

ภาคผนวก ค

เอกสารประกอบ

มาตรการติดตามตรวจสอบผลกระทบสิ่งแวดล้อม

ภาคผนวก ค-1

ใบรับรองผลการวิเคราะห์



Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317360

Date Received : Mar 14, 2023

Date Reported : Mar 20, 2023

Report Number: 2598266-1

Page 1 of 1

Sample Description Air Quality
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Parameter Nitrogen dioxide (ppm)
Measurement Date Mar 07, 2023 - Mar 14, 2023
Measurement by Puwanart Pimpan

Time	2317360-1 Mar 07, 2023	2317360-2 Mar 08, 2023	2317360-3 Mar 09, 2023	2317360-4 Mar 10, 2023	2317360-5 Mar 11, 2023	2317360-6 Mar 12, 2023	2317360-7 Mar 13, 2023
09:00 AM - 10:00 AM	0.020	0.025	0.021	0.017	0.026	0.025	0.017
10:00 AM - 11:00 AM	0.016	0.020	0.018	0.016	0.023	0.025	0.031
11:00 AM - 12:00 PM	0.030	0.016	0.018	0.015	0.017	0.016	0.030
12:00 PM - 01:00 PM	0.020	0.014	0.018	0.014	0.015	0.014	0.032
01:00 PM - 02:00 PM	0.016	0.011	0.012	0.016	0.014	0.011	0.033
02:00 PM - 03:00 PM	0.016	0.017	0.014	0.022	0.014	0.029	0.026
03:00 PM - 04:00 PM	0.019	0.020	0.011	0.019	0.014	0.022	0.014
04:00 PM - 05:00 PM	0.022	0.017	0.011	0.014	0.017	0.017	0.029
05:00 PM - 06:00 PM	0.023	0.018	0.012	0.014	0.019	0.015	0.010
06:00 PM - 07:00 PM	0.022	0.017	0.013	0.019	0.020	0.014	0.017
07:00 PM - 08:00 PM	0.027	0.021	0.013	0.015	0.014	0.015	0.022
08:00 PM - 09:00 PM	0.032	0.022	0.014	0.017	0.019	0.015	0.026
09:00 PM - 10:00 PM	0.031	0.028	0.020	0.014	0.023	0.016	0.022
10:00 PM - 11:00 PM	0.040	0.028	0.018	0.014	0.021	0.016	0.026
11:00 PM - 12:00 AM	0.041	0.024	0.019	0.014	0.030	0.015	0.009
12:00 AM - 01:00 AM	0.037	0.022	0.016	0.016	0.031	0.013	0.007
01:00 AM - 02:00 AM	0.029	0.020	0.014	0.011	0.027	0.013	0.006
02:00 AM - 03:00 AM	0.023	0.024	0.016	0.012	0.019	0.012	0.010
03:00 AM - 04:00 AM	0.024	0.024	0.018	0.013	0.013	0.012	0.012
04:00 AM - 05:00 AM	0.025	0.021	0.018	0.012	0.015	0.014	0.014
05:00 AM - 06:00 AM	0.024	0.023	0.018	0.013	0.017	0.014	0.018
06:00 AM - 07:00 AM	0.029	0.020	0.020	0.019	0.017	0.012	0.012
07:00 AM - 08:00 AM	0.033	0.023	0.024	0.010	0.022	0.019	0.013
08:00 AM - 09:00 AM	0.032	0.027	0.018	0.022	0.026	0.021	0.017
Average	0.026	0.021	0.016	0.015	0.020	0.016	0.019
1hr - Maximum	0.041	0.028	0.024	0.022	0.031	0.029	0.033
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

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

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

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Approved by

Suchada T.

Suchada Thammathaworn

Scientist (2)

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID: 2317379

Date Received : Mar 14, 2023

Date Reported : Mar 20, 2023

Report Number: 2598285-1

Page 1 of 1

Sample Description Air Quality
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Parameter Sulfur Dioxide (ppm)
Measurement Date Mar 07, 2023 - Mar 14, 2023
Measurement by Puwanart Pimpan

	2317379-1 Mar 07, 2023	2317379-2 Mar 08, 2023	2317379-3 Mar 09, 2023	2317379-4 Mar 10, 2023	2317379-5 Mar 11, 2023	2317379-6 Mar 12, 2023	2317379-7 Mar 13, 2023
Time							
09:00 AM - 10:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
10:00 AM - 11:00 AM	0.002	0.002	0.003	0.002	0.002	0.002	0.002
11:00 AM - 12:00 PM	0.002	0.002	0.003	0.002	0.002	0.002	0.002
12:00 PM - 01:00 PM	0.002	0.002	0.003	0.002	0.002	0.002	0.002
01:00 PM - 02:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
02:00 PM - 03:00 PM	0.002	0.002	0.002	0.002	0.002	0.003	0.002
03:00 PM - 04:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
04:00 PM - 05:00 PM	0.002	0.002	0.002	0.002	0.002	0.003	0.002
05:00 PM - 06:00 PM	0.002	0.002	0.002	0.002	0.003	0.002	0.002
06:00 PM - 07:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
07:00 PM - 08:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
08:00 PM - 09:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
09:00 PM - 10:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
10:00 PM - 11:00 PM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
11:00 PM - 12:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
12:00 AM - 01:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
01:00 AM - 02:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
02:00 AM - 03:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
03:00 AM - 04:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
04:00 AM - 05:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
05:00 AM - 06:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
06:00 AM - 07:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
07:00 AM - 08:00 AM	0.002	0.002	0.002	0.002	0.002	0.002	0.002
08:00 AM - 09:00 AM	0.002	0.003	0.002	0.002	0.002	0.002	0.002
Average	0.002	0.002	0.002	0.002	0.002	0.002	0.002
1hr - Maximum	0.002	0.003	0.003	0.002	0.003	0.003	0.002
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).

Reference Method : US EPA Method Part 53 and 58

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Approved by

Suchada T.

Suchada Thammathaworn

Scientist (2)

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
 369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID : 2317380
 Date Received : Mar 14, 2023
 Date Reported : Mar 20, 2023
 Report Number : 2569491-1

Page 1 of 2

Sample Number : 2317380-1 to 7
Parameter : Wind Speed / Wind Direction
Location : บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Sampling Date : Mar 07 - Mar 14, 2023
Sampling by : Puwanart Pimpan

Time	Mar 07 - Mar 08, 2023			Mar 08 - Mar 09, 2023			Mar 09 - Mar 10, 2023			Mar 10 - Mar 11, 2023			Mar 11 - Mar 12, 2023			Mar 12 - Mar 13, 2023			Mar 13 - Mar 14, 2023		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
09:00 AM - 10:00 AM	1.5	358.0	N	1.2	29.0	NNE	0.7	95.0	E	0.4	353.0	N	0.0	-	-	0.5	95.0	E	3.0	42.0	NE
10:00 AM - 11:00 AM	1.4	65.0	ENE	1.7	36.0	NE	1.6	69.0	ENE	1.9	51.0	NE	2.6	159.0	SSE	1.7	155.0	SSE	3.4	67.0	ENE
11:00 AM - 12:00 PM	2.3	113.0	ESE	0.8	118.0	ESE	0.8	68.0	ENE	0.0	-	-	2.0	108.0	ESE	2.3	248.0	WSW	2.1	123.0	ESE
12:00 PM - 01:00 PM	3.5	49.0	NE	2.0	234.0	SW	2.5	278.0	W	1.8	120.0	ESE	5.2	231.0	SW	1.7	301.0	WNW	0.6	15.0	NNE
01:00 PM - 02:00 PM	1.0	39.0	NE	3.7	246.0	WSW	5.3	217.0	SW	1.1	251.0	WSW	1.4	277.0	W	2.8	270.0	W	3.1	52.0	NE
02:00 PM - 03:00 PM	3.9	221.0	SW	4.9	211.0	SSW	2.8	274.0	W	3.4	242.0	WSW	0.1	-	-	3.6	287.0	WNW	0.6	30.0	NNE
03:00 PM - 04:00 PM	4.9	224.0	SW	3.0	287.0	WNW	5.2	242.0	WSW	4.0	210.0	SSW	0.9	236.0	SW	2.5	304.0	NW	1.3	43.0	NE
04:00 PM - 05:00 PM	1.6	236.0	SW	3.9	208.0	SSW	2.1	248.0	WSW	2.3	268.0	W	3.5	181.0	S	2.7	248.0	WSW	1.5	95.0	E
05:00 PM - 06:00 PM	3.0	247.0	WSW	0.9	207.0	SSW	1.8	258.0	WSW	0.6	211.0	SSW	3.1	197.0	SSW	2.1	224.0	SW	1.9	214.0	SW
06:00 PM - 07:00 PM	0.7	214.0	SW	0.3	217.0	SW	1.6	240.0	WSW	1.3	208.0	SSW	1.2	207.0	SSW	1.2	157.0	SSE	2.5	203.0	SSW
07:00 PM - 08:00 PM	1.3	163.0	SSE	0.9	223.0	SW	0.3	159.0	SSE	0.6	202.0	SSW	1.2	198.0	SSW	0.0	-	-	1.3	238.0	WSW
08:00 PM - 09:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-	0.6	188.0	S	0.8	189.0	S	0.6	236.0	SW
09:00 PM - 10:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.8	144.0	SE	0.5	177.0	S	0.2	-	-
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.6	168.0	SSE	0.5	182.0	S	0.5	180.0	S	1.0	72.0	ENE
11:00 PM - 12:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.4	158.0	SSE	1.5	179.0	S	1.2	57.0	ENE
12:00 AM - 01:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.3	199.0	SSW	0.4	151.0	SSE	0.0	-	-	0.0	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.7	188.0	S	0.0	-	-	0.0	-	-	0.0	-	-
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.3	116.0	ESE	0.0	-	-	1.8	51.0	NE
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.5	202.0	SSW	0.6	39.0	NE	0.4	40.0	NE
04:00 AM - 05:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.2	43.0	NE
05:00 AM - 06:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.9	33.0	NNE	3.3	51.0	NE
06:00 AM - 07:00 AM	0.0	-	-	0.0	-	-	1.0	353.0	N	0.0	-	-	0.9	190.0	S	2.8	39.0	NE	3.5	34.0	NE
07:00 AM - 08:00 AM	0.5	160.0	SSE	0.9	104.0	ESE	0.8	30.0	NNE	0.4	142.0	SE	1.8	164.0	SSE	4.5	62.0	ENE	0.8	40.0	NE
08:00 AM - 09:00 AM	2.4	28.0	NNE	1.1	69.0	ENE	0.3	0.0	N	2.5	76.0	ENE	2.2	183.0	S	1.9	82.0	E	0.6	48.0	NE

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jittrantont
 Assistant General Manager



Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID : 2317380

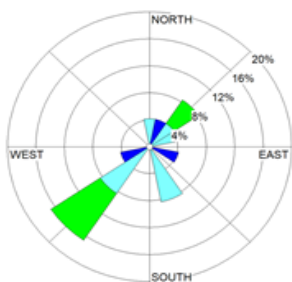
Date Received : Mar 14, 2023

Date Reported : Mar 20, 2023

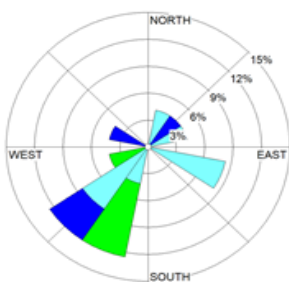
Report Number : 2569491-1

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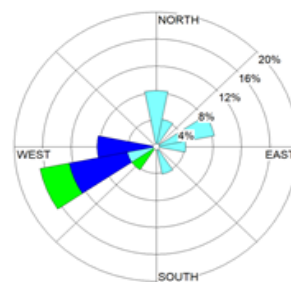
Wind Rose



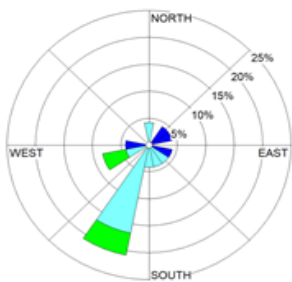
Date : Mar 07-08, 2023



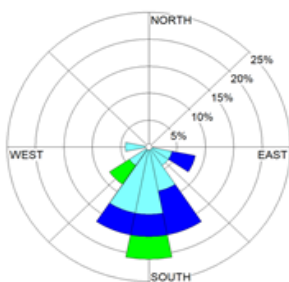
Date : Mar 08-09, 2023



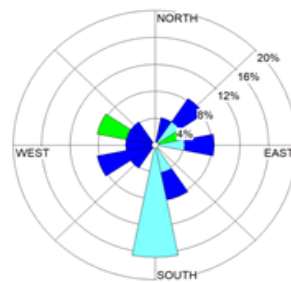
Date : Mar 09-10, 2023



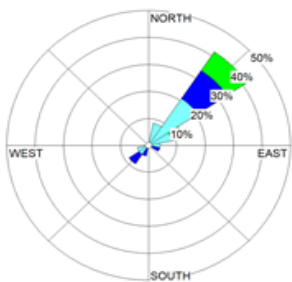
Date : Mar 10-11, 2023



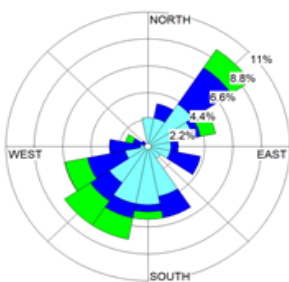
Date : Mar 11-12, 2023



Date : Mar 12-13, 2023



Date : Mar 13-14, 2023



Date : Mar 07-14, 2023

	WS(m/s)	%
	≥ 10.0	0.00
	8.0-10.0	0.00
	5.5-8.0	0.00
	3.3-5.5	10.12
	1.7-3.3	20.83
	0.3-1.7	36.91
	Calms	32.14

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Approved by

Sarayuth Jitranont
Assistant General Manager



Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317381

Date Received : Mar 14, 2023

Date Reported : Mar 18, 2023

Report Number: 2569496-1

Page 1 of 1

Sample Description	Air Quality				
Location	บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)				
Date Analysis Commenced	Mar 15, 2023				
Condition of Sample	Drawn into one quartz filter paper (8x10 inch) placed in plastic bag and one glass filter paper (8x10 inch) placed in plastic bag				
Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
2317381-1	Mar 07 - Mar 08, 2023	0.143	0.093	752	31
2317381-2	Mar 08 - Mar 09, 2023	0.107	0.072	752	32
2317381-3	Mar 09 - Mar 10, 2023	0.103	0.064	752	31
2317381-4	Mar 10 - Mar 11, 2023	0.099	0.063	752	31
2317381-5	Mar 11 - Mar 12, 2023	0.081	0.047	752	31
2317381-6	Mar 12 - Mar 13, 2023	0.080	0.046	752	31
2317381-7	Mar 13 - Mar 14, 2023	0.119	0.066	752	30
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

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

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

Sampled By : Puwanart Pimpan

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID: 2346772

Date Received : May 17, 2023

Date Reported : May 23, 2023

Report Number: 2633562-1

Page 1 of 1

Sample Description Air Quality
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Parameter Nitrogen dioxide (ppm)
Measurement Date May 05, 2023 - May 12, 2023
Measurement by Anurak Tongkhajonsakda

	2346772-1 May 05, 2023	2346772-2 May 06, 2023	2346772-3 May 07, 2023	2346772-4 May 08, 2023	2346772-5 May 09, 2023	2346772-6 May 10, 2023	2346772-7 May 11, 2023
Time							
09:00 AM - 10:00 AM	<0.001	0.005	0.003	0.006	0.004	0.007	0.003
10:00 AM - 11:00 AM	<0.001	0.004	0.003	0.006	0.003	0.004	0.002
11:00 AM - 12:00 PM	<0.001	0.002	0.007	0.007	0.002	0.003	0.003
12:00 PM - 01:00 PM	<0.001	0.002	0.010	0.008	0.006	0.003	0.003
01:00 PM - 02:00 PM	<0.001	0.003	0.012	0.005	0.006	<0.001	0.002
02:00 PM - 03:00 PM	<0.001	0.002	0.011	0.007	0.005	0.002	0.005
03:00 PM - 04:00 PM	0.001	0.004	0.006	0.008	0.009	<0.001	0.007
04:00 PM - 05:00 PM	0.001	0.006	0.006	0.004	0.008	0.001	0.002
05:00 PM - 06:00 PM	0.001	0.006	0.008	0.006	0.012	0.002	0.002
06:00 PM - 07:00 PM	0.002	0.011	0.010	0.005	0.012	0.002	<0.001
07:00 PM - 08:00 PM	0.006	0.007	0.008	0.008	0.008	0.004	0.003
08:00 PM - 09:00 PM	0.006	0.004	0.008	0.006	0.004	0.006	0.002
09:00 PM - 10:00 PM	0.005	0.004	0.006	0.003	0.002	0.008	0.001
10:00 PM - 11:00 PM	0.004	0.003	0.005	0.004	0.002	0.005	<0.001
11:00 PM - 12:00 AM	0.003	0.002	0.004	0.002	0.003	0.004	<0.001
12:00 AM - 01:00 AM	0.001	0.002	0.004	<0.001	0.002	0.004	0.001
01:00 AM - 02:00 AM	0.002	0.002	0.005	<0.001	0.002	0.001	0.001
02:00 AM - 03:00 AM	0.002	0.002	0.003	0.002	0.002	<0.001	0.001
03:00 AM - 04:00 AM	0.003	0.002	0.003	0.002	0.002	<0.001	0.002
04:00 AM - 05:00 AM	0.004	0.003	0.007	0.004	0.004	<0.001	0.002
05:00 AM - 06:00 AM	0.004	0.004	0.006	0.005	0.004	<0.001	0.003
06:00 AM - 07:00 AM	0.004	0.004	0.006	0.006	0.007	<0.001	0.004
07:00 AM - 08:00 AM	0.003	0.002	0.006	0.006	0.005	0.002	0.002
08:00 AM - 09:00 AM	0.003	<0.001	0.004	0.006	0.005	0.001	0.002
Average	0.002	0.004	0.006	0.005	0.005	0.003	0.002
1hr - Maximum	0.006	0.011	0.012	0.008	0.012	0.008	0.007
Standard 1hr - Average	0.170	0.170	0.170	0.170	0.170	0.170	0.170

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

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

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Approved by

Orawan R.

Orawan Rakyong

Scientist (3)

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID: 2346783

Date Received : May 17, 2023

Date Reported : May 23, 2023

Report Number: 2633575-1

Page 1 of 1

Sample Description Air Quality
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Parameter Sulfur Dioxide (ppm)
Measurement Date May 05, 2023 - May 12, 2023
Measurement by Anurak Tongkhajonsakda

	2346783-1 May 05, 2023	2346783-2 May 06, 2023	2346783-3 May 07, 2023	2346783-4 May 08, 2023	2346783-5 May 09, 2023	2346783-6 May 10, 2023	2346783-7 May 11, 2023
Time							
09:00 AM - 10:00 AM	0.001	0.001	<0.001	0.001	0.001	0.001	0.001
10:00 AM - 11:00 AM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
11:00 AM - 12:00 PM	0.001	<0.001	0.001	0.001	0.001	0.001	0.001
12:00 PM - 01:00 PM	0.001	<0.001	0.001	0.001	0.001	0.001	0.001
01:00 PM - 02:00 PM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
02:00 PM - 03:00 PM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
03:00 PM - 04:00 PM	0.001	0.001	0.001	0.002	0.001	0.001	0.001
04:00 PM - 05:00 PM	0.001	<0.001	0.001	0.001	0.001	0.001	0.001
05:00 PM - 06:00 PM	0.001	<0.001	0.001	0.001	0.001	0.001	0.001
06:00 PM - 07:00 PM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
07:00 PM - 08:00 PM	0.001	0.001	0.001	0.001	0.001	0.001	0.001
08:00 PM - 09:00 PM	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001
09:00 PM - 10:00 PM	<0.001	0.001	<0.001	0.001	0.001	0.001	0.001
10:00 PM - 11:00 PM	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001
11:00 PM - 12:00 AM	<0.001	0.001	0.001	0.001	0.001	0.001	0.001
12:00 AM - 01:00 AM	<0.001	0.001	0.001	0.001	0.001	<0.001	<0.001
01:00 AM - 02:00 AM	<0.001	0.001	0.001	0.001	0.001	<0.001	<0.001
02:00 AM - 03:00 AM	<0.001	0.001	0.001	0.001	0.001	0.001	<0.001
03:00 AM - 04:00 AM	<0.001	0.001	0.001	0.001	0.001	0.001	0.001
04:00 AM - 05:00 AM	<0.001	0.001	0.001	0.001	0.001	0.001	0.001
05:00 AM - 06:00 AM	<0.001	0.001	0.001	0.001	0.001	0.001	0.001
06:00 AM - 07:00 AM	<0.001	0.001	0.001	0.001	0.001	0.001	<0.001
07:00 AM - 08:00 AM	<0.001	0.001	0.001	0.001	0.001	0.001	<0.001
08:00 AM - 09:00 AM	0.001	<0.001	0.001	0.001	0.001	0.001	0.001
Average	<0.001	0.001	0.001	0.001	0.001	0.001	0.001
1hr - Maximum	0.001	0.001	0.001	0.002	0.001	0.001	0.001
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).

Reference Method : US EPA Method Part 53 and 58

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Approved by

Orawan R.

Orawan Rakyong

Scientist (3)

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID : 2346788
Date Received : May 17, 2023
Date Reported : May 24, 2023
Report Number : 2633580-1

Page 1 of 2

Sample Number : 2346788-1 to 7
Parameter : Wind Speed / Wind Direction
Location : บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Sampling Date : May 05 - May 12, 2023
Sampling by : Anurak Tongkhajonsakda

Time	May 05 - May 06, 2023			May 06 - May 07, 2023			May 07 - May 08, 2023			May 08 - May 09, 2023			May 09 - May 10, 2023			May 10 - May 11, 2023			May 11 - May 12, 2023		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
09:00 AM - 10:00 AM	1.1	129.0	SE	0.0	-	-	1.5	179.0	S	0.4	0.0	N	1.1	0.0	N	2.7	64.0	ENE	0.9	65.0	ENE
10:00 AM - 11:00 AM	1.5	217.0	SW	0.6	216.0	SW	1.0	0.0	N	0.0	-	-	1.3	164.0	SSE	1.1	159.0	SSE	1.0	61.0	ENE
11:00 AM - 12:00 PM	0.0	-	-	1.6	162.0	SSE	1.0	222.0	SW	1.5	148.0	SSE	1.2	196.0	SSW	0.7	79.0	E	2.1	116.0	ESE
12:00 PM - 01:00 PM	0.0	-	-	0.7	179.0	S	1.5	213.0	SSW	0.9	107.0	ESE	1.7	215.0	SW	1.1	94.0	E	1.3	76.0	ENE
01:00 PM - 02:00 PM	4.5	218.0	SW	0.5	179.0	S	1.2	58.0	ENE	0.5	84.0	E	0.0	-	-	1.1	130.0	SE	0.8	87.0	E
02:00 PM - 03:00 PM	0.5	219.0	SW	0.9	209.0	SSW	1.0	65.0	ENE	0.4	114.0	ESE	1.1	64.0	ENE	1.6	123.0	ESE	0.4	125.0	SE
03:00 PM - 04:00 PM	0.8	103.0	ESE	0.0	-	-	1.2	0.0	N	0.3	60.0	ENE	0.6	70.0	ENE	0.7	125.0	SE	1.3	112.0	ESE
04:00 PM - 05:00 PM	3.2	93.0	E	1.7	228.0	SW	0.9	0.0	N	1.9	85.0	E	0.3	0.0	N	0.7	92.0	E	0.2	-	-
05:00 PM - 06:00 PM	0.4	93.0	E	1.6	186.0	S	0.8	0.0	N	1.2	78.0	ENE	0.4	51.0	NE	2.1	77.0	ENE	0.6	107.0	ESE
06:00 PM - 07:00 PM	0.9	103.0	ESE	0.6	222.0	SW	0.1	-	-	1.6	198.0	SSW	0.1	-	-	0.0	-	-	1.9	91.0	E
07:00 PM - 08:00 PM	0.6	111.0	ESE	0.4	162.0	SSE	0.2	-	-	0.7	98.0	E	0.0	-	-	0.6	103.0	ESE	0.9	93.0	E
08:00 PM - 09:00 PM	1.6	213.0	SSW	3.4	105.0	ESE	0.0	-	-	0.8	102.0	ESE	0.0	-	-	0.9	121.0	ESE	1.2	123.0	ESE
09:00 PM - 10:00 PM	0.2	-	-	1.2	105.0	ESE	2.7	116.0	ESE	1.2	137.0	SE	0.0	-	-	0.8	108.0	ESE	0.7	149.0	SSE
10:00 PM - 11:00 PM	1.3	81.0	E	0.0	-	-	2.1	103.0	ESE	0.8	153.0	SSE	1.4	0.0	N	2.2	128.0	SE	1.1	153.0	SSE
11:00 PM - 12:00 AM	1.2	0.0	N	0.2	-	-	2.4	64.0	ENE	1.2	141.0	SE	0.0	-	-	1.8	74.0	ENE	0.6	85.0	E
12:00 AM - 01:00 AM	0.6	87.0	E	1.5	0.0	N	2.0	63.0	ENE	0.3	68.0	ENE	1.1	0.0	N	1.9	91.0	E	1.2	0.0	N
01:00 AM - 02:00 AM	1.6	98.0	E	0.5	212.0	SSW	0.1	-	-	1.9	58.0	ENE	1.3	73.0	ENE	0.9	91.0	E	0.7	0.0	N
02:00 AM - 03:00 AM	0.7	98.0	E	1.2	196.0	SSW	0.0	-	-	1.0	71.0	ENE	0.6	101.0	E	1.2	91.0	E	1.4	68.0	ENE
03:00 AM - 04:00 AM	0.7	98.0	E	0.5	162.0	SSE	0.7	51.0	NE	0.6	71.0	ENE	2.1	91.0	E	1.1	118.0	ESE	1.9	67.0	ENE
04:00 AM - 05:00 AM	0.9	171.0	S	0.0	-	-	0.7	80.0	E	1.0	74.0	ENE	1.8	67.0	ENE	0.5	73.0	ENE	0.2	-	-
05:00 AM - 06:00 AM	0.4	204.0	SSW	2.0	74.0	ENE	0.5	78.0	ENE	1.3	85.0	E	2.2	86.0	E	1.1	75.0	ENE	0.6	77.0	ENE
06:00 AM - 07:00 AM	1.2	229.0	SW	2.2	145.0	SE	0.6	211.0	SSW	1.2	89.0	E	1.4	74.0	ENE	2.2	91.0	E	1.3	75.0	ENE
07:00 AM - 08:00 AM	0.7	73.0	ENE	1.1	107.0	ESE	0.2	-	-	0.6	187.0	S	0.7	83.0	E	0.0	-	-	0.9	65.0	ENE
08:00 AM - 09:00 AM	0.5	211.0	SSW	0.1	-	-	1.0	0.0	N	0.0	-	-	1.6	87.0	E	1.3	75.0	ENE	1.0	61.0	ENE

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jittrantont
Assistant General Manager



Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID : 2346788

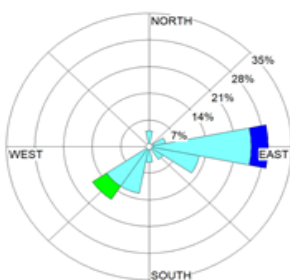
Date Received : May 17, 2023

Date Reported : May 24, 2023

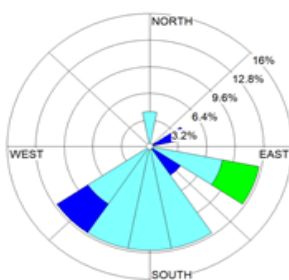
Report Number : 2633580-1

Page 2 of 2

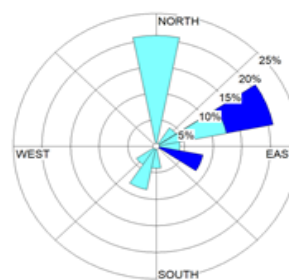
Wind Rose



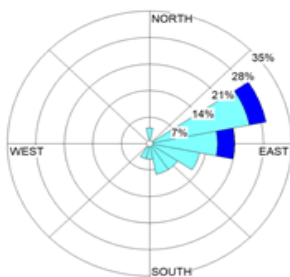
Date : May 05-06, 2023



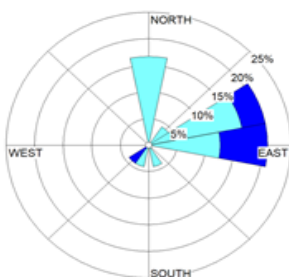
Date : May 06-07, 2023



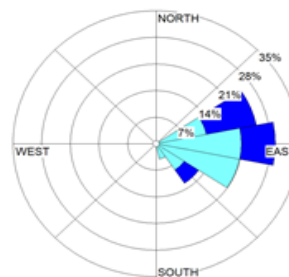
Date : May 07-08, 2023



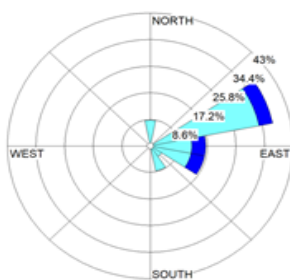
Date : May 08-09, 2023



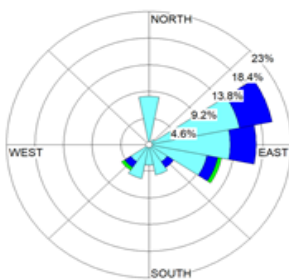
Date : May 09-10, 2023



Date : May 10-11, 2023



Date : May 11-12, 2023



Date : May 05-12, 2023

WS(m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	1.19
1.7-3.3	13.69
0.3-1.7	69.05
Calms	16.07

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Approved by

Sarayuth Jitranont
Assistant General Manager



Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2346792

Date Received : May 16, 2023
Date Reported : May 22, 2023
Report Number: 2633581-1

Page 1 of 1

Sample Description	Air Quality				
Location	บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)				
Date Analysis Commenced	May 19, 2023				
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag				
Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
2346792-1	May 05 - May 06, 2023	0.059	0.020	755	33
2346792-2	May 06 - May 07, 2023	0.056	0.013	755	33
2346792-3	May 07 - May 08, 2023	0.078	0.013	755	33
2346792-4	May 08 - May 09, 2023	0.025	0.017	755	33
2346792-5	May 09 - May 10, 2023	0.054	0.013	755	33
2346792-6	May 10 - May 11, 2023	0.086	0.020	755	33
2346792-7	May 11 - May 12, 2023	0.070	0.014	755	33
Guideline		0.33	0.12	-	-

Reference Method

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

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

Sampled By : Anurak Tongkhajonsakda

Remark :

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

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317415

Date Received : Mar 09, 2023
Date Reported : Mar 17, 2023
Report Number: 2569504-1

Page 1 of 2

Sample Number	2317415-1
Sampled Date	Mar 09, 2023
Sample Description	Emission from Stationary Source
Location	ปล่องหน่วยผลิตไอน้ำ (HRSG 11) (ตัวอย่างที่ 1) (GPS 47P 0726905, 1445206)
Date Analysis Commenced	Mar 10, 2023
Condition of Sample	Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish, one plastic bottle, one 10-L air sampling bag and one amber plastic bottle, refrigerated

Stack Description

Ambient Pressure	750	mmHg	Diameter	2.89	m	Oxygen	14.1	%
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	3.9	%
Type of Process	Combustion		Stack Temperature	100	°C	Gas Velocity	19.2	m/s
Type of Fuel	Natural Gas		Moisture	8.29	%	Flow Rate (Actual O2)	327658	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result		Guideline (1)	Guideline (2)	Method	Testing Location
					at 7 %O ₂	at 14.1 % O ₂				
Air Testing										
Carbon Monoxide *	09:50 AM - 10:00 AM	ppm	-	1.0	2.3	1.13	690	-	United States Environmental Protection Agency, EPA Method 10	Rayong
Oxides of Nitrogen *	09:40 AM - 09:50 AM	ppm	-	1.06	8.36	4.09	200	60	United States Environmental Protection Agency, EPA Method 7	Rayong
Sulfur dioxide *	09:40 AM - 11:10 AM	ppm	-	0.5	<0.5	<0.5	60	3.5	United States Environmental Protection Agency, EPA Method 6	Rayong
Total Suspended Particulate	09:50 AM - 10:32 AM	mg/m3	-	0.5	<0.5	<0.5	320	6.85	United States Environmental Protection Agency, EPA Method 5	Rayong

Guideline :

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

Technical Management

Thanita K.

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

Approved by

D. Johnson.

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

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317415

Date Received : Mar 09, 2023
Date Reported : Mar 17, 2023
Report Number: 2569504-1

Page 2 of 2

Sample Number	2317415-1
Sampled Date	Mar 09, 2023
Sample Description	Emission from Stationary Source
Location	ปล่องหน่วยผลิตไอน้ำ (HRSG 11) (ตัวอย่างที่ 1) (GPS 47P 0726905, 1445206)
Date Analysis Commenced	Mar 10, 2023
Condition of Sample	Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish, one plastic bottle, one 10-L air sampling bag and one amber plastic bottle, refrigerated

Stack Description

Ambient Pressure	750	mmHg	Diameter	2.89	m	Oxygen	14.1	%
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	3.9	%
Type of Process	Combustion		Stack Temperature	100	°C	Gas Velocity	19.2	m/s
Type of Fuel	Natural Gas		Moisture	8.29	%	Flow Rate (Actual O2)	327658	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Carbon Monoxide *	09:50 AM - 10:00 AM	g/s	-	-	0.12	-	-	Calculated	Rayong
Oxides of Nitrogen *	09:40 AM - 09:50 AM	g/s	-	-	0.700	-	7.34	Calculated	Rayong
Sulfur dioxide *	09:40 AM - 11:10 AM	g/s	-	-	<0.120	-	0.60	Calculated	Rayong
Total Suspended Particulate *	09:50 AM - 10:32 AM	g/s	-	-	<0.046	-	0.45	Calculated	Rayong

Guideline :

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

Sampled By : Sathapron Thakarw

Remark :

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

Technical Management

Thanita K.

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

Approved by

D. Changchon.

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

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317428

Date Received : Mar 10, 2023
Date Reported : Mar 18, 2023
Report Number: 2569527-1

Page 1 of 2

Sample Number	2317428-1
Sampled Date	Mar 10, 2023
Sample Description	Emission from Stationary Source
Location	ปล่องหน่วยผลิตไอน้ำ (HRSG 12) (ตัวอย่างที่ 1) (GPS 47P 0726905, 1445231)
Date Analysis Commenced	Mar 11, 2023
Condition of Sample	Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish, one plastic bottle, one 10-L air sampling bag and one amber plastic bottle, refrigerated

Stack Description

Ambient Pressure	750	mmHg	Diameter	2.89	m	Oxygen	14.2	%
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	3.9	%
Type of Process	Combustion		Stack Temperature	100	°C	Gas Velocity	18.8	m/s
Type of Fuel	Natural Gas		Moisture	8.26	%	Flow Rate (Actual O2)	320927	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result		Guideline (1)	Guideline (2)	Method	Testing Location
					at 7 %O ₂	at 14.2 % O ₂				
Air Testing										
Carbon Monoxide *	10:00 AM - 10:10 AM	ppm	-	1.0	<1.0	<1.0	690	-	United States Environmental Protection Agency, EPA Method 10	Rayong
Oxides of Nitrogen *	09:50 AM - 10:00 AM	ppm	-	1.06	20.2	9.74	200	60	United States Environmental Protection Agency, EPA Method 7	Rayong
Sulfur dioxide *	09:50 AM - 11:20 AM	ppm	-	0.5	<0.5	<0.5	60	3.5	United States Environmental Protection Agency, EPA Method 6	Rayong
Total Suspended Particulate	10:00 AM - 10:42 AM	mg/m3	-	0.5	<0.5	<0.5	320	6.85	United States Environmental Protection Agency, EPA Method 5	Rayong

Guideline :

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

ทะเบียนเลขที่ ว-323-จ-9447

Approved by

D. Johnson.

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317428

Date Received : Mar 10, 2023
Date Reported : Mar 18, 2023
Report Number: 2569527-1

Page 2 of 2

Sample Number	2317428-1
Sampled Date	Mar 10, 2023
Sample Description	Emission from Stationary Source
Location	ปล่องหน่วยผลิตไอน้ำ (HRSG 12) (ตัวอย่างที่ 1) (GPS 47P 0726905, 1445231)
Date Analysis Commenced	Mar 11, 2023
Condition of Sample	Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish, one plastic bottle, one 10-L air sampling bag and one amber plastic bottle, refrigerated

Stack Description

Ambient Pressure	750	mmHg	Diameter	2.89	m	Oxygen	14.2	%
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	3.9	%
Type of Process	Combustion		Stack Temperature	100	°C	Gas Velocity	18.8	m/s
Type of Fuel	Natural Gas		Moisture	8.26	%	Flow Rate (Actual O2)	320927	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Carbon Monoxide *	10:00 AM - 10:10 AM	g/s	-	-	<0.098	-	-	Calculated	Rayong
Oxides of Nitrogen *	09:50 AM - 10:00 AM	g/s	-	-	1.638	-	7.34	Calculated	Rayong
Sulfur dioxide *	09:50 AM - 11:20 AM	g/s	-	-	<0.116	-	0.60	Calculated	Rayong
Total Suspended Particulate *	10:00 AM - 10:42 AM	g/s	-	-	<0.045	-	0.45	Calculated	Rayong

Guideline :

Guideline(1) : Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)

Guideline(2) : Environmental Impact Assessment Report of B.Grimm Power (WHA) 1 Limited.

Sampled By : Sathapron Thakarw

Remark :

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

Technical Management

Thanita K.

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

Approved by

D. Changchon.

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

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Analysis / Test Report

TESTING

No.0042

Lot ID: 233859

Date Received : Feb 10, 2023

Date Reported : Feb 17, 2023

Report Number : 2540698-1

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Page 1 of 2

Sample Number	233859-1
Sampled Date	Feb 10, 2023 11:35 AM
Sample Description	Wastewater
Location	Inspection pit (Retention)
Date Analysis Commenced	Feb 10, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	2.7	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	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	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 at 25 degree C *		-	-	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	-	-	30.8	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1870	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID: 233859

Date Received : Feb 10, 2023

Date Reported : Feb 17, 2023

Report Number : 2540698-1

Page 2 of 2

Sample Number	233859-1
Sampled Date	Feb 10, 2023 11:35 AM
Sample Description	Wastewater
Location	Inspection pit (Retension)
Date Analysis Commenced	Feb 10, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	2.1	≤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	14	≤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 : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-จ-9448

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 : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID: 233859

Date Received : Feb 10, 2023

Date Reported : Feb 17, 2023

Report Number : 2540698-2

Page 1 of 1

Sample Number	233859-1
Sampled Date	Feb 10, 2023 11:35 AM
Sample Description	Wastewater
Location	Inspection pit (Retention)
Date Analysis Commenced	Feb 10, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.000	No Standard	Flow meter, Analyzed by Client	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 : Pitthaya Thongtaeng

Remark :

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Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2322326

Date Received : Mar 08, 2023

Date Reported : Mar 15, 2023

Report Number : 2579484-1

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Page 1 of 2

Sample Number	2322326-1
Sampled Date	Mar 08, 2023 1:55 PM
Sample Description	Wastewater
Location	Inspection pit (Retension)
Date Analysis Commenced	Mar 08, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	62	≤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	9	≤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 at 25 degree C *		-	-	8.1	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
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	-	-	31.0	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1980	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor

ทะเบียนเลขที่ จ-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ จ-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2322326

Date Received : Mar 08, 2023

Date Reported : Mar 15, 2023

Report Number : 2579484-1

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Page 2 of 2

Sample Number	2322326-1						
Sampled Date	Mar 08, 2023 1:55 PM						
Sample Description	Wastewater						
Location	Inspection pit (Retension)						
Date Analysis Commenced	Mar 08, 2023						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	4.7	≤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	11	≤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 : Pathompong Kornasawat ทะเบียนเลขที่ ว-323-จ-9468

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 : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID: 2322326

Date Received : Mar 08, 2023

Date Reported : Mar 15, 2023

Report Number : 2579484-2

Page 1 of 1

Sample Number	2322326-1						
Sampled Date	Mar 08, 2023 1:55 PM						
Sample Description	Wastewater						
Location	Inspection pit (Retention)						
Date Analysis Commenced	Mar 08, 2023						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.000	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 : Pathompong Kornawat

Remark :

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

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Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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

TESTING

No.0042

Lot ID: 2336275

Date Received : Apr 07, 2023

Date Reported : Apr 17, 2023

Report Number : 2609759-1

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Page 1 of 2

Sample Number	2336275-1
Sampled Date	Apr 07, 2023 9:55 AM
Sample Description	Wastewater
Location	Inspection pit (Retension)
Date Analysis Commenced	Apr 07, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	54	≤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	14	≤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	13	≤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 at 25 degree C *		-	-	7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
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	-	-	30.1	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	2100	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

N. Banongkit

Narumon Banchongkit
Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2336275

Date Received : Apr 07, 2023

Date Reported : Apr 17, 2023

Report Number : 2609759-1

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Page 2 of 2

Sample Number	2336275-1
Sampled Date	Apr 07, 2023 9:55 AM
Sample Description	Wastewater
Location	Inspection pit (Retension)
Date Analysis Commenced	Apr 07, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	64.1	≤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 : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-จ-9448

Remark :

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

Technical Management

N. Banchongkit

Narumon Banchongkit

Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon

Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID: 2336275

Date Received : Apr 07, 2023

Date Reported : Apr 17, 2023

Report Number : 2609759-2

Page 1 of 1

Sample Number	2336275-1						
Sampled Date	Apr 07, 2023 9:55 AM						
Sample Description	Wastewater						
Location	Inspection pit (Retention)						
Date Analysis Commenced	Apr 07, 2023						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.000	No Standard	Flow meter, Analyzed by Client	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 : Pitthaya Thongtaeng

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: 2347328

Date Received : May 12, 2023

Date Reported : May 19, 2023

Report Number : 2634538-1

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Page 1 of 2

Sample Number	2347328-1
Sampled Date	May 12, 2023 10:20 AM
Sample Description	Wastewater
Location	Inspection pit (Retension)
Date Analysis Commenced	May 12, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	47	≤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	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 at 25 degree C *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
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
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1552	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

N. Banongkit

Narumon Banchongkit
Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2347328

Date Received : May 12, 2023

Date Reported : May 19, 2023

Report Number : 2634538-1

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Page 2 of 2

Sample Number	2347328-1						
Sampled Date	May 12, 2023 10:20 AM						
Sample Description	Wastewater						
Location	Inspection pit (Retension)						
Date Analysis Commenced	May 12, 2023						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.9	≤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	34	≤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 : Pitthaya Thongtaeng ทะเบียนเลขที่ ว-323-จ-9448

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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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 : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID: 2347328

Date Received : May 12, 2023

Date Reported : May 19, 2023

Report Number : 2634538-2

Page 1 of 1

Sample Number	2347328-1						
Sampled Date	May 12, 2023 10:20 AM						
Sample Description	Wastewater						
Location	Inspection pit (Retention)						
Date Analysis Commenced	May 12, 2023						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.000	No Standard	Flow meter, Analyzed by Client	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 : Pitthaya Thongtaeng

Remark :

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N. Banchongkit

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2363142

Date Received : Jun 12, 2023

Date Reported : Jun 19, 2023

Report Number : 2668697-1

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Page 1 of 2

Sample Number	2363142-1
Sampled Date	Jun 12, 2023 11:10 AM
Sample Description	Wastewater
Location	Inspection pit (Retension)
Date Analysis Commenced	Jun 12, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	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 at 25 degree C *		-	-	8.9	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	-	-	31.2	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	950	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor

ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager

ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2363142

Date Received : Jun 12, 2023

Date Reported : Jun 19, 2023

Report Number : 2668697-1

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Page 2 of 2

Sample Number	2363142-1
Sampled Date	Jun 12, 2023 11:10 AM
Sample Description	Wastewater
Location	Inspection pit (Retension)
Date Analysis Commenced	Jun 12, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	3.7	≤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 : 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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Technical Management

N. Banongkit

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 : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID: 2363142

Date Received : Jun 12, 2023

Date Reported : Jun 19, 2023

Report Number : 2668697-2

Page 1 of 1

Sample Number	2363142-1						
Sampled Date	Jun 12, 2023 11:10 AM						
Sample Description	Wastewater						
Location	Inspection pit (Retention)						
Date Analysis Commenced	Jun 12, 2023						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.000	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 :

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

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Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 22148781

Date Received : Jan 13, 2023

Date Reported : Jan 20, 2023

Report Number : 2517316-1

Client : B. Grimm Power (WHA) 1 Limited

369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Page 1 of 2

Sample Number	22148781-1
Sampled Date	Jan 13, 2023 11:09 AM
Sample Description	Wastewater
Location	Inspection pit (Retension)
Date Analysis Commenced	Jan 13, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	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	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 at 25 degree C *		-	-	7.4	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	-	-	28.8	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1760	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Technical Management

N. Banongkit

Narumon Banchongkit
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 : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

TESTING

No.0042

Lot ID: 22148781

Date Received : Jan 13, 2023

Date Reported : Jan 20, 2023

Report Number : 2517316-1

Page 2 of 2

Sample Number	22148781-1
Sampled Date	Jan 13, 2023 11:09 AM
Sample Description	Wastewater
Location	Inspection pit (Retention)
Date Analysis Commenced	Jan 13, 2023
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	11.8	≤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	7	≤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. 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 : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O : 221060448

Project Name : BPWHA

Project Location :

Lot ID: 22148781

Date Received : Jan 13, 2023

Date Reported : Jan 20, 2023

Report Number : 2517316-2

Page 1 of 1

Sample Number	22148781-1						
Sampled Date	Jan 13, 2023 11:09 AM						
Sample Description	Wastewater						
Location	Inspection pit (Retension)						
Date Analysis Commenced	Jan 13, 2023						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Flow rate	m3/s	-	-	0.000	No Standard	Flow meter, Analyzed by Client	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 :

Remark :

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

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

Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596164-1

Page 1 of 1

Sample Number 2317444-1
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วโครงการด้านทิศตะวันออกเฉียงใต้ (GPS 47P 0727070, 1445185)
Measurement Date Mar 07 - Mar 08, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900071

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	55.9	78.3	49.3
10:00 AM - 11:00 AM	54.4	78.3	49.0
11:00 AM - 12:00 PM	54.6	68.5	50.1
12:00 PM - 01:00 PM	55.8	76.4	48.9
01:00 PM - 02:00 PM	54.3	74.6	49.2
02:00 PM - 03:00 PM	53.3	70.6	49.4
03:00 PM - 04:00 PM	55.7	78.3	49.9
04:00 PM - 05:00 PM	57.0	78.8	51.1
05:00 PM - 06:00 PM	59.7	84.2	52.1
06:00 PM - 07:00 PM	59.0	82.1	52.1
07:00 PM - 08:00 PM	57.7	76.4	51.0
08:00 PM - 09:00 PM	57.9	83.4	50.3
09:00 PM - 10:00 PM	54.8	78.4	48.5
10:00 PM - 11:00 PM	52.4	71.7	48.0
11:00 PM - 12:00 AM	51.8	65.9	49.3
12:00 AM - 01:00 AM	52.5	68.9	51.2
01:00 AM - 02:00 AM	52.0	65.3	51.3
02:00 AM - 03:00 AM	52.0	70.1	51.2
03:00 AM - 04:00 AM	52.2	57.6	51.6
04:00 AM - 05:00 AM	53.2	70.7	51.8
05:00 AM - 06:00 AM	54.2	69.5	52.2
06:00 AM - 07:00 AM	58.8	75.8	54.2
07:00 AM - 08:00 AM	60.2	78.4	54.4
08:00 AM - 09:00 AM	58.8	83.1	53.2

Leq Average 24 hrs. (dB(A)) 56.2
Lmax (dB(A)) 84.2
L90 (dB(A)) 51.0
Ldn (dB(A)) 61.0
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596165-1

Page 1 of 1

Sample Number 2317444-2
Parameter Noise (Leq 24 hrs.)
Location บริเวณริมรั้วโครงการด้านทิศตะวันออกเฉียงใต้ (GPS 47P 0727070, 1445185)
Measurement Date Mar 08 - Mar 09, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900071

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	57.5	76.8	53.7
10:00 AM - 11:00 AM	56.4	88.3	53.4
11:00 AM - 12:00 PM	60.2	88.6	57.3
12:00 PM - 01:00 PM	57.1	83.8	51.8
01:00 PM - 02:00 PM	54.8	79.1	49.5
02:00 PM - 03:00 PM	55.5	74.4	50.5
03:00 PM - 04:00 PM	57.1	80.6	51.6
04:00 PM - 05:00 PM	56.4	73.4	52.1
05:00 PM - 06:00 PM	59.0	76.2	52.2
06:00 PM - 07:00 PM	61.3	88.8	56.0
07:00 PM - 08:00 PM	61.3	89.9	52.8
08:00 PM - 09:00 PM	58.3	84.1	50.9
09:00 PM - 10:00 PM	54.4	76.1	50.7
10:00 PM - 11:00 PM	54.4	76.3	51.8
11:00 PM - 12:00 AM	54.3	74.9	52.3
12:00 AM - 01:00 AM	53.1	79.4	50.5
01:00 AM - 02:00 AM	49.5	74.6	47.7
02:00 AM - 03:00 AM	49.7	62.1	48.0
03:00 AM - 04:00 AM	49.7	68.2	47.9
04:00 AM - 05:00 AM	50.1	60.9	48.3
05:00 AM - 06:00 AM	53.5	74.1	49.6
06:00 AM - 07:00 AM	56.9	75.2	51.9
07:00 AM - 08:00 AM	61.2	88.3	53.3
08:00 AM - 09:00 AM	58.3	82.2	50.8

Leq Average 24 hrs. (dB(A)) 57.1
Lmax (dB(A)) 89.9
L90 (dB(A)) 51.6
Ldn (dB(A)) 60.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596166-1

Page 1 of 1

Sample Number 2317444-3
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วโครงการด้านทิศตะวันออกเฉียงใต้ (GPS 47P 0727070, 1445185)
Measurement Date Mar 09 - Mar 10, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900071

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	56.8	73.0	50.7
10:00 AM - 11:00 AM	55.1	76.5	48.6
11:00 AM - 12:00 PM	55.4	74.7	52.5
12:00 PM - 01:00 PM	56.1	84.0	49.0
01:00 PM - 02:00 PM	55.5	80.7	49.2
02:00 PM - 03:00 PM	58.2	90.0	50.7
03:00 PM - 04:00 PM	56.5	75.0	51.1
04:00 PM - 05:00 PM	57.1	72.7	52.2
05:00 PM - 06:00 PM	59.4	84.4	51.9
06:00 PM - 07:00 PM	60.9	87.2	53.3
07:00 PM - 08:00 PM	61.3	91.3	50.4
08:00 PM - 09:00 PM	56.8	79.8	50.2
09:00 PM - 10:00 PM	59.0	86.4	51.0
10:00 PM - 11:00 PM	58.2	85.8	52.1
11:00 PM - 12:00 AM	54.1	74.9	52.0
12:00 AM - 01:00 AM	53.3	80.6	51.2
01:00 AM - 02:00 AM	52.6	82.1	51.1
02:00 AM - 03:00 AM	53.5	69.9	51.3
03:00 AM - 04:00 AM	52.4	67.8	51.4
04:00 AM - 05:00 AM	48.7	60.9	47.1
05:00 AM - 06:00 AM	52.1	71.0	46.9
06:00 AM - 07:00 AM	58.4	79.7	49.2
07:00 AM - 08:00 AM	59.9	84.7	51.1
08:00 AM - 09:00 AM	58.5	82.5	51.1

Leq Average 24 hrs. (dB(A)) 57.2
Lmax (dB(A)) 91.3
L90 (dB(A)) 51.1
Ldn (dB(A)) 61.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596167-1

Page 1 of 1

Sample Number 2317444-4
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วโครงการด้านทิศตะวันออกเฉียงใต้ (GPS 47P 0727070, 1445185)
Measurement Date Mar 10 - Mar 11, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900071

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	56.5	73.4	50.9
10:00 AM - 11:00 AM	54.6	71.0	49.8
11:00 AM - 12:00 PM	55.6	78.5	49.6
12:00 PM - 01:00 PM	54.8	77.3	48.6
01:00 PM - 02:00 PM	53.4	70.7	48.6
02:00 PM - 03:00 PM	54.7	77.3	49.0
03:00 PM - 04:00 PM	57.8	84.9	50.1
04:00 PM - 05:00 PM	60.5	91.6	51.1
05:00 PM - 06:00 PM	60.1	83.6	51.6
06:00 PM - 07:00 PM	62.7	88.9	58.4
07:00 PM - 08:00 PM	59.1	80.3	51.2
08:00 PM - 09:00 PM	59.0	87.4	51.6
09:00 PM - 10:00 PM	59.2	82.8	53.3
10:00 PM - 11:00 PM	55.3	83.2	48.4
11:00 PM - 12:00 AM	54.0	75.4	51.3
12:00 AM - 01:00 AM	56.3	86.0	52.1
01:00 AM - 02:00 AM	53.8	78.9	52.1
02:00 AM - 03:00 AM	53.3	60.6	52.0
03:00 AM - 04:00 AM	53.6	65.0	52.1
04:00 AM - 05:00 AM	54.3	72.9	52.4
05:00 AM - 06:00 AM	55.8	80.3	52.7
06:00 AM - 07:00 AM	58.9	79.0	54.0
07:00 AM - 08:00 AM	61.3	86.0	53.8
08:00 AM - 09:00 AM	61.4	88.9	52.7

Leq Average 24 hrs. (dB(A)) 57.9
Lmax (dB(A)) 91.6
L90 (dB(A)) 51.6
Ldn (dB(A)) 62.5
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596168-1

Page 1 of 1

Sample Number 2317444-5
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วโครงการด้านทิศตะวันออกเฉียงใต้ (GPS 47P 0727070, 1445185)
Measurement Date Mar 11 - Mar 12, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900071

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	59.1	81.7	52.4
10:00 AM - 11:00 AM	57.9	81.2	50.3
11:00 AM - 12:00 PM	60.7	91.9	48.8
12:00 PM - 01:00 PM	55.8	82.6	48.0
01:00 PM - 02:00 PM	61.1	91.2	50.3
02:00 PM - 03:00 PM	56.4	83.0	50.6
03:00 PM - 04:00 PM	57.6	81.8	50.5
04:00 PM - 05:00 PM	59.0	82.5	51.4
05:00 PM - 06:00 PM	61.4	84.3	52.7
06:00 PM - 07:00 PM	58.9	82.3	52.6
07:00 PM - 08:00 PM	60.4	89.3	51.2
08:00 PM - 09:00 PM	57.0	74.9	52.9
09:00 PM - 10:00 PM	55.3	74.9	52.5
10:00 PM - 11:00 PM	55.5	80.4	52.3
11:00 PM - 12:00 AM	53.5	74.9	51.6
12:00 AM - 01:00 AM	57.2	87.0	46.9
01:00 AM - 02:00 AM	51.1	68.5	47.6
02:00 AM - 03:00 AM	50.1	65.3	47.5
03:00 AM - 04:00 AM	50.1	66.3	47.6
04:00 AM - 05:00 AM	49.8	65.8	47.5
05:00 AM - 06:00 AM	51.5	67.2	47.7
06:00 AM - 07:00 AM	57.7	79.7	49.7
07:00 AM - 08:00 AM	59.5	84.7	50.6
08:00 AM - 09:00 AM	56.8	77.5	49.5

Leq Average 24 hrs. (dB(A)) 57.6
Lmax (dB(A)) 91.9
L90 (dB(A)) 50.3
Ldn (dB(A)) 61.5
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596169-1

Page 1 of 1

Sample Number 2317444-6
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วโครงการด้านทิศตะวันออกเฉียงใต้ (GPS 47P 0727070, 1445185)
Measurement Date Mar 12 - Mar 13, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900071

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	56.7	76.5	48.3
10:00 AM - 11:00 AM	55.3	73.9	51.9
11:00 AM - 12:00 PM	57.8	84.7	51.9
12:00 PM - 01:00 PM	56.0	78.3	51.6
01:00 PM - 02:00 PM	55.9	78.6	49.1
02:00 PM - 03:00 PM	56.3	80.8	50.0
03:00 PM - 04:00 PM	58.8	82.7	50.3
04:00 PM - 05:00 PM	60.4	85.5	52.8
05:00 PM - 06:00 PM	61.1	84.4	54.5
06:00 PM - 07:00 PM	60.6	80.4	55.9
07:00 PM - 08:00 PM	62.6	87.2	56.8
08:00 PM - 09:00 PM	58.5	80.9	50.5
09:00 PM - 10:00 PM	55.6	80.8	49.4
10:00 PM - 11:00 PM	55.0	75.5	49.6
11:00 PM - 12:00 AM	55.7	78.1	51.9
12:00 AM - 01:00 AM	53.3	67.6	51.7
01:00 AM - 02:00 AM	53.3	69.2	51.6
02:00 AM - 03:00 AM	52.6	66.1	51.5
03:00 AM - 04:00 AM	51.1	62.7	49.9
04:00 AM - 05:00 AM	49.7	61.7	47.5
05:00 AM - 06:00 AM	52.7	70.3	48.6
06:00 AM - 07:00 AM	58.7	77.9	51.1
07:00 AM - 08:00 AM	61.1	80.9	53.5
08:00 AM - 09:00 AM	57.9	85.9	52.6

Leq Average 24 hrs. (dB(A)) 57.7
Lmax (dB(A)) 87.2
L90 (dB(A)) 51.5
Ldn (dB(A)) 61.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596170-1

Page 1 of 1

Sample Number 2317444-7
Parameter Noise (Leq 24 hrs.)
Location บริเวณเริ่มรั้วโครงการด้านทิศตะวันออกเฉียงใต้ (GPS 47P 0727070, 1445185)
Measurement Date Mar 13 - Mar 14, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900071

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	57.4	84.1	52.0
10:00 AM - 11:00 AM	56.6	74.2	51.5
11:00 AM - 12:00 PM	56.2	76.2	51.4
12:00 PM - 01:00 PM	56.3	74.5	50.2
01:00 PM - 02:00 PM	55.0	78.4	49.2
02:00 PM - 03:00 PM	56.0	80.6	49.7
03:00 PM - 04:00 PM	58.4	82.3	49.8
04:00 PM - 05:00 PM	59.4	84.7	51.3
05:00 PM - 06:00 PM	61.0	84.1	52.5
06:00 PM - 07:00 PM	60.8	74.0	57.4
07:00 PM - 08:00 PM	58.0	79.0	50.2
08:00 PM - 09:00 PM	63.3	92.6	50.9
09:00 PM - 10:00 PM	57.1	80.8	52.7
10:00 PM - 11:00 PM	58.0	86.9	51.9
11:00 PM - 12:00 AM	57.5	80.7	51.9
12:00 AM - 01:00 AM	56.4	77.1	53.7
01:00 AM - 02:00 AM	55.9	64.1	54.2
02:00 AM - 03:00 AM	55.8	72.7	53.7
03:00 AM - 04:00 AM	55.7	68.7	53.9
04:00 AM - 05:00 AM	56.2	72.6	54.4
05:00 AM - 06:00 AM	57.2	73.1	55.0
06:00 AM - 07:00 AM	57.5	75.1	54.8
07:00 AM - 08:00 AM	59.2	82.5	55.2
08:00 AM - 09:00 AM	58.0	77.0	54.7

Leq Average 24 hrs. (dB(A)) 58.1
Lmax (dB(A)) 92.6
L90 (dB(A)) 52.0
Ldn (dB(A)) 63.5
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596171-1

Page 1 of 1

Sample Number 2317444-8
Parameter Noise (Leq 24 hrs.)
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Measurement Date Mar 07 - Mar 08, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900072

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	58.9	98.1	47.4
10:00 AM - 11:00 AM	60.5	91.6	47.7
11:00 AM - 12:00 PM	56.7	85.6	46.4
12:00 PM - 01:00 PM	60.8	92.0	47.2
01:00 PM - 02:00 PM	55.6	80.3	46.5
02:00 PM - 03:00 PM	54.6	73.8	45.7
03:00 PM - 04:00 PM	56.6	77.9	48.4
04:00 PM - 05:00 PM	56.6	75.0	48.2
05:00 PM - 06:00 PM	58.4	81.3	48.9
06:00 PM - 07:00 PM	61.2	87.3	51.0
07:00 PM - 08:00 PM	57.0	78.8	47.6
08:00 PM - 09:00 PM	54.8	73.0	45.8
09:00 PM - 10:00 PM	51.9	75.5	44.9
10:00 PM - 11:00 PM	53.2	84.5	43.8
11:00 PM - 12:00 AM	49.4	77.9	42.8
12:00 AM - 01:00 AM	46.1	72.3	42.5
01:00 AM - 02:00 AM	44.4	60.8	42.6
02:00 AM - 03:00 AM	47.7	69.5	43.8
03:00 AM - 04:00 AM	51.9	75.1	44.8
04:00 AM - 05:00 AM	53.6	74.4	46.2
05:00 AM - 06:00 AM	59.3	80.3	49.6
06:00 AM - 07:00 AM	60.2	81.7	51.5
07:00 AM - 08:00 AM	59.5	85.2	47.9
08:00 AM - 09:00 AM	56.1	77.8	44.4

Leq Average 24 hrs. (dB(A)) 57.0
Lmax (dB(A)) 98.1
L90 (dB(A)) 46.4
Ldn (dB(A)) 61.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596172-1

Page 1 of 1

Sample Number 2317444-9
Parameter Noise (Leq 24 hrs.)
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Measurement Date Mar 08 - Mar 09, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900072

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	56.1	80.6	43.1
10:00 AM - 11:00 AM	54.7	80.8	44.2
11:00 AM - 12:00 PM	55.4	78.1	44.2
12:00 PM - 01:00 PM	58.8	88.5	43.4
01:00 PM - 02:00 PM	55.5	76.7	45.0
02:00 PM - 03:00 PM	55.7	78.9	48.2
03:00 PM - 04:00 PM	56.0	75.6	48.7
04:00 PM - 05:00 PM	59.8	89.2	50.9
05:00 PM - 06:00 PM	58.8	82.5	50.9
06:00 PM - 07:00 PM	57.5	76.6	49.7
07:00 PM - 08:00 PM	58.1	83.7	47.8
08:00 PM - 09:00 PM	59.5	86.3	46.9
09:00 PM - 10:00 PM	53.2	79.3	44.1
10:00 PM - 11:00 PM	51.6	78.9	43.6
11:00 PM - 12:00 AM	56.2	87.1	41.9
12:00 AM - 01:00 AM	45.7	73.3	41.9
01:00 AM - 02:00 AM	45.2	71.4	42.7
02:00 AM - 03:00 AM	45.7	70.1	42.6
03:00 AM - 04:00 AM	49.6	73.1	43.4
04:00 AM - 05:00 AM	55.9	80.5	46.0
05:00 AM - 06:00 AM	58.1	77.1	49.2
06:00 AM - 07:00 AM	60.9	82.4	50.8
07:00 AM - 08:00 AM	60.5	87.2	47.0
08:00 AM - 09:00 AM	55.9	77.4	45.5

Leq Average 24 hrs. (dB(A)) 56.8
Lmax (dB(A)) 89.2
L90 (dB(A)) 45.0
Ldn (dB(A)) 62.1
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596173-1

Page 1 of 1

Sample Number 2317444-10
Parameter Noise (Leq 24 hrs.)
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Measurement Date Mar 09 - Mar 10, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900072

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	55.3	80.4	44.1
10:00 AM - 11:00 AM	53.3	74.6	44.7
11:00 AM - 12:00 PM	55.6	77.8	44.9
12:00 PM - 01:00 PM	56.8	79.3	44.3
01:00 PM - 02:00 PM	57.0	81.2	46.3
02:00 PM - 03:00 PM	55.2	78.6	46.7
03:00 PM - 04:00 PM	55.1	73.8	47.6
04:00 PM - 05:00 PM	60.5	86.8	52.0
05:00 PM - 06:00 PM	61.1	86.4	49.2
06:00 PM - 07:00 PM	58.2	79.9	46.5
07:00 PM - 08:00 PM	57.0	83.9	46.3
08:00 PM - 09:00 PM	53.3	73.1	44.1
09:00 PM - 10:00 PM	54.4	86.5	42.5
10:00 PM - 11:00 PM	52.6	80.6	41.4
11:00 PM - 12:00 AM	45.6	70.9	40.8
12:00 AM - 01:00 AM	47.9	72.4	40.6
01:00 AM - 02:00 AM	43.7	62.8	41.4
02:00 AM - 03:00 AM	46.9	72.7	42.1
03:00 AM - 04:00 AM	48.8	72.9	42.5
04:00 AM - 05:00 AM	56.3	76.9	43.0
05:00 AM - 06:00 AM	59.4	80.8	47.9
06:00 AM - 07:00 AM	60.4	82.7	49.6
07:00 AM - 08:00 AM	60.7	88.2	47.7
08:00 AM - 09:00 AM	58.3	86.0	45.6

Leq Average 24 hrs. (dB(A)) 56.7
Lmax (dB(A)) 88.2
L90 (dB(A)) 44.7
Ldn (dB(A)) 61.8
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596174-1

Page 1 of 1

Sample Number 2317444-11
Parameter Noise (Leq 24 hrs.)
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Measurement Date Mar 10 - Mar 11, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900072

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	56.8	81.5	45.8
10:00 AM - 11:00 AM	57.6	82.7	46.0
11:00 AM - 12:00 PM	58.4	90.1	45.1
12:00 PM - 01:00 PM	58.0	85.7	44.7
01:00 PM - 02:00 PM	53.3	77.9	42.7
02:00 PM - 03:00 PM	54.7	75.0	43.5
03:00 PM - 04:00 PM	55.6	81.9	47.1
04:00 PM - 05:00 PM	58.4	78.8	52.1
05:00 PM - 06:00 PM	61.2	86.0	53.1
06:00 PM - 07:00 PM	59.3	86.2	48.5
07:00 PM - 08:00 PM	58.7	83.7	47.4
08:00 PM - 09:00 PM	60.0	93.4	46.5
09:00 PM - 10:00 PM	55.5	80.3	43.7
10:00 PM - 11:00 PM	53.8	79.7	43.3
11:00 PM - 12:00 AM	51.3	80.9	42.7
12:00 AM - 01:00 AM	49.1	76.3	42.2
01:00 AM - 02:00 AM	50.9	75.1	42.1
02:00 AM - 03:00 AM	45.0	64.2	42.8
03:00 AM - 04:00 AM	47.2	73.3	43.3
04:00 AM - 05:00 AM	50.2	72.9	43.2
05:00 AM - 06:00 AM	58.0	81.3	44.1
06:00 AM - 07:00 AM	61.6	82.9	50.4
07:00 AM - 08:00 AM	60.6	89.8	48.6
08:00 AM - 09:00 AM	58.3	80.7	47.1

Leq Average 24 hrs. (dB(A)) 57.3
Lmax (dB(A)) 93.4
L90 (dB(A)) 44.7
Ldn (dB(A)) 62.1
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596175-1

Page 1 of 1

Sample Number 2317444-12
Parameter Noise (Leq 24 hrs.)
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Measurement Date Mar 11 - Mar 12, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900072

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	56.4	79.3	45.4
10:00 AM - 11:00 AM	54.9	75.1	45.0
11:00 AM - 12:00 PM	55.8	80.6	45.7
12:00 PM - 01:00 PM	58.6	87.8	44.8
01:00 PM - 02:00 PM	56.2	82.4	46.3
02:00 PM - 03:00 PM	54.7	76.0	46.4
03:00 PM - 04:00 PM	58.7	88.4	45.5
04:00 PM - 05:00 PM	56.1	81.2	47.0
05:00 PM - 06:00 PM	60.5	87.0	50.5
06:00 PM - 07:00 PM	59.0	81.1	49.0
07:00 PM - 08:00 PM	57.3	82.0	48.1
08:00 PM - 09:00 PM	57.5	86.0	46.7
09:00 PM - 10:00 PM	55.5	77.2	45.1
10:00 PM - 11:00 PM	49.6	71.6	43.4
11:00 PM - 12:00 AM	50.5	77.0	43.9
12:00 AM - 01:00 AM	49.6	77.4	41.9
01:00 AM - 02:00 AM	53.0	80.2	43.5
02:00 AM - 03:00 AM	47.3	68.5	43.5
03:00 AM - 04:00 AM	47.9	74.0	42.6
04:00 AM - 05:00 AM	51.6	75.2	42.7
05:00 AM - 06:00 AM	56.8	84.8	43.3
06:00 AM - 07:00 AM	56.8	80.5	45.9
07:00 AM - 08:00 AM	57.3	79.7	46.8
08:00 AM - 09:00 AM	58.6	81.7	46.6

Leq Average 24 hrs. (dB(A)) 56.2
Lmax (dB(A)) 88.4
L90 (dB(A)) 45.4
Ldn (dB(A)) 60.3
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596176-1

Page 1 of 1

Sample Number 2317444-13
Parameter Noise (Leq 24 hrs.)
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Measurement Date Mar 12 - Mar 13, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900072

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	57.5	81.8	46.2
10:00 AM - 11:00 AM	57.9	81.3	46.1
11:00 AM - 12:00 PM	55.8	77.0	44.5
12:00 PM - 01:00 PM	56.8	83.1	45.5
01:00 PM - 02:00 PM	55.4	75.1	46.6
02:00 PM - 03:00 PM	55.0	77.1	47.2
03:00 PM - 04:00 PM	56.3	79.1	46.9
04:00 PM - 05:00 PM	59.7	87.1	47.3
05:00 PM - 06:00 PM	59.4	86.1	48.1
06:00 PM - 07:00 PM	60.9	89.0	47.8
07:00 PM - 08:00 PM	58.4	84.9	48.1
08:00 PM - 09:00 PM	57.7	83.1	47.0
09:00 PM - 10:00 PM	54.2	78.4	45.4
10:00 PM - 11:00 PM	57.5	87.4	42.9
11:00 PM - 12:00 AM	49.8	76.4	43.1
12:00 AM - 01:00 AM	50.8	78.6	42.2
01:00 AM - 02:00 AM	48.2	74.4	42.4
02:00 AM - 03:00 AM	51.3	82.7	41.6
03:00 AM - 04:00 AM	48.3	75.6	41.6
04:00 AM - 05:00 AM	53.1	76.0	44.4
05:00 AM - 06:00 AM	55.9	82.2	45.8
06:00 AM - 07:00 AM	59.2	78.8	50.4
07:00 AM - 08:00 AM	61.6	84.1	52.9
08:00 AM - 09:00 AM	58.4	84.6	50.8

Leq Average 24 hrs. (dB(A)) 57.1
Lmax (dB(A)) 89.0
L90 (dB(A)) 46.1
Ldn (dB(A)) 61.6
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

TESTING
No.0042

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2317444

Date Received : Mar 14, 2023
Date Reported : Mar 17, 2023
Report Number: 2596177-1

Page 1 of 1

Sample Number 2317444-14
Parameter Noise (Leq 24 hrs.)
Location บริเวณบ้านเขาหิน (GPS 47P 0727526, 1444787)
Measurement Date Mar 13 - Mar 14, 2023
Measurement by Puwanart Pimpan
Sound Level meter Serial No. 900072

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	55.9	78.4	49.6
10:00 AM - 11:00 AM	56.3	81.1	53.4
11:00 AM - 12:00 PM	55.2	69.6	53.4
12:00 PM - 01:00 PM	55.2	70.0	53.5
01:00 PM - 02:00 PM	55.4	66.7	53.8
02:00 PM - 03:00 PM	56.3	67.8	54.7
03:00 PM - 04:00 PM	57.1	75.7	55.1
04:00 PM - 05:00 PM	57.9	74.5	55.4
05:00 PM - 06:00 PM	57.4	83.2	54.1
06:00 PM - 07:00 PM	58.2	75.3	54.9
07:00 PM - 08:00 PM	58.2	86.0	54.8
08:00 PM - 09:00 PM	59.1	78.1	55.2
09:00 PM - 10:00 PM	57.1	68.8	54.9
10:00 PM - 11:00 PM	57.8	85.8	54.9
11:00 PM - 12:00 AM	56.3	71.7	53.9
12:00 AM - 01:00 AM	56.5	78.8	53.2
01:00 AM - 02:00 AM	55.4	70.0	53.4
02:00 AM - 03:00 AM	55.0	68.8	53.3
03:00 AM - 04:00 AM	55.2	64.4	53.6
04:00 AM - 05:00 AM	56.1	78.1	54.1
05:00 AM - 06:00 AM	56.7	68.6	54.6
06:00 AM - 07:00 AM	58.4	82.5	54.9
07:00 AM - 08:00 AM	58.9	80.5	55.1
08:00 AM - 09:00 AM	57.2	71.1	54.3

Leq Average 24 hrs. (dB(A)) 57.0
Lmax (dB(A)) 86.0
L90 (dB(A)) 54.1
Ldn (dB(A)) 63.0
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O :

Project Name : BPWHA

Project Location :

Lot ID: 2335864

Date Received : Apr 04, 2023

Date Reported : Apr 06, 2023

Report Number: 2616901-1

Page 1 of 1

Sample Number 2335864-1
Parameter Noise (Leq 8 hrs.)
Location เครื่องผลิตไฟฟ้ากังหันก๊าซ
Measurement Date Apr 03, 2023
Measurement by Chanon Booncheun

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	77.8	84.3	75.3
10:00 AM - 11:00 AM	78.2	83.8	75.4
11:00 AM - 12:00 PM	78.4	84.5	75.8
12:00 PM - 01:00 PM	77.7	83.8	75.3
01:00 PM - 02:00 PM	76.5	83.3	74.7
02:00 PM - 03:00 PM	76.1	82.8	74.5
03:00 PM - 04:00 PM	76.3	81.4	74.4
04:00 PM - 05:00 PM	76.9	82.2	74.9

Leq Average 8 hrs. (dB(A))

77.3

Lmax (dB(A))

84.5

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O :

Project Name : BPWHA

Project Location :

Lot ID: 2335864

Date Received : Apr 04, 2023

Date Reported : Apr 06, 2023

Report Number: 2616902-1

Page 1 of 1

Sample Number 2335864-2
Parameter Noise (Leq 8 hrs.)
Location เครื่องผลิตไฟฟ้ากังหันไอน้ำ
Measurement Date Apr 03, 2023
Measurement by Chanon Booncheun

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	70.7	75.8	70.3
10:00 AM - 11:00 AM	70.7	72.5	70.3
11:00 AM - 12:00 PM	71.5	73.3	71.0
12:00 PM - 01:00 PM	71.0	72.4	70.6
01:00 PM - 02:00 PM	70.5	77.2	70.0
02:00 PM - 03:00 PM	70.3	71.9	70.0
03:00 PM - 04:00 PM	70.2	72.3	69.9
04:00 PM - 05:00 PM	71.0	73.0	70.3

Leq Average 8 hrs. (dB(A))

70.8

Lmax (dB(A))

77.2

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O :

Project Name : BPWHA

Project Location :

Lot ID: 2335864

Date Received : Apr 04, 2023

Date Reported : Apr 06, 2023

Report Number: 2616903-1

Page 1 of 1

Sample Number 2335864-3
Parameter Noise (Leq 8 hrs.)
Location เครื่องอัดอากาศ
Measurement Date Apr 03, 2023
Measurement by Chanon Booncheun

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	76.2	88.0	73.6
10:00 AM - 11:00 AM	77.1	88.7	74.7
11:00 AM - 12:00 PM	77.5	88.0	75.1
12:00 PM - 01:00 PM	76.4	86.9	74.0
01:00 PM - 02:00 PM	76.2	87.3	73.5
02:00 PM - 03:00 PM	75.6	88.1	73.1
03:00 PM - 04:00 PM	76.0	87.7	73.5
04:00 PM - 05:00 PM	76.2	88.6	73.8

Leq Average 8 hrs. (dB(A))

76.4

Lmax (dB(A))

88.7

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230

P/O :

Project Name : BPWHA

Project Location :

Lot ID: 2335864

Date Received : Apr 04, 2023

Date Reported : Apr 06, 2023

Report Number: 2616904-1

Page 1 of 1

Sample Number 2335864-4
Parameter Noise (Leq 8 hrs.)
Location Chiller
Measurement Date Apr 01, 2023
Measurement by Chanon Booncheun

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	65.7	92.7	63.0
10:00 AM - 11:00 AM	82.1	87.3	67.6
11:00 AM - 12:00 PM	77.0	93.5	62.9
12:00 PM - 01:00 PM	64.0	78.6	63.1
01:00 PM - 02:00 PM	64.1	76.8	63.1
02:00 PM - 03:00 PM	64.0	71.8	63.2
03:00 PM - 04:00 PM	64.2	76.7	63.4
04:00 PM - 05:00 PM	64.5	71.9	63.6

Leq Average 8 hrs. (dB(A))

74.6

Lmax (dB(A))

93.5

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 22149346

Date Received : Jan 19, 2023
Date Reported : Jan 24, 2023
Report Number: 2548735-1

Page 1 of 1

Sample Number 22149346-1
Parameter Noise (Leq 8 hrs.)
Location เครื่องผลิตไฟฟ้ากังหันก๊าซ
Measurement Date Jan 18, 2023
Measurement by Tarin Octjinda

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	71.8	79.9	70.9
10:00 AM - 11:00 AM	71.0	74.0	70.0
11:00 AM - 12:00 PM	70.6	72.9	70.0
12:00 PM - 01:00 PM	71.0	72.9	70.4
01:00 PM - 02:00 PM	71.5	75.6	70.0
02:00 PM - 03:00 PM	70.5	74.2	69.7
03:00 PM - 04:00 PM	70.4	73.1	69.7
04:00 PM - 05:00 PM	70.6	83.1	69.8

Leq Average 8 hrs. (dB(A))

71.0

Lmax (dB(A))

83.1

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 22149346

Date Received : Jan 19, 2023
Date Reported : Jan 24, 2023
Report Number: 2548736-1

Page 1 of 1

Sample Number 22149346-2
Parameter Noise (Leq 8 hrs.)
Location เครื่องผลิตไฟฟ้ากังหันไอน้ำ
Measurement Date Jan 18, 2023
Measurement by Tarin Octjinda

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	71.3	72.8	70.9
10:00 AM - 11:00 AM	71.1	73.5	70.7
11:00 AM - 12:00 PM	70.9	74.1	70.4
12:00 PM - 01:00 PM	70.5	72.3	70.1
01:00 PM - 02:00 PM	72.3	75.7	70.2
02:00 PM - 03:00 PM	71.0	74.9	70.4
03:00 PM - 04:00 PM	71.1	73.6	70.4
04:00 PM - 05:00 PM	70.8	72.6	70.3

Leq Average 8 hrs. (dB(A)) 71.2
Lmax (dB(A)) 75.7
Standard (dB(A)) 90
Reference Method : ISO1996-1 and 1996-2
Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 22149346

Date Received : Jan 19, 2023
Date Reported : Jan 24, 2023
Report Number: 2548737-1

Page 1 of 1

Sample Number 22149346-3
Parameter Noise (Leq 8 hrs.)
Location เครื่องอัดอากาศ
Measurement Date Jan 18, 2023
Measurement by Tarin Octjinda

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	71.5	77.6	68.3
10:00 AM - 11:00 AM	71.3	80.8	68.2
11:00 AM - 12:00 PM	71.8	78.3	68.1
12:00 PM - 01:00 PM	72.3	80.5	68.8
01:00 PM - 02:00 PM	79.2	84.9	72.6
02:00 PM - 03:00 PM	75.6	83.8	72.6
03:00 PM - 04:00 PM	74.4	79.7	71.8
04:00 PM - 05:00 PM	74.0	81.1	71.1

Leq Average 8 hrs. (dB(A))

74.6

Lmax (dB(A))

84.9

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

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369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand 20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 22149346

Date Received : Jan 19, 2023
Date Reported : Jan 24, 2023
Report Number: 2548738-1

Page 1 of 1

Sample Number 22149346-4
Parameter Noise (Leq 8 hrs.)
Location Chiller
Measurement Date Jan 19, 2023
Measurement by Tarin Octjinda

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	66.7	74.6	66.4
10:00 AM - 11:00 AM	67.0	80.2	66.5
11:00 AM - 12:00 PM	67.2	71.6	66.6
12:00 PM - 01:00 PM	69.8	76.9	67.5
01:00 PM - 02:00 PM	65.6	70.1	62.2
02:00 PM - 03:00 PM	62.9	67.7	62.3
03:00 PM - 04:00 PM	63.3	75.9	62.5
04:00 PM - 05:00 PM	63.2	75.8	62.4

Leq Average 8 hrs. (dB(A)) 66.3
Lmax (dB(A)) 80.2
Standard (dB(A)) 90
Reference Method : ISO1996-1 and 1996-2
Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand
20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2335868

Date Received : Apr 04, 2023

Date Reported : Apr 07, 2023

Report Number: 2608891-1

Page 1 of 2

Sample Number 2335868-1
Parameter Heat Stress (Sampling Time : 09.00 AM - 11.00 AM)
Measurement Date Apr 03, 2023
Measurement by Chanon Booncheun
Location ปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณกรวิชญ์ นาคะสรรค์ แผนก : Operation)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
หม้อไอน้ำ	30	32.8	29.0	41.4	41.7
ห้อง Lab	90	22.7	21.4	25.8	25.8
Average (WBGT)		25.2			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supot Salamteh
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : B. Grimm Power (WHA) 1 Limited
369/27 Moo 6, Chonburi Industrial Estate, Bowin, Sriracha, Chonburi Thailand
20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 2335868

Date Received : Apr 04, 2023

Date Reported : Apr 07, 2023

Report Number: 2608891-1

Page 2 of 2

Sample Number 2335868-2
Parameter Heat Stress (Sampling Time : 09.00 AM - 11.00 AM)
Measurement Date Apr 03, 2023
Measurement by Chanon Booncheun
Location ปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณเปพนพัชร ยศวิปานธนันต์ แผนก : Operation)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
เครื่องกำเนิดไฟฟ้า	30	30.0	27.0	37.1	37.1
ห้อง Lab	90	22.7	21.4	25.8	25.8
Average (WBGT)		24.5			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supot Salamteh
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Assistant Manager

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20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 22152934

Date Received : Jan 20, 2023

Date Reported : Jan 23, 2023

Report Number: 2527433-1

Page 1 of 2

Sample Number 22152934-1
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Jan 18, 2023
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณปธานิน พานิช แผนก : Operator)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
หม้อไอน้ำ	20	30.6	26.3	41.1	39.8
ห้อง Lab	100	20.9	19.7	23.6	23.5
Average (WBGT)		22.5			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

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Section Head

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Assistant Manager

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20230
P/O : 221060448
Project Name : BPWHA
Project Location :

Lot ID: 22152934

Date Received : Jan 20, 2023

Date Reported : Jan 23, 2023

Report Number: 2527433-1

Page 2 of 2

Sample Number 22152934-2
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Jan 18, 2023
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณพัชราโชติ แสงแก้ว แผนก : Operator)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
เครื่องกำเนิดไฟฟ้า	20	25.1	21.5	33.4	33.3
ห้อง Lab	100	20.9	19.7	23.6	23.5
Average (WBGT)		21.6			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

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