas
Temperature : 95.00 °C	Operation Capacity : 34.43 MW
Air Velocity : 19.33 m/s	Oxygen Content : 14.26 %
Flow rate ² : 338,648 Nm ³ /hr	Barometric Pressure : 748.37 mmHg
Moisture Content : 6.89 %	Atmospheric Temperature : 35.00 °C
Shape : Circle	Carbon Dioxide : 3.90 %

PARAMETER	TEST METHOD	TIME	RESULT ²		STD ¹	UNIT
			14.26 % O ₂	7 % O ₂		
Carbon monoxide	Non-Dispersive Infrared	10:40-11:10	1.3	2.7	790	mg/m ³
(CO)	(U.S. EPA Method 10)		1.1	2.3	690	ppm
			0.1223 [@]	-	-	g/s

REMARK:

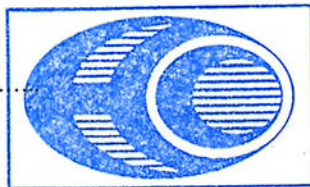
- ¹ Notification of The Ministry of Industry B.E. 2549 (2006)
- ² Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- [@] These Data Outside The Scope of The Registration of The Department of Industrial Works.
- Sampling By Mr. Nitchaphon Tonglor (จ-003-ค-0032)
- GPS 47P 726905, 1445206

Examined By

(Miss Apiradee Chuen-arom)

(จ-003-ค-0007)

06/04/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Thongchai Boonsak)

(จ-003-ค-0012)

06/04/2024

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Request No. LA67-R0361

Report No. R6703-2493 – R6703-2494

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) 1 Limited

ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230

SAMPLE SOURCE : B.Grimm Power (WHA) 1 Limited

SAMPLE POINT : ปล่องหน่วยผลิตไอน้ำ (HRSG) #11

SAMPLE NO. : 04751-04752

SAMPLING DATE : 19/03/2024

SAMPLING TIME : 10:40-11:10

RECEIVED DATE : 19/03/2024

REPORTED DATE : 27/03/2024

STACK DESCRIPTION^⑥

Height :	45.00	m	Type of Process :	Combustion
Diameter :	2.89	m	Type of Fuel :	Natural Gas
Temperature :	95.00	°C	Operation Capacity :	34.43 MW
Air Velocity :	19.33	m/s	Oxygen Content :	14.26 %
Flow rate ^④ :	338,648	Nm ³ /hr	Barometric Pressure :	748.37 mmHg
Moisture Content :	6.89	%	Atmospheric Temperature :	35.00 °C
Shape :	Circle		Carbon Dioxide :	3.90 %

PARAMETER	TEST METHOD	TIME	RESULT ^④		STD	UNIT
			14.26 % O ₂	7 % O ₂		
Sulfur Dioxide (SO ₂)	Instrumental Analyzer Method (U.S. EPA Method 6C)	10:40-11:10	<2.6	<5.4	52 ^① , 157 ^②	mg/m ³
			<1.0	<2.1	20 ^① , 60 ^② , 3.5 ^③	ppm
			<0.2446 ^⑥		0.60 ^③	g/s
Oxides of Nitrogen (NO _x)	Instrumental Analyzer Method (U.S. EPA Method 7E)	10:40-11:10	18.8	39.4	226 ^① , 376 ^②	mg/m ³
			10.0	20.9	120 ^① , 200 ^② , 60 ^③	ppm
			1.7685 ^⑥		7.34 ^③	g/s

REMARK:

- ^① Notification of The Ministry of Industry B.E. 2547 (2004)
- ^② Notification of The Ministry of Industry B.E. 2549 (2006)
- ^③ ค่าควบคุม ตามที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อม (EIA)
- ^④ Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Nitchaphon Thonglor (ว-003-ค-0032)
- ^⑥ These Data Outside The Scope of The Registration of The Department of Industrial Works.
- GPS 47P 726905, 1445206

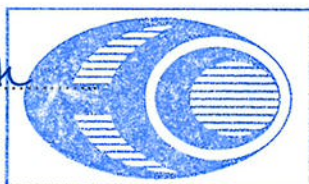
Examined By

Thongchai Boonsak

(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

27/03/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

Wanpen Lhaochindawat

(Mrs. Wanpen Lhaochindawat)

(ว-003-ค-0003)

27/03/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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Request No. LA67-0344

Report No. 6704-0060

TEST REPORT

CUSTOMER : B. Grimm Power (WHA) 1 Limited
 ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Srirach, Chonburi 20230
 SAMPLE SOURCE : B. Grimm Power (WHA) 1 Limited
 SAMPLE POINT : ปล่องหน่วยผลิตไอน้ำ (HRSG)#12
 SAMPLING DATE : 19/03/2024
 RECEIVED DATE : 25/03/2024
 TESTED DATE : 25-28/03/2024
 STACK DESCRIPTION @

Height :	45.00	m	Type of Process :	Combustion
Diameter :	2.89	m	Type of Fuel :	Natural Gas
Temperature :	95.00	°C	Operation Capacity :	34.35 MW
Air Velocity :	18.70	m/s	Oxygen Content :	14.11 %
Flow rate ⁴ :	326,957	Nm ³ /hr	Barometric Pressure :	748.37 mmHg
Moisture Content :	7.10	%	Atmospheric Temperature :	36.00 °C
Shape :	Circle	%	Carbon Dioxide :	3.90 %

PARAMETER	TEST METHOD	TIME	RESULT ⁴		STD	UNIT
			14.11 % O ₂	7 % O ₂		
Total Suspended Particulate (TSP)	Isokinetic, Gravimetric (U.S. EPA Method 5)	09:20-09:55	1.2	2.5	60 ¹ , 320 ² , 6.85 ³	mg/m ³
			0.1090 [@]	-	0.45 ³	g/s

REMARK:

- 1.¹ Notification of The Ministry of Industry B.E. 2547 (2004)
- 2.² Notification of The Ministry of Industry B.E. 2549 (2006)
- 3.³ ค่ามาตรฐานคุณภาพอากาศจากปล่อง ตามที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อม (EIA)
- 4.⁴ Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- 5.[@] These Data Outside The Scope of The Registration of The Department of Industrial Works.
6. Sampling By Mr. Nitchaphon Tonglor (ว-003-ค-0032)
7. GPS 47P 726905, 1445231

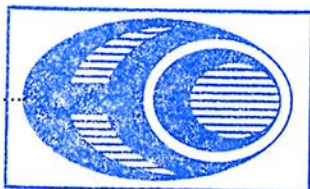
Examined By



(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

06/04/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

06/04/2024

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Request No. LA67-0344

Report No. 6704-0061

TEST REPORT

CUSTOMER : B. Grimm Power (WHA) 1 Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Srirach, Chonburi 20230
SAMPLE SOURCE : B. Grimm Power (WHA) 1 Limited
SAMPLE POINT : ปล่องหน่วยผลิตไอน้ำ (HRSG)#12
SAMPLING DATE : 19/03/2024 SAMPLE NO. : 00789
RECEIVED DATE : 25/03/2024 SAMPLING TIME : 09:20-09:50
TESTED DATE : 25-29/03/2024 REPORTED DATE : 06/04/2024
STACK DESCRIPTION @

Height :	45.00	m	Type of Process :	Combustion
Diameter :	2.89	m	Type of Fuel :	Natural Gas
Temperature :	95.00	°C	Operation Capacity :	34.35 MW
Air Velocity :	18.70	m/s	Oxygen Content :	14.11 %
Flow rate ² :	326,957	Nm ³ /hr	Barometric Pressure :	748.37 mmHg
Moisture Content :	7.10	%	Atmospheric Temperature :	36.00 °C
Shape :	Circle	%	Carbon Dioxide :	3.90 %

PARAMETER	TEST METHOD	TIME	RESULT ²		STD ¹	UNIT
			14.11 % O ₂	7 % O ₂		
Carbon monoxide	Non-Dispersive Infrared	09:20-09:50	1.1	2.3	790	mg/m ³
(CO)	(U.S. EPA Method 10)		1.0	2.0	690	ppm
			0.0999 [@]	-	-	g/s

REMARK:

- ¹ Notification of The Ministry of Industry B.E. 2549 (2006)
- ² Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- [@] These Data Outside The Scope of The Registration of The Department of Industrial Works.
- Sampling By Mr. Nitchaphon Tonglor (จ-003-ก-0032)
- GPS 47P 726905, 1445231

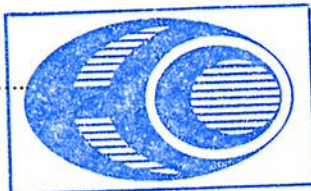
Examined By



(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

06/04/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Mr. Thongchai Boonsak)

(จ-003-ก-0012)

06/04/2024

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Request No. LA67-R0361

Report No. R6703-2497 – R6703-2498

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) 1 Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) 1 Limited
SAMPLE POINT : ปล่องหน่วยผลิตไอน้ำ (HRSG) #12
SAMPLING DATE : 19/03/2024
RECEIVED DATE : 19/03/2024
SAMPLE NO. : 04755-04756
SAMPLING TIME : 09:20-09:50
REPORTED DATE : 27/03/2024

STACK DESCRIPTION⁶

Height :	45.00	m	Type of Process :	Combustion
Diameter :	2.89	m	Type of Fuel :	Natural Gas
Temperature :	95.00	°C	Operation Capacity :	34.35 MW
Air Velocity :	18.70	m/s	Oxygen Content :	14.11 %
Flow rate ⁴ :	326,957	Nm ³ /hr	Barometric Pressure :	748.37 mmHg
Moisture Content :	7.10	%	Atmospheric Temperature :	36.00 °C
Shape :	Circle		Carbon Dioxide :	3.90 %

PARAMETER	TEST METHOD	TIME	RESULT ⁴		STD	UNIT
			14.11 % O ₂	7 % O ₂		
Sulfur Dioxide (SO ₂)	Instrumental Analyzer Method (U.S. EPA Method 6C)	09:20-09:50	<2.6	<5.3	52 ¹ , 157 ²	mg/m ³
			<1.0	<2.0	20 ¹ , 60 ² , 3.5 ³	ppm
			<0.2361 ⁶		0.60 ³	g/s
Oxides of Nitrogen (NO _x)	Instrumental Analyzer Method (U.S. EPA Method 7E)	09:20-09:50	11.3	23.1	226 ¹ , 376 ²	mg/m ³
			6.0	12.3	120 ¹ , 200 ² , 60 ³	ppm
			1.0263 ⁶		7.34 ³	g/s

REMARK:

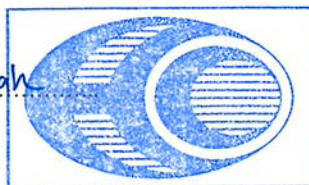
- ¹ Notification of The Ministry of Industry B.E. 2547 (2004)
- ² Notification of The Ministry of Industry B.E. 2549 (2006)
- ³ ค่าควบคุม ตามที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อม (EIA)
- ⁴ Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Nitchaphon Thonglor (ว-003-ค-0032)
- ⁶ These Data Outside The Scope of The Registration of The Department of Industrial Works.
- GPS 47P 726905, 1445231

Examined By.....

(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

27/03/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mrs. Wanpen Lhaochindawat)

(ว-003-ค-0003)

27/03/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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Request No. ATR6703043

Report No. 6703-0740 - 6703-0746

TEST REPORT

CUSTOMER : B.Grimm Power (WHA)1 Limited
ADDRESS : 369/27 Moo.6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA)1 Limited
SAMPLE NAME : บริเวณบ้านเขาหิน
RECEIVED DATE : 26/03/2024 SAMPLE NO. : A67030740 - A67030746
TESTED DATE : 26/03/2024-01/04/2024 REPORTED DATE : 03/04/2024

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	STD ^{1/}	UNIT
Total Suspended Particulate (TSP)	Gravimetric Method	15-16/03/2024	0.054	0.33	mg/m ³
		16-17/03/2024	0.061	0.33	mg/m ³
		17-18/03/2024	0.079	0.33	mg/m ³
		18-19/03/2024	0.069	0.33	mg/m ³
		19-20/03/2024	0.066	0.33	mg/m ³
		20-21/03/2024	0.074	0.33	mg/m ³
		21-22/03/2024	0.120	0.33	mg/m ³

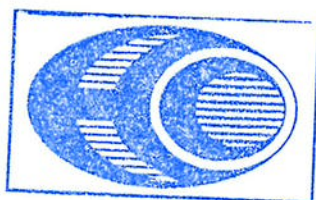
REMARK:

^{1/} Notification of The National Environmental Board Volume 24 B.E.2547 (2004) Standard for 24-hr Average.

* Parameter Outside The Scope of The Registration of The Department of Industrial Works.

(Sampling By Mr. Tummarat Photankhum)

GPS 47P 0727526, 1444787



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Miss Thanatporn Klinsoon)

03/04/2024

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Request No. ATR6703043

Report No. 6703-0733 - 6703-0739

TEST REPORT

CUSTOMER : B.Grimm Power (WHA)I Limited
ADDRESS : 369/27 Moo.6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA)I Limited
SAMPLE NAME : บริเวณบ้านเขาหิน
RECEIVED DATE : 26/03/2024 SAMPLE NO. : A67030733 - A67030739
TESTED DATE : 26/03/2024-01/04/2024 REPORTED DATE : 03/04/2024

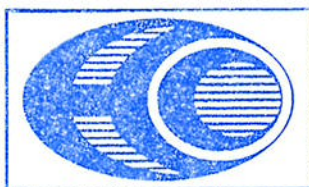
PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	STD ^{/1}	UNIT
Particulate matter less than or Equal					
10 micrometers (PM 10)	Gravimetric Method	15-16/03/2024	0.034	0.12	mg/m ³
		16-17/03/2024	0.040	0.12	mg/m ³
		17-18/03/2024	0.055	0.12	mg/m ³
		18-19/03/2024	0.052	0.12	mg/m ³
		19-20/03/2024	0.047	0.12	mg/m ³
		20-21/03/2024	0.055	0.12	mg/m ³
		21-22/03/2024	0.070	0.12	mg/m ³

REMARK:^{/1} Notification of The National Environmental Board Volume 24 B.E.2547 (2004) Standard for 24-hr Average.

* Parameter Outside The Scope of The Registration of The Department of Industrial Works.

(Sampling By Mr. Tummarat Photankhum)

GPS 47P 0727526, 1444787



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Miss Thanatporn Klinsoon)

03/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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Request No. ATR6705100

Report No. 6705-1777 - 6705-1783

TEST REPORT

CUSTOMER : B.Grimm Power (WHA)1 Limited
ADDRESS : 369/27 Moo.6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA)1 Limited
SAMPLE NAME : บริเวณบ้านเขาหิน
RECEIVED DATE : 30/05/2024 SAMPLE NO. : A67051777 - A67051783
TESTED DATE : 30/05/2024-12/06/2024 REPORTED DATE : 19/06/2024

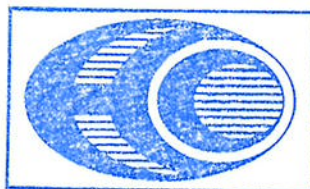
PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	STD ^{1/}	UNIT
Particulate matter less than or Equal					
10 micrometers (PM 10)	Gravimetric Method	20-21/05/2024	0.032	0.12	mg/m ³
		21-22/05/2024	0.027	0.12	mg/m ³
		22-23/05/2024	0.026	0.12	mg/m ³
		23-24/05/2024	0.025	0.12	mg/m ³
		24-25/05/2024	0.033	0.12	mg/m ³
		25-26/05/2024	0.033	0.12	mg/m ³
		26-27/05/2024	0.034	0.12	mg/m ³

REMARK:^{1/} Notification of The National Environmental Board Volume 24 B.E.2547 (2004) Standard for 24-hr Average.

* Parameter Outside The Scope of The Registration of The Department of Industrial Works.

(Sampling By Mr. Tummarat Photankhum)

GPS 47P 0727526, 1444787



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Miss Thanatporn Klinsoyon)

19/06/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6705100

Report No. 6705-1784 - 6705-1790

TEST REPORT

CUSTOMER : B.Grimm Power (WHA)1 Limited
ADDRESS : 369/27 Moo.6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA)1 Limited
SAMPLE NAME : บริเวณบ้านเขาหิน
RECEIVED DATE : 30/05/2024 SAMPLE NO. : A67051784 - A67051790
TESTED DATE : 30/05/2024-12/06/2024 REPORTED DATE : 19/06/2024

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	STD ^{/1}	UNIT
Total Suspended Particulate (TSP)	Gravimetric Method	20-21/05/2024	0.043	0.33	mg/m ³
		21-22/05/2024	0.030	0.33	mg/m ³
		22-23/05/2024	0.030	0.33	mg/m ³
		23-24/05/2024	0.030	0.33	mg/m ³
		24-25/05/2024	0.041	0.33	mg/m ³
		25-26/05/2024	0.037	0.33	mg/m ³
		26-27/05/2024	0.038	0.33	mg/m ³

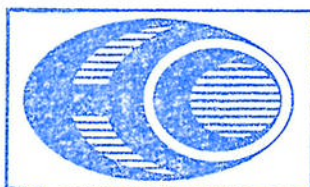
REMARK:

^{/1} Notification of The National Environmental Board Volume 24 B.E.2547 (2004) Standard for 24-hr Average.

* Parameter Outside The Scope of The Registration of The Department of Industrial Works.

(Sampling By Mr. Tummarat Photankhum)

GPS 47P 0727526, 1444787



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Miss Thanatporn Klinsopon)

19/06/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA67-R0364

Report No. R6703-2963 - R6703-2969

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited

ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230

SAMPLE SOURCE : B.Grimm Power (WHA) I Limited

SAMPLE POINT : บริเวณบ้านเขาหิน⁴

PARAMETER* : Sulfur Dioxide

DETERMINATION METHOD : UV-Fluorescence

INSTRUMENT : API Model M100E S/N 640

SAMPLE NO. : 05226-05232

SAMPLING DATE : 15-22/03/2024

RECEIVED DATE : 22/03/2024

REPORTED DATE : 27/03/2024

TIME / DATE	15-16/03/2024	16-17/03/2024	17-18/03/2024	18-19/03/2024	19-20/03/2024	20-21/03/2024	21-22/03/2024	UNIT
10:00 - 11:00 ³	0.001	<0.001	0.001	0.001	0.001	<0.001	0.001	ppm
11:00 - 12:00	0.001	<0.001	0.002	0.001	0.001	<0.001	0.001	ppm
12:00 - 13:00	0.001	<0.001	0.001	0.002	0.001	0.001	0.001	ppm
13:00 - 14:00	<0.001	<0.001	0.002	0.002	0.001	0.001	0.001	ppm
14:00 - 15:00	<0.001	0.001	0.001	0.001	0.001	0.001	0.001	ppm
15:00 - 16:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	ppm
16:00 - 17:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	ppm
17:00 - 18:00	0.001	<0.001	0.001	0.001	<0.001	0.001	0.001	ppm
18:00 - 19:00	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	ppm
19:00 - 20:00	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	ppm
20:00 - 21:00	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	ppm
21:00 - 22:00	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	ppm
22:00 - 23:00	<0.001	0.001	0.001	0.001	0.001	0.001	0.001	ppm
23:00 - 00:00	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	ppm
00:00 - 01:00	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	ppm
01:00 - 02:00	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	ppm
02:00 - 03:00	0.001	<0.001	<0.001	0.001	0.001	0.001	0.001	ppm
03:00 - 04:00	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	ppm
04:00 - 05:00	0.001	0.001	<0.001	0.001	0.001	0.001	0.001	ppm
05:00 - 06:00	<0.001	0.001	0.001	0.001	<0.001	0.001	0.001	ppm
06:00 - 07:00	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	ppm
07:00 - 08:00	<0.001	0.001	0.001	0.001	0.001	0.001	0.001	ppm
08:00 - 09:00	<0.001	0.001	0.001	0.001	0.001	0.001	0.001	ppm
09:00 - 10:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	ppm
Maximum 1 hr.	0.001	0.001	0.002	0.002	0.001	0.001	0.001	ppm
Average 24 hr.	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	ppm
Standard (1 hr.) ^{1/}	0.30	0.30	0.30	0.30	0.30	0.30	0.30	ppm
Standard (Average 24 hr.) ^{2/}	0.12	0.12	0.12	0.12	0.12	0.12	0.12	ppm

REMARK : ^{1/} Notification of The National Environmental Board Volume 12 B.E. 2538 (1995) and Volume 21 B.E. 2544 (2001)^{2/} Notification of The National Environmental Board Volume 24 B.E. 2547 (2004)^{3/} Start Time^{4/} GPS 47P 0727526, 1444787

* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Measurement By Mr. Tummarut Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

27/03/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA67-R0368

Report No. R6703-2970 - R6703-2976

TEST REPORT

CUSTOMER	: B.Grimm Power (WHA) I Limited	SAMPLE NO.	: 05233-05239
ADDRESS	: 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230	SAMPLING DATE	: 15-22/03/2024
SAMPLE SOURCE	: B.Grimm Power (WHA) I Limited	RECEIVED DATE	: 22/03/2024
SAMPLE POINT	: บริเวณบ้านเขาหิน ³	REPORTED DATE	: 27/03/2024
PARAMETER*	: Nitrogen Dioxide		
DETERMINATION METHOD	: Chemiluminescence		
INSTRUMENT	: API Model T200 S/N 6757		

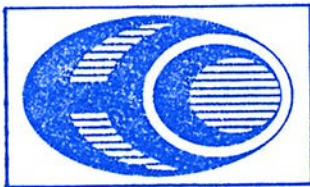
TIME / DATE	15-16/03/2024	16-17/03/2024	17-18/03/2024	18-19/03/2024	19-20/03/2024	20-21/03/2024	21-22/03/2024	UNIT
10:00 - 11:00 ²	0.016	0.017	0.017	0.014	0.009	0.020	0.022	ppm
11:00 - 12:00	0.012	0.013	0.010	0.013	0.010	0.017	0.018	ppm
12:00 - 13:00	0.012	0.009	0.007	0.011	0.013	0.018	0.011	ppm
13:00 - 14:00	0.007	0.006	0.006	0.009	0.008	0.026	0.008	ppm
14:00 - 15:00	0.011	0.011	0.006	0.006	0.008	0.025	0.006	ppm
15:00 - 16:00	0.007	0.010	0.005	0.013	0.009	0.040	0.009	ppm
16:00 - 17:00	0.015	0.007	0.006	0.014	0.008	0.049	0.018	ppm
17:00 - 18:00	0.010	0.009	0.006	0.013	0.008	0.055	0.029	ppm
18:00 - 19:00	0.029	0.014	0.026	0.020	0.007	0.036	0.019	ppm
19:00 - 20:00	0.025	0.015	0.025	0.030	0.017	0.027	0.019	ppm
20:00 - 21:00	0.019	0.016	0.017	0.029	0.035	0.024	0.021	ppm
21:00 - 22:00	0.015	0.022	0.024	0.022	0.044	0.029	0.026	ppm
22:00 - 23:00	0.014	0.024	0.017	0.019	0.040	0.036	0.029	ppm
23:00 - 00:00	0.012	0.016	0.015	0.016	0.034	0.029	0.020	ppm
00:00 - 01:00	0.014	0.016	0.012	0.024	0.043	0.023	0.024	ppm
01:00 - 02:00	0.009	0.014	0.011	0.028	0.026	0.036	0.023	ppm
02:00 - 03:00	0.010	0.012	0.010	0.036	0.022	0.018	0.028	ppm
03:00 - 04:00	0.007	0.010	0.009	0.013	0.023	0.034	0.016	ppm
04:00 - 05:00	0.011	0.015	0.010	0.008	0.018	0.038	0.014	ppm
05:00 - 06:00	0.010	0.016	0.016	0.007	0.040	0.045	0.017	ppm
06:00 - 07:00	0.010	0.017	0.019	0.022	0.023	0.019	0.018	ppm
07:00 - 08:00	0.014	0.021	0.023	0.032	0.025	0.017	0.026	ppm
08:00 - 09:00	0.022	0.018	0.025	0.037	0.016	0.015	0.018	ppm
09:00 - 10:00	0.019	0.015	0.016	0.024	0.012	0.021	0.012	ppm
Maximum 1 hr.	0.029	0.024	0.026	0.037	0.044	0.055	0.029	ppm
Average 24 hr.	0.014	0.014	0.014	0.019	0.021	0.029	0.019	ppm
Standard (1 hr.) ¹	0.17	0.17	0.17	0.17	0.17	0.17	0.17	ppm

REMARK : ¹ Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)

² Start Time

³ GPS 47P 0727526, 1444787

* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Approved By.....
(MS. THANATPORN KLINSOPON)
27/03/2024

Wind Speed & Wind Direction

Request No. LA67-R0364

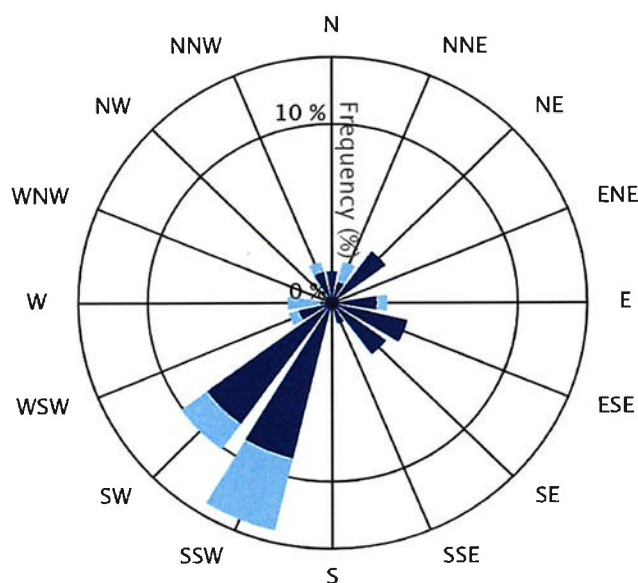
B.Grimm Power (WHA) 1 Limited

Sample No. 05257

Sampling Source : บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)

Sampling Date : March 15-22, 2024

Calm 50.0 %



■ 0.4-1.9
 ■ 2.0-3.9
 ■ 4.0-5.9
 ■ 6.0-7.9
 ■ 8.0-9.9
 ■ > 9.9 (m/s)

WD/WS	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.4-1.9 m/s	2.0-3.9 m/s	4.0-5.9 m/s	6.0-7.9 m/s	8.0-9.9 m/s	> 9.9 m/s	
N	1.8	0.0	0.0	0.0	0.0	0.0	1.8
NNE	1.2	1.2	0.0	0.0	0.0	0.0	2.4
NE	3.6	0.0	0.0	0.0	0.0	0.0	3.6
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	2.4	0.6	0.0	0.0	0.0	0.0	3.0
ESE	4.2	0.0	0.0	0.0	0.0	0.0	4.2
SE	3.6	0.0	0.0	0.0	0.0	0.0	3.6
SSE	1.2	0.0	0.0	0.0	0.0	0.0	1.2
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	8.9	4.2	0.0	0.0	0.0	0.0	13.1
SW	8.3	1.8	0.0	0.0	0.0	0.0	10.1
WSW	1.8	0.6	0.0	0.0	0.0	0.0	2.4
W	0.6	1.8	0.0	0.0	0.0	0.0	2.4
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	1.8	0.6	0.0	0.0	0.0	0.0	2.4
Calm	50.0						

Wind Speed & Wind Direction

Request No. LA67-R0364

B.Grimm Power (WHA) 1 Limited

Sample No. 05257

Sampling Source : บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)

Sampling Date : March 15-22, 2024

Time	March 15-16, 2024		March 16-17, 2024		March 17-18, 2024		March 18-19, 2024		March 19-20, 2024		March 20-21, 2024		March 21-22, 2024	
	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction
10:00-11:00	0.4	SW	0.0	-	0.4	SW	0.4	SSW	1.3	WSW	0.9	ESE	0.0	-
11:00-12:00	0.9	SW	0.9	SW	0.9	SW	0.4	WSW	1.3	SSW	0.4	ESE	0.0	-
12:00-13:00	0.4	SW	1.3	SW	1.3	WSW	0.4	SW	1.3	SSW	0.9	E	0.4	NE
13:00-14:00	2.7	W	2.7	SW	1.3	SW	0.4	SSW	1.8	SSW	0.4	E	2.7	NNE
14:00-15:00	2.2	W	1.3	SW	1.8	SW	3.1	WSW	2.2	SSW	0.0	-	2.2	NNE
15:00-16:00	1.8	W	2.2	SW	3.6	W	2.2	SW	2.7	SSW	0.4	ESE	1.8	NNE
16:00-17:00	0.9	N	1.8	SW	3.6	SSW	1.3	SSW	1.8	N	0.4	ESE	1.3	NNE
17:00-18:00	0.9	N	1.3	SW	2.7	SSW	1.3	SSW	2.7	NNW	0.9	ESE	1.3	NE
18:00-19:00	0.0	-	1.8	SSW	2.2	SSW	0.9	SSW	0.9	NNW	0.0	-	2.2	SSW
19:00-20:00	0.0	-	0.9	SSW	0.9	SSW	0.4	SE	0.0	-	0.0	-	2.2	SSW
20:00-21:00	0.0	-	0.4	SSW	0.4	SSW	0.0	-	0.0	-	0.4	NE	1.8	SSW
21:00-22:00	0.4	SE	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NE	0.0	-
22:00-23:00	0.4	SE	0.0	-	0.0	-	0.0	-	0.0	-	0.9	NE	0.0	-
23:00-00:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.9	NE	0.0	-
00:00-01:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	2.7	E	0.0	-
01:00-02:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.9	E	0.0	-
02:00-03:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
03:00-04:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
04:00-05:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NNW	0.0	-
05:00-06:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NNW	0.0	-
06:00-07:00	0.9	SE	0.0	-	0.0	-	0.0	-	0.4	E	0.0	-	0.0	-
07:00-08:00	1.8	SE	0.0	-	0.0	-	0.0	-	0.9	ESE	0.0	-	0.0	-
08:00-09:00	0.9	SSW	0.0	-	0.0	-	0.0	-	1.8	ESE	0.0	-	0.4	SSE
09:00-10:00	0.0	-	0.0	-	0.0	-	0.4	SW	0.9	SE	0.0	-	0.4	SSE

Request No. LA67-R0605

Report No. R6705-0036 - R6705-0042

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited

ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate I, Bowin, Sriracha, Chonburi 20230

SAMPLE SOURCE : B.Grimm Power (WHA) I Limited

SAMPLE POINT : บริเวณบ้านเขาหิน⁴

PARAMETER* : Sulfur Dioxide

DETERMINATION METHOD : UV-Fluorescence

INSTRUMENT : API Model T100 S/N 6459

SAMPLE NO. : 15636-15642

SAMPLING DATE : 20-27/05/2024

RECEIVED DATE : 24/05/2024

REPORTED DATE : 06/06/2024

TIME / DATE	20-21/05/2024	21-22/05/2024	22-23/05/2024	23-24/05/2024	24-25/05/2024	25-26/05/2024	26-27/05/2024	UNIT
10:00 - 11:00 ³	0.048	0.045	0.038	0.032	0.031	0.037	0.042	ppm
11:00 - 12:00	0.048	0.045	0.039	0.033	0.032	0.040	0.044	ppm
12:00 - 13:00	0.053	0.046	0.039	0.035	0.033	0.041	0.046	ppm
13:00 - 14:00	0.057	0.046	0.039	0.036	0.035	0.041	0.047	ppm
14:00 - 15:00	0.059	0.045	0.040	0.036	0.036	0.042	0.047	ppm
15:00 - 16:00	0.055	0.045	0.040	0.035	0.037	0.049	0.047	ppm
16:00 - 17:00	0.060	0.045	0.040	0.034	0.038	0.043	0.048	ppm
17:00 - 18:00	0.062	0.045	0.040	0.034	0.039	0.040	0.048	ppm
18:00 - 19:00	0.064	0.042	0.039	0.035	0.038	0.040	0.047	ppm
19:00 - 20:00	0.061	0.045	0.038	0.035	0.037	0.041	0.047	ppm
20:00 - 21:00	0.056	0.043	0.037	0.034	0.036	0.041	0.046	ppm
21:00 - 22:00	0.061	0.042	0.035	0.033	0.035	0.040	0.045	ppm
22:00 - 23:00	0.057	0.041	0.034	0.033	0.034	0.040	0.045	ppm
23:00 - 00:00	0.059	0.041	0.033	0.032	0.034	0.039	0.044	ppm
00:00 - 01:00	0.061	0.040	0.033	0.032	0.034	0.039	0.043	ppm
01:00 - 02:00	0.058	0.039	0.033	0.032	0.034	0.039	0.043	ppm
02:00 - 03:00	0.056	0.038	0.033	0.032	0.035	0.039	0.043	ppm
03:00 - 04:00	0.054	0.038	0.033	0.032	0.035	0.039	0.044	ppm
04:00 - 05:00	0.051	0.037	0.033	0.032	0.035	0.039	0.044	ppm
05:00 - 06:00	0.049	0.037	0.032	0.032	0.035	0.040	0.044	ppm
06:00 - 07:00	0.052	0.037	0.032	0.032	0.035	0.040	0.045	ppm
07:00 - 08:00	0.049	0.036	0.031	0.032	0.035	0.040	0.045	ppm
08:00 - 09:00	0.048	0.036	0.031	0.032	0.035	0.040	0.046	ppm
09:00 - 10:00	0.046	0.036	0.031	0.032	0.036	0.041	0.046	ppm
Maximum 1 hr.	0.064	0.046	0.040	0.036	0.039	0.049	0.048	ppm
Average 24 hr.	0.055	0.041	0.035	0.033	0.035	0.040	0.045	ppm
Standard (1 hr.) ¹	0.30	0.30	0.30	0.30	0.30	0.30	0.30	ppm
Standard (Average 24 hr.) ²	0.12	0.12	0.12	0.12	0.12	0.12	0.12	ppm

REMARK : ¹ Notification of The National Environmental Board Volume 12 B.E. 2538 (1995) and Volume 21 B.E. 2544 (2001)² Notification of The National Environmental Board Volume 24 B.E. 2547 (2004)³ Start Time⁴ GPS 47P 0727526, 1444787* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

06/06/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA67-R0605

Report No. R6705-0043 - R6705-0049

TEST REPORT

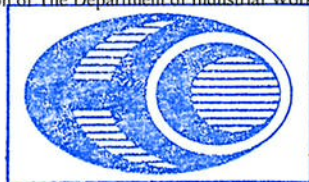
CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณบ้านเขาหิน³
PARAMETER* : Nitrogen Dioxide
DETERMINATION METHOD : Chemiluminescence
INSTRUMENT : API Model T200 S/N 7355

SAMPLE NO. : 15643-15649
SAMPLING DATE : 20-27/05/2024
RECEIVED DATE : 24/05/2024
REPORTED DATE : 06/06/2024

TIME / DATE	20-21/05/2024	21-22/05/2024	22-23/05/2024	23-24/05/2024	24-25/05/2024	25-26/05/2024	26-27/05/2024	UNIT
10:00 - 11:00 ²	0.008	0.013	0.012	0.013	0.015	0.020	0.015	ppm
11:00 - 12:00	0.008	0.013	0.012	0.019	0.016	0.016	0.012	ppm
12:00 - 13:00	0.007	0.013	0.013	0.022	0.018	0.015	0.009	ppm
13:00 - 14:00	0.008	0.017	0.012	0.020	0.017	0.013	0.007	ppm
14:00 - 15:00	0.009	0.018	0.012	0.013	0.009	0.005	0.007	ppm
15:00 - 16:00	0.009	0.024	0.010	0.013	0.006	0.007	0.006	ppm
16:00 - 17:00	0.012	0.016	0.011	0.013	0.006	0.011	0.006	ppm
17:00 - 18:00	0.018	0.012	0.013	0.016	0.010	0.014	0.007	ppm
18:00 - 19:00	0.019	0.016	0.013	0.017	0.012	0.017	0.008	ppm
19:00 - 20:00	0.021	0.017	0.013	0.019	0.016	0.011	0.010	ppm
20:00 - 21:00	0.018	0.016	0.014	0.015	0.020	0.016	0.014	ppm
21:00 - 22:00	0.015	0.015	0.013	0.014	0.020	0.016	0.016	ppm
22:00 - 23:00	0.013	0.014	0.012	0.013	0.021	0.011	0.006	ppm
23:00 - 00:00	0.012	0.013	0.012	0.011	0.020	0.007	0.006	ppm
00:00 - 01:00	0.020	0.009	0.011	0.010	0.017	0.008	0.008	ppm
01:00 - 02:00	0.014	0.009	0.008	0.008	0.014	0.009	0.009	ppm
02:00 - 03:00	0.011	0.007	0.010	0.007	0.016	0.008	0.008	ppm
03:00 - 04:00	0.009	0.010	0.005	0.006	0.013	0.008	0.007	ppm
04:00 - 05:00	0.009	0.010	0.004	0.005	0.018	0.009	0.008	ppm
05:00 - 06:00	0.008	0.013	0.005	0.006	0.014	0.010	0.009	ppm
06:00 - 07:00	0.009	0.008	0.007	0.012	0.011	0.010	0.010	ppm
07:00 - 08:00	0.009	0.010	0.010	0.012	0.013	0.011	0.013	ppm
08:00 - 09:00	0.009	0.009	0.011	0.015	0.014	0.013	0.015	ppm
09:00 - 10:00	0.011	0.013	0.012	0.016	0.015	0.015	0.012	ppm
Maximum 1 hr.	0.021	0.024	0.014	0.022	0.021	0.020	0.016	ppm
Average 24 hr.	0.012	0.013	0.011	0.013	0.015	0.012	0.009	ppm
Standard (1 hr.) ¹	0.17	0.17	0.17	0.17	0.17	0.17	0.17	ppm

REMARK : ¹ Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)² Start Time³ GPS 47P 0727526, 1444787

* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

06/06/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Wind Speed & Wind Direction

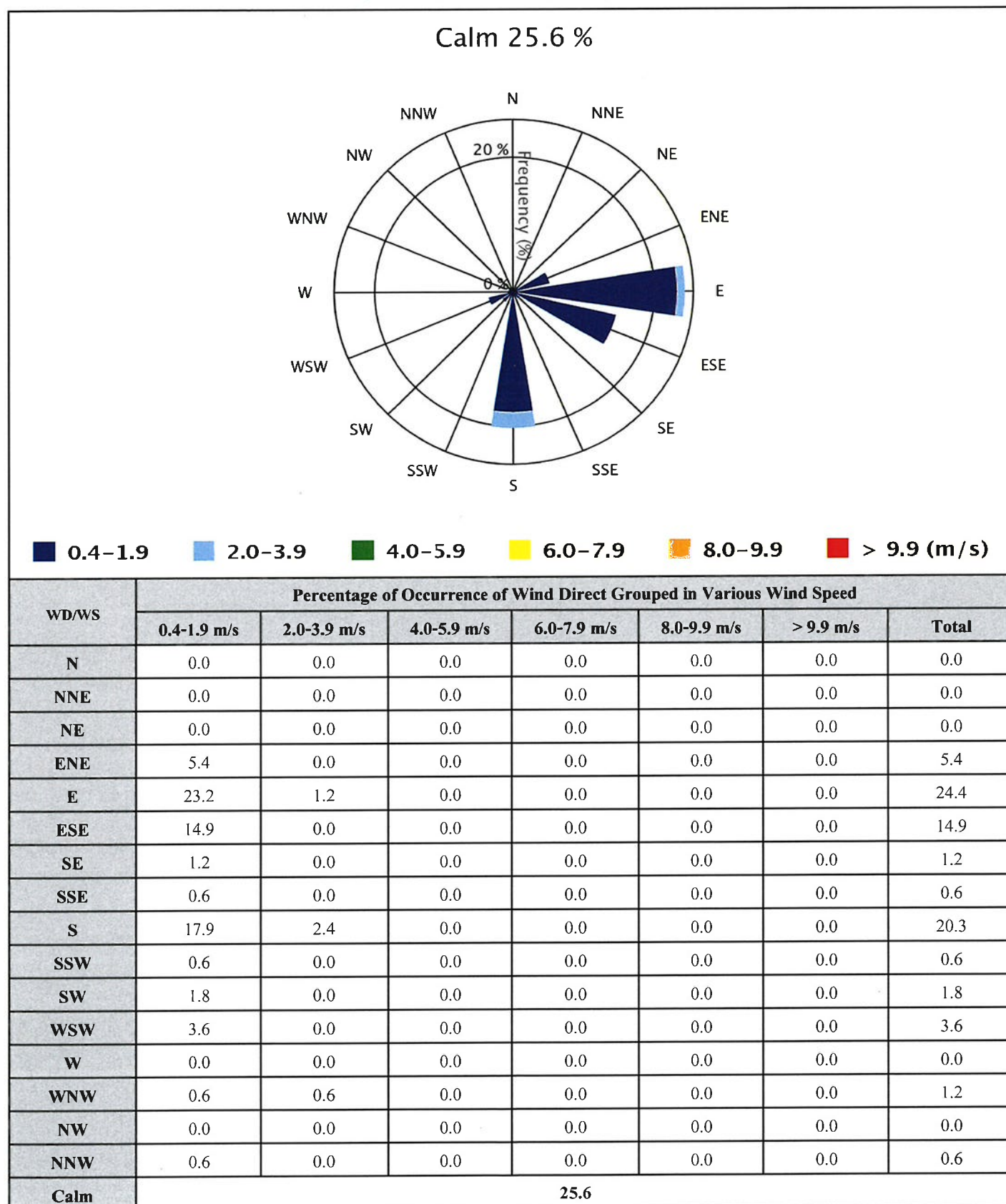
Request No. LA67-R0605

B.Grimm Power (AIE-MTP) Limited

Sample No. 15650

Sampling Source : บริเวณบ้านเขาหิน (47P 0727526, 1444787)

Sampling Date : May 20-27, 2024



Wind Speed & Wind Direction

Request No. LA67-R0605

B.Grimm Power (AIE-MTP) Limited

Sample No. 15650

Sampling Source : บริเวณบ้านเขาหิน (47P 0727526, 1444787)

Sampling Date : May 20-27, 2024

Time	May 20-21, 2024		May 21-22, 2024		May 22-23, 2024		May 23-24, 2024		May 24-25, 2024		May 25-26, 2024		May 26-27, 2024	
	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction
10:00-11:00	0.9	S	0.0	-	1.3	E	0.9	ESE	0.4	ESE	0.9	S	0.9	S
11:00-12:00	1.3	S	0.0	-	0.4	E	1.3	ESE	0.4	E	0.9	ESE	1.3	S
12:00-13:00	1.8	WSW	0.0	-	0.9	S	1.3	ESE	0.4	S	0.9	ESE	2.2	S
13:00-14:00	2.7	E	0.0	-	0.9	S	1.3	ESE	0.9	WSW	1.3	S	2.2	S
14:00-15:00	1.3	E	0.4	S	1.3	S	0.9	S	0.9	WSW	3.6	WNW	1.8	S
15:00-16:00	0.9	E	0.4	S	1.3	S	0.4	ESE	1.3	WSW	0.0	-	2.2	S
16:00-17:00	1.8	ENE	3.6	E	0.9	ESE	0.4	ESE	1.8	WSW	0.9	ENE	1.8	S
17:00-18:00	1.3	E	1.8	E	0.9	S	1.3	E	1.8	SW	0.4	ENE	1.8	S
18:00-19:00	0.9	E	0.4	ESE	0.9	S	0.9	ESE	1.8	S	1.3	SW	2.2	S
19:00-20:00	0.0	-	0.4	S	0.9	S	0.9	E	0.9	S	1.3	SW	1.3	S
20:00-21:00	0.0	-	0.0	-	0.4	SE	0.9	E	0.4	S	0.0	-	0.0	-
21:00-22:00	0.0	-	0.0	-	0.4	ESE	0.9	ESE	0.0	-	0.4	SSE	0.9	E
22:00-23:00	0.0	-	0.0	-	0.0	-	0.9	ESE	0.0	-	0.9	S	1.8	NNW
23:00-00:00	0.0	-	0.0	-	0.0	-	0.4	ESE	0.0	-	0.9	S	0.4	E
00:00-01:00	0.0	-	0.4	S	0.4	E	0.4	ESE	0.4	E	0.9	E	0.0	-
01:00-02:00	0.0	-	0.0	-	0.4	E	1.3	ESE	0.0	-	0.4	E	0.0	-
02:00-03:00	0.0	-	0.9	E	0.9	WNW	0.9	ESE	0.0	-	0.0	-	0.0	-
03:00-04:00	0.4	ESE	0.4	ENE	0.4	WSW	0.9	ESE	0.0	-	0.0	-	0.0	-
04:00-05:00	0.0	-	0.9	ENE	0.4	S	0.9	ESE	0.4	E	0.0	-	0.0	-
05:00-06:00	0.4	E	0.9	ENE	0.4	SE	0.9	E	0.9	E	0.0	-	0.0	-
06:00-07:00	0.9	E	0.4	ENE	0.9	E	0.4	E	0.4	E	0.4	E	0.0	-
07:00-08:00	0.4	E	0.4	E	0.4	E	0.9	SSW	0.0	-	0.4	ENE	0.4	ENE
08:00-09:00	1.3	E	0.9	E	0.9	ESE	0.0	-	0.4	E	1.3	E	0.0	-
09:00-10:00	0.9	E	1.3	E	0.4	ESE	0.4	ESE	0.9	E	0.9	E	1.3	S

Test Report

Request No : W6701547

Report No : 6702-0163-1

Customer : บริษัท บี.กริม เพาเวอร์ (ด้าบลิวเอชเอ) 1 จำกัด**

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมด้าบลิวเอชเอ เขตบรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230**

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ด้าบลิวเอชเอ) 1 จำกัด** Sample No : W 67011684

Sample Name : Inspection Pit (Retention)** Sampling Date : 29/01/2024**

Sampling By : ETC** Sampling Time : 10:50 AM**

Sampling Method : Grab** Received Date : 30/01/2024

Tested Date : 30/01/2024 - 03/02/2024 Reported Date : 26/04/2024

Parameter	Unit	Method	Result	Standard ¹
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	4.0	≤500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	57	≤750
Color(Original) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤600
Color(pH 7.0) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤600
Free Chlorine *	mg/L	DPD Colorimetric Method (SM:4500-Cl G)	0.08	≤1
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10

Physical Apperance : 1. Sample : yellowish, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. * = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (1-003-ค-0031)*

5. ** = These data are non laboratory data.

Examined By :

(Miss Apiradee Chuen-arom)

(1-003-ค-0007)

26/04/2024

SUPPLEMENT TO TEST REPORT NO. 6702-0163



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By :

(Miss Nunnaphat Bakhuntod)

(1-003-ค-0005)

26/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Test Report

Request No : W6701547


Report No : 6702-0163-1

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**
Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230**
Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด** Sample No : W 67011684
Sample Name : Inspection Pit (Retension)** Sampling Date : 29/01/2024**
Sampling By : ETC** Sampling Time : 10:50 AM**
Sampling Method : Grab** Received Date : 30/01/2024
Tested Date : 30/01/2024 - 03/02/2024 Reported Date : 26/04/2024

Parameter	Unit	Method	Result	Standard ¹
pH (at 25 degree celsius) *		Electrometric Method (SM:4500 -H +B)	7.7	5.5-9.0
pH (on site) *		Electrometric Method	7.7	5.5 - 9.0
Temperature *	°C	Laboratory and Field Method (SM:2550 B)	28	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	1,708	≤3000
Total Kjeldahl Nitrogen *	mg/L as NH ₃ -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	12	≤200


Physical Apperance : 1. Sample : yellowish, lightly SS, nonsmelling
2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1. /I Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)
2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.
4. * = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ค-0031)*
5. ** = These data are non laboratory data.

Examined By : 
(Miss Apiradee Chuen-arom)
(จ-003-ค-0007)
26/04/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : 
(Miss Nunnaphat Bakhuntod)
(จ-003-ค-0005)
26/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Test Report

Request No : W6701547

Report No : 6702-0163

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต. บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Sample No : W 67011684

Sample Name : Inspection Pit (Retention)

Sampling Date : 29/01/2024

Sampling By : ETC

Sampling Time : 10:50 AM

Sampling Method : Grab

Received Date : 30/01/2024

Tested Date : 30/01/2024 - 03/02/2024

Reported Date : 08/02/2024

Parameter	Unit	Method	Result	Standard ¹
Flow Rate (per sec)	m ³ /sec	Calculation	0.017	-

Physical Apperance : 1. Sample : yellowish, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. Parameter Outside The Scope of The Registration of Department of Industrial Works

3. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

4. Sampling By Mr. Supharerk Phatklang



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : 

(Miss Apiradee Chuen-arom)

08/02/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
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Test Report

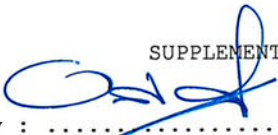
Request No : W6702131
Report No : 6702-0783-1

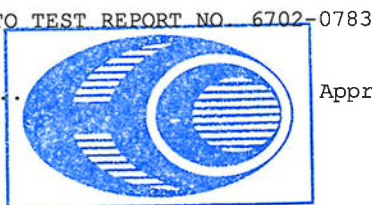
Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**
Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230**
Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด** Sample No : W 67020453
Sample Name : Inspection Pit (Retention)** Sampling Date : 05/02/2024**
Sampling By : ETC** Sampling Time : 9:35 AM**
Sampling Method : Grab** Received Date : 06/02/2024
Tested Date : 06/02/2024 - 14/02/2024 Reported Date : 26/04/2024


Parameter	Unit	Method	Result	Standard ¹
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	5.1	≤500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	56	≤750
Color(Original) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤600
Color(pH 7.0) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤600
Free Chlorine *	mg/L	DPD Colorimetric Method (SM:4500-Cl G)	0.23	≤1
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10

Physical Apperance : 1. Sample : green, lightly SS, nonsmelling
2. Container : Normal [PE 0.5 L , PE 1.0 L , PE 1.8 L, G 1.0 L]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)
2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.
4. * = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (จ-003-ก-0016)*
5. ** = These data are non laboratory data.

Examined By : 
(Miss Apiradee Chuen-arom)
(จ-003-ก-0007)
26/04/2024



Approved By : 
(Miss Nunnaphat Bakhuntod)
(จ-003-ก-0005)
26/04/2024

REPORTED TEST RESULTS TO SUBMITTER SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Test Report

Request No : W6702131
Report No : 6702-0783-1

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**
Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ซลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230**
Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด** Sample No : W 67020453
Sample Name : Inspection Pit (Retention)** Sampling Date : 05/02/2024**
Sampling By : ETC** Sampling Time : 9:35 AM**
Sampling Method : Grab** Received Date : 06/02/2024
Tested Date : 06/02/2024 - 14/02/2024 Reported Date : 26/04/2024

Parameter	Unit	Method	Result	Standard ¹
pH (at 25 degree celsius) *		Electrometric Method (SM:4500 -H +B)	7.5	5.5-9.0
pH (on site) *		Electrometric Method	6.9	5.5 - 9.0
Temperature *	°C	Laboratory and Field Method (SM:2550 B)	29	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	1,760	≤3000
Total Kjeldahl Nitrogen *	mg/L as NH ₃ -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	19	≤200

Physical Apperance : 1. Sample : green, lightly SS, nonsmelling
2. Container : Normal [PE 0.5 L , PE 1.0 L , PE 1.8 L , G 1.0 L]

Remark : 1. /I Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)
2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.
4. * = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (๖-003-๓-0016)*
5. ** = These data are non laboratory data.

Examined By :

(Miss Apiradee Chuen-arom)
(๖-003-๓-0007)

26/04/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By :

(Miss Nunnaphat Bakhuntod)
(๖-003-๓-0005)

26/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Test Report

Request No : W6702131

Report No : 6702-0783

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Sample No : W 67020453

Sample Name : Inspection Pit (Retension)

Sampling Date : 05/02/2024

Sampling By : ETC

Sampling Time : 9:35 AM

Sampling Method : Grab

Received Date : 06/02/2024

Tested Date : 06/02/2024 - 14/02/2024

Reported Date : 17/02/2024

Parameter	Unit	Method	Result	Standard ¹
Flow Rate (per sec)	m ³ /sec	Calculation	0.017	-

Physical Apperance : 1. Sample : green, lightly SS, nonsmelling

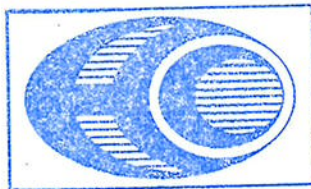
2. Container : Normal [PE 0.5 L , PE 1.0 L , PE 1.8 L, G 1.0 L]

Remark : 1. /I Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. Parameter Outside The Scope of The Registration of Department of Industrial Works

3. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

4. Sampling By Mr. Songpon Phiwuan



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By :

(Miss Apiradee Chuen-arom)

17/02/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Test Report

Request No : W6703292

Report No : 6703-1255-1

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230**

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด** Sample No : W 67030937

Sample Name : Inspection pit (Retention)** Sampling Date : 11/03/2024**

Sampling By : ETC** Sampling Time : 9:20 AM**

Sampling Method : Grab** Received Date : 12/03/2024

Tested Date : 12/03/2024 - 20/03/2024 Reported Date : 26/04/2024

Parameter	Unit	Method	Result	Standard ¹
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	< 2.0	≤ 500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	59	≤ 750
Color(Original) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤ 600
Color(pH 7.0) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤ 600
Free Chlorine *	mg/L	DPD Colorimetric Method (SM:4500-Cl G)	< 0.05	≤ 1
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤ 10

Physical Apperance : 1. Sample : yellowish, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L , PE 1.0 L , PE 1.8 L , G 1.0 L]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. * = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (1-003-ก-0016)*

5. ** = These data are non laboratory data.

Examined By :

(Miss Apiradee Chuen-arom)

(1-003-ก-0007)

26/04/2024

SUPPLEMENT TO TEST REPORT NO. 6703-1255



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By :

(Miss Nunnaphat Bakhuntod)

(1-003-ก-0005)

26/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Test Report

Request No : W6703292

Report No : 6703-1255-1

Customer : บริษัท พี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230**

Sampling Source : บริษัท พี. กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด** Sample No : W 67030937

Sample Name : Inspection pit (Retention)** Sampling Date : 11/03/2024**

Sampling By : ETC** Sampling Time : 9:20 AM**

Sampling Method : Grab** Received Date : 12/03/2024

Tested Date : 12/03/2024 - 20/03/2024 Reported Date : 26/04/2024

Parameter	Unit	Method	Result	Standard ¹
pH (at 25 degree celsius) *		Electrometric Method (SM:4500 -H +B)	6.8	5.5-9.0
pH (on site) *		Electrometric Method	7.3	5.5 - 9.0
Temperature *	°C	Laboratory and Field Method (SM:2550 B)	31	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	1,632	≤3000
Total Kjeldahl Nitrogen *	mg/L as NH ₃ -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	8	≤200

Physical Apperance : 1. Sample : yellowish, lightly SS, nonsmelling
2. Container : Normal [PE 0.5 L , PE 1.0 L , PE 1.8 L, G 1.0 L]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)
2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.
4. * = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (๖-003-๓-0016)*
5. ** = These data are non laboratory data.

Examined By :

(Miss Apiradee Chuen-arom)
(๖-003-๓-0007)
26/04/2024



Approved By :

(Miss Nunnaphat Bakhuntod)
(๖-003-๓-0005)
26/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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Test Report

Request No : W6704277

Report No : 6704-1180-1

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230**

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**

Sample No : W 67040851

Sample Name : Inspection Pit (Retention)**

Sampling Date : 09/04/2024**

Sampling By : ETC**

Sampling Time : 11:20 AM**

Sampling Method : Grab**

Received Date : 10/04/2024

Tested Date : 10/04/2024 - 19/04/2024

Reported Date : 26/04/2024

Parameter	Unit	Method	Result	Standard ¹
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	<2.0	≤500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	71	≤750
Color(Original) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	<20	≤600
Color(pH 7.0) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	<20	≤600
Free Chlorine *	mg/L	DPD Colorimetric Method (SM:4500-Cl G)	<0.05	≤1
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	<3.0	≤10

Physical Apperance : 1. Sample : yellowish, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1. /I Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. * = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (1-003-ก-0031)*

5. ** = These data are non laboratory data.

Examined By :

(Miss Apiradee Chuen-arom)

(1-003-ก-0007)

26/04/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By :

(Miss Nunnaphat Bakhuntod)

(1-003-ก-0005)

26/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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Test Report

Request No : W6704277

Report No : 6704-1180-1

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230**

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**

Sample No : W 67040851

Sample Name : Inspection Pit (Retention)**

Sampling Date : 09/04/2024**

Sampling By : ETC**

Sampling Time : 11:20 AM**

Sampling Method : Grab**

Received Date : 10/04/2024

Tested Date : 10/04/2024 - 19/04/2024

Reported Date : 26/04/2024

Parameter	Unit	Method	Result	Standard ¹
pH (at 25 degree celsius) *		Electrometric Method (SM:4500 -H +B)	7.4	5.5-9.0
pH (on site) *		Electrometric Method	7.1	5.5 - 9.0
Temperature *	°C	Laboratory and Field Method (SM:2550 B)	32	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	1,996	≤3000
Total Kjeldahl Nitrogen *	mg/L as NH ₃ -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	< 5	≤200

Physical Apperance : 1. Sample : yellowish, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1. /I Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. * = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ก-0031)*

5. ** = These data are non laboratory data.

Examined By :

(Miss Apiradee Chuen-arom)
(จ-003-ก-0007)

26/04/2024

SUPPLEMENT TO TEST REPORT NO. 6704-1180



Approved By :

(Miss Nunnaphat Bakhuntod)
(จ-003-ก-0005)

26/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Test Report

Request No : W6704277

Report No : 6704-1180

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Sample No : W 67040851

Sample Name : Inspection Pit (Retention)

Sampling Date : 09/04/2024

Sampling By : ETC

Sampling Time : 11:20 AM

Sampling Method : Grab

Received Date : 10/04/2024

Tested Date : 10/04/2024 - 19/04/2024

Reported Date : 23/04/2024

Parameter	Unit	Method	Result	Standard/ ¹
Flow Rate(per sec)	m ³ /sec.	Calculation	0.017	-

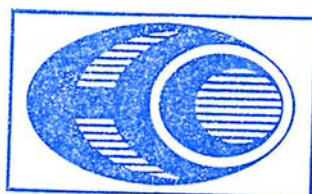
Physical Apperance : 1. Sample : yellowish, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1./1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. Parameter Outside The Scope of The Registration of Department of Industrial Works

3. Sampling By Mr. Supharerk Phatklang



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By :

(Miss Apiradee Chuen-arom)

23/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Test Report

Request No : W6703292

Report No : 6703-1255

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Sample No : W 67030937

Sample Name : Inspection pit (Retention)

Sampling Date : 11/03/2024

Sampling By : ETC

Sampling Time : 9:20 AM

Sampling Method : Grab

Received Date : 12/03/2024

Tested Date : 12/03/2024 - 20/03/2024

Reported Date : 22/03/2024

Parameter	Unit	Method	Result	Standard ¹
Flow Rate (per sec)	m ³ /sec	Calculation	0.017	-

Physical Apperance : 1. Sample : yellowish, lightly SS, nonsmelling

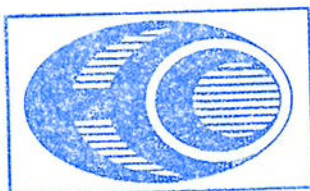
2. Container : Normal [PE 0.5 L , PE 1.0 L , PE 1.8 L , G 1.0 L]

Remark : 1. /I Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. Parameter Outside The Scope of The Registration of Department of Industrial Works

3. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

4. Sampling By Mr. Songpon Phiwuan



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By :

(Miss Apiradee Chuen-arom)

22/03/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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Test Report

Request No : W6705325

Report No : 6705-1467

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230**

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**

Sample No : W 67051102

Sample Name : Inspection Pit (Retention)**

Sampling Date : 13/05/2024**

Sampling By : ETC**

Sampling Time : 9:00 AM**

Sampling Method : Grab**

Received Date : 14/05/2024

Tested Date : 14/05/2024 - 23/05/2024

Reported Date : 27/05/2024

Parameter	Unit	Method	Result	Standard ¹
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	< 2.0	≤ 500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	77	≤ 750
Color(Original) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤ 600
Color(pH 7.0) *	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤ 600
Free Chlorine *	mg/L	DPD Colorimetric Method (SM:4500-Cl G)	< 0.05	≤ 1
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤ 10

Physical Appearance : 1. Sample : yellow, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1. /I Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. * = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (1-003-ค-0031)*

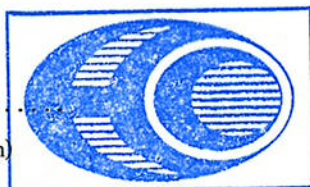
5. ** = These data are non laboratory data.

Examined By :

(Miss Apiradee Chuen-arom)

(1-003-ค-0007)

27/05/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By :

(Miss Nunnaphat Bakhuntod)

(1-003-ค-0005)

27/05/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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Test Report

Request No : W6705325

Report No : 6705-1467

Customer : บริษัท ปิ.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด**

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230**

Sampling Source : บริษัท ปิ. กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด** Sample No : W 67051102

Sample Name : Inspection Pit (Retension)**

Sampling Date : 13/05/2024**

Sampling By : ETC**

Sampling Time : 9:00 AM**

Sampling Method : Grab**

Received Date : 14/05/2024

Tested Date : 14/05/2024 - 23/05/2024

Reported Date : 27/05/2024

Parameter	Unit	Method	Result	Standard ¹
pH (at 25 degree celsius) *		Electrometric Method (SM:4500 -H +B)	7.1	5.5-9.0
pH (on site) *		Electrometric Method	6.7	5.5 - 9.0
Temperature *	°C	Laboratory and Field Method (SM:2550 B)	31	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	1,344	≤3000
Total Kjeldahl Nitrogen *	mg/L as NH ₃ -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	8	≤200

Physical Apperance : 1. Sample : yellow, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1. /I Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. * = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ท-0031)*

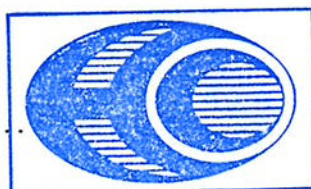
5. ** = These data are non laboratory data.

Examined By : 

(Miss Apiradee Chuen-arom)

(จ-003-ท-0007)

27/05/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : 

(Miss Nunnaphat Bakhuntod)

(จ-003-ท-0005)

27/05/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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Test Report

Request No : W6705325

Report No : 6705-1467

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Sample No : W 67051102

Sample Name : Inspection Pit (Retention)

Sampling Date : 13/05/2024

Sampling By : ETC

Sampling Time : 9:00 AM

Sampling Method : Grab

Received Date : 14/05/2024

Tested Date : 14/05/2024 - 23/05/2024

Reported Date : 27/05/2024

Parameter	Unit	Method	Result	Standard ¹
Flow Rate (per sec)	m3/Sec	Calculation	0.017	-

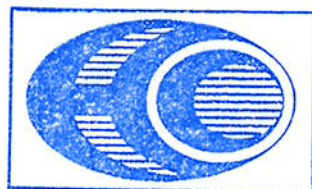
Physical Apperance : 1. Sample : yellow, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 76 / 2560 (2017)

2. Parameter Outside The Scope of The Registration of Department of Industrial Works

3. Sampling By Mr. Supharerk Phatklang



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By :

(Miss Apiradee Chuen-arom)

27/05/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Test Report

Request No : W6706239

Report No : 6706-1609

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Sample No : W 67060741

Sample Name : Inspection Pit (Retention)

Sampling Date : 10/06/2024

Sampling By : ETC

Sampling Time : 9:10 AM

Sampling Method : Grab

Received Date : 11/06/2024

Tested Date : 11/06/2024 - 24/06/2024

Reported Date : 26/06/2024

Parameter	Unit	Method	Result	Standard ¹
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	2.8	≤500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	63	≤750
Color(Original)	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤600
Color(pH 7.0)	ADMI	ADMI Weighted Ordinate Spectrophotometric Method (SM:2120F)	< 20	≤600
Free Chlorine	mg/L	DPD Colorimetric Method (SM:4500-Cl G)	0.05	≤1
Oil and Grease	mg/L	Liquid-Liquid, Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10

Physical Apperance : 1. Sample : yellow, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 029 / 2567 (2024)

2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

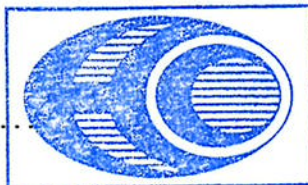
3. Sampling By Miss Pornpinan Viriyakusolkul (ว-003-ค-0036)

Examined By :

(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

26/06/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By :

(Miss Nunnaphat Bakhuntod)

(ว-003-ค-0005)

26/06/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Test Report

Request No : W6706239

Report No : 6706-1609

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Sample No : W 67060741

Sample Name : Inspection Pit (Retention)

Sampling Date : 10/06/2024

Sampling By : ETC

Sampling Time : 9:10 AM

Sampling Method : Grab

Received Date : 11/06/2024

Tested Date : 11/06/2024 - 24/06/2024

Reported Date : 26/06/2024

Parameter	Unit	Method	Result	Standard/ ¹
pH (at 25 degree celsius)		Electrometric Method (SM:4500 -H +B)	7.8	5.5-9.0
pH (on site)		Electrometric Method	7.4	5.5-9.0
Temperature	°C	Laboratory and Field Method (SM:2550 B)	30	≤45
Total Dissolved Solids	mg/L	Dried at 180 degree celsius (SM:2540C)	1,720	≤3000
Total Kjeldahl Nitrogen	mg/L as NH ₃ -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids	mg/L	Dried at 103-105 degree celsius (SM:2540D)	7	≤200


Physical Apperance : 1. Sample : yellow, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

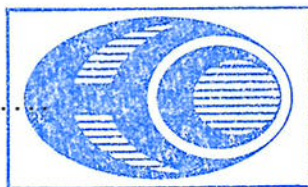
Remark : 1. /1 Notification of Industrial Estate Authority of Thailand 029 / 2567 (2024)

2. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

3. Sampling By Miss Pompinan Viriyakusolkul (ว-003-ค-0036)

Examined By : (Miss Apiradee Chuen-arom)
(ว-003-ค-0007)

26/06/2024



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : (Miss Nunnaphat Bakhuntod)
(ว-003-ค-0005)

26/06/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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Test Report

Request No : W6706239

Report No : 6706-1609

Customer : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Address : 369/27 หมู่ 6 นิคมอุตสาหกรรมดับบลิวเอชเอ ชลบุรี 1 ต.บ่อวิน อ.ศรีราชา จ.ชลบุรี 20230

Sampling Source : บริษัท บี.กริม เพาเวอร์ (ดับบลิวเอชเอ) จำกัด

Sample No : W 67060741

Sample Name : Inspection Pit (Retention)

Sampling Date : 10/06/2024

Sampling By : ETC

Sampling Time : 9:10 AM

Sampling Method : Grab

Received Date : 11/06/2024

Tested Date : 11/06/2024 - 24/06/2024

Reported Date : 26/06/2024

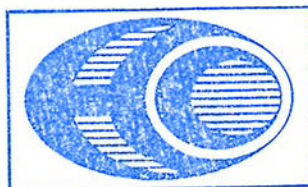
Parameter	Unit	Method	Result	Standard ¹
Flow Rate (per sec)	m ³ /sec	Calculation	0.017	≤1

Physical Apperance : 1. Sample : yellow, lightly SS, nonsmelling

2. Container : Normal [PE 0.5 L, PE 1.0 L [2 Bottle], PE 1.8 L, G 1.0 L]

Remark : 1. /I Notification of Industrial Estate Authority of Thailand 029 / 2567 (2024)

- SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.
- Parameter Outside The Scope of The Registration of Department of Industrial Works
- Sampling By Miss Pornpinan Viriyakusolkul



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By :

(Miss Apiradee Chuen-arom)

26/06/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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WITHOUT THE WRITTEN APPROVAL LABORATORY



Analysis / Test Report

TESTING

No.0042

Lot ID: 23148260

Date Received : Jan 12, 2024

Date Reported : Jan 18, 2024

Report Number : 2875517-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 1 of 2

Sample Number 23148260-1
Sampled Date Jan 12, 2024 10:16 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
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)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤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	39	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	8	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	7	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	8.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	29.9	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

Technical Management

N. Banongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Chamon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 23148260

Date Received : Jan 12, 2024

Date Reported : Jan 18, 2024

Report Number : 2875517-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 2 of 2

Sample Number 23148260-1
Sampled Date Jan 12, 2024 10:16 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
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)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1240	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.4	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	17	≤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 : Paramet Sattayakun ทะเบียนเลขที่ ว-323-จ-9476

Remark :

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

Technical Management

N. Banngkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Chonchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Lot ID: 23148260

Date Received : Jan 12, 2024

Date Reported : Jan 18, 2024

Report Number : 2875517-2

Page 1 of 1

Sample Number 23148260-1
Sampled Date Jan 12, 2024 10:16 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
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)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.017	No Standard	Flow meter	Rayong
Odour		-	-	Odourless	Non Objectionable	TIS, 257-2549	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 : Paramet Sattayakun

Remark :

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

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Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 248554

Date Received : Feb 09, 2024

Date Reported : Feb 15, 2024

Report Number : 2894762-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 1 of 2

Sample Number 248554-1
Sampled Date Feb 09, 2024 10:15 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
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)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	4.0	≤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	48	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	8	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	7	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	30.5	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

Technical Management

N. Banongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Chamon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 248554

Date Received : Feb 09, 2024

Date Reported : Feb 15, 2024

Report Number : 2894762-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 2 of 2

Sample Number 248554-1
Sampled Date Feb 09, 2024 10:15 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
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)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1540	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.5	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	18	≤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 : Surawit Narapong ทะเบียนเลขที่ ว-323-จ-0011

Remark :

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

Technical Management

N. Banngkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Chonchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Lot ID: 248554

Date Received : Feb 09, 2024

Date Reported : Feb 15, 2024

Report Number : 2894762-2

Page 1 of 1

Sample Number 248554-1
Sampled Date Feb 09, 2024 10:15 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
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)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.017	No Standard	Flow meter	Rayong
Odour		-	-	Odourless	Non Objectionable	TIS, 257-2549	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 : Surawit Narapong

Remark :

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

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N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2421254

Date Received : Mar 13, 2024

Date Reported : Mar 18, 2024

Report Number : 2919249-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 1 of 2

Sample Number 2421254-1
Sampled Date Mar 13, 2024 9:53 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
Date Analysis Commenced Mar 13, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤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	33	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	9	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	8	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	30.4	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

Technical Management

Photchana S.

Photchana Seeda

Scientist (4)

ทะเบียนเลขที่ ว-323-จ-9446

Approved by

D. Chamon.

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2421254

Date Received : Mar 13, 2024

Date Reported : Mar 18, 2024

Report Number : 2919249-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 2 of 2

Sample Number 2421254-1
Sampled Date Mar 13, 2024 9:53 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
Date Analysis Commenced Mar 13, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1770	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	3.2	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤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 : Tanasit Wongsachai ทะเบียนเลขที่ ว-323-จ-9460

Remark :

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

Technical Management

Photchana S.

Photchana Seeda

Scientist (4)

ทะเบียนเลขที่ ว-323-จ-9446

Approved by

D. Chamon.

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Client : WHA Utilities and Power Public Company Limited
331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Lot ID: 2421254

Date Received : Mar 13, 2024

Date Reported : Mar 18, 2024

Report Number : 2919249-2

Page 1 of 1

Sample Number 2421254-1
Sampled Date Mar 13, 2024 9:53 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
Date Analysis Commenced Mar 13, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.017	No Standard	Flow meter	Rayong
Odour		-	-	Odourless	Non Objectionable	TIS, 257-2549	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 : Tanasit Wongsachai

Remark :

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

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Approved by

Photchana S.

Photchana Seeda
Scientist (4)

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2434563

Date Received : Apr 08, 2024

Date Reported : Apr 14, 2024

Report Number : 2947987-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 1 of 2

Sample Number 2434563-1
Sampled Date Apr 08, 2024 9:45 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
Date Analysis Commenced Apr 08, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤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	51	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	11	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	11	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	31.4	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

Technical Management

N. Banongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Chamon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2434563

Date Received : Apr 08, 2024

Date Reported : Apr 14, 2024

Report Number : 2947987-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 2 of 2

Sample Number 2434563-1
Sampled Date Apr 08, 2024 9:45 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
Date Analysis Commenced Apr 08, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2180	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.3	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤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 : Paramet Sattayakun ทะเบียนเลขที่ ว-323-จ-9476

Remark :

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

Technical Management

N. Banngkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Chonchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Client : WHA Utilities and Power Public Company Limited
331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Lot ID: 2434563

Date Received : Apr 08, 2024

Date Reported : Apr 14, 2024

Report Number : 2947987-2

Page 1 of 1

Sample Number 2434563-1
Sampled Date Apr 08, 2024 9:45 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
Date Analysis Commenced Apr 08, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.017	No Standard	Flow meter	Rayong
Odour		-	-	Odourless	Non Objectionable	TIS, 257-2549	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 : Paramet Sattayakun

Remark :

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N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2445982

Date Received : May 10, 2024

Date Reported : May 16, 2024

Report Number : 2974111-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 1 of 2

Sample Number 2445982-1
Sampled Date May 10, 2024 8:51 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
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)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤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	48	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	10	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	10	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	30.2	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

Technical Management

N. Banongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Chanchon

Dej Chanchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2445982

Date Received : May 10, 2024

Date Reported : May 16, 2024

Report Number : 2974111-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 2 of 2

Sample Number 2445982-1
Sampled Date May 10, 2024 8:51 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
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)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1352	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.3	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	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 : Surawit Narapong ทะเบียนเลขที่ ว-323-จ-0011

Remark :

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

Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Lot ID: 2445982

Date Received : May 10, 2024

Date Reported : May 16, 2024

Report Number : 2974111-2

Page 1 of 1

Sample Number 2445982-1
Sampled Date May 10, 2024 8:51 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
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)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.017	No Standard	Flow meter	Rayong
Odour		-	-	Odourless	Non Objectionable	TIS, 257-2549	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 : Surawit Narapong

Remark :

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

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N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2458257

Date Received : Jun 12, 2024

Date Reported : Jun 18, 2024

Report Number : 3000649-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 1 of 2

Sample Number 2458257-1
Sampled Date Jun 12, 2024 10:15 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
Date Analysis Commenced Jun 12, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	3.7	≤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	48	≤750	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	10	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	10	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH (on site) *		-	-	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
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Temperature *	Degree C	-	-	32.2	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

ทะเบียนเลขที่ ว-323-จ-9449

Approved by

D. Chamon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2458257

Date Received : Jun 12, 2024

Date Reported : Jun 18, 2024

Report Number : 3000649-1

Client : WHA Utilities and Power Public Company Limited

331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Page 2 of 2

Sample Number 2458257-1
Sampled Date Jun 12, 2024 10:15 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
Date Analysis Commenced Jun 12, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1760	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	3.3	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	15	≤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 : Suphanat Sakulk ทะเบียนเลขที่ ว-323-จ-0021

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

Chonticha

Chonticha Subongkoch

Scientist (3)

ทะเบียนเลขที่ ว-323-จ-9449

Approved by

D. Chamon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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.
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RIGHT SOLUTIONS RIGHT PARTNER



Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
331/8-9 Moo 6, High Way No.331 Road, Tambol Bowin, Amphur Sriracha, Chonburi
Thailand 20230

P/O :

Project Name : Factory I Monthly

Project Location: WHA CIE 1

Lot ID: 2458257

Date Received : Jun 12, 2024

Date Reported : Jun 18, 2024

Report Number : 3000649-2

Page 1 of 1

Sample Number 2458257-1
Sampled Date Jun 12, 2024 10:15 AM
Sample Description Wastewater
Contract ID L_CIE_003_2559 **Plot** A **Site** B. Grimm Power (WHA) 1 Limited.
Location Process
Date Analysis Commenced Jun 12, 2024
Condition of Sample Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)
Physical Property Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.017	No Standard	Flow meter	Rayong
Odour		-	-	Odourless	No Standard	TIS, 257-2549	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 : Suphanat Sakulk

Remark :

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

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

Approved by

Chonticha

Chonticha Subongkoch
Scientist (3)

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Request No. LA67-R0364

Report No. R6703-2984

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
 ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
 SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
 SAMPLE POINT : บริเวณริมรั้วโครงการด้านทิศตะวันออกเฉียงใต้^{1/4}
 PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn} SAMPLE NO. : 05247
 DETERMINATION METHOD : ISO 1996-1:2016 MEASURING DATE : 15-16/03/2024
 INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 16/03/2024
 S/N 01120945 : Class 1 REPORTED DATE : 27/03/2024

TIME \ DATE	15-16/03/2024 (L_{eq})	15-16/03/2024 (L_{max})	15-16/03/2024 (L_{90})	UNIT
10:00 - 11:00 ^{1/3}	56.1	84.8	48.6	dB(A)
11:00 - 12:00	55.6	76.7	49.9	dB(A)
12:00 - 13:00	57.4	78.9	50.8	dB(A)
13:00 - 14:00	56.8	80.5	50.3	dB(A)
14:00 - 15:00	58.8	86.2	50.7	dB(A)
15:00 - 16:00	56.5	75.7	50.4	dB(A)
16:00 - 17:00	60.8	85.1	54.2	dB(A)
17:00 - 18:00	61.2	86.1	55.7	dB(A)
18:00 - 19:00	59.7	82.8	53.7	dB(A)
19:00 - 20:00	58.7	81.8	51.2	dB(A)
20:00 - 21:00	60.6	81.2	54.2	dB(A)
21:00 - 22:00	56.7	75.4	53.6	dB(A)
22:00 - 23:00	55.3	70.9	53.6	dB(A)
23:00 - 00:00	54.6	72.2	52.7	dB(A)
00:00 - 01:00	53.0	75.2	48.4	dB(A)
01:00 - 02:00	49.5	66.6	47.9	dB(A)
02:00 - 03:00	49.1	58.0	48.0	dB(A)
03:00 - 04:00	50.2	72.8	47.8	dB(A)
04:00 - 05:00	51.8	75.1	48.8	dB(A)
05:00 - 06:00	54.3	77.6	50.9	dB(A)
06:00 - 07:00	60.2	76.2	58.1	dB(A)
07:00 - 08:00	62.5	84.6	57.8	dB(A)
08:00 - 09:00	59.7	81.3	53.2	dB(A)
09:00 - 10:00	58.4	83.3	51.6	dB(A)
L_{eq} 24 hr.	57.9	-	-	dB(A)
L_{dn}	62.0	-	-	dB(A)
Maximum	-	86.2	-	dB(A)
L_{90}	-	-	48.1	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	$115^{1/1}, 115^{1/2}$	-	dB(A)

REMARK : ^{1/1} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{1/2} Notification of Ministry of the Industry B.E. 2548 (2005)^{1/3} Start Time^{1/4} GPS 47P 0727070, 1445185* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photankum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By: 

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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Request No. LA67-R0364

Report No. R6703-2985

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณริมรั้วโครงการด้านทิศตะวันออกเฉียงใต้^{1/4}
PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn}
DETERMINATION METHOD : ISO 1996-1:2016
INSTRUMENT : Integrated Sound Level Meter
S/N 01120945 : Class 1

SAMPLE NO. : 05248
MEASURING DATE : 16-17/03/2024
RECEIVED DATE : 16/03/2024
REPORTED DATE : 27/03/2024

TIME \ DATE	16-17/03/2024 (L_{eq})	16-17/03/2024 (L_{max})	16-17/03/2024 (L_{90})	UNIT
10:00 - 11:00 ³	57.4	83.7	50.0	dB(A)
11:00 - 12:00	57.2	83.2	52.1	dB(A)
12:00 - 13:00	57.6	79.3	50.9	dB(A)
13:00 - 14:00	55.9	80.2	50.2	dB(A)
14:00 - 15:00	58.2	85.0	50.9	dB(A)
15:00 - 16:00	60.4	87.5	53.5	dB(A)
16:00 - 17:00	58.9	83.9	53.7	dB(A)
17:00 - 18:00	59.9	82.6	52.9	dB(A)
18:00 - 19:00	59.1	83.1	52.5	dB(A)
19:00 - 20:00	57.6	80.1	50.9	dB(A)
20:00 - 21:00	58.0	80.8	53.1	dB(A)
21:00 - 22:00	54.4	75.3	50.9	dB(A)
22:00 - 23:00	54.1	75.4	50.4	dB(A)
23:00 - 00:00	55.1	80.4	49.4	dB(A)
00:00 - 01:00	54.7	82.4	49.6	dB(A)
01:00 - 02:00	50.1	62.5	48.9	dB(A)
02:00 - 03:00	51.5	69.6	49.3	dB(A)
03:00 - 04:00	51.7	77.7	47.9	dB(A)
04:00 - 05:00	50.5	68.4	48.5	dB(A)
05:00 - 06:00	54.2	75.7	49.7	dB(A)
06:00 - 07:00	56.4	76.5	51.7	dB(A)
07:00 - 08:00	57.8	77.5	51.3	dB(A)
08:00 - 09:00	56.2	80.1	49.4	dB(A)
09:00 - 10:00	57.5	79.3	51.2	dB(A)
L_{eq} 24 hr.	56.8	-	-	dB(A)
L_{dn}	61.0	-	-	dB(A)
Maximum	-	87.5	-	dB(A)
L_{90}	-	-	49.0	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	$115^{1/1}, 115^{2/2}$	-	dB(A)

REMARK : ^{1/1} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{1/2} Notification of Ministry of the Industry B.E. 2548 (2005)^{1/3} Start Time^{1/4} GPS 47P 0727070, 1445185* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photanukham)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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Request No. LA67-R0364

Report No. R6703-2986

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate I, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณริมรั้วโครงการด้านทิศตะวันออกเฉียงใต้
PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn} SAMPLE NO. : 05249
DETERMINATION METHOD : ISO 1996-1:2016 MEASURING DATE : 17-18/03/2024
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 16/03/2024
S/N 01120945 : Class I REPORTED DATE : 27/03/2024

TIME \ DATE	17-18/03/2024 (L_{eq})	17-18/03/2024 (L_{max})	17-18/03/2024 (L_{90})	UNIT
10:00 - 11:00 ³	54.7	75.7	48.0	dB(A)
11:00 - 12:00	55.6	77.7	48.2	dB(A)
12:00 - 13:00	55.1	74.2	48.0	dB(A)
13:00 - 14:00	55.4	74.2	48.9	dB(A)
14:00 - 15:00	56.2	76.7	49.8	dB(A)
15:00 - 16:00	57.8	80.2	49.8	dB(A)
16:00 - 17:00	58.5	80.2	54.0	dB(A)
17:00 - 18:00	61.1	81.9	55.1	dB(A)
18:00 - 19:00	59.0	76.5	54.2	dB(A)
19:00 - 20:00	57.3	77.5	52.9	dB(A)
20:00 - 21:00	58.2	86.6	53.0	dB(A)
21:00 - 22:00	57.7	88.9	52.5	dB(A)
22:00 - 23:00	59.9	86.8	51.9	dB(A)
23:00 - 00:00	52.6	78.0	48.3	dB(A)
00:00 - 01:00	51.7	76.8	47.3	dB(A)
01:00 - 02:00	52.6	80.8	48.4	dB(A)
02:00 - 03:00	53.5	65.5	50.6	dB(A)
03:00 - 04:00	54.2	66.4	51.6	dB(A)
04:00 - 05:00	52.6	69.8	50.2	dB(A)
05:00 - 06:00	55.1	73.0	49.4	dB(A)
06:00 - 07:00	56.7	72.4	50.6	dB(A)
07:00 - 08:00	59.9	83.1	52.3	dB(A)
08:00 - 09:00	58.9	77.1	51.3	dB(A)
09:00 - 10:00	56.2	75.3	49.9	dB(A)
L_{eq} 24 hr.	57.0	-	-	dB(A)
L_{dn}	62.1	-	-	dB(A)
Maximum	-	88.9	-	dB(A)
L_{90}	-	-	48.1	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	$115^{1/1}, 115^{2/2}$	-	dB(A)

REMARK : ^{1/} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{2/} Notification of Ministry of the Industry B.E. 2548 (2005)^{3/} Start Time^{4/} GPS 47P 0727070, 1445185* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Phorankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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Request No. LA67-R0364

Report No. R6703-2987

TEST REPORT

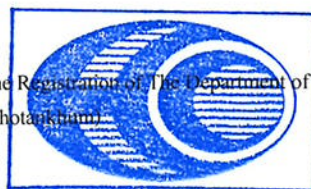
CUSTOMER : B.Grimm Power (WHA) 1 Limited
 ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate I, Bowin, Sriracha, Chonburi 20230
 SAMPLE SOURCE : B.Grimm Power (WHA) 1 Limited
 SAMPLE POINT : บริเวณริมรั้วโครงการด้านทิศตะวันออกเฉียงใต้
 PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn} SAMPLE NO. : 05250
 DETERMINATION METHOD : ISO 1996-1:2016 MEASURING DATE : 18-19/03/2024
 INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 16/03/2024
 S/N 01120945 : Class I REPORTED DATE : 27/03/2024

TIME \ DATE	18-19/03/2024 (L_{eq})	18-19/03/2024 (L_{max})	18-19/03/2024 (L_{90})	UNIT
10:00 - 11:00 ^{1/3}	56.4	78.0	52.3	dB(A)
11:00 - 12:00	56.8	75.3	52.8	dB(A)
12:00 - 13:00	57.2	77.2	52.8	dB(A)
13:00 - 14:00	59.5	86.8	53.7	dB(A)
14:00 - 15:00	60.8	88.1	53.2	dB(A)
15:00 - 16:00	57.7	77.1	52.6	dB(A)
16:00 - 17:00	55.5	73.4	49.3	dB(A)
17:00 - 18:00	60.3	84.3	52.2	dB(A)
18:00 - 19:00	57.9	77.5	51.7	dB(A)
19:00 - 20:00	57.6	76.8	50.7	dB(A)
20:00 - 21:00	57.9	79.0	50.5	dB(A)
21:00 - 22:00	57.1	86.3	51.0	dB(A)
22:00 - 23:00	54.4	74.2	51.8	dB(A)
23:00 - 00:00	53.7	72.5	52.3	dB(A)
00:00 - 01:00	54.5	79.0	52.3	dB(A)
01:00 - 02:00	52.6	71.1	51.4	dB(A)
02:00 - 03:00	51.9	68.1	51.4	dB(A)
03:00 - 04:00	52.2	69.9	51.4	dB(A)
04:00 - 05:00	52.3	70.1	51.5	dB(A)
05:00 - 06:00	54.3	74.3	52.0	dB(A)
06:00 - 07:00	57.3	73.4	52.9	dB(A)
07:00 - 08:00	63.2	88.0	54.8	dB(A)
08:00 - 09:00	61.5	83.0	54.3	dB(A)
09:00 - 10:00	61.9	85.2	53.9	dB(A)
L_{eq} 24 hr.	58.0	-	-	dB(A)
L_{dn}	61.7	-	-	dB(A)
Maximum	-	88.1	-	dB(A)
L_{90}	-	-	50.8	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	$115^{1/1}, 115^{1/2}$	-	dB(A)

REMARK : ^{1/1} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{1/2} Notification of Ministry of the Industry B.E. 2548 (2005)^{1/3} Start Time^{1/4} GPS 47P 0727070, 1445185

* Parameter Outside The Scope of The Regulation of The Department of Industrial Works

(Measurement By Mr. Tummarut Photakham)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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Request No. LA67-R0364

Report No. R6703-2988

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณริมรั้วโครงการด้านทิศตะวันออกเฉียงใต้^{1/4}
PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn}
DETERMINATION METHOD : ISO 1996-1:2016
INSTRUMENT : Integrated Sound Level Meter
S/N 01120945 : Class I

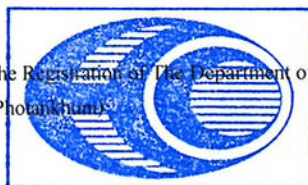
SAMPLE NO. : 05251
MEASURING DATE : 19-20/03/2024
RECEIVED DATE : 16/03/2024
REPORTED DATE : 27/03/2024

TIME \ DATE	19-20/03/2024 (L_{eq})	19-20/03/2024 (L_{max})	19-20/03/2024 (L_{90})	UNIT
10:00 - 11:00 ^{1/3}	62.2	84.4	54.5	dB(A)
11:00 - 12:00	58.7	79.4	53.6	dB(A)
12:00 - 13:00	57.4	86.4	50.6	dB(A)
13:00 - 14:00	56.8	75.1	51.8	dB(A)
14:00 - 15:00	58.8	87.3	51.0	dB(A)
15:00 - 16:00	56.3	79.4	51.0	dB(A)
16:00 - 17:00	56.3	79.2	50.6	dB(A)
17:00 - 18:00	59.5	81.1	52.8	dB(A)
18:00 - 19:00	59.1	87.0	52.8	dB(A)
19:00 - 20:00	58.2	81.3	50.5	dB(A)
20:00 - 21:00	59.2	85.2	52.6	dB(A)
21:00 - 22:00	56.5	84.6	51.7	dB(A)
22:00 - 23:00	54.9	74.5	53.0	dB(A)
23:00 - 00:00	57.0	86.7	52.6	dB(A)
00:00 - 01:00	55.6	79.7	52.1	dB(A)
01:00 - 02:00	52.6	73.4	51.5	dB(A)
02:00 - 03:00	51.6	61.8	51.0	dB(A)
03:00 - 04:00	46.2	63.1	45.2	dB(A)
04:00 - 05:00	47.0	64.9	45.6	dB(A)
05:00 - 06:00	51.5	68.4	46.9	dB(A)
06:00 - 07:00	56.0	79.1	49.4	dB(A)
07:00 - 08:00	60.9	83.7	52.8	dB(A)
08:00 - 09:00	61.3	81.4	53.3	dB(A)
09:00 - 10:00	63.8	83.1	61.3	dB(A)
L_{eq} 24 hr.	58.2	-	-	dB(A)
L_{dn}	61.6	-	-	dB(A)
Maximum	-	87.3	-	dB(A)
L_{90}	-	-	47.7	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	$115^{1/1}, 115^{2/2}$	-	dB(A)

REMARK : ^{1/1} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{1/2} Notification of Ministry of the Industry B.E. 2548 (2005)^{1/3} Start Time^{1/4} GPS 47P 0727070, 1445185

* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Measurement By Mr. Tummarut Photanahum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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Request No. LA67-R0364

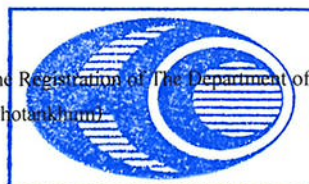
Report No. R6703-2989

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate I, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณริมรั้วโครงการด้านทิศตะวันออกเฉียงใต้
PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn}
DETERMINATION METHOD : ISO 1996-1:2016
INSTRUMENT : Integrated Sound Level Meter
S/N 01120945 : Class 1

SAMPLE NO. : 05252
MEASURING DATE : 20-21/03/2024
RECEIVED DATE : 16/03/2024
REPORTED DATE : 27/03/2024

TIME \ DATE	20-21/03/2024 (L_{eq})	20-21/03/2024 (L_{max})	20-21/03/2024 (L_{90})	UNIT
10:00 - 11:00 ^{1/3}	58.5	79.2	53.7	dB(A)
11:00 - 12:00	56.9	76.5	51.6	dB(A)
12:00 - 13:00	57.9	76.8	54.8	dB(A)
13:00 - 14:00	62.3	81.5	61.2	dB(A)
14:00 - 15:00	59.5	69.7	58.5	dB(A)
15:00 - 16:00	59.7	74.0	58.3	dB(A)
16:00 - 17:00	55.5	70.4	52.0	dB(A)
17:00 - 18:00	58.7	78.1	51.6	dB(A)
18:00 - 19:00	57.6	78.9	51.4	dB(A)
19:00 - 20:00	59.5	86.8	53.6	dB(A)
20:00 - 21:00	58.9	79.0	50.0	dB(A)
21:00 - 22:00	54.9	71.2	49.1	dB(A)
22:00 - 23:00	55.6	69.8	52.5	dB(A)
23:00 - 00:00	55.9	67.0	52.8	dB(A)
00:00 - 01:00	55.5	69.9	52.4	dB(A)
01:00 - 02:00	54.8	66.7	51.7	dB(A)
02:00 - 03:00	52.7	69.1	51.4	dB(A)
03:00 - 04:00	52.0	64.2	51.3	dB(A)
04:00 - 05:00	52.2	65.5	51.3	dB(A)
05:00 - 06:00	55.0	76.2	52.1	dB(A)
06:00 - 07:00	58.3	87.0	51.4	dB(A)
07:00 - 08:00	60.2	80.0	52.7	dB(A)
08:00 - 09:00	60.0	87.3	52.2	dB(A)
09:00 - 10:00	56.2	79.9	51.6	dB(A)
L_{eq} 24 hr.	57.8	-	-	dB(A)
L_{dn}	62.3	-	-	dB(A)
Maximum	-	87.3	-	dB(A)
L_{90}	-	-	51.3	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	$115^{1/1}, 115^{2/2}$	-	dB(A)

REMARK : ^{1/1} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{1/2} Notification of Ministry of the Industry B.E. 2548 (2005)^{1/3} Start Time^{1/4} GPS 47P 0727070, 1445185* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photankhumi)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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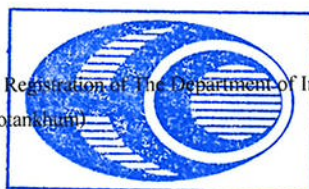
Request No. LA67-R0364

Report No. R6703-2990

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณริมรั้วโครงการด้านทิศตะวันออกเฉียงใต้^{1/4}
PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn} SAMPLE NO. : 05253
DETERMINATION METHOD : ISO 1996-1:2016 MEASURING DATE : 21-22/03/2024
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 16/03/2024
S/N 01120945 : Class I REPORTED DATE : 27/03/2024

TIME \ DATE	21-22/03/2024 (L_{eq})	21-22/03/2024 (L_{max})	21-22/03/2024 (L_{90})	UNIT
10:00 - 11:00 ³	56.5	73.9	52.0	dB(A)
11:00 - 12:00	56.6	77.8	52.0	dB(A)
12:00 - 13:00	55.8	78.2	50.1	dB(A)
13:00 - 14:00	54.5	79.7	49.8	dB(A)
14:00 - 15:00	52.5	68.1	48.9	dB(A)
15:00 - 16:00	55.4	77.3	48.7	dB(A)
16:00 - 17:00	57.1	80.7	49.8	dB(A)
17:00 - 18:00	58.9	76.5	53.2	dB(A)
18:00 - 19:00	56.9	79.0	51.2	dB(A)
19:00 - 20:00	56.7	73.4	49.6	dB(A)
20:00 - 21:00	58.0	77.6	52.4	dB(A)
21:00 - 22:00	56.1	80.5	52.4	dB(A)
22:00 - 23:00	57.0	78.8	53.2	dB(A)
23:00 - 00:00	55.5	68.0	52.8	dB(A)
00:00 - 01:00	54.5	67.8	52.5	dB(A)
01:00 - 02:00	53.1	68.7	51.8	dB(A)
02:00 - 03:00	53.1	67.3	52.0	dB(A)
03:00 - 04:00	56.2	86.0	47.6	dB(A)
04:00 - 05:00	51.2	65.2	48.7	dB(A)
05:00 - 06:00	53.5	79.0	49.2	dB(A)
06:00 - 07:00	56.2	73.9	51.8	dB(A)
07:00 - 08:00	59.8	79.5	52.3	dB(A)
08:00 - 09:00	59.3	85.8	51.4	dB(A)
09:00 - 10:00	58.9	75.5	51.5	dB(A)
L_{eq} 24 hr.	56.5	-	-	dB(A)
L_{dn}	61.7	-	-	dB(A)
Maximum	-	86.0	-	dB(A)
L_{90}	-	-	48.8	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	$115^{1/1}, 115^{2/2}$	-	dB(A)

REMARK : ^{1/1} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{1/2} Notification of Ministry of the Industry B.E. 2548 (2005)^{1/3} Start Time^{1/4} GPS 47P 0727070, 1445185* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photanahund)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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Request No. LA67-R0364

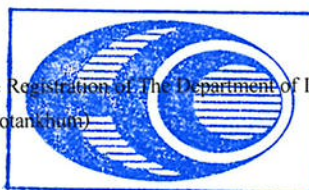
Report No. R6703-2977

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณบ้านเขาหิน⁴
PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn}
DETERMINATION METHOD : ISO 1996-1:2016
INSTRUMENT : Integrated Sound Level Meter
S/N 00230994 : Class 1

SAMPLE NO. : 05240
MEASURING DATE : 15-16/03/2024
RECEIVED DATE : 22/03/2024
REPORTED DATE : 27/03/2024

TIME \ DATE	15-16/03/2024 (L_{eq})	15-16/03/2024 (L_{max})	15-16/03/2024 (L_{90})	UNIT
10:00 - 11:00 ³	50.9	69.6	47.5	dB(A)
11:00 - 12:00	57.7	77.5	49.9	dB(A)
12:00 - 13:00	51.6	70.5	47.8	dB(A)
13:00 - 14:00	50.3	64.4	47.3	dB(A)
14:00 - 15:00	48.9	67.8	46.8	dB(A)
15:00 - 16:00	50.4	62.1	47.4	dB(A)
16:00 - 17:00	52.6	66.9	49.8	dB(A)
17:00 - 18:00	52.5	69.4	50.0	dB(A)
18:00 - 19:00	53.4	69.4	51.1	dB(A)
19:00 - 20:00	53.9	74.7	51.3	dB(A)
20:00 - 21:00	54.5	75.6	50.7	dB(A)
21:00 - 22:00	51.6	72.1	49.5	dB(A)
22:00 - 23:00	51.4	72.4	49.0	dB(A)
23:00 - 00:00	51.1	71.7	48.7	dB(A)
00:00 - 01:00	50.5	65.6	48.9	dB(A)
01:00 - 02:00	50.0	61.8	48.8	dB(A)
02:00 - 03:00	50.3	70.7	48.7	dB(A)
03:00 - 04:00	49.8	63.7	48.4	dB(A)
04:00 - 05:00	50.1	63.0	48.4	dB(A)
05:00 - 06:00	53.3	64.4	49.6	dB(A)
06:00 - 07:00	58.9	84.2	56.2	dB(A)
07:00 - 08:00	55.3	70.6	52.5	dB(A)
08:00 - 09:00	54.6	66.4	51.7	dB(A)
09:00 - 10:00	52.9	68.8	50.4	dB(A)
L_{eq} 24 hr.	53.2	-	-	dB(A)
L_{dn}	59.4	-	-	dB(A)
Maximum	-	84.2	-	dB(A)
L_{90}	-	-	47.4	dB(A)
Standard	70 ¹ , 70 ²	115 ¹ , 115 ²	-	dB(A)

REMARK : ¹ Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)² Notification of Ministry of the Industry B.E. 2548 (2005)³ Start Time⁴ GPS 47P 0727526, 1444787* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photankhono)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....
(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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Request No. LA67-R0364

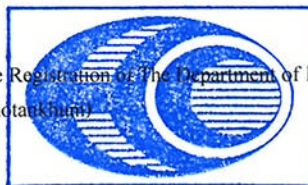
Report No. R6703-2978

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate I, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณบ้านเขาหิน⁴
PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn}
DETERMINATION METHOD : ISO 1996-1:2016
INSTRUMENT : Integrated Sound Level Meter
S/N 00230994 : Class 1

SAMPLE NO. : 05241
MEASURING DATE : 16-17/03/2024
RECEIVED DATE : 22/03/2024
REPORTED DATE : 27/03/2024

TIME \ DATE	16-17/03/2024 (L_{eq})	16-17/03/2024 (L_{max})	16-17/03/2024 (L_{90})	UNIT
10:00 - 11:00 ³	52.2	72.3	49.5	dB(A)
11:00 - 12:00	52.4	73.3	49.6	dB(A)
12:00 - 13:00	53.9	75.4	49.7	dB(A)
13:00 - 14:00	61.1	91.9	50.6	dB(A)
14:00 - 15:00	65.0	92.1	53.5	dB(A)
15:00 - 16:00	52.3	67.2	49.7	dB(A)
16:00 - 17:00	52.7	70.8	49.7	dB(A)
17:00 - 18:00	54.2	71.7	51.5	dB(A)
18:00 - 19:00	52.7	70.9	49.9	dB(A)
19:00 - 20:00	53.0	76.3	50.1	dB(A)
20:00 - 21:00	52.7	72.6	50.0	dB(A)
21:00 - 22:00	51.9	79.0	49.0	dB(A)
22:00 - 23:00	51.7	77.4	48.8	dB(A)
23:00 - 00:00	50.4	73.2	48.3	dB(A)
00:00 - 01:00	51.2	73.8	48.7	dB(A)
01:00 - 02:00	50.9	75.4	48.5	dB(A)
02:00 - 03:00	50.1	62.5	49.0	dB(A)
03:00 - 04:00	49.5	64.7	47.9	dB(A)
04:00 - 05:00	50.3	66.7	47.6	dB(A)
05:00 - 06:00	53.0	68.1	48.0	dB(A)
06:00 - 07:00	53.0	73.6	48.9	dB(A)
07:00 - 08:00	52.7	69.8	48.9	dB(A)
08:00 - 09:00	52.0	68.8	48.5	dB(A)
09:00 - 10:00	52.6	69.9	49.7	dB(A)
L_{eq} 24 hr.	55.3	-	-	dB(A)
L_{dn}	59.0	-	-	dB(A)
Maximum	-	92.1	-	dB(A)
L_{90}	-	-	48.1	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	$115^{1/1}, 115^{1/2}$	-	dB(A)

REMARK : ^{1/} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{2/} Notification of Ministry of the Industry B.E. 2548 (2005)^{3/} Start Time^{4/} GPS 47P 0727526, 1444787* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photakham)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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Request No. LA67-R0364

Report No. R6703-2979

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
 ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate I, Bowin, Sriracha, Chonburi 20230
 SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
 SAMPLE POINT : บริเวณบ้านเขาคิน^{1/4}
 PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn} SAMPLE NO. : 05242
 DETERMINATION METHOD : ISO 1996-1:2016 MEASURING DATE : 17-18/03/2024
 INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 22/03/2024
 S/N 00230994 : Class 1 REPORTED DATE : 27/03/2024

TIME \ DATE	17-18/03/2024 (L_{eq})	17-18/03/2024 (L_{max})	17-18/03/2024 (L_{90})	UNIT
10:00 - 11:00 ^{1/3}	52.2	69.4	49.7	dB(A)
11:00 - 12:00	51.5	72.5	48.5	dB(A)
12:00 - 13:00	51.6	69.4	48.2	dB(A)
13:00 - 14:00	51.9	70.1	48.7	dB(A)
14:00 - 15:00	52.6	70.1	49.0	dB(A)
15:00 - 16:00	53.7	75.2	49.7	dB(A)
16:00 - 17:00	53.2	73.5	50.1	dB(A)
17:00 - 18:00	54.2	73.8	51.0	dB(A)
18:00 - 19:00	53.0	73.2	50.2	dB(A)
19:00 - 20:00	53.1	73.9	51.1	dB(A)
20:00 - 21:00	52.5	71.1	50.3	dB(A)
21:00 - 22:00	51.7	73.0	49.8	dB(A)
22:00 - 23:00	57.5	93.0	49.4	dB(A)
23:00 - 00:00	51.0	75.1	49.0	dB(A)
00:00 - 01:00	50.2	69.6	48.9	dB(A)
01:00 - 02:00	49.8	63.5	48.9	dB(A)
02:00 - 03:00	50.5	72.4	49.6	dB(A)
03:00 - 04:00	50.9	71.9	49.5	dB(A)
04:00 - 05:00	51.6	72.8	49.5	dB(A)
05:00 - 06:00	53.2	67.7	49.4	dB(A)
06:00 - 07:00	53.8	71.1	50.6	dB(A)
07:00 - 08:00	54.5	72.8	50.4	dB(A)
08:00 - 09:00	52.4	70.2	49.1	dB(A)
09:00 - 10:00	51.9	71.3	48.7	dB(A)
L_{eq} 24 hr.	52.8	-	-	dB(A)
L_{dn}	59.2	-	-	dB(A)
Maximum	-	93.0	-	dB(A)
L_{90}	-	-	48.7	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	$115^{1/1}, 115^{1/2}$	-	dB(A)

REMARK : ^{1/1} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{1/2} Notification of Ministry of the Industry B.E. 2548 (2005)^{1/3} Start Time^{1/4} GPS 47P 0727526, 1444787* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photakham)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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Request No. LA67-R0364

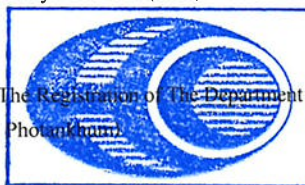
Report No. R6703-2980

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate I, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณบ้านเขาหิน⁴
PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn}
DETERMINATION METHOD : ISO 1996-1:2016
INSTRUMENT : Integrated Sound Level Meter
S/N 00230994 : Class 1

SAMPLE NO. : 05243
MEASURING DATE : 18-19/03/2024
RECEIVED DATE : 22/03/2024
REPORTED DATE : 27/03/2024

TIME \ DATE	18-19/03/2024 (L_{eq})	18-19/03/2024 (L_{max})	18-19/03/2024 (L_{90})	UNIT
10:00 - 11:00 ³	51.3	73.4	48.5	dB(A)
11:00 - 12:00	50.8	73.1	47.9	dB(A)
12:00 - 13:00	51.4	76.0	47.7	dB(A)
13:00 - 14:00	51.2	67.5	48.9	dB(A)
14:00 - 15:00	60.6	85.1	55.2	dB(A)
15:00 - 16:00	59.8	81.0	53.3	dB(A)
16:00 - 17:00	52.4	68.7	49.9	dB(A)
17:00 - 18:00	53.7	68.9	50.9	dB(A)
18:00 - 19:00	53.3	70.9	50.7	dB(A)
19:00 - 20:00	55.2	77.9	51.9	dB(A)
20:00 - 21:00	53.4	71.9	51.0	dB(A)
21:00 - 22:00	51.3	67.3	49.7	dB(A)
22:00 - 23:00	50.6	75.1	48.3	dB(A)
23:00 - 00:00	49.5	68.9	48.2	dB(A)
00:00 - 01:00	48.8	63.4	48.2	dB(A)
01:00 - 02:00	50.0	72.1	48.6	dB(A)
02:00 - 03:00	49.1	59.7	48.6	dB(A)
03:00 - 04:00	49.3	75.6	48.7	dB(A)
04:00 - 05:00	51.1	67.8	48.6	dB(A)
05:00 - 06:00	54.1	67.9	50.1	dB(A)
06:00 - 07:00	53.8	70.1	50.9	dB(A)
07:00 - 08:00	54.9	72.2	50.7	dB(A)
08:00 - 09:00	54.6	73.6	49.4	dB(A)
09:00 - 10:00	53.7	73.4	49.8	dB(A)
L_{eq} 24 hr.	53.9	-	-	dB(A)
L_{dn}	58.4	-	-	dB(A)
Maximum	-	85.1	-	dB(A)
L_{90}	-	-	48.2	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	$115^{1/1}, 115^{2/2}$	-	dB(A)

REMARK : ^{1/} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{2/} Notification of Ministry of the Industry B.E. 2548 (2005)^{3/} Start Time^{4/} GPS 47P 0727526, 1444787* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photanphum)

บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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Request No. LA67-R0364

Report No. R6703-2981

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณบ้านเขาหิน^{1/4}
PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn}
DETERMINATION METHOD : ISO 1996-1:2016
INSTRUMENT : Integrated Sound Level Meter
S/N 00230994 : Class 1

SAMPLE NO. : 05244
MEASURING DATE : 19-20/03/2024
RECEIVED DATE : 22/03/2024
REPORTED DATE : 27/03/2024

TIME \ DATE	19-20/03/2024 (L_{eq})	19-20/03/2024 (L_{max})	19-20/03/2024 (L_{90})	UNIT
10:00 - 11:00 ^{1/3}	53.4	74.4	49.1	dB(A)
11:00 - 12:00	54.3	76.3	50.1	dB(A)
12:00 - 13:00	52.4	65.8	49.6	dB(A)
13:00 - 14:00	53.1	67.3	50.0	dB(A)
14:00 - 15:00	53.7	67.7	50.8	dB(A)
15:00 - 16:00	51.7	74.5	49.0	dB(A)
16:00 - 17:00	51.6	68.3	49.2	dB(A)
17:00 - 18:00	53.8	71.1	50.6	dB(A)
18:00 - 19:00	54.8	77.1	49.2	dB(A)
19:00 - 20:00	52.8	74.9	50.1	dB(A)
20:00 - 21:00	51.7	64.2	49.7	dB(A)
21:00 - 22:00	51.1	69.6	49.3	dB(A)
22:00 - 23:00	50.4	71.9	48.6	dB(A)
23:00 - 00:00	49.5	63.3	48.3	dB(A)
00:00 - 01:00	48.2	58.9	47.8	dB(A)
01:00 - 02:00	48.5	66.4	47.8	dB(A)
02:00 - 03:00	49.0	65.4	47.8	dB(A)
03:00 - 04:00	49.2	66.6	47.6	dB(A)
04:00 - 05:00	50.1	69.3	47.7	dB(A)
05:00 - 06:00	53.5	68.8	48.2	dB(A)
06:00 - 07:00	53.5	72.4	49.8	dB(A)
07:00 - 08:00	53.5	71.8	50.4	dB(A)
08:00 - 09:00	55.7	73.7	52.3	dB(A)
09:00 - 10:00	57.7	75.7	53.5	dB(A)
L_{eq} 24 hr.	52.9	-	-	dB(A)
L_{dn}	57.7	-	-	dB(A)
Maximum	-	77.1	-	dB(A)
L_{90}	-	-	47.8	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	$115^{1/1}, 115^{1/2}$	-	dB(A)

REMARK : ^{1/1} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{1/2} Notification of Ministry of the Industry B.E. 2548 (2005)^{1/3} Start Time^{1/4} GPS 47P 0727526, 1444787* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photankham)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
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Request No. LA67-R0364

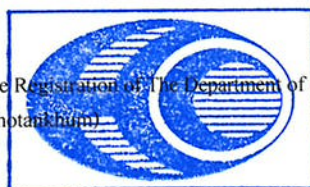
Report No. R6703-2982

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : บริเวณบ้านเขาหิน^{1/4}
PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn}
DETERMINATION METHOD : ISO 1996-1:2016
INSTRUMENT : Integrated Sound Level Meter
S/N 00230994 : Class 1

SAMPLE NO. : 05245
MEASURING DATE : 20-21/03/2024
RECEIVED DATE : 22/03/2024
REPORTED DATE : 27/03/2024

TIME \ DATE	20-21/03/2024 (L_{eq})	20-21/03/2024 (L_{max})	20-21/03/2024 (L_{90})	UNIT
10:00 - 11:00 ^{1/3}	51.6	70.4	49.6	dB(A)
11:00 - 12:00	53.6	80.1	50.8	dB(A)
12:00 - 13:00	57.8	77.2	55.4	dB(A)
13:00 - 14:00	57.7	74.1	55.7	dB(A)
14:00 - 15:00	54.7	82.0	52.3	dB(A)
15:00 - 16:00	52.4	70.9	49.7	dB(A)
16:00 - 17:00	51.9	68.6	49.9	dB(A)
17:00 - 18:00	52.7	67.1	50.2	dB(A)
18:00 - 19:00	54.2	75.6	49.9	dB(A)
19:00 - 20:00	53.6	76.7	50.2	dB(A)
20:00 - 21:00	52.6	69.9	50.0	dB(A)
21:00 - 22:00	51.4	73.8	49.3	dB(A)
22:00 - 23:00	51.0	70.5	49.3	dB(A)
23:00 - 00:00	50.6	69.2	49.5	dB(A)
00:00 - 01:00	50.5	68.1	49.3	dB(A)
01:00 - 02:00	50.2	61.3	49.7	dB(A)
02:00 - 03:00	50.2	63.0	49.6	dB(A)
03:00 - 04:00	50.6	65.1	49.8	dB(A)
04:00 - 05:00	50.9	66.7	49.5	dB(A)
05:00 - 06:00	53.5	75.2	49.8	dB(A)
06:00 - 07:00	53.8	69.4	50.6	dB(A)
07:00 - 08:00	55.3	74.2	51.4	dB(A)
08:00 - 09:00	53.5	76.3	50.7	dB(A)
09:00 - 10:00	51.3	70.1	49.2	dB(A)
L_{eq} 24 hr.	53.3	-	-	dB(A)
L_{dn}	58.4	-	-	dB(A)
Maximum	-	82.0	-	dB(A)
L_{90}	-	-	49.3	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	$115^{1/1}, 115^{2/2}$	-	dB(A)

REMARK : ^{1/1} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{1/2} Notification of Ministry of the Industry B.E. 2548 (2005)^{1/3} Start Time^{1/4} GPS 47P 0727526, 1444787* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photankhurn)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

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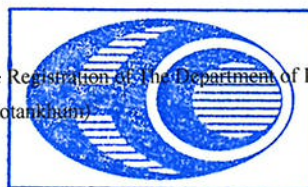
Request No. LA67-R0364

Report No. R6703-2983

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
 ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate I, Bowin, Sriracha, Chonburi 20230
 SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
 SAMPLE POINT : บริเวณบ้านเขาหิน^{1/4}
 PARAMETER* : L_{eq} 1 hr., L_{eq} 24 hr., L_{max} , L_{90} & L_{dn} SAMPLE NO. : 05246
 DETERMINATION METHOD : ISO 1996-1:2016 MEASURING DATE : 21-22/03/2024
 INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 22/03/2024
 S/N 00230994 : Class 1 REPORTED DATE : 27/03/2024

TIME \ DATE	21-22/03/2024 (L_{eq})	21-22/03/2024 (L_{max})	21-22/03/2024 (L_{90})	UNIT
10:00 - 11:00 ³	53.0	79.5	50.2	dB(A)
11:00 - 12:00	52.9	76.7	49.2	dB(A)
12:00 - 13:00	51.1	70.6	48.5	dB(A)
13:00 - 14:00	50.2	68.6	48.1	dB(A)
14:00 - 15:00	61.2	83.4	51.0	dB(A)
15:00 - 16:00	59.1	83.3	53.1	dB(A)
16:00 - 17:00	52.8	70.1	49.7	dB(A)
17:00 - 18:00	53.3	75.1	50.8	dB(A)
18:00 - 19:00	52.7	72.7	49.9	dB(A)
19:00 - 20:00	51.8	74.0	49.2	dB(A)
20:00 - 21:00	51.6	69.4	49.5	dB(A)
21:00 - 22:00	50.7	65.2	48.8	dB(A)
22:00 - 23:00	50.1	60.8	49.1	dB(A)
23:00 - 00:00	50.0	71.4	48.8	dB(A)
00:00 - 01:00	49.9	64.0	49.3	dB(A)
01:00 - 02:00	49.9	59.8	49.5	dB(A)
02:00 - 03:00	49.6	59.9	49.0	dB(A)
03:00 - 04:00	50.4	66.8	49.5	dB(A)
04:00 - 05:00	51.4	66.5	49.6	dB(A)
05:00 - 06:00	53.3	68.9	49.7	dB(A)
06:00 - 07:00	54.6	73.3	50.9	dB(A)
07:00 - 08:00	55.0	77.4	50.8	dB(A)
08:00 - 09:00	54.1	73.5	50.4	dB(A)
09:00 - 10:00	53.8	74.7	49.5	dB(A)
L_{eq} 24 hr.	53.8	-	-	dB(A)
L_{dn}	58.5	-	-	dB(A)
Maximum	-	83.4	-	dB(A)
L_{90}	-	-	48.8	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	$115^{1/1}, 115^{2/2}$	-	dB(A)

REMARK : ^{1/1} Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)^{1/2} Notification of Ministry of the Industry B.E. 2548 (2005)^{1/3} Start Time^{1/4} GPS 47P 0727526, 1444787* Parameter Outside The Scope of The Registration of The Department of Industrial Works
(Measurement By Mr. Tummarut Photankham)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

27/03/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
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 WITHOUT THE WRITTEN APPROVAL LABORATORY

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited***
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230***
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited***
SAMPLE POINT : เครื่องผลิตไฟฟ้ากังหันก๊าซ***
PARAMETER**** : L_{eq} 1 hr., L_{eq} 8 hr., L_{max} & L_{90} SAMPLE NO. : 00939
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 31/01/2024
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 31/01/2024
S/N 00322745 : Class 2 REPORTED DATE : 05/02/2024

MEASURING TIME	RESULT				UNIT
	L_{eq} 1 hr.	L_{eq} 1 hr.	L_{max}	L_{90}	
08:30-09:30	71	71	73	71	dB(A)
09:30-10:30	71	71	75	70	dB(A)
10:30-11:30	71	71	72	70	dB(A)
11:30-12:30	71	71	73	70	dB(A)
12:30-13:30	71	71	74	69	dB(A)
13:30-14:30	70	70	74	69	dB(A)
14:30-15:30	70	70	74	69	dB(A)
15:30-16:30	70	70	73	69	dB(A)
L_{eq} 8 hr. (TWA)	70*	70**	—	—	dB(A)
Standard	85 ^{/1}	90 ^{/2}	— ^{/1} , 140 ^{/2} , 115 ^{/3}	—	dB(A)

REMARK : ## ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area

Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employees are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels, Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

^{/1} Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

^{/2} Notification of The Ministry of Industry B.E. 2546 (2003)

^{/3} Regulation of The Ministry of Labour B.E. 2559 (2016)

* Based on Criteria 85 dB(A); 3 dB Exchange Rate

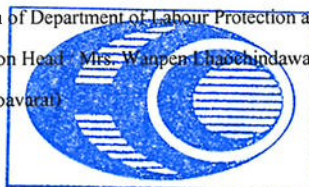
** Based on Criteria 90 dB(A); 5 dB Exchange Rate

*** These Data are Non Laboratory Data

**** Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Savita Kittinoavara)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 
(MRS. WANPEN LHAOCHINDAWAT)

05/02/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited***
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230***
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited***
SAMPLE POINT : เครื่องผลิตไฟฟ้ากังหันไอน้ำ***
PARAMETER**** : L_{eq} 1 hr., L_{eq} 8 hr., L_{max} & L_{90} SAMPLE NO. : 00821
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 29/01/2024
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 29/01/2024
S/N 00322750 : Class 2 REPORTED DATE : 01/02/2024

MEASURING TIME	RESULT				UNIT
	L_{eq} 1 hr.	L_{eq} 1 hr.	L_{max}	L_{90}	
08:10-09:10	71	71	77	69	dB(A)
09:10-10:10	69	69	71	69	dB(A)
10:10-11:10	69	69	71	69	dB(A)
11:10-12:10	69	69	73	69	dB(A)
12:10-13:10	72	72	77	69	dB(A)
13:10-14:10	69	69	73	69	dB(A)
14:10-15:10	69	69	73	69	dB(A)
15:10-16:10	69	69	71	69	dB(A)
L_{eq} 8 hr. (TWA)	69*	69**	—	—	dB(A)
Standard	85 ^{/1}	90 ^{/2}	— ^{/1} , 140 ^{/2} , 115 ^{/3}	—	dB(A)

REMARK : ## ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area

Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employees are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels, Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

^{/1} Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

^{/2} Notification of The Ministry of Industry B.E. 2546 (2003)

^{/3} Regulation of The Ministry of Labour B.E. 2559 (2016)

* Based on Criteria 85 dB(A); 3 dB Exchange Rate

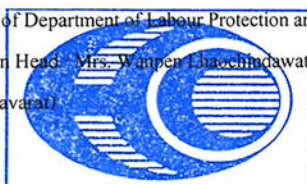
** Based on Criteria 90 dB(A); 5 dB Exchange Rate

*** These Data are Non Laboratory Data

**** Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head / Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Savita Kittinoovarut)



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By 

(MRS. WANPEN LHAOCHINDAWAT)

01/02/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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WITHOUT THE WRITTEN APPROVAL LABORATORY

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited***
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate I, Bowin, Sriracha, Chonburi 20230***
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited***
SAMPLE POINT : เครื่องจักรอากาศ***
PARAMETER**** : L_{eq} 1 hr., L_{eq} 8 hr., L_{max} & L_{90} SAMPLE NO. : 00822
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 29/01/2024
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 29/01/2024
S/N 00322754 : Class 2 REPORTED DATE : 01/02/2024

MEASURING TIME	RESULT				UNIT
	L_{eq} 1 hr.	L_{eq} 1 hr.	L_{max}	L_{90}	
08:20-09:20	78	78	86	68	dB(A)
09:20-10:20	71	71	76	68	dB(A)
10:20-11:20	71	71	76	67	dB(A)
11:20-12:20	72	72	76	68	dB(A)
12:20-13:20	79	79	85	73	dB(A)
13:20-14:20	74	74	81	71	dB(A)
14:20-15:20	73	73	78	70	dB(A)
15:20-16:20	73	73	78	70	dB(A)
L_{eq} 8 hr. (TWA)	74*	74**	—	—	dB(A)
Standard	85 ^{/1}	90 ^{/2}	— ^{/1} , 140 ^{/2} , 115 ^{/3}	—	dB(A)

REMARK : ## ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area

Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employees are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels, Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

^{/1} Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

^{/2} Notification of The Ministry of Industry B.E. 2546 (2003)

^{/3} Regulation of The Ministry of Labour B.E. 2559 (2016)

* Based on Criteria 85 dB(A); 3 dB Exchange Rate

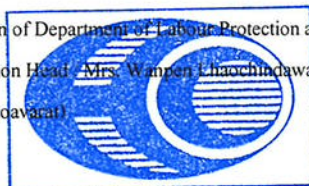
** Based on Criteria 90 dB(A); 5 dB Exchange Rate

*** These Data are Non Laboratory Data

**** Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head - Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Savita Kittinavarat)



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

01/02/2024

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TEST REPORT

CUSTOMER : B.Grimm Power (WHA) 1 Limited***
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230***
SAMPLE SOURCE : B.Grimm Power (WHA) 1 Limited***
SAMPLE POINT : Chiller***
PARAMETER**** : L_{eq} 1 hr., L_{eq} 8 hr., L_{max} & L_{90} SAMPLE NO. : 00940
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 31/01/2024
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 31/01/2024
S/N 00222592 : Class 2 REPORTED DATE : 05/02/2024

MEASURING TIME	RESULT				UNIT
	L_{eq} 1 hr.	L_{eq} 1 hr.	L_{max}	L_{90}	
08:40-09:40	62	62	68	61	dB(A)
09:40-10:40	62	62	73	61	dB(A)
10:40-11:40	61	61	71	61	dB(A)
11:40-12:40	64	64	70	61	dB(A)
12:40-13:40	65	65	70	63	dB(A)
13:40-14:40	63	63	67	63	dB(A)
14:40-15:40	63	63	66	62	dB(A)
15:40-16:40	63	63	71	63	dB(A)
L_{eq} 8 hr. (TWA)	62*	62**	—	—	dB(A)
Standard	85 ^{/1}	90 ^{/2}	— ^{/1} , 140 ^{/2} , 115 ^{/3}	—	dB(A)

REMARK : ## ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area

Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employees are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels, Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

^{/1} Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

^{/2} Notification of The Ministry of Industry B.E. 2546 (2003)

^{/3} Regulation of The Ministry of Labour B.E. 2559 (2016)

* Based on Criteria 85 dB(A); 3 dB Exchange Rate

** Based on Criteria 90 dB(A); 5 dB Exchange Rate

*** These Data are Non Laboratory Data

**** Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

05/02/2024

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TEST REPORT

CUSTOMER : B.Grimm Power (WHA) 1 Limited***
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230***
SAMPLE SOURCE : B.Grimm Power (WHA) 1 Limited***
SAMPLE POINT : เครื่องผลิตไฟฟ้ากังหันก๊าซ***
PARAMETER**** : L_{eq} 1 hr., L_{eq} 8 hr., L_{max} & $L_{90\#}$ SAMPLE NO. : 10549
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 22/04/2024
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 22/04/2024
S/N 00310456 : Class 2 REPORTED DATE : 30/04/2024

MEASURING TIME	RESULT				UNIT
	L_{eq} 1 hr.	L_{eq} 1 hr.	L_{max}	$L_{90\#}$	
08:30 - 09:30	79	79	85	75	dB(A)
09:30 - 10:30	77	77	86	74	dB(A)
10:30 - 11:30	77	77	83	75	dB(A)
11:30 - 12:30	76	76	83	74	dB(A)
12:30 - 13:30	76	76	86	74	dB(A)
13:30 - 14:30	76	76	82	74	dB(A)
14:30 - 15:30	77	77	84	75	dB(A)
15:30 - 16:30	77	77	83	75	dB(A)
L_{eq} 8 hr. (TWA)	76*	76**	-	-	dB(A)
L_{max}	-	-	86	-	dB(A)
Standard	85 ^{/1}	90 ^{/2}	- ^{/1} , 140 ^{/2} , 115 ^{/3}	-	dB(A)

REMARK : # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory
ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employee: are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels, Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

^{/1} Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

^{/2} Notification of The Ministry of Industry B.E. 2546 (2003)

^{/3} Regulation of The Ministry of Labour B.E. 2559 (2016)

* Based on Criteria 85 dB(A); 3 dB Exchange Rate

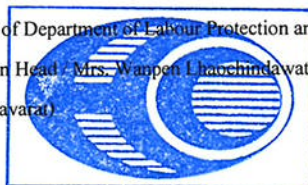
** Based on Criteria 90 dB(A); 5 dB Exchange Rate

*** These Data are Non Laboratory Data

**** Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head - Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Savita Kittinoavara)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

30/04/2024

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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TEST REPORT

CUSTOMER : B.Grimm Power (WHA) 1 Limited***
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230***
SAMPLE SOURCE : B.Grimm Power (WHA) 1 Limited***
SAMPLE POINT : เครื่องผลิตไฟฟ้ากังหันไอน้ำ***
PARAMETER**** : L_{eq} 1 hr., L_{eq} 8 hr., L_{max} & $L_{90\#}$ SAMPLE NO. : 10550
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 22/04/2024
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 22/04/2024
S/N 00443357 : Class 2 REPORTED DATE : 30/04/2024

MEASURING TIME	RESULT				UNIT
	L_{eq} 1 hr.	L_{eq} 1 hr.	L_{max}	$L_{90\#}$	
08:20 - 09:20	70	70	74	70	dB(A)
09:20 - 10:20	69	69	72	69	dB(A)
10:20 - 11:20	70	70	72	70	dB(A)
11:20 - 12:20	69	69	73	69	dB(A)
12:20 - 13:20	69	69	74	69	dB(A)
13:20 - 14:20	69	69	73	69	dB(A)
14:20 - 15:20	69	69	72	69	dB(A)
15:20 - 16:20	69	69	76	69	dB(A)
L_{eq} 8 hr. (TWA)	69*	69**	—	—	dB(A)
L_{max}	—	—	76	—	dB(A)
Standard	85 ^{/1}	90 ^{/2}	— ^{/1} , 140 ^{/2} , 115 ^{/3}	—	dB(A)

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^{/2} Notification of The Ministry of Industry B.E. 2546 (2003)

^{/3} Regulation of The Ministry of Labour B.E. 2559 (2016)

* Based on Criteria 85 dB(A); 3 dB Exchange Rate

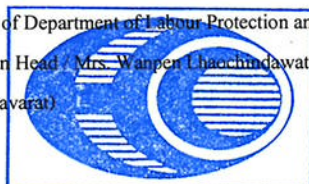
** Based on Criteria 90 dB(A); 5 dB Exchange Rate

*** These Data are Non Laboratory Data

**** Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Savita Kittinoavarat)



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Approved By

(MRS. WANPEN LHAOCHINDAWAT)

30/04/2024

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TEST REPORT

CUSTOMER : B.Grimm Power (WHA) 1 Limited***
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230***
SAMPLE SOURCE : B.Grimm Power (WHA) 1 Limited***
SAMPLE POINT : เครื่องอัดอากาศ***
PARAMETER**** : L_{eq} 1 hr., L_{eq} 8 hr., L_{max} & $L_{90\#}$ SAMPLE NO. : 10551
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 22/04/2024
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 22/04/2024
S/N 00322757 : Class 2 REPORTED DATE : 30/04/2024

MEASURING TIME	RESULT				UNIT
	L_{eq} 1 hr.	L_{eq} 1 hr.	L_{max}	$L_{90\#}$	
08:15 - 09:15	76	76	84	73	dB(A)
09:15 - 10:15	75	75	80	72	dB(A)
10:15 - 11:15	75	75	80	72	dB(A)
11:15 - 12:15	75	75	80	72	dB(A)
12:15 - 13:15	75	75	81	72	dB(A)
13:15 - 14:15	76	76	82	73	dB(A)
14:15 - 15:15	76	76	82	73	dB(A)
15:15 - 16:15	75	75	81	73	dB(A)
L_{eq} 8 hr. (TWA)	75*	75**	—	—	dB(A)
L_{max}	—	—	84	—	dB(A)
Standard	85 ^{/1}	90 ^{/2}	— ^{/1} , 140 ^{/2} , 115 ^{/3}	—	dB(A)

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^{/1} Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

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^{/2} Notification of The Ministry of Industry B.E. 2546 (2003)

^{/3} Regulation of The Ministry of Labour B.E. 2559 (2016)

* Based on Criteria 85 dB(A); 3 dB Exchange Rate

** Based on Criteria 90 dB(A); 5 dB Exchange Rate

*** These Data are Non Laboratory Data

**** Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head / Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Savita Kittinavarat)



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Approved By

(MRS. WANPEN LHAOCHINDAWAT)

30/04/2024

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TEST REPORT

CUSTOMER : B.Grimm Power (WHA) 1 Limited***
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230***
SAMPLE SOURCE : B.Grimm Power (WHA) 1 Limited***
SAMPLE POINT : Chiller***
PARAMETER**** : L_{eq} 1 hr., L_{eq} 8 hr., L_{max} & $L_{90\#}$ SAMPLE NO. : 10548
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 22/04/2024
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 22/04/2024
S/N 00322749 : Class 2 REPORTED DATE : 30/04/2024

MEASURING TIME	RESULT				UNIT
	L_{eq} 1 hr.	L_{eq} 1 hr.	L_{max}	$L_{90\#}$	
08:35 - 09:35	64	64	78	63	dB(A)
09:35 - 10:35	64	64	82	63	dB(A)
10:35 - 11:35	64	64	71	63	dB(A)
11:35 - 12:35	64	64	77	63	dB(A)
12:35 - 13:35	63	63	77	63	dB(A)
13:35 - 14:35	64	64	71	63	dB(A)
14:35 - 15:35	64	64	72	63	dB(A)
15:35 - 16:35	64	64	75	63	dB(A)
L_{eq} 8 hr. (TWA)	63*	63**	—	—	dB(A)
L_{max}	—	—	82	—	dB(A)
Standard	85 ^{/1}	90 ^{/2}	— ^{/1} , 140 ^{/2} , 115 ^{/3}	—	dB(A)

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^{/2} Notification of The Ministry of Industry B.E. 2546 (2003)

^{/3} Regulation of The Ministry of Labour B.E. 2559 (2016)

* Based on Criteria 85 dB(A); 3 dB Exchange Rate

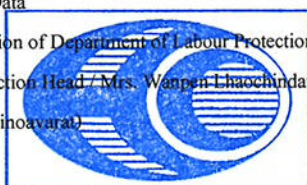
** Based on Criteria 90 dB(A); 5 dB Exchange Rate

*** These Data are Non Laboratory Data

**** Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head / Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Savita Kittinoavarat)



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Approved By

(MRS. WANPEN LHAOCHINDAWAT)

30/04/2024

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Request No. LA67-R0207

Report No. R6702-0124

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : หม้อไอน้ำ (คุณปพนพัชร ยศวิปานรนต์) SAMPLE NO. : 00936
SAMPLING TIME : 13:00-15:00 MEASURING DATE : 31/01/2024
PARAMETER* : Heat Stress RECEIVED DATE : 31/01/2024
SAMPLING INSTRUMENT : Wet Bulb Globe Temperature (WBGT); REPORTED DATE : 05/02/2024
Serial No. TEU080014, TEU080012

AREA	DURATION (min)	RESULT (°C)			
		NWB	GT	DB	WBGT
หม้อไอน้ำ	45	26.4	43.9	33.6	30.6 ^{/3}
ห้อง Lab	75	21.0	24.2	23.9	22.0 ^{/4}
WBGT AVERAGE	-	-	-	-	25.2
STANDARD	-	-	-	-	34.0 ^{/1,2}

REMARK :

Work Load is Light

^{/1} Regulation of The Ministry of Labour B.E. 2559 (2016)^{/2} Notification of The Ministry of Industry B.E. 2546 (2003)^{/3} หม้อไอน้ำ = Outdoor, WBGT : Serial No. TEU080014^{/4} ห้อง Lab = Indoor, WBGT : Serial No. TEU080012

NWB = Natural Wet - Bulb Temperature

GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009
(Measurement By Ms. Savita Kittinoavarat)



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Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

05/02/2024

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Request No. LA67-R0207

Report No. R6702-0125

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) I Limited
ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230
SAMPLE SOURCE : B.Grimm Power (WHA) I Limited
SAMPLE POINT : เครื่องกำเนิดไฟฟ้า (อุณหภูมิห้องปรับอากาศ) SAMPLE NO. : 00937
SAMPLING TIME : 13:00-15:00 MEASURING DATE : 31/01/2024
PARAMETER* : Heat Stress RECEIVED DATE : 31/01/2024
SAMPLING INSTRUMENT : Wet Bulb Globe Temperature (WBGT) ; REPORTED DATE : 05/02/2024
Serial No. TEU080015, TEU080012

AREA	DURATION (min)	RESULT (°C)			
		NWB	GT	DB	WBGT
เครื่องกำเนิดไฟฟ้า	45	26.3	34.6	34.4	28.8 ^{/3}
ห้อง Lab	75	21.0	24.2	23.9	22.0 ^{/4}
WBGT AVERAGE	-	-	-	-	24.5
STANDARD	-	-	-	-	34.0 ^{/1,2}

REMARK :

Work Load is Light

^{/1} Regulation of The Ministry of Labour B.E. 2559 (2016)^{/2} Notification of The Ministry of Industry B.E. 2546 (2003)^{/3} เครื่องกำเนิดไฟฟ้า = Indoor, WBGT : Serial No. TEU080015^{/4} ห้อง Lab = Indoor, WBGT : Serial No. TEU080012

NWB = Natural Wet - Bulb Temperature

GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009

(Measurement By Ms. Savita Kittinoavarat)



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Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

05/02/2024

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Request No. LA67-R04103

Report No. R6704-4580

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) 1 Limited

ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230

SAMPLE SOURCE : B.Grimm Power (WHA) 1 Limited

SAMPLE POINT : หม้อไอน้ำ (คุณกรวิชญ์ นาคะสรรค์) SAMPLE NO. : 10545

SAMPLING TIME : 09:30-11:30 MEASURING DATE : 22/04/2024

PARAMETER* : Heat Stress RECEIVED DATE : 22/04/2024

SAMPLING INSTRUMENT : Wet Bulb Globe Temperature (WBGT) ; REPORTED DATE : 30/04/2024

Serial No. TEU080011,22004316

AREA	DURATION (min)	RESULT (°C)			
		NWB	GT	DB	WBGT
หม้อไอน้ำ	45	30.4	50.4	38.7	33.4 ^{/2}
ห้อง Lab	75	21.1	25.6	25.4	22.5 ^{/3}
WBGT AVERAGE	-	-	-	-	27.3
STANDARD	-	-	-	-	34.0 ^{/1}

REMARK :

Work Load is Light

^{/1} Regulation of The Ministry of Labour B.E. 2559 (2016)^{/2} หม้อไอน้ำ = Outdoor, WBGT : Serial No. TEU080011^{/3} ห้อง Lab = Indoor, WBGT : Serial No. 22004316

NWB = Natural Wet - Bulb Temperature

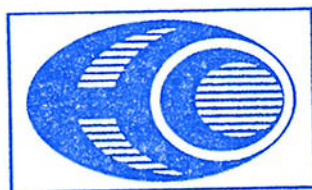
GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009

(Measurement By Ms. Savita Kittinoavarat)



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Request No. LA67-R04103

Report No. R6704-4581

TEST REPORT

CUSTOMER : B.Grimm Power (WHA) 1 Limited

ADDRESS : 369/27 Moo 6, WHA Chonburi Industrial Estate 1, Bowin, Sriracha, Chonburi 20230

SAMPLE SOURCE : B.Grimm Power (WHA) 1 Limited

SAMPLE POINT : เครื่องกำเนิดไฟฟ้า (คุณพัชรราโชติ แสงแก้ว) SAMPLE NO. : 10546

SAMPLING TIME : 09:30-11:30 MEASURING DATE : 22/04/2024

PARAMETER* : Heat Stress RECEIVED DATE : 22/04/2024

SAMPLING INSTRUMENT : Wet Bulb Globe Temperature (WBGT); REPORTED DATE : 30/04/2024

Serial No. TPL060040, 22004316

AREA	DURATION (min)	RESULT (°C)			
		NWB	GT	DB	WBGT
เครื่องกำเนิดไฟฟ้า	45	29.0	39.2	39.1	32.0 ^{/2}
ห้อง Lab	75	21.1	25.6	25.4	22.5 ^{/3}
WBGT AVERAGE	-	-	-	-	26.1
STANDARD	-	-	-	-	34.0 ^{/1}

REMARK :

Work Load is Light

^{/1} Regulation of The Ministry of Labour B.E. 2559 (2016)^{/2} เครื่องกำเนิดไฟฟ้า = Indoor, WBGT : Serial No. TPL060040^{/3} ห้อง Lab = Indoor, WBGT : Serial No. 22004316

NWB = Natural Wet - Bulb Temperature

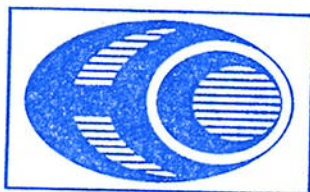
GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

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