

ภาคผนวก ค

ใบรับรองผลการตรวจวัดคุณภาพสิ่งแวดล้อม

ภาคผนวก ค-1

คุณภาพอากาศในบรรยากาศ



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2537136
Date Received : May 19, 2025
Date Reported : May 22, 2025
Report Number: 3287253-1

Page 1 of 1

Sample Description Air Quality
Location ที่พักอาศัยทางด้านทิศตะวันตกของโครงการ (A1) (GPS 47P 0740677, 1421066)
Date Analysis Commenced May 20, 2025
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag, 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)
2537136-1	May 12 - May 13, 2025	0.022	0.017	758*	29.8*
2537136-2	May 13 - May 14, 2025	0.021	0.015	758*	29.6*
2537136-3	May 14 - May 15, 2025	0.025	0.021	758*	29.6*
2537136-4	May 15 - May 16, 2025	0.027	0.024	758*	30.2*
2537136-5	May 16 - May 17, 2025	0.036	0.028	758*	30.8*
2537136-6	May 17 - May 18, 2025	0.040	0.029	758*	31.4*
2537136-7	May 18 - May 19, 2025	0.043	0.030	758*	31.0*
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : United States Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008
Particulate Matter (PM-10) : United States Environmental Protection Agency 40 CFR, method 50, Appendix J, revised as of July 1, 2008

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

Sampled By : Nontachai Uppathamp

Remark : Result (s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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No.0042

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2537136
Date Received : May 19, 2025
Date Reported : May 22, 2025
Report Number: 3287253-2

Page 1 of 1

Sample Description Air Quality
Location ที่พักอาศัยทางด้านทิศเหนือของโครงการ (A2) (GPS 47P 0744144, 1421575)
Date Analysis Commenced May 20, 2025
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag, 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)
2537136-8	May 12 - May 13, 2025	0.027	0.017	758*	29.8*
2537136-9	May 13 - May 14, 2025	0.047	0.023	758*	29.6*
2537136-10	May 14 - May 15, 2025	0.026	0.018	758*	29.6*
2537136-11	May 15 - May 16, 2025	0.351	0.093	758*	30.2*
2537136-12	May 16 - May 17, 2025	0.154	0.044	758*	30.8*
2537136-13	May 17 - May 18, 2025	0.092	0.033	758*	31.4*
2537136-14	May 18 - May 19, 2025	0.299	0.066	758*	31.0*
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : United States Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008
Particulate Matter (PM-10) : United States Environmental Protection Agency 40 CFR, method 50, Appendix J, revised as of July 1, 2008

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

Sampled By : Nontachai Uppathamp

Remark : Result (s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.

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TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2537136
Date Received : May 19, 2025
Date Reported : May 22, 2025
Report Number: 3287253-3

Page 1 of 1

Sample Description Air Quality
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (1) (A3) (GPS 47P 0746572, 1419543)
Date Analysis Commenced May 20, 2025
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag, 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)
2537136-15	May 12 - May 13, 2025	0.025	0.017	758*	29.8*
2537136-16	May 13 - May 14, 2025	0.023	0.016	758*	29.6*
2537136-17	May 14 - May 15, 2025	0.023	0.018	758*	29.6*
2537136-18	May 15 - May 16, 2025	0.028	0.020	758*	30.2*
2537136-19	May 16 - May 17, 2025	0.033	0.019	758*	30.8*
2537136-20	May 17 - May 18, 2025	0.032	0.021	758*	31.4*
2537136-21	May 18 - May 19, 2025	0.052	0.026	758*	31.0*
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : United States Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008
Particulate Matter (PM-10) : United States Environmental Protection Agency 40 CFR, method 50, Appendix J, revised as of July 1, 2008

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

Sampled By : Nontachai Uppathamp

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Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2537136
Date Received : May 19, 2025
Date Reported : May 22, 2025
Report Number: 3287253-4

Page 1 of 1

Sample Description Air Quality
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (2) (A4) (GPS 47P 0744390, 1420975)
Date Analysis Commenced May 20, 2025
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag, 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)
2537136-22	May 12 - May 13, 2025	0.025	0.018	758*	29.8*
2537136-23	May 13 - May 14, 2025	0.043	0.020	758*	29.6*
2537136-24	May 14 - May 15, 2025	0.022	0.015	758*	29.6*
2537136-25	May 15 - May 16, 2025	0.109	0.073	758*	30.2*
2537136-26	May 16 - May 17, 2025	0.108	0.050	758*	30.8*
2537136-27	May 17 - May 18, 2025	0.087	0.035	758*	31.4*
2537136-28	May 18 - May 19, 2025	0.135	0.056	758*	31.0*
Guideline		0.33	0.12	-	-

Reference Method

Total Suspended Particulate : United States Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008
Particulate Matter (PM-10) : United States Environmental Protection Agency 40 CFR, method 50, Appendix J, revised as of July 1, 2008

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

Sampled By : Nontachai Uppathamp

Remark : Result (s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120

Lot ID: 2537133
Date Received : May 19, 2025
Date Reported : May 23, 2025
Report Number : 3287243-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Sample Number : 2537133-1 to 7
Parameter : Wind Speed / Wind Direction
Location : ที่พักอาศัยทางด้านทิศตะวันตกของโครงการ (A1) (GPS 47P 0740677, 1421066)
Sampling Date : May 12 - May 19, 2025
Sampling by : Nontachai Uppathamp

Time	May 12 - May 13, 2025			May 13 - May 14, 2025			May 14 - May 15, 2025			May 15 - May 16, 2025			May 16 - May 17, 2025			May 17 - May 18, 2025			May 18 - May 19, 2025		
	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	0.0	-	-	0.0	-	-	0.0	-	-	0.1	-	-	1.2	137.0	SE	0.9	89.0	E	0.6	165.0	SSE
10:00 AM - 11:00 AM	1.8	148.0	SSE	0.0	-	-	0.8	157.0	SSE	1.2	176.0	S	1.4	143.0	SE	2.8	113.0	ESE	0.8	176.0	S
11:00 AM - 12:00 PM	0.6	190.0	S	0.0	-	-	0.0	-	-	2.6	171.0	S	0.7	256.0	WSW	0.5	307.0	NW	1.8	167.0	SSE
12:00 PM - 01:00 PM	0.0	-	-	2.2	282.0	WNW	0.0	-	-	0.0	-	-	1.3	285.0	WNW	2.3	236.0	SW	1.1	236.0	SW
01:00 PM - 02:00 PM	0.0	-	-	0.8	111.0	ESE	0.9	94.0	E	1.8	183.0	S	1.1	210.0	SSW	0.0	-	-	1.4	195.0	SSW
02:00 PM - 03:00 PM	0.0	-	-	1.9	147.0	SSE	0.0	-	-	0.6	240.0	WSW	1.0	223.0	SW	0.0	-	-	1.4	245.0	WSW
03:00 PM - 04:00 PM	0.0	-	-	0.8	140.0	SE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
04:00 PM - 05:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
05:00 PM - 06:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.4	340.0	NNW	0.3	155.0	SSE
06:00 PM - 07:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
07:00 PM - 08:00 PM	0.0	-	-	0.0	-	-	1.6	272.0	W	0.0	-	-	0.0	-	-	0.9	333.0	NNW	0.0	-	-
08:00 PM - 09:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
09:00 PM - 10:00 PM	0.0	-	-	0.0	-	-	0.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.3	316.0	NW
11:00 PM - 12:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.4	315.0	NW
12:00 AM - 01:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.3	138.0	SE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.3	20.0	NNE	0.0	-	-	0.0	-	-
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
04:00 AM - 05:00 AM	0.2	-	-	1.2	330.0	NNW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
05:00 AM - 06:00 AM	0.0	-	-	0.4	65.0	ENE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
06:00 AM - 07:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-	0.3	100.0	E	0.1	-	-	0.6	179.0	S
07:00 AM - 08:00 AM	0.0	-	-	0.7	83.0	E	0.0	-	-	0.1	-	-	1.1	102.0	ESE	1.0	58.0	ENE	1.0	183.0	S
08:00 AM - 09:00 AM	0.3	86.0	E	1.8	168.0	SSE	0.5	43.0	NE	0.0	-	-	1.4	344.0	NNW	0.4	329.0	NNW	0.7	187.0	S

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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

Sarayuth Jittrantorn
Assistant General Manager

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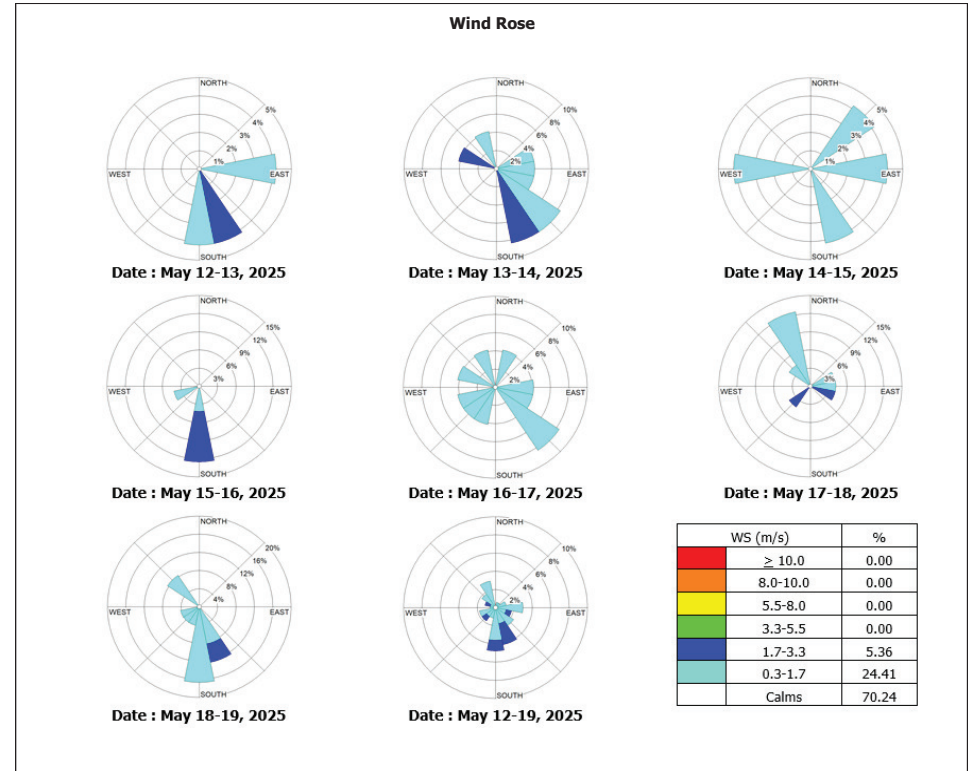
Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120

Lot ID: 2537133
Date Received : May 19, 2025
Date Reported : May 23, 2025
Report Number : 3287243-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Page 2 of 2



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Lot ID: 2537133
Date Received : May 19, 2025
Date Reported : May 23, 2025
Report Number : 3287243-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Sample Number : 2537133-8 to 14
Parameter : Wind Speed / Wind Direction
Location : ที่พักอาศัยทางด้านทิศเหนือของโครงการ (A2) (GPS 47P 0744144, 1421575)
Sampling Date : May 12 - May 19, 2025
Sampling by : Nontachai Uppathamp

Time	May 12 - May 13, 2025		May 13 - May 14, 2025		May 14 - May 15, 2025		May 15 - May 16, 2025		May 16 - May 17, 2025		May 17 - May 18, 2025		May 18 - May 19, 2025		
	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	
10:00 AM - 11:00 AM	0.4	168.0	SSE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
11:00 AM - 12:00 PM	1.3	263.0	W	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
12:00 PM - 01:00 PM	2.2	203.0	SSW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
01:00 PM - 02:00 PM	2.2	174.0	S	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
02:00 PM - 03:00 PM	0.8	92.0	E	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
03:00 PM - 04:00 PM	2.1	92.0	E	0.0	-	-	0.0	-	-	4.5	231.0	SW	0.0	-	-
04:00 PM - 05:00 PM	4.2	92.0	E	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
05:00 PM - 06:00 PM	0.5	92.0	E	0.0	-	-	0.0	-	-	1.7	25.0	NNE	0.0	-	-
06:00 PM - 07:00 PM	0.3	92.0	E	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
07:00 PM - 08:00 PM	0.6	92.0	E	0.0	-	-	0.0	-	-	0.8	25.0	NNE	0.0	-	-
08:00 PM - 09:00 PM	1.9	92.0	E	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
09:00 PM - 10:00 PM	0.4	92.0	E	0.0	-	-	0.0	-	-	2.3	24.0	NNE	0.0	-	-
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	2.3	25.0	NNE	0.0	-	-
11:00 PM - 12:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	2.1	25.0	NNE	0.0	-	-
12:00 AM - 01:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	1.6	325.0	NW	0.0	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
04:00 AM - 05:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
05:00 AM - 06:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
06:00 AM - 07:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
07:00 AM - 08:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
08:00 AM - 09:00 AM	0.6	197.0	SSW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
09:00 AM - 10:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Assistant General Manager

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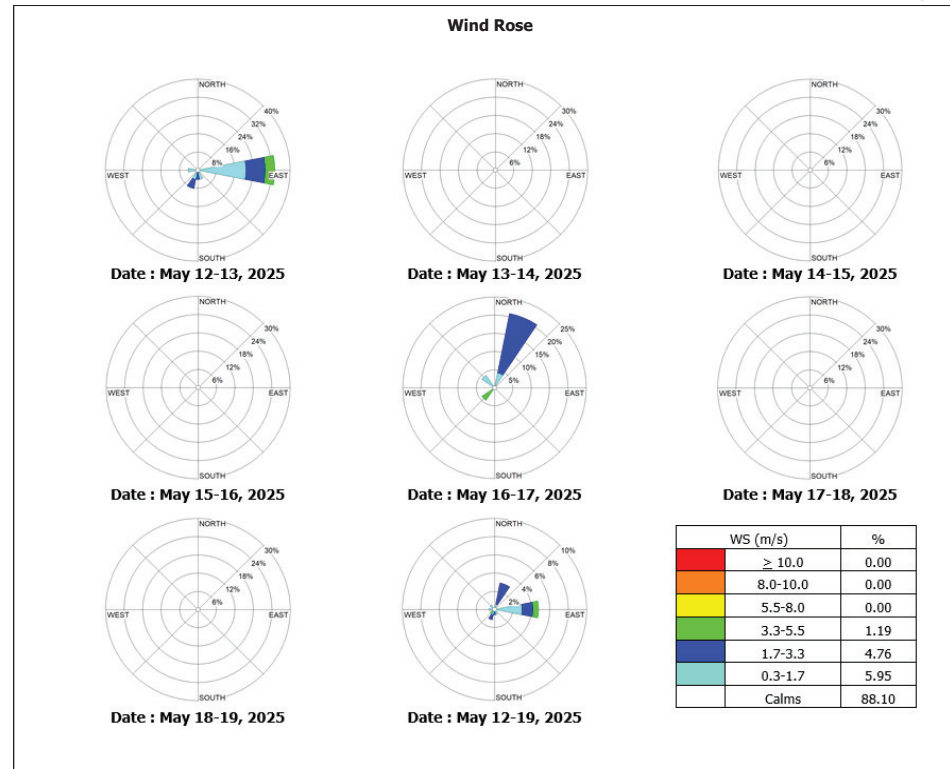


Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2537133
Date Received : May 19, 2025
Date Reported : May 23, 2025
Report Number : 3287243-1



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Approved by

Sarayuth Jittrantorn
Assistant General Manager

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120

Lot ID: 2537133
Date Received : May 19, 2025
Date Reported : May 23, 2025
Report Number : 3287243-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Sample Number : 2537133-15 to 21
Parameter : Wind Speed / Wind Direction
Location : ที่พักอาศัยทางด้านทิศใต้ของโครงการ (1) (A3) (GPS 47P 0746572, 1419543)
Sampling Date : May 12 - May 19, 2025
Sampling by : Nontachai Uppathamp

Time	May 12 - May 13, 2025			May 13 - May 14, 2025			May 14 - May 15, 2025			May 15 - May 16, 2025			May 16 - May 17, 2025			May 17 - May 18, 2025			May 18 - May 19, 2025		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
11:00 AM - 12:00 PM	3.8	49.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	0.9	122.0	ESE	1.3	74.0	ENE	0.0	-	-
12:00 PM - 01:00 PM	0.0	-	-	1.0	136.0	SE	1.1	142.0	SE	1.2	161.0	SSE	2.9	128.0	SE	2.0	98.0	E	1.9	161.0	SSE
01:00 PM - 02:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	2.6	292.0	WNW	0.0	-	-
02:00 PM - 03:00 PM	0.0	-	-	1.8	267.0	W	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
03:00 PM - 04:00 PM	1.3	88.0	E	4.5	96.0	E	0.0	-	-	0.0	-	-	0.0	-	-	1.2	150.0	SSE	0.0	-	-
04:00 PM - 05:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.5	137.0	SE	1.2	230.0	SW
05:00 PM - 06:00 PM	0.0	-	-	2.7	125.0	SE	1.3	134.0	SE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
06:00 PM - 07:00 PM	0.0	-	-	3.6	118.0	ESE	4.9	134.0	SE	0.0	-	-	0.0	-	-	1.9	338.0	NNW	0.3	208.0	SSW
07:00 PM - 08:00 PM	0.0	-	-	0.0	-	-	0.7	133.0	SE	0.0	-	-	0.0	-	-	0.0	-	-	0.4	140.0	SE
08:00 PM - 09:00 PM	1.6	96.0	E	0.9	123.0	ESE	0.0	-	-	0.0	-	-	0.0	-	-	0.9	326.0	NW	0.0	-	-
09:00 PM - 10:00 PM	0.0	-	-	0.0	-	-	2.0	257.0	WSW	0.0	-	-	0.2	-	-	0.0	-	-	0.0	-	-
10:00 PM - 11:00 PM	5.3	96.0	E	0.9	123.0	ESE	0.0	-	-	0.0	-	-	1.0	27.0	NNE	0.0	-	-	0.0	-	-
11:00 PM - 12:00 AM	3.7	96.0	E	1.5	123.0	ESE	0.0	-	-	0.0	-	-	1.8	27.0	NNE	0.0	-	-	0.0	-	-
12:00 AM - 01:00 AM	2.9	96.0	E	1.3	123.0	ESE	0.7	66.0	ENE	1.6	143.0	SE	1.1	27.0	NNE	0.0	-	-	0.0	-	-
01:00 AM - 02:00 AM	2.5	96.0	E	0.0	-	-	1.9	73.0	ENE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
02:00 AM - 03:00 AM	1.2	96.0	E	3.7	123.0	ESE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.6	300.0	WNW
03:00 AM - 04:00 AM	1.0	96.0	E	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.5	7.0	N	0.0	-	-
04:00 AM - 05:00 AM	2.6	96.0	E	0.6	123.0	ESE	0.0	-	-	0.0	-	-	0.6	5.0	N	0.0	-	-	2.0	300.0	WNW
05:00 AM - 06:00 AM	2.6	96.0	E	0.7	123.0	ESE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
06:00 AM - 07:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	2.2	174.0	S	0.0	-	-	0.0	-	-	0.0	-	-
07:00 AM - 08:00 AM	1.5	196.0	SSW	2.3	50.0	NE	0.0	-	-	0.7	174.0	S	0.0	-	-	0.0	-	-	0.0	-	-
08:00 AM - 09:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
09:00 AM - 10:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.2	168.0	SSE
10:00 AM - 11:00 AM	2.4	71.0	ENF	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jittranont
Assistant General Manager

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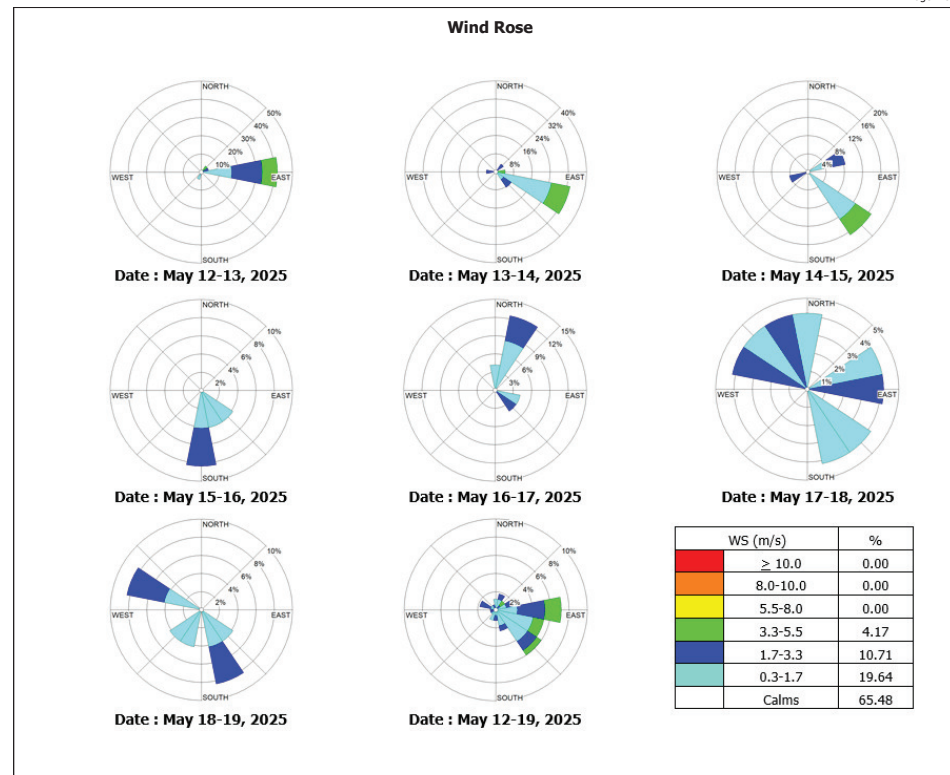
Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120

Lot ID: 2537133
Date Received : May 19, 2025
Date Reported : May 23, 2025
Report Number : 3287243-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Page 2 of 2



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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120

Lot ID: 2537133
Date Received :May 19, 2025
Date Reported :May 23, 2025
Report Number :3287243-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Sample Number : 2537133-22 to 28
Parameter : Wind Speed / Wind Direction
Location : ที่พักอาศัยทางด้านทิศใต้ของโครงการ (2) (A4) (GPS 47P 0744390, 1420975)
Sampling Date : May 12 - May 19, 2025
Sampling by : Nontachai Uppathamp

Time	May 12 - May 13, 2025			May 13 - May 14, 2025			May 14 - May 15, 2025			May 15 - May 16, 2025			May 16 - May 17, 2025			May 17 - May 18, 2025			May 18 - May 19, 2025		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
10:00 AM - 11:00 AM	1.6	145.0	SE	0.0	-	-	1.8	193.0	SSW	0.0	-	-	0.9	150.0	SSE	1.3	62.0	ENE	1.1	52.0	NE
11:00 AM - 12:00 PM	1.7	240.0	WSW	0.2	-	-	0.2	-	-	0.7	149.0	SSE	0.7	143.0	SE	1.1	189.0	S	0.4	64.0	ENE
12:00 PM - 01:00 PM	1.2	180.0	S	1.5	120.0	ESE	0.7	352.0	N	2.2	188.0	S	0.0	-	-	1.3	169.0	S	3.1	178.0	S
01:00 PM - 02:00 PM	0.0	-	-	0.6	181.0	S	0.0	-	-	3.2	196.0	SSW	0.6	211.0	SSW	3.0	228.0	SW	3.6	248.0	WSW
02:00 PM - 03:00 PM	0.0	-	-	0.4	112.0	ESE	0.0	-	-	3.0	237.0	WSW	1.6	194.0	SSW	2.0	243.0	WSW	1.1	172.0	S
03:00 PM - 04:00 PM	0.1	-	-	1.4	153.0	SSE	0.0	-	-	0.7	220.0	SW	1.0	208.0	SSW	0.3	228.0	SW	1.1	200.0	SSW
04:00 PM - 05:00 PM	0.0	-	-	3.3	148.0	SSE	0.6	126.0	SE	1.0	240.0	WSW	0.0	-	-	0.3	36.0	NE	0.6	172.0	S
05:00 PM - 06:00 PM	0.0	-	-	0.7	135.0	SE	0.0	-	-	2.2	185.0	S	0.0	-	-	0.0	-	-	0.9	188.0	S
06:00 PM - 07:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
07:00 PM - 08:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
08:00 PM - 09:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
09:00 PM - 10:00 PM	0.0	-	-	0.0	-	-	1.4	224.0	SW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
11:00 PM - 12:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
12:00 AM - 01:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
04:00 AM - 05:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
05:00 AM - 06:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
06:00 AM - 07:00 AM	0.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
07:00 AM - 08:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	4.2	206.0	SSW
08:00 AM - 09:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.3	39.0	NE	0.0	-	-	0.7	56.0	NE	1.3	54.0	NE
09:00 AM - 10:00 AM	0.0	-	-	0.5	170.0	S	1.3	123.0	ESE	0.6	53.0	NE	1.1	99.0	E	0.3	144.0	SE	0.8	62.0	ENE

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jittranont
Assistant General Manager

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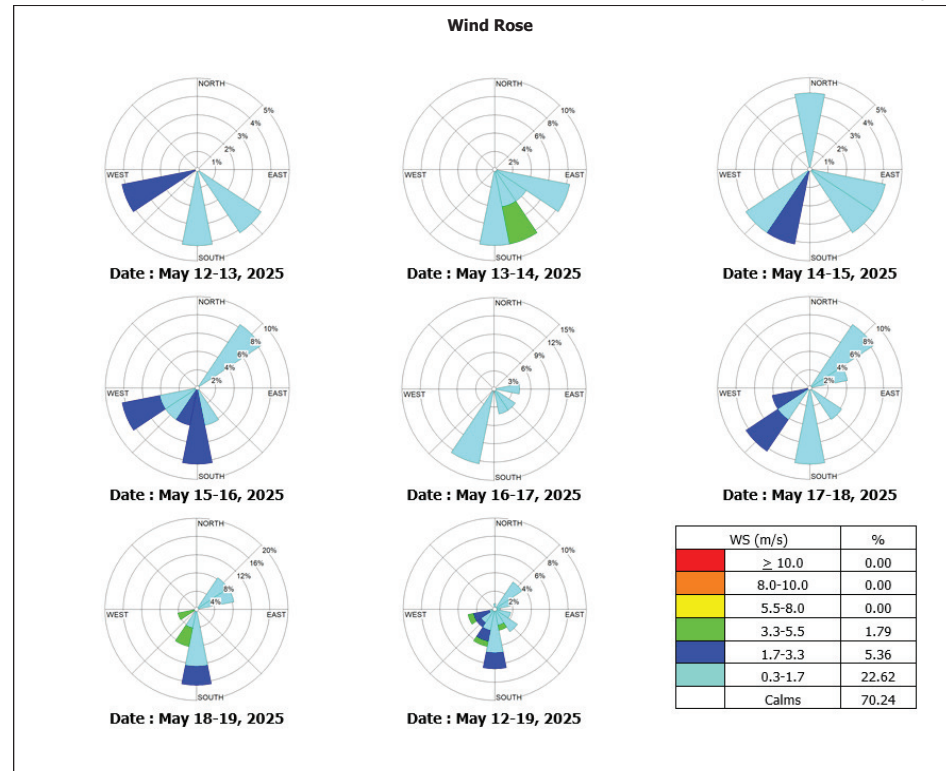
Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120

Lot ID: 2537133
Date Received :May 19, 2025
Date Reported :May 23, 2025
Report Number :3287243-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Page 2 of 2



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ภาคผนวก ค-2

ระดับเสียงทั่วไป

ระดับเสียงเฉลี่ย 24 ชั่วโมง (Leq 24 hr)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313877-1

Page 1 of 1

Sample Number 2537152-1
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศตะวันตกของโครงการ (N1) (GPS 47P 0740703, 1421083)
Measurement Date May 12 - May 13, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 531294

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	45.2	76.8	40.2
10:00 AM - 11:00 AM	43.0	65.9	40.4
11:00 AM - 12:00 PM	49.8	85.8	42.8
12:00 PM - 01:00 PM	50.2	80.3	46.4
01:00 PM - 02:00 PM	50.6	71.0	47.7
02:00 PM - 03:00 PM	49.7	74.2	48.2
03:00 PM - 04:00 PM	47.1	65.4	45.6
04:00 PM - 05:00 PM	47.6	65.5	44.0
05:00 PM - 06:00 PM	47.2	63.5	44.8
06:00 PM - 07:00 PM	46.8	61.1	44.4
07:00 PM - 08:00 PM	49.7	66.2	47.0
08:00 PM - 09:00 PM	49.6	63.0	47.0
09:00 PM - 10:00 PM	50.1	61.1	47.2
10:00 PM - 11:00 PM	51.0	70.9	47.5
11:00 PM - 12:00 AM	51.1	65.7	47.2
12:00 AM - 01:00 AM	48.1	57.2	46.0
01:00 AM - 02:00 AM	46.5	62.0	44.7
02:00 AM - 03:00 AM	45.3	62.2	43.5
03:00 AM - 04:00 AM	45.4	53.4	44.3
04:00 AM - 05:00 AM	47.2	54.8	45.8
05:00 AM - 06:00 AM	47.6	63.0	45.8
06:00 AM - 07:00 AM	53.7	78.6	48.5
07:00 AM - 08:00 AM	52.8	75.9	47.8
08:00 AM - 09:00 AM	50.7	72.5	47.4

Leq Average 24 hrs. (dB(A)) 49.3

Lmax (dB(A))

85.8

L90 (dB(A))

45.8

Ldn (dB(A))

55.8

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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supot Salamteh
Section Head

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354-212/ EMAIL

S:\Reports_Air Noise.rpt (8:52AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313878-1

Page 1 of 1

Sample Number 2537152-2
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศตะวันตกของโครงการ (N1) (GPS 47P 0740703, 1421083)
Measurement Date May 13 - May 14, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 531294

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	47.1	67.4	44.5
10:00 AM - 11:00 AM	45.7	63.6	43.9
11:00 AM - 12:00 PM	46.4	66.9	42.4
12:00 PM - 01:00 PM	44.1	57.5	41.9
01:00 PM - 02:00 PM	43.4	65.2	41.6
02:00 PM - 03:00 PM	43.3	68.0	41.1
03:00 PM - 04:00 PM	42.1	59.8	40.6
04:00 PM - 05:00 PM	44.7	65.2	42.3
05:00 PM - 06:00 PM	45.9	70.6	43.2
06:00 PM - 07:00 PM	45.6	66.3	42.1
07:00 PM - 08:00 PM	50.8	69.6	47.4
08:00 PM - 09:00 PM	50.2	56.9	46.0
09:00 PM - 10:00 PM	46.8	68.5	43.2
10:00 PM - 11:00 PM	47.6	70.1	43.2
11:00 PM - 12:00 AM	45.4	56.1	42.3
12:00 AM - 01:00 AM	51.5	58.1	46.3
01:00 AM - 02:00 AM	47.0	58.0	42.3
02:00 AM - 03:00 AM	42.5	61.3	41.1
03:00 AM - 04:00 AM	43.2	52.8	42.1
04:00 AM - 05:00 AM	44.9	67.2	42.5
05:00 AM - 06:00 AM	47.1	60.5	44.4
06:00 AM - 07:00 AM	48.8	69.4	46.0
07:00 AM - 08:00 AM	47.9	65.8	45.2
08:00 AM - 09:00 AM	48.6	72.1	43.3

Leq Average 24 hrs. (dB(A)) 47.0

Lmax (dB(A))

72.1

L90 (dB(A))

42.5

Ldn (dB(A))

53.6

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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supot Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:52AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313879-1

Page 1 of 1

Sample Number 2537152-3
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศตะวันตกของโครงการ (N1) (GPS 47P 0740703, 1421083)
Measurement Date May 14 - May 15, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 531294

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	44.7	73.4	41.4
10:00 AM - 11:00 AM	51.8	76.3	46.4
11:00 AM - 12:00 PM	48.4	63.2	45.9
12:00 PM - 01:00 PM	47.5	63.0	45.1
01:00 PM - 02:00 PM	49.4	66.9	46.0
02:00 PM - 03:00 PM	45.9	63.7	44.3
03:00 PM - 04:00 PM	47.0	67.7	42.7
04:00 PM - 05:00 PM	45.6	62.2	43.1
05:00 PM - 06:00 PM	45.3	58.1	43.8
06:00 PM - 07:00 PM	47.4	61.1	45.5
07:00 PM - 08:00 PM	49.4	59.6	47.2
08:00 PM - 09:00 PM	49.0	61.9	46.2
09:00 PM - 10:00 PM	47.8	74.2	44.3
10:00 PM - 11:00 PM	44.5	68.1	42.8
11:00 PM - 12:00 AM	48.0	74.3	45.1
12:00 AM - 01:00 AM	45.7	69.5	43.5
01:00 AM - 02:00 AM	47.9	68.4	43.8
02:00 AM - 03:00 AM	46.1	58.2	43.7
03:00 AM - 04:00 AM	48.4	74.4	43.8
04:00 AM - 05:00 AM	46.3	61.5	43.7
05:00 AM - 06:00 AM	49.0	79.8	45.7
06:00 AM - 07:00 AM	50.8	65.4	48.6
07:00 AM - 08:00 AM	48.9	65.7	47.3
08:00 AM - 09:00 AM	46.7	75.7	42.0

Leq Average 24 hrs. (dB(A)) 48.0

Lmax (dB(A)) 79.8

L90 (dB(A)) 44.3

Ldn (dB(A)) 54.2

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313880-1

Page 1 of 1

Sample Number 2537152-4
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศตะวันตกของโครงการ (N1) (GPS 47P 0740703, 1421083)
Measurement Date May 15 - May 16, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 531294

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	43.4	69.1	40.5
10:00 AM - 11:00 AM	42.4	64.6	40.0
11:00 AM - 12:00 PM	45.4	69.7	42.3
12:00 PM - 01:00 PM	42.4	64.6	40.4
01:00 PM - 02:00 PM	45.7	67.8	42.3
02:00 PM - 03:00 PM	45.4	60.4	43.0
03:00 PM - 04:00 PM	46.3	65.3	43.8
04:00 PM - 05:00 PM	46.4	68.3	43.9
05:00 PM - 06:00 PM	46.7	64.8	44.0
06:00 PM - 07:00 PM	48.0	63.3	44.6
07:00 PM - 08:00 PM	59.4	63.7	56.4
08:00 PM - 09:00 PM	57.9	66.1	52.7
09:00 PM - 10:00 PM	52.1	62.9	47.6
10:00 PM - 11:00 PM	51.7	59.8	46.4
11:00 PM - 12:00 AM	47.4	65.0	45.4
12:00 AM - 01:00 AM	47.9	65.0	45.3
01:00 AM - 02:00 AM	46.6	64.8	44.9
02:00 AM - 03:00 AM	45.6	63.4	43.6
03:00 AM - 04:00 AM	45.3	68.6	43.2
04:00 AM - 05:00 AM	44.9	56.6	43.1
05:00 AM - 06:00 AM	48.5	61.0	45.8
06:00 AM - 07:00 AM	46.5	58.9	44.6
07:00 AM - 08:00 AM	47.6	64.9	43.9
08:00 AM - 09:00 AM	45.0	63.6	42.5

Leq Average 24 hrs. (dB(A)) 50.4

Lmax (dB(A)) 69.7

L90 (dB(A)) 43.9

Ldn (dB(A)) 54.9

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313881-1

Page 1 of 1

Sample Number 2537152-5
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศตะวันตกของโครงการ (N1) (GPS 47P 0740703, 1421083)
Measurement Date May 16 - May 17, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 531294

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	53.2	82.7	42.1
10:00 AM - 11:00 AM	42.5	58.3	40.7
11:00 AM - 12:00 PM	44.3	70.5	40.5
12:00 PM - 01:00 PM	47.6	72.6	42.8
01:00 PM - 02:00 PM	48.9	70.7	46.0
02:00 PM - 03:00 PM	47.3	62.4	45.1
03:00 PM - 04:00 PM	47.1	69.7	44.9
04:00 PM - 05:00 PM	48.7	67.8	46.0
05:00 PM - 06:00 PM	49.6	66.9	46.9
06:00 PM - 07:00 PM	49.8	68.3	46.9
07:00 PM - 08:00 PM	50.0	59.2	47.7
08:00 PM - 09:00 PM	48.3	62.1	46.1
09:00 PM - 10:00 PM	46.9	57.0	45.1
10:00 PM - 11:00 PM	46.0	58.1	44.4
11:00 PM - 12:00 AM	46.2	66.9	43.8
12:00 AM - 01:00 AM	47.5	72.8	43.8
01:00 AM - 02:00 AM	48.9	71.9	46.9
02:00 AM - 03:00 AM	44.7	59.1	43.3
03:00 AM - 04:00 AM	46.1	64.2	44.0
04:00 AM - 05:00 AM	47.1	57.4	45.7
05:00 AM - 06:00 AM	49.0	65.6	45.8
06:00 AM - 07:00 AM	49.9	64.4	47.6
07:00 AM - 08:00 AM	49.6	81.0	45.8
08:00 AM - 09:00 AM	46.6	78.2	42.3

Leq Average 24 hrs. (dB(A))

48.3

Lmax (dB(A))

82.7

L90 (dB(A))

45.1

Ldn (dB(A))

54.1

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313882-1

Page 1 of 1

Sample Number 2537152-6
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศตะวันตกของโครงการ (N1) (GPS 47P 0740703, 1421083)
Measurement Date May 17 - May 18, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 531294

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	46.0	61.5	43.3
10:00 AM - 11:00 AM	44.7	66.9	43.0
11:00 AM - 12:00 PM	45.2	63.0	43.4
12:00 PM - 01:00 PM	47.2	83.8	43.7
01:00 PM - 02:00 PM	49.4	69.1	46.3
02:00 PM - 03:00 PM	47.8	62.8	45.9
03:00 PM - 04:00 PM	48.7	71.8	46.3
04:00 PM - 05:00 PM	48.5	71.5	46.5
05:00 PM - 06:00 PM	50.2	73.1	48.5
06:00 PM - 07:00 PM	50.9	64.9	48.7
07:00 PM - 08:00 PM	51.3	62.3	49.3
08:00 PM - 09:00 PM	50.8	60.8	48.9
09:00 PM - 10:00 PM	49.8	60.2	48.1
10:00 PM - 11:00 PM	49.9	63.5	47.7
11:00 PM - 12:00 AM	49.1	68.0	46.9
12:00 AM - 01:00 AM	48.6	65.5	46.5
01:00 AM - 02:00 AM	48.9	59.8	46.5
02:00 AM - 03:00 AM	48.5	61.6	46.7
03:00 AM - 04:00 AM	47.1	57.4	45.3
04:00 AM - 05:00 AM	48.9	57.2	47.5
05:00 AM - 06:00 AM	49.0	62.5	47.0
06:00 AM - 07:00 AM	49.9	71.6	46.8
07:00 AM - 08:00 AM	48.7	68.0	44.7
08:00 AM - 09:00 AM	47.0	67.7	41.1

Leq Average 24 hrs. (dB(A))

48.9

Lmax (dB(A))

83.8

L90 (dB(A))

46.5

Ldn (dB(A))

55.4

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglalo Rd.,, Nonglalo, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313883-1

Page 1 of 1

Sample Number 2537152-7
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศตะวันตกของโครงการ (N1) (GPS 47P 0740703, 1421083)
Measurement Date May 18 - May 19, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 531294

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	43.1	61.9	41.0
10:00 AM - 11:00 AM	45.4	56.3	43.8
11:00 AM - 12:00 PM	45.8	62.8	43.9
12:00 PM - 01:00 PM	44.5	60.9	42.0
01:00 PM - 02:00 PM	47.2	60.3	45.2
02:00 PM - 03:00 PM	47.7	63.6	45.6
03:00 PM - 04:00 PM	46.6	59.8	44.3
04:00 PM - 05:00 PM	47.5	64.4	45.2
05:00 PM - 06:00 PM	45.9	77.5	43.8
06:00 PM - 07:00 PM	47.6	63.9	44.5
07:00 PM - 08:00 PM	45.3	55.4	44.0
08:00 PM - 09:00 PM	48.0	63.6	46.0
09:00 PM - 10:00 PM	49.1	64.4	46.3
10:00 PM - 11:00 PM	48.1	60.1	45.8
11:00 PM - 12:00 AM	47.7	59.8	45.3
12:00 AM - 01:00 AM	46.2	64.1	44.1
01:00 AM - 02:00 AM	46.9	58.4	45.2
02:00 AM - 03:00 AM	46.5	69.3	44.4
03:00 AM - 04:00 AM	49.1	58.2	47.5
04:00 AM - 05:00 AM	48.6	62.1	46.6
05:00 AM - 06:00 AM	49.3	72.8	46.8
06:00 AM - 07:00 AM	49.4	70.1	47.2
07:00 AM - 08:00 AM	46.6	67.7	44.8
08:00 AM - 09:00 AM	52.7	87.6	45.2

Leq Average 24 hrs. (dB(A)) 47.7

Lmax (dB(A))

87.6

L90 (dB(A))

45.2

Ldn (dB(A))

54.5

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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglalo Rd.,, Nonglalo, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313884-1

Page 1 of 1

Sample Number 2537152-8
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศเหนือของโครงการ (N2) (GPS 47P 0744187, 1421545)
Measurement Date May 12 - May 13, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120936

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	59.1	78.1	52.2
11:00 AM - 12:00 PM	62.8	97.2	55.2
12:00 PM - 01:00 PM	56.6	75.2	54.2
01:00 PM - 02:00 PM	56.7	74.8	54.9
02:00 PM - 03:00 PM	57.5	79.6	56.0
03:00 PM - 04:00 PM	49.6	68.2	45.7
04:00 PM - 05:00 PM	49.1	68.7	42.9
05:00 PM - 06:00 PM	49.4	72.7	41.9
06:00 PM - 07:00 PM	49.5	70.4	44.2
07:00 PM - 08:00 PM	52.0	67.7	47.2
08:00 PM - 09:00 PM	53.5	62.7	48.1
09:00 PM - 10:00 PM	51.9	71.9	47.9
10:00 PM - 11:00 PM	51.1	70.9	47.8
11:00 PM - 12:00 AM	49.8	64.2	46.3
12:00 AM - 01:00 AM	49.0	61.4	45.8
01:00 AM - 02:00 AM	53.0	61.8	48.5
02:00 AM - 03:00 AM	58.2	63.7	55.0
03:00 AM - 04:00 AM	56.6	63.2	52.4
04:00 AM - 05:00 AM	50.2	61.4	46.2
05:00 AM - 06:00 AM	48.1	66.5	42.7
06:00 AM - 07:00 AM	55.1	80.4	50.1
07:00 AM - 08:00 AM	54.5	74.9	49.6
08:00 AM - 09:00 AM	51.9	77.4	48.9
09:00 AM - 10:00 AM	48.7	73.2	43.7

Leq Average 24 hrs. (dB(A)) 55.1

Lmax (dB(A))

97.2

L90 (dB(A))

47.9

Ldn (dB(A))

60.5

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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313885-1

Page 1 of 1

Sample Number 2537152-9
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศเหนือของโครงการ (N2) (GPS 47P 0744187, 1421545)
Measurement Date May 13 - May 14, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120936

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	46.9	70.7	39.6
11:00 AM - 12:00 PM	47.4	67.3	39.4
12:00 PM - 01:00 PM	47.6	68.1	38.9
01:00 PM - 02:00 PM	49.5	68.7	42.3
02:00 PM - 03:00 PM	46.7	69.3	38.7
03:00 PM - 04:00 PM	48.4	68.6	37.4
04:00 PM - 05:00 PM	47.8	67.0	39.7
05:00 PM - 06:00 PM	55.0	81.2	48.4
06:00 PM - 07:00 PM	53.7	83.3	46.2
07:00 PM - 08:00 PM	51.9	66.2	49.3
08:00 PM - 09:00 PM	52.9	74.4	48.8
09:00 PM - 10:00 PM	51.1	60.8	47.0
10:00 PM - 11:00 PM	54.9	75.2	46.4
11:00 PM - 12:00 AM	55.4	75.2	45.0
12:00 AM - 01:00 AM	61.3	77.3	48.4
01:00 AM - 02:00 AM	69.3	78.7	53.9
02:00 AM - 03:00 AM	69.7	77.8	60.9
03:00 AM - 04:00 AM	68.8	76.8	60.0
04:00 AM - 05:00 AM	61.3	76.1	54.9
05:00 AM - 06:00 AM	49.6	72.0	44.2
06:00 AM - 07:00 AM	52.3	75.1	45.0
07:00 AM - 08:00 AM	53.3	75.1	43.7
08:00 AM - 09:00 AM	55.6	77.1	46.2
09:00 AM - 10:00 AM	61.5	87.3	56.8

Leq Average 24 hrs. (dB(A))

61.3

Lmax (dB(A))

87.3

L90 (dB(A))

46.2

Ldn (dB(A))

70.9

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:54AM)

354-212/ EMAIL



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313886-1

Page 1 of 1

Sample Number 2537152-10
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศเหนือของโครงการ (N2) (GPS 47P 0744187, 1421545)
Measurement Date May 14 - May 15, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120936

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	60.3	88.0	55.9
11:00 AM - 12:00 PM	50.1	70.9	44.4
12:00 PM - 01:00 PM	50.3	72.7	39.4
01:00 PM - 02:00 PM	55.8	83.3	46.0
02:00 PM - 03:00 PM	47.6	80.5	41.0
03:00 PM - 04:00 PM	48.7	71.3	44.3
04:00 PM - 05:00 PM	52.0	72.8	48.1
05:00 PM - 06:00 PM	50.1	74.5	42.3
06:00 PM - 07:00 PM	47.3	67.7	42.9
07:00 PM - 08:00 PM	51.1	74.0	46.3
08:00 PM - 09:00 PM	49.1	61.6	43.9
09:00 PM - 10:00 PM	57.6	78.1	52.1
10:00 PM - 11:00 PM	55.3	76.9	51.0
11:00 PM - 12:00 AM	53.3	72.2	50.7
12:00 AM - 01:00 AM	50.4	65.9	46.7
01:00 AM - 02:00 AM	51.7	70.2	44.8
02:00 AM - 03:00 AM	59.6	71.7	55.7
03:00 AM - 04:00 AM	63.8	72.2	58.4
04:00 AM - 05:00 AM	53.8	70.2	47.5
05:00 AM - 06:00 AM	47.5	69.2	43.1
06:00 AM - 07:00 AM	50.4	76.1	42.9
07:00 AM - 08:00 AM	57.7	81.6	49.2
08:00 AM - 09:00 AM	58.0	80.6	52.8
09:00 AM - 10:00 AM	52.9	72.3	47.1

Leq Average 24 hrs. (dB(A))

55.7

Lmax (dB(A))

88.0

L90 (dB(A))

46.3

Ldn (dB(A))

63.2

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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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354-212/ EMAIL



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313887-1

Page 1 of 1

Sample Number 2537152-11
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศเหนือของโครงการ (N2) (GPS 47P 0744187, 1421545)
Measurement Date May 15 - May 16, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120936

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	46.7	66.1	38.3
11:00 AM - 12:00 PM	52.5	74.1	47.7
12:00 PM - 01:00 PM	49.7	72.5	41.1
01:00 PM - 02:00 PM	51.0	73.6	41.9
02:00 PM - 03:00 PM	51.3	72.1	42.4
03:00 PM - 04:00 PM	56.6	77.0	51.9
04:00 PM - 05:00 PM	52.1	71.9	46.3
05:00 PM - 06:00 PM	51.2	75.3	42.4
06:00 PM - 07:00 PM	48.5	69.2	43.2
07:00 PM - 08:00 PM	49.6	64.7	47.5
08:00 PM - 09:00 PM	49.6	65.2	47.7
09:00 PM - 10:00 PM	50.1	65.7	48.1
10:00 PM - 11:00 PM	48.4	62.0	46.0
11:00 PM - 12:00 AM	48.7	65.1	45.1
12:00 AM - 01:00 AM	46.2	61.4	43.4
01:00 AM - 02:00 AM	46.0	69.1	43.9
02:00 AM - 03:00 AM	44.3	60.3	42.2
03:00 AM - 04:00 AM	45.5	69.6	41.9
04:00 AM - 05:00 AM	47.7	60.6	44.6
05:00 AM - 06:00 AM	47.4	66.2	42.2
06:00 AM - 07:00 AM	51.0	71.8	40.3
07:00 AM - 08:00 AM	63.6	90.1	58.7
08:00 AM - 09:00 AM	52.5	75.0	40.1
09:00 AM - 10:00 AM	62.3	90.1	56.6

Leq Average 24 hrs. (dB(A)) 54.2

Lmax (dB(A)) 90.1

L90 (dB(A)) 43.4

Ldn (dB(A)) 56.7

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:54AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313888-1

Page 1 of 1

Sample Number 2537152-12
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศเหนือของโครงการ (N2) (GPS 47P 0744187, 1421545)
Measurement Date May 16 - May 17, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120936

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	48.8	65.9	39.5
11:00 AM - 12:00 PM	48.4	67.2	39.9
12:00 PM - 01:00 PM	61.1	87.8	53.7
01:00 PM - 02:00 PM	50.0	65.7	44.8
02:00 PM - 03:00 PM	53.9	75.4	50.2
03:00 PM - 04:00 PM	52.7	71.6	46.1
04:00 PM - 05:00 PM	54.3	73.7	43.0
05:00 PM - 06:00 PM	49.4	65.7	41.8
06:00 PM - 07:00 PM	49.5	75.5	42.6
07:00 PM - 08:00 PM	51.7	75.8	47.1
08:00 PM - 09:00 PM	50.6	77.7	45.8
09:00 PM - 10:00 PM	48.0	66.6	44.7
10:00 PM - 11:00 PM	47.1	57.9	45.2
11:00 PM - 12:00 AM	47.2	62.7	44.4
12:00 AM - 01:00 AM	57.9	83.9	50.2
01:00 AM - 02:00 AM	54.9	74.3	49.0
02:00 AM - 03:00 AM	61.5	70.5	56.2
03:00 AM - 04:00 AM	61.7	64.6	60.5
04:00 AM - 05:00 AM	58.7	64.6	55.7
05:00 AM - 06:00 AM	47.3	62.5	43.4
06:00 AM - 07:00 AM	48.3	69.7	41.7
07:00 AM - 08:00 AM	51.2	73.2	41.9
08:00 AM - 09:00 AM	54.7	77.4	46.4
09:00 AM - 10:00 AM	55.9	83.0	50.3

Leq Average 24 hrs. (dB(A)) 55.4

Lmax (dB(A)) 87.8

L90 (dB(A)) 45.2

Ldn (dB(A)) 63.3

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:55AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313889-1

Page 1 of 1

Sample Number 2537152-13
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศเหนือของโครงการ (N2) (GPS 47P 0744187, 1421545)
Measurement Date May 17 - May 18, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120936

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	56.1	75.6	52.8
11:00 AM - 12:00 PM	50.1	65.2	47.8
12:00 PM - 01:00 PM	53.2	72.7	48.4
01:00 PM - 02:00 PM	53.6	75.3	49.7
02:00 PM - 03:00 PM	54.3	71.3	51.4
03:00 PM - 04:00 PM	51.4	67.9	49.8
04:00 PM - 05:00 PM	52.9	73.6	50.6
05:00 PM - 06:00 PM	58.9	77.7	57.3
06:00 PM - 07:00 PM	49.8	73.3	47.6
07:00 PM - 08:00 PM	49.9	66.3	48.1
08:00 PM - 09:00 PM	52.1	82.2	47.6
09:00 PM - 10:00 PM	50.5	64.0	47.4
10:00 PM - 11:00 PM	52.6	82.6	47.0
11:00 PM - 12:00 AM	50.9	73.0	48.1
12:00 AM - 01:00 AM	49.3	69.0	47.8
01:00 AM - 02:00 AM	49.7	67.5	47.9
02:00 AM - 03:00 AM	54.3	77.9	50.1
03:00 AM - 04:00 AM	56.4	62.2	53.3
04:00 AM - 05:00 AM	50.5	61.2	48.0
05:00 AM - 06:00 AM	49.8	67.5	47.9
06:00 AM - 07:00 AM	52.3	78.8	46.9
07:00 AM - 08:00 AM	53.6	77.0	47.5
08:00 AM - 09:00 AM	56.1	70.6	49.7
09:00 AM - 10:00 AM	53.1	73.9	48.1

Leq Average 24 hrs. (dB(A)) 53.4

Lmax (dB(A)) 82.6

L90 (dB(A)) 48.1

Ldn (dB(A)) 59.1

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:56AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313889-1

Page 1 of 1

Sample Number 2537152-14
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศเหนือของโครงการ (N2) (GPS 47P 0744187, 1421545)
Measurement Date May 18 - May 19, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120936

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	52.2	73.5	47.9
11:00 AM - 12:00 PM	54.1	72.1	49.6
12:00 PM - 01:00 PM	51.6	73.6	47.5
01:00 PM - 02:00 PM	52.1	76.6	48.2
02:00 PM - 03:00 PM	56.8	84.0	48.0
03:00 PM - 04:00 PM	51.3	76.3	47.8
04:00 PM - 05:00 PM	51.3	76.5	48.3
05:00 PM - 06:00 PM	52.6	76.0	47.3
06:00 PM - 07:00 PM	50.4	71.6	47.8
07:00 PM - 08:00 PM	51.8	77.8	48.4
08:00 PM - 09:00 PM	50.2	64.9	49.1
09:00 PM - 10:00 PM	49.4	64.3	48.4
10:00 PM - 11:00 PM	49.2	61.8	48.4
11:00 PM - 12:00 AM	48.8	66.7	47.4
12:00 AM - 01:00 AM	48.1	58.9	47.2
01:00 AM - 02:00 AM	48.0	54.7	47.2
02:00 AM - 03:00 AM	47.8	59.7	47.0
03:00 AM - 04:00 AM	47.9	57.6	47.0
04:00 AM - 05:00 AM	47.9	59.7	47.1
05:00 AM - 06:00 AM	50.6	71.6	47.3
06:00 AM - 07:00 AM	53.3	75.5	47.2
07:00 AM - 08:00 AM	57.3	83.8	47.5
08:00 AM - 09:00 AM	52.8	80.2	49.9
09:00 AM - 10:00 AM	55.2	81.5	46.8

Leq Average 24 hrs. (dB(A)) 52.2

Lmax (dB(A)) 84.0

L90 (dB(A)) 47.5

Ldn (dB(A)) 56.7

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:56AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313891-1

Page 1 of 1

Sample Number 2537152-15
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (1) (N3) (GPS 47P 0746595, 1419586)
Measurement Date May 12 - May 13, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 920831

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	64.0	80.2	61.4
12:00 PM - 01:00 PM	59.5	83.4	53.0
01:00 PM - 02:00 PM	59.4	83.4	54.1
02:00 PM - 03:00 PM	60.1	75.8	57.2
03:00 PM - 04:00 PM	59.0	81.0	53.5
04:00 PM - 05:00 PM	57.8	80.6	50.9
05:00 PM - 06:00 PM	59.3	86.4	50.8
06:00 PM - 07:00 PM	58.5	76.7	52.7
07:00 PM - 08:00 PM	59.9	84.6	52.3
08:00 PM - 09:00 PM	59.5	79.2	55.8
09:00 PM - 10:00 PM	57.7	77.3	55.7
10:00 PM - 11:00 PM	59.7	91.7	55.6
11:00 PM - 12:00 AM	55.8	70.1	54.3
12:00 AM - 01:00 AM	56.5	73.4	54.3
01:00 AM - 02:00 AM	55.6	70.7	53.9
02:00 AM - 03:00 AM	54.5	71.7	52.8
03:00 AM - 04:00 AM	54.3	73.4	51.5
04:00 AM - 05:00 AM	54.8	68.1	50.5
05:00 AM - 06:00 AM	55.0	72.9	50.2
06:00 AM - 07:00 AM	62.2	83.2	56.4
07:00 AM - 08:00 AM	64.5	86.0	56.8
08:00 AM - 09:00 AM	61.1	84.4	54.7
09:00 AM - 10:00 AM	58.2	75.9	53.9
10:00 AM - 11:00 AM	57.9	76.2	53.0

Leq Average 24 hrs. (dB(A)) 59.4

Lmax (dB(A)) 91.7

L90 (dB(A)) 53.9

Ldn (dB(A)) 64.4

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:56AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313892-1

Page 1 of 1

Sample Number 2537152-16
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (1) (N3) (GPS 47P 0746595, 1419586)
Measurement Date May 13 - May 14, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 920831

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	57.4	76.0	51.3
12:00 PM - 01:00 PM	57.2	77.5	51.9
01:00 PM - 02:00 PM	58.9	74.7	55.9
02:00 PM - 03:00 PM	59.7	79.6	57.3
03:00 PM - 04:00 PM	59.3	72.1	56.9
04:00 PM - 05:00 PM	60.0	73.8	56.4
05:00 PM - 06:00 PM	59.5	81.1	52.3
06:00 PM - 07:00 PM	60.0	82.9	55.2
07:00 PM - 08:00 PM	59.9	81.6	54.3
08:00 PM - 09:00 PM	58.6	77.0	53.6
09:00 PM - 10:00 PM	57.5	80.9	53.5
10:00 PM - 11:00 PM	56.4	78.7	52.5
11:00 PM - 12:00 AM	55.9	81.6	51.8
12:00 AM - 01:00 AM	55.4	70.6	51.5
01:00 AM - 02:00 AM	54.8	80.2	51.1
02:00 AM - 03:00 AM	51.5	69.1	49.8
03:00 AM - 04:00 AM	52.1	72.3	49.9
04:00 AM - 05:00 AM	52.8	73.0	49.6
05:00 AM - 06:00 AM	55.8	73.1	50.9
06:00 AM - 07:00 AM	60.9	79.6	53.3
07:00 AM - 08:00 AM	63.2	81.2	53.6
08:00 AM - 09:00 AM	60.1	82.0	53.2
09:00 AM - 10:00 AM	58.9	81.5	54.0
10:00 AM - 11:00 AM	57.6	81.0	52.2

Leq Average 24 hrs. (dB(A)) 58.5

Lmax (dB(A)) 82.9

L90 (dB(A)) 52.5

Ldn (dB(A)) 63.1

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:56AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313893-1

Page 1 of 1

Sample Number 2537152-17
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (1) (N3) (GPS 47P 0746595, 1419586)
Measurement Date May 14 - May 15, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 920831

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	59.8	85.2	50.8
12:00 PM - 01:00 PM	59.1	85.7	50.0
01:00 PM - 02:00 PM	58.4	81.1	51.0
02:00 PM - 03:00 PM	60.5	85.4	53.4
03:00 PM - 04:00 PM	59.8	83.5	51.3
04:00 PM - 05:00 PM	61.6	88.0	52.4
05:00 PM - 06:00 PM	60.3	82.8	51.9
06:00 PM - 07:00 PM	59.0	84.5	52.6
07:00 PM - 08:00 PM	61.4	87.6	54.1
08:00 PM - 09:00 PM	58.8	79.9	53.2
09:00 PM - 10:00 PM	57.7	82.6	52.3
10:00 PM - 11:00 PM	57.5	75.7	53.8
11:00 PM - 12:00 AM	54.7	70.1	52.3
12:00 AM - 01:00 AM	53.4	70.6	51.0
01:00 AM - 02:00 AM	53.3	74.0	50.4
02:00 AM - 03:00 AM	53.2	71.5	50.3
03:00 AM - 04:00 AM	53.6	72.7	49.8
04:00 AM - 05:00 AM	56.1	68.8	51.2
05:00 AM - 06:00 AM	55.4	74.1	51.0
06:00 AM - 07:00 AM	60.5	88.1	51.5
07:00 AM - 08:00 AM	63.5	83.3	53.7
08:00 AM - 09:00 AM	59.7	81.1	51.0
09:00 AM - 10:00 AM	56.0	75.3	49.1
10:00 AM - 11:00 AM	56.2	81.3	50.0

Leq Average 24 hrs. (dB(A)) 58.8
Lmax (dB(A)) 88.1
L90 (dB(A)) 51.2
Ldn (dB(A)) 63.2
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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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354-212/ EMAIL



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313894-1

Page 1 of 1

Sample Number 2537152-18
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (1) (N3) (GPS 47P 0746595, 1419586)
Measurement Date May 15 - May 16, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 920831

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	56.6	76.1	50.0
12:00 PM - 01:00 PM	55.6	74.2	50.4
01:00 PM - 02:00 PM	57.2	85.5	49.2
02:00 PM - 03:00 PM	56.3	79.7	49.2
03:00 PM - 04:00 PM	58.0	83.4	48.7
04:00 PM - 05:00 PM	58.3	82.5	51.1
05:00 PM - 06:00 PM	59.1	79.0	51.8
06:00 PM - 07:00 PM	58.1	78.3	50.3
07:00 PM - 08:00 PM	61.4	88.3	56.0
08:00 PM - 09:00 PM	58.8	83.0	51.7
09:00 PM - 10:00 PM	57.6	81.5	51.7
10:00 PM - 11:00 PM	54.2	78.7	51.1
11:00 PM - 12:00 AM	55.9	76.0	52.5
12:00 AM - 01:00 AM	56.6	70.1	54.2
01:00 AM - 02:00 AM	52.6	67.2	50.6
02:00 AM - 03:00 AM	52.6	71.7	50.6
03:00 AM - 04:00 AM	50.9	70.0	49.7
04:00 AM - 05:00 AM	51.5	68.8	49.7
05:00 AM - 06:00 AM	55.4	77.0	50.0
06:00 AM - 07:00 AM	59.4	83.5	51.5
07:00 AM - 08:00 AM	64.0	89.6	53.4
08:00 AM - 09:00 AM	59.6	81.5	51.6
09:00 AM - 10:00 AM	59.6	87.3	51.4
10:00 AM - 11:00 AM	57.7	76.9	50.9

Leq Average 24 hrs. (dB(A)) 58.0
Lmax (dB(A)) 89.6
L90 (dB(A)) 50.9
Ldn (dB(A)) 62.4
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313895-1

Page 1 of 1

Sample Number 2537152-19
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (1) (N3) (GPS 47P 0746595, 1419586)
Measurement Date May 16 - May 17, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 920831

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	57.6	75.8	50.6
12:00 PM - 01:00 PM	58.8	82.4	51.9
01:00 PM - 02:00 PM	57.2	76.8	49.3
02:00 PM - 03:00 PM	57.5	76.1	49.3
03:00 PM - 04:00 PM	59.0	86.5	51.1
04:00 PM - 05:00 PM	59.2	80.5	52.0
05:00 PM - 06:00 PM	59.8	80.0	52.1
06:00 PM - 07:00 PM	57.7	75.9	51.2
07:00 PM - 08:00 PM	59.6	79.0	54.1
08:00 PM - 09:00 PM	59.0	81.4	53.8
09:00 PM - 10:00 PM	57.6	73.4	54.0
10:00 PM - 11:00 PM	56.7	84.4	52.2
11:00 PM - 12:00 AM	53.4	70.8	50.9
12:00 AM - 01:00 AM	61.7	85.8	53.2
01:00 AM - 02:00 AM	54.5	74.9	52.6
02:00 AM - 03:00 AM	53.8	70.0	52.6
03:00 AM - 04:00 AM	54.2	76.1	52.2
04:00 AM - 05:00 AM	54.5	67.4	53.0
05:00 AM - 06:00 AM	56.3	81.4	53.6
06:00 AM - 07:00 AM	59.0	80.9	53.7
07:00 AM - 08:00 AM	63.8	89.0	55.4
08:00 AM - 09:00 AM	60.6	84.1	52.3
09:00 AM - 10:00 AM	58.2	79.4	52.3
10:00 AM - 11:00 AM	57.2	77.8	52.5

Leq Average 24 hrs. (dB(A)) 58.5
Lmax (dB(A)) 89.0
L90 (dB(A)) 52.3
Ldn (dB(A)) 63.8
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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313896-1

Page 1 of 1

Sample Number 2537152-20
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (1) (N3) (GPS 47P 0746595, 1419586)
Measurement Date May 17 - May 18, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 920831

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	58.4	79.6	52.0
12:00 PM - 01:00 PM	58.8	85.4	52.3
01:00 PM - 02:00 PM	63.1	91.3	51.7
02:00 PM - 03:00 PM	58.4	77.1	52.1
03:00 PM - 04:00 PM	58.9	83.5	52.6
04:00 PM - 05:00 PM	57.9	75.1	52.2
05:00 PM - 06:00 PM	59.6	83.3	53.1
06:00 PM - 07:00 PM	59.1	84.7	51.0
07:00 PM - 08:00 PM	58.9	87.6	52.5
08:00 PM - 09:00 PM	59.6	84.4	53.2
09:00 PM - 10:00 PM	55.1	74.1	52.0
10:00 PM - 11:00 PM	54.2	69.7	51.9
11:00 PM - 12:00 AM	55.0	76.3	52.1
12:00 AM - 01:00 AM	54.6	72.8	52.4
01:00 AM - 02:00 AM	53.9	75.9	51.9
02:00 AM - 03:00 AM	53.0	66.1	51.4
03:00 AM - 04:00 AM	52.5	63.1	51.3
04:00 AM - 05:00 AM	52.9	69.3	51.3
05:00 AM - 06:00 AM	55.7	78.0	51.3
06:00 AM - 07:00 AM	62.5	96.4	51.4
07:00 AM - 08:00 AM	60.8	83.3	52.0
08:00 AM - 09:00 AM	60.2	80.5	51.8
09:00 AM - 10:00 AM	59.1	83.8	50.2
10:00 AM - 11:00 AM	60.4	90.4	53.1

Leq Average 24 hrs. (dB(A)) 58.6
Lmax (dB(A)) 96.4
L90 (dB(A)) 52.0
Ldn (dB(A)) 63.4
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313897-1

Page 1 of 1

Sample Number 2537152-21
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (1) (N3) (GPS 47P 0746595, 1419586)
Measurement Date May 18 - May 19, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 920831

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	58.9	80.2	52.3
12:00 PM - 01:00 PM	58.2	52.5	52.5
01:00 PM - 02:00 PM	59.8	81.1	52.1
02:00 PM - 03:00 PM	60.2	83.9	51.0
03:00 PM - 04:00 PM	58.9	79.3	51.2
04:00 PM - 05:00 PM	57.8	74.9	51.0
05:00 PM - 06:00 PM	59.4	78.5	52.1
06:00 PM - 07:00 PM	57.3	79.3	50.8
07:00 PM - 08:00 PM	56.3	74.8	50.9
08:00 PM - 09:00 PM	55.6	79.9	50.5
09:00 PM - 10:00 PM	55.7	84.5	50.6
10:00 PM - 11:00 PM	53.9	75.6	50.2
11:00 PM - 12:00 AM	54.6	76.1	52.0
12:00 AM - 01:00 AM	52.8	71.7	50.4
01:00 AM - 02:00 AM	52.4	71.7	50.7
02:00 AM - 03:00 AM	51.8	68.5	50.6
03:00 AM - 04:00 AM	52.6	71.6	50.9
04:00 AM - 05:00 AM	53.3	68.4	51.0
05:00 AM - 06:00 AM	55.8	74.4	51.7
06:00 AM - 07:00 AM	60.1	83.9	52.3
07:00 AM - 08:00 AM	64.0	88.4	53.8
08:00 AM - 09:00 AM	61.7	86.8	53.4
09:00 AM - 10:00 AM	59.1	78.6	53.0
10:00 AM - 11:00 AM	61.1	86.7	54.2

Leq Average 24 hrs. (dB(A))

58.3

Lmax (dB(A))

88.4

L90 (dB(A))

51.0

Ldn (dB(A))

62.4

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supot Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:57AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313898-1

Page 1 of 1

Sample Number 2537152-22
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (2) (N4) (GPS 47P 0744386, 1420985)
Measurement Date May 12 - May 13, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120938

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	48.7	72.3	43.5
11:00 AM - 12:00 PM	50.9	69.7	46.7
12:00 PM - 01:00 PM	64.3	99.9	58.3
01:00 PM - 02:00 PM	59.0	70.2	56.1
02:00 PM - 03:00 PM	57.9	83.5	56.6
03:00 PM - 04:00 PM	50.9	74.5	48.0
04:00 PM - 05:00 PM	47.5	69.4	44.6
05:00 PM - 06:00 PM	47.0	61.6	45.1
06:00 PM - 07:00 PM	47.7	63.1	45.4
07:00 PM - 08:00 PM	48.4	70.3	47.2
08:00 PM - 09:00 PM	47.5	60.9	46.9
09:00 PM - 10:00 PM	47.4	54.9	46.9
10:00 PM - 11:00 PM	47.9	57.2	47.2
11:00 PM - 12:00 AM	46.9	57.8	46.4
12:00 AM - 01:00 AM	46.6	68.0	45.8
01:00 AM - 02:00 AM	46.1	54.9	45.4
02:00 AM - 03:00 AM	47.0	52.5	45.9
03:00 AM - 04:00 AM	49.0	64.0	46.1
04:00 AM - 05:00 AM	47.9	63.9	46.2
05:00 AM - 06:00 AM	48.7	63.3	46.0
06:00 AM - 07:00 AM	55.8	72.9	49.6
07:00 AM - 08:00 AM	54.5	82.2	49.6
08:00 AM - 09:00 AM	52.5	70.7	50.1
09:00 AM - 10:00 AM	48.3	70.4	45.8

Leq Average 24 hrs. (dB(A))

54.1

Lmax (dB(A))

99.9

L90 (dB(A))

46.4

Ldn (dB(A))

57.6

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supot Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:58AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglallok Rd.,, Nonglallok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313899-1

Page 1 of 1

Sample Number 2537152-23
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (2) (N4) (GPS 47P 0744386, 1420985)
Measurement Date May 13 - May 14, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120938

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	49.4	69.9	42.9
11:00 AM - 12:00 PM	52.5	82.0	42.4
12:00 PM - 01:00 PM	45.8	70.2	42.7
01:00 PM - 02:00 PM	46.8	80.3	42.3
02:00 PM - 03:00 PM	46.8	72.2	43.4
03:00 PM - 04:00 PM	49.1	75.7	42.4
04:00 PM - 05:00 PM	46.0	71.4	43.2
05:00 PM - 06:00 PM	49.4	73.3	44.1
06:00 PM - 07:00 PM	46.3	62.3	44.2
07:00 PM - 08:00 PM	48.2	64.0	46.4
08:00 PM - 09:00 PM	47.6	71.3	45.7
09:00 PM - 10:00 PM	47.1	61.0	46.4
10:00 PM - 11:00 PM	46.8	62.5	46.1
11:00 PM - 12:00 AM	46.1	59.1	45.3
12:00 AM - 01:00 AM	46.5	58.5	45.8
01:00 AM - 02:00 AM	46.5	53.2	45.9
02:00 AM - 03:00 AM	45.9	64.9	45.2
03:00 AM - 04:00 AM	46.5	59.3	45.4
04:00 AM - 05:00 AM	50.9	69.1	45.7
05:00 AM - 06:00 AM	48.4	65.0	45.2
06:00 AM - 07:00 AM	46.8	64.0	43.6
07:00 AM - 08:00 AM	49.9	71.6	44.2
08:00 AM - 09:00 AM	53.7	77.4	44.3
09:00 AM - 10:00 AM	56.0	78.6	47.7

Leq Average 24 hrs. (dB(A)) 49.3

Lmax (dB(A)) 82.0

L90 (dB(A)) 44.3

Ldn (dB(A)) 54.4

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supot Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:58AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglallok Rd.,, Nonglallok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313900-1

Page 1 of 1

Sample Number 2537152-24
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (2) (N4) (GPS 47P 0744386, 1420985)
Measurement Date May 14 - May 15, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120938

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	51.9	76.4	45.4
11:00 AM - 12:00 PM	53.7	83.5	44.0
12:00 PM - 01:00 PM	49.2	77.3	42.6
01:00 PM - 02:00 PM	53.9	73.2	43.3
02:00 PM - 03:00 PM	46.7	68.7	43.1
03:00 PM - 04:00 PM	46.6	67.8	43.9
04:00 PM - 05:00 PM	52.0	79.9	49.3
05:00 PM - 06:00 PM	50.3	73.5	44.5
06:00 PM - 07:00 PM	45.6	65.2	43.7
07:00 PM - 08:00 PM	48.2	68.0	46.1
08:00 PM - 09:00 PM	46.9	65.8	45.4
09:00 PM - 10:00 PM	58.1	72.4	48.0
10:00 PM - 11:00 PM	51.8	60.9	49.7
11:00 PM - 12:00 AM	50.5	58.3	48.7
12:00 AM - 01:00 AM	45.8	60.1	44.8
01:00 AM - 02:00 AM	45.3	58.3	44.2
02:00 AM - 03:00 AM	47.0	60.7	44.8
03:00 AM - 04:00 AM	46.4	54.9	45.0
04:00 AM - 05:00 AM	46.8	66.3	45.0
05:00 AM - 06:00 AM	49.2	65.8	45.0
06:00 AM - 07:00 AM	46.2	63.3	44.1
07:00 AM - 08:00 AM	48.0	65.3	43.9
08:00 AM - 09:00 AM	47.3	68.1	42.9
09:00 AM - 10:00 AM	47.1	66.2	41.8

Leq Average 24 hrs. (dB(A)) 50.4

Lmax (dB(A)) 83.5

L90 (dB(A)) 44.5

Ldn (dB(A)) 55.3

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supot Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:58AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313901-1

Page 1 of 1

Sample Number 2537152-25
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (2) (N4) (GPS 47P 0744386, 1420985)
Measurement Date May 15 - May 16, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120938

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	50.0	71.6	42.6
11:00 AM - 12:00 PM	48.1	67.6	42.2
12:00 PM - 01:00 PM	49.7	72.4	43.9
01:00 PM - 02:00 PM	49.9	70.3	45.1
02:00 PM - 03:00 PM	52.4	74.0	45.9
03:00 PM - 04:00 PM	51.3	75.2	44.0
04:00 PM - 05:00 PM	49.5	81.0	44.2
05:00 PM - 06:00 PM	50.5	72.6	44.4
06:00 PM - 07:00 PM	47.9	70.5	44.7
07:00 PM - 08:00 PM	49.3	65.5	47.5
08:00 PM - 09:00 PM	49.2	65.7	47.8
09:00 PM - 10:00 PM	49.2	64.3	47.9
10:00 PM - 11:00 PM	46.0	63.1	45.2
11:00 PM - 12:00 AM	45.4	61.7	44.0
12:00 AM - 01:00 AM	46.8	66.5	43.7
01:00 AM - 02:00 AM	45.3	57.3	43.9
02:00 AM - 03:00 AM	44.9	52.7	44.0
03:00 AM - 04:00 AM	45.4	68.3	44.0
04:00 AM - 05:00 AM	48.8	68.4	43.7
05:00 AM - 06:00 AM	56.6	74.3	44.6
06:00 AM - 07:00 AM	48.1	72.9	43.0
07:00 AM - 08:00 AM	50.7	76.1	43.0
08:00 AM - 09:00 AM	49.3	73.1	43.9
09:00 AM - 10:00 AM	53.0	79.9	44.7

Leq Average 24 hrs. (dB(A)) 50.0

Lmax (dB(A)) 81.0

L90 (dB(A)) 44.0

Ldn (dB(A)) 56.1

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:58AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313902-1

Page 1 of 1

Sample Number 2537152-26
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (2) (N4) (GPS 47P 0744386, 1420985)
Measurement Date May 16 - May 17, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120938

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	51.2	71.0	46.6
11:00 AM - 12:00 PM	51.4	73.0	47.0
12:00 PM - 01:00 PM	59.6	74.1	50.3
01:00 PM - 02:00 PM	52.8	68.3	49.5
02:00 PM - 03:00 PM	51.0	74.8	48.0
03:00 PM - 04:00 PM	52.5	70.8	48.5
04:00 PM - 05:00 PM	52.3	71.9	49.5
05:00 PM - 06:00 PM	53.6	76.5	48.9
06:00 PM - 07:00 PM	51.2	67.5	48.6
07:00 PM - 08:00 PM	53.0	73.7	50.0
08:00 PM - 09:00 PM	50.5	69.0	48.8
09:00 PM - 10:00 PM	49.9	60.7	48.4
10:00 PM - 11:00 PM	50.0	64.7	48.6
11:00 PM - 12:00 AM	50.4	56.7	49.5
12:00 AM - 01:00 AM	59.3	75.5	50.5
01:00 AM - 02:00 AM	60.8	71.7	56.1
02:00 AM - 03:00 AM	52.4	60.7	51.6
03:00 AM - 04:00 AM	52.2	54.9	51.6
04:00 AM - 05:00 AM	52.0	54.7	51.4
05:00 AM - 06:00 AM	53.3	69.4	51.3
06:00 AM - 07:00 AM	52.3	66.7	51.4
07:00 AM - 08:00 AM	52.8	69.9	51.2
08:00 AM - 09:00 AM	53.5	68.5	49.8
09:00 AM - 10:00 AM	51.6	70.6	46.8

Leq Average 24 hrs. (dB(A)) 54.2

Lmax (dB(A)) 76.5

L90 (dB(A)) 49.5

Ldn (dB(A)) 61.6

Standard (dB(A)) 70

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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S:\Reports_Air Noise.rpt (8:58AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313903-1

Page 1 of 1

Sample Number 2537152-27
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (2) (N4) (GPS 47P 0744386, 1420985)
Measurement Date May 17 - May 18, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120938

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	51.2	73.0	45.8
11:00 AM - 12:00 PM	49.4	65.5	45.6
12:00 PM - 01:00 PM	53.0	72.6	47.5
01:00 PM - 02:00 PM	51.9	71.3	49.9
02:00 PM - 03:00 PM	51.6	63.6	49.7
03:00 PM - 04:00 PM	54.4	75.0	49.6
04:00 PM - 05:00 PM	51.9	77.6	50.0
05:00 PM - 06:00 PM	53.9	79.2	50.9
06:00 PM - 07:00 PM	51.9	72.2	48.8
07:00 PM - 08:00 PM	51.3	64.7	49.5
08:00 PM - 09:00 PM	51.6	70.9	49.1
09:00 PM - 10:00 PM	51.0	59.7	48.6
10:00 PM - 11:00 PM	51.3	62.8	49.0
11:00 PM - 12:00 AM	52.0	68.2	49.8
12:00 AM - 01:00 AM	52.4	63.5	51.0
01:00 AM - 02:00 AM	52.3	54.7	51.4
02:00 AM - 03:00 AM	52.2	54.2	51.6
03:00 AM - 04:00 AM	52.5	56.0	51.9
04:00 AM - 05:00 AM	52.6	54.6	52.2
05:00 AM - 06:00 AM	53.0	67.1	52.5
06:00 AM - 07:00 AM	53.3	63.8	52.0
07:00 AM - 08:00 AM	53.6	73.6	49.7
08:00 AM - 09:00 AM	55.8	79.6	49.3
09:00 AM - 10:00 AM	56.4	83.2	44.9

Leq Average 24 hrs. (dB(A)) 52.8

Lmax (dB(A))

83.2

L90 (dB(A))

49.7

Ldn (dB(A))

58.9

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

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

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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354-212/ EMAIL

S:\Reports_Air Noise.rpt (8:59AM)



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537152

Date Received : May 19, 2025

Date Reported : May 23, 2025

Report Number: 3313904-1

Page 1 of 1

Sample Number 2537152-28
Parameter Noise (Leq 24 hrs.)
Location ที่พักอาศัยทางด้านทิศใต้ของโครงการ (2) (N4) (GPS 47P 0744386, 1420985)
Measurement Date May 18 - May 19, 2025
Measurement by Nontachai Uppathamp
Sound Level meter Serial No. 1120938

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	52.1	77.8	46.5
11:00 AM - 12:00 PM	52.8	76.0	47.6
12:00 PM - 01:00 PM	53.0	76.8	49.4
01:00 PM - 02:00 PM	52.6	64.7	49.9
02:00 PM - 03:00 PM	58.9	85.1	49.4
03:00 PM - 04:00 PM	53.6	73.6	50.0
04:00 PM - 05:00 PM	54.6	72.1	51.0
05:00 PM - 06:00 PM	55.7	76.4	50.5
06:00 PM - 07:00 PM	53.1	70.5	50.9
07:00 PM - 08:00 PM	52.7	75.1	51.3
08:00 PM - 09:00 PM	51.6	61.1	50.4
09:00 PM - 10:00 PM	51.5	64.1	50.4
10:00 PM - 11:00 PM	51.1	57.7	50.1
11:00 PM - 12:00 AM	51.5	62.6	50.8
12:00 AM - 01:00 AM	51.8	57.3	51.2
01:00 AM - 02:00 AM	51.9	54.9	51.0
02:00 AM - 03:00 AM	52.0	59.4	51.2
03:00 AM - 04:00 AM	51.7	58.8	50.9
04:00 AM - 05:00 AM	51.6	68.2	50.8
05:00 AM - 06:00 AM	51.7	65.6	50.8
06:00 AM - 07:00 AM	52.7	74.3	50.4
07:00 AM - 08:00 AM	52.7	71.4	50.7
08:00 AM - 09:00 AM	55.1	72.9	52.3
09:00 AM - 10:00 AM	55.8	78.7	51.7

Leq Average 24 hrs. (dB(A)) 53.5

Lmax (dB(A))

85.1

L90 (dB(A))

50.7

Ldn (dB(A))

58.6

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

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supt S

Supt Salamteh
Section Head

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S:\Reports_Air Noise.rpt (9:00AM)

ระดับเสียง 5 นาที (Leq 5 min)

ระดับเสียงรบกวน



Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglak Rd., Nonglak, Bankhai, Rayong Thailand 21120

Lot ID: 2537165
Date Received :May 19, 2025
Date Reported :May 27, 2025
Report Number : 3313109-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Page 3 of 3

Sample No. 2537165-15
Parameter เสียงรบกวน
Location พื้นที่พัฒนาพื้นที่โครงการ (1) (N3) (GPS 47P 0746595, 1419586)
Measurement Date May 12 - 13, 2025
Measurement by Nontachai Uppathamp
Sound Level Meter 920831

เวลา	เสียงจากแหล่งกำเนิด	เสียงขณะไม่มีการรบกวน	เสียงขณะมีการรบกวน		เสียงพื้นฐาน	ค่าเฉลี่ยการรบกวน
			กลางวัน	กลางคืน		
03:45 AM - 03:50 AM	53.1	58.4	-	n/a	57.4	-
03:50 AM - 03:55 AM	53.2	58.0	-	n/a	56.9	-
03:55 AM - 04:00 AM	54.6	57.8	-	n/a	56.9	-
04:00 AM - 04:05 AM	52.7	59.3	-	n/a	56.7	-
04:05 AM - 04:10 AM	52.3	57.3	-	n/a	55.8	-
04:10 AM - 04:15 AM	57.3	58.7	-	n/a	56.9	-
04:15 AM - 04:20 AM	54.3	58.2	-	n/a	56.3	-
04:20 AM - 04:25 AM	55.2	57.2	-	n/a	56.1	-
04:25 AM - 04:30 AM	53.8	56.8	-	n/a	55.0	-
04:30 AM - 04:35 AM	57.0	56.6	-	n/a	55.6	-6.2
04:35 AM - 04:40 AM	53.8	58.0	-	n/a	56.7	-
04:40 AM - 04:45 AM	56.2	56.9	-	n/a	52.0	-
04:45 AM - 04:50 AM	54.8	55.6	-	n/a	53.8	-
04:50 AM - 04:55 AM	53.2	56.9	-	n/a	51.8	-
04:55 AM - 05:00 AM	53.2	57.9	-	n/a	52.6	-
05:00 AM - 05:05 AM	55.6	57.9	-	n/a	54.6	-
05:05 AM - 05:10 AM	55.7	59.7	-	n/a	56.7	-
05:10 AM - 05:15 AM	52.9	61.1	-	n/a	56.4	-
05:15 AM - 05:20 AM	56.7	62.7	-	n/a	57.2	-
05:20 AM - 05:25 AM	52.0	63.0	-	n/a	57.0	-
05:25 AM - 05:30 AM	54.6	63.6	-	n/a	57.5	-
05:30 AM - 05:35 AM	52.5	62.6	-	n/a	57.2	-
05:35 AM - 05:40 AM	55.8	62.5	-	n/a	59.0	-
05:40 AM - 05:45 AM	54.8	63.2	-	n/a	60.3	-
05:45 AM - 05:50 AM	56.3	62.9	-	n/a	59.3	-
05:50 AM - 05:55 AM	55.6	61.7	-	n/a	60.3	-
05:55 AM - 06:00 AM	55.3	62.6	-	n/a	60.4	-
06:00 AM - 07:00 AM	62.2	59.9	58.3	-	55.7	2.6
07:00 AM - 08:00 AM	64.5	62.8	62.8	-	56.7	6.4
08:00 AM - 09:00 AM	61.1	56.1	59.4	-	53.0	6.4
09:00 AM - 10:00 AM	58.2	53.6	56.4	-	51.5	4.9
10:00 AM - 11:00 AM	57.9	52.0	56.6	-	49.4	7.2

ค่ามาตรฐาน

Reference Method :

- ISO 1996-1
- ประกาศคณะกรรมการควบคุมมลพิษ เรื่อง วิธีการตรวจวัดระดับเสียงพื้นฐาน ระดับเสียงขณะไม่มีการรบกวน การตรวจวัดและคำนวณระดับเสียงขณะมีการรบกวน การคำนวณค่าการรบกวน และแบบปฏิบัติการตรวจวัดเสียงรบกวน พ.ศ. 2565

หมายเหตุ : ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 29 (พ.ศ.2550) เรื่อง ค่าระดับเสียงรบกวน

Remark:

- ระดับเสียงจากแหล่งกำเนิด จากการตรวจวัด วันที่ 12-13 พฤษภาคม 2568
- ระดับเสียงพื้นฐานและระดับเสียงขณะไม่มีการรบกวน (Sample No.2537166-15) จากการตรวจวัด วันที่ 12-13 พฤษภาคม 2568
- n/a: ไม่สามารถคำนวณระดับเสียงขณะมีการรบกวนได้ เนื่องจากระดับเสียงจากแหล่งกำเนิดมีค่าต่ำกว่าระดับเสียงขณะไม่มีการรบกวน

The above results are valid only for the analysed/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

Wibab.

Wilawan Borikak
Manager

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglak Rd., Nonglak, Bankhai, Rayong Thailand 21120

Lot ID: 2537165
Date Received :May 19, 2025
Date Reported :May 27, 2025
Report Number : 3313110-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Page 1 of 3

Sample No. 2537165-16
Parameter เสียงรบกวน
Location พื้นที่พัฒนาพื้นที่โครงการ (1) (N3) (GPS 47P 0746595, 1419586)
Measurement Date May 13 - 14, 2025
Measurement by Nontachai Uppathamp
Sound Level Meter 920831

เวลา	เสียงจากแหล่งกำเนิด	เสียงขณะไม่มีการรบกวน	เสียงขณะมีการรบกวน		เสียงพื้นฐาน	ค่าเฉลี่ยการรบกวน
			กลางวัน	กลางคืน		
11:00 AM - 12:00 PM	57.4	52.2	55.8	-	48.6	7.2
12:00 PM - 01:00 PM	57.2	51.9	56.0	-	46.0	10.0
01:00 PM - 02:00 PM	58.9	50.5	58.2	-	47.1	11.1
02:00 PM - 03:00 PM	59.7	51.8	58.9	-	45.9	13.0
03:00 PM - 04:00 PM	59.3	51.3	58.6	-	46.0	12.6
04:00 PM - 05:00 PM	60.0	52.2	59.2	-	47.2	12.0
05:00 PM - 06:00 PM	59.5	52.6	58.5	-	47.4	11.1
06:00 PM - 07:00 PM	60.0	54.1	58.7	-	49.7	9.0
07:00 PM - 08:00 PM	59.9	63.1	n/a	-	61.7	-
08:00 PM - 09:00 PM	58.6	61.9	n/a	-	60.5	-
09:00 PM - 10:00 PM	57.5	61.8	n/a	-	60.3	-
10:00 PM - 10:05 PM	56.6	63.3	-	n/a	60.7	-
10:05 PM - 10:10 PM	55.5	63.2	-	n/a	61.8	-
10:10 PM - 10:15 PM	55.0	63.1	-	n/a	61.9	-
10:15 PM - 10:20 PM	54.5	62.9	-	n/a	61.9	-
10:20 PM - 10:25 PM	56.4	62.4	-	n/a	61.3	-
10:25 PM - 10:30 PM	60.5	62.0	-	n/a	60.7	-
10:30 PM - 10:35 PM	54.8	61.7	-	n/a	57.2	-
10:35 PM - 10:40 PM	54.1	62.2	-	n/a	60.2	-
10:40 PM - 10:45 PM	55.3	62.5	-	n/a	61.3	-
10:45 PM - 10:50 PM	55.9	62.1	-	n/a	57.6	-
10:50 PM - 10:55 PM	57.8	62.2	-	n/a	60.5	-
10:55 PM - 11:00 PM	55.5	62.2	-	n/a	61.1	-
11:00 PM - 11:05 PM	57.5	62.2	-	n/a	61.1	-
11:05 PM - 11:10 PM	54.8	62.3	-	n/a	61.1	-
11:10 PM - 11:15 PM	53.1	61.8	-	n/a	56.5	-
11:15 PM - 11:20 PM	55.4	57.8	-	n/a	56.0	-
11:20 PM - 11:25 PM	56.4	60.3	-	n/a	56.6	-
11:25 PM - 11:30 PM	55.6	61.1	-	n/a	58.0	-
11:30 PM - 11:35 PM	55.1	60.9	-	n/a	56.9	-
11:35 PM - 11:40 PM	58.0	60.5	-	n/a	56.9	-
11:40 PM - 11:45 PM	53.2	61.0	-	n/a	59.5	-
11:45 PM - 11:50 PM	53.3	60.9	-	n/a	57.5	-
11:50 PM - 11:55 PM	54.0	60.6	-	n/a	57.3	-
11:55 PM - 12:00 AM	59.1	60.0	-	n/a	56.2	-
12:00 AM - 12:05 AM	56.8	58.0	-	n/a	56.7	-
12:05 AM - 12:10 AM	56.2	56.3	-	n/a	55.5	-
12:10 AM - 12:15 AM	57.8	58.5	-	n/a	55.9	-
12:15 AM - 12:20 AM	55.7	60.0	-	n/a	55.9	-
12:20 AM - 12:25 AM	52.5	60.1	-	n/a	52.0	-

The above results are valid only for the analysed/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

Wibab.

Wilawan Borikak
Manager

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglak Rd., Nonglak, Bankhai, Rayong Thailand 21120

Lot ID: 2537165
Date Received : May 19, 2025
Date Reported : May 27, 2025
Report Number : 3313117-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Page 3 of 3

Sample No. 2537165-23
Parameter เสียงรบกวน
Location ที่ใกล้สายส่งไฟฟ้าใต้แรงดัน 220KV (2) (N4) (GPS 47P 0744386, 1420985)
Measurement Date May 13 - 14, 2025
Measurement by Nontachai Uppathamp
Sound Level Meter 1120938

เวลา	เสียงจากแหล่งกำเนิด	เสียงขณะไม่มีการรบกวน	เสียงขณะมีการรบกวน		เสียงพื้นฐาน	ค่าเฉลี่ย
			กลางวัน	กลางคืน		
03:40 AM - 03:45 AM	46.1	43.1	-	46.1	42.2	3.9
03:45 AM - 03:50 AM	45.7	42.3	-	46.2	41.4	4.8
03:50 AM - 03:55 AM	46.2	42.3	-	46.9	41.7	5.2
03:55 AM - 04:00 AM	46.4	43.1	-	46.7	42.2	4.5
04:00 AM - 04:05 AM	49.5	45.7	-	50.2	42.4	7.8
04:05 AM - 04:10 AM	48.1	45.3	-	47.9	42.5	5.4
04:10 AM - 04:15 AM	51.6	50.7	-	47.3	43.2	4.1
04:15 AM - 04:20 AM	46.8	47.4	-	n/a	43.4	-
04:20 AM - 04:25 AM	53.5	51.8	-	51.6	43.0	8.6
04:25 AM - 04:30 AM	52.3	51.8	-	45.7	43.2	2.5
04:30 AM - 04:35 AM	48.1	47.2	-	43.8	42.6	1.2
04:35 AM - 04:40 AM	45.5	44.4	-	47.6	42.6	5.0
04:40 AM - 04:45 AM	49.8	45.8	-	50.6	43.9	6.7
04:45 AM - 04:50 AM	53.2	50.1	-	53.3	44.0	9.3
04:50 AM - 04:55 AM	51.9	49.5	-	51.2	43.8	7.4
04:55 AM - 05:00 AM	52.1	48.4	-	52.7	43.5	9.2
05:00 AM - 05:05 AM	51.9	49.3	-	51.4	42.6	8.8
05:05 AM - 05:10 AM	49.7	47.4	-	48.8	43.0	5.8
05:10 AM - 05:15 AM	50.7	46.7	-	51.5	42.4	9.1
05:15 AM - 05:20 AM	49.1	48.9	-	38.6	42.3	-3.7
05:20 AM - 05:25 AM	46.6	43.5	-	46.7	41.6	5.1
05:25 AM - 05:30 AM	47.0	44.5	-	46.4	42.0	5.4
05:30 AM - 05:35 AM	46.9	44.2	-	46.6	41.9	4.7
05:35 AM - 05:40 AM	47.2	43.6	-	47.7	41.6	6.1
05:40 AM - 05:45 AM	46.3	43.8	-	45.7	42.9	3.7
05:45 AM - 05:50 AM	46.5	44.3	-	45.5	41.5	4.0
05:50 AM - 05:55 AM	46.8	43.7	-	46.9	42.0	4.9
05:55 AM - 06:00 AM	46.3	43.7	-	45.8	42.4	3.4
06:00 AM - 07:00 AM	46.0	45.0	42.1	-	42.2	1.2
07:00 AM - 08:00 AM	49.9	49.1	42.2	-	42.2	0.0
08:00 AM - 09:00 AM	53.7	54.2	n/a	-	43.5	-
09:00 AM - 10:00 AM	56.0	57.1	n/a	-	47.8	-

ค่ามาตรฐาน

Reference Method :

- ISO 1996-1
- ประกาศคณะกรรมการควบคุมเสียงรบกวน เรื่อง วิธีการตรวจวัดระดับเสียงรบกวน ระดับเสียงขณะไม่มีการรบกวน การตรวจวัดและคำนวณระดับเสียงขณะมีการรบกวน การคำนวณระดับเสียงรบกวน และแบบบันทึกการตรวจวัดเสียงรบกวน พ.ศ. 2565
- มาตรฐาน ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 29 (พ.ศ.2550) เรื่อง ค่าระดับเสียงรบกวน

Remark:

- ระดับเสียงจากแหล่งกำเนิด มีการตรวจวัด วันที่ 13-14 พฤษภาคม 2568
- ระดับเสียงพื้นฐานและระดับเสียงขณะไม่มีการรบกวน (Sample No.2537166-23) มีการตรวจวัด 13-14 พฤษภาคม 2568)
- ทุกค่า: ไม่สามารถคำนวณระดับเสียงขณะมีการรบกวนได้ เนื่องจากระดับเสียงจากแหล่งกำเนิดต่ำกว่าระดับเสียงขณะไม่มีการรบกวน

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Wilawan Boririk
Manager

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Analysis / Test Report



TESTING
No.0042

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglak Rd., Nonglak, Bankhai, Rayong Thailand 21120

Lot ID: 2537165
Date Received : May 19, 2025
Date Reported : May 27, 2025
Report Number : 3313118-1

P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Page 1 of 3

Sample No. 2537165-24
Parameter เสียงรบกวน
Location ที่ใกล้สายส่งไฟฟ้าใต้แรงดัน 220KV (2) (N4) (GPS 47P 0744386, 1420985)
Measurement Date May 14 - 15, 2025
Measurement by Nontachai Uppathamp
Sound Level Meter 1120938

เวลา	เสียงจากแหล่งกำเนิด	เสียงขณะไม่มีการรบกวน	เสียงขณะมีการรบกวน		เสียงพื้นฐาน	ค่าเฉลี่ย
			กลางวัน	กลางคืน		
10:00 AM - 11:00 AM	51.9	54.7	n/a	-	42.5	-
11:00 AM - 12:00 PM	53.7	56.7	n/a	-	40.8	-
12:00 PM - 01:00 PM	49.2	49.8	n/a	-	38.2	-
01:00 PM - 02:00 PM	53.9	54.5	n/a	-	39.4	-
02:00 PM - 03:00 PM	46.7	45.2	41.4	-	38.5	2.9
03:00 PM - 04:00 PM	46.6	45.6	39.7	-	41.2	-1.5
04:00 PM - 05:00 PM	52.0	52.7	n/a	-	41.7	-
05:00 PM - 06:00 PM	50.3	52.0	n/a	-	49.8	-
06:00 PM - 07:00 PM	45.6	43.6	41.3	-	40.3	-
07:00 PM - 08:00 PM	48.2	47.0	42.0	-	44.4	-2.4
08:00 PM - 09:00 PM	46.9	46.2	38.6	-	44.8	-6.2
09:00 PM - 10:00 PM	58.1	58.5	n/a	-	47.5	-
10:00 PM - 11:00 PM	46.6	44.5	-	45.4	43.4	2.0
10:05 PM - 10:10 PM	53.3	49.0	-	54.3	44.5	9.8
10:10 PM - 10:15 PM	57.5	58.0	-	n/a	56.8	-
10:15 PM - 10:20 PM	51.2	54.8	-	n/a	48.9	-
10:20 PM - 10:25 PM	47.4	46.4	-	43.5	45.5	-2.0
10:25 PM - 10:30 PM	47.6	46.8	-	42.9	45.9	-3.0
10:30 PM - 10:35 PM	48.0	47.1	-	43.7	45.6	-1.9
10:35 PM - 10:40 PM	48.6	47.7	-	44.3	46.6	-2.3
10:40 PM - 10:45 PM	48.1	47.6	-	41.5	46.5	-5.0
10:45 PM - 10:50 PM	50.1	49.8	-	41.3	48.2	-6.9
10:50 PM - 10:55 PM	54.4	53.3	-	50.9	50.8	0.1
10:55 PM - 11:00 PM	52.0	54.4	-	n/a	51.1	-
11:00 PM - 11:05 PM	54.0	53.4	-	48.1	50.4	-2.3
11:05 PM - 11:10 PM	51.8	53.5	-	n/a	49.9	-
11:10 PM - 11:15 PM	53.7	53.4	-	44.9	50.9	-6.0
11:15 PM - 11:20 PM	53.3	54.2	-	n/a	52.5	-
11:20 PM - 11:25 PM	51.8	53.0	-	n/a	52.3	-
11:25 PM - 11:30 PM	48.5	49.1	-	n/a	47.9	-
11:30 PM - 11:35 PM	46.2	46.8	-	n/a	46.1	-
11:35 PM - 11:40 PM	46.6	46.6	-	33.2	45.7	-12.5
11:40 PM - 11:45 PM	46.5	47.1	-	n/a	45.9	-
11:45 PM - 11:50 PM	48.2	47.8	-	40.6	45.6	-5.0
11:50 PM - 11:55 PM	46.3	46.7	-	n/a	45.7	-
11:55 PM - 12:00 AM	46.7	46.7	-	n/a	46.1	-
12:00 AM - 12:05 AM	46.3	47.5	-	n/a	46.5	-
12:05 AM - 12:10 AM	46.3	47.2	-	n/a	46.1	-
12:10 AM - 12:15 AM	46.7	46.7	-	n/a	45.9	-
12:15 AM - 12:20 AM	46.1	46.3	-	n/a	45.6	-

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ระดับเสียงเครื่องจักร/เครื่องมือในกิจกรรมก่อสร้าง



Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537203

Date Received : May 19, 2025

Date Reported : May 27, 2025

Report Number: 3314643-1

Page 1 of 1

Sample Number 2537203-3
Parameter Noise (Leq15min)
Location เครื่องจักร/ เครื่องมือ ซึ่งเป็นแหล่งกำเนิดเสียงในการก่อสร้าง จุดที่ 3 (GPS 47P 0745196, 1421105)
Measurement Date May 17, 2025
Measurement by Supot Salamteh

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:55 AM - 10:56 AM	71.3	81.0	67.2
10:56 AM - 10:57 AM	70.0	75.9	66.8
10:57 AM - 10:58 AM	71.2	82.6	66.7
10:58 AM - 10:59 AM	73.1	87.2	68.0
10:59 AM - 11:00 AM	70.4	79.6	67.7
11:00 AM - 11:01 AM	66.1	69.2	63.1
11:01 AM - 11:02 AM	73.4	87.6	64.8
11:02 AM - 11:03 AM	71.2	76.5	69.8
11:03 AM - 11:04 AM	73.6	85.6	70.0
11:04 AM - 11:05 AM	72.7	79.8	62.9
11:05 AM - 11:06 AM	71.4	80.0	69.0
11:06 AM - 11:07 AM	70.3	72.4	69.2
11:07 AM - 11:08 AM	72.6	82.2	69.1
11:08 AM - 11:09 AM	73.8	81.1	69.3
11:09 AM - 11:10 AM	73.9	88.2	67.4

Leq Average 15 min. (dB(A))

72.0

Lmax (dB(A))

88.2

Standard (dB(A))

115

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย
ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537203

Date Received : May 19, 2025

Date Reported : May 27, 2025

Report Number: 3314644-1

Page 1 of 1

Sample Number 2537203-4
Parameter Noise (Leq15min)
Location เครื่องจักร/ เครื่องมือ ซึ่งเป็นแหล่งกำเนิดเสียงในการก่อสร้าง จุดที่ 4 (GPS 47P 0742478, 1420779)
Measurement Date May 17, 2025
Measurement by Supot Salamteh

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 12:01 PM	69.4	83.0	63.1
12:01 PM - 12:02 PM	69.4	79.7	63.9
12:02 PM - 12:03 PM	68.5	73.3	65.2
12:03 PM - 12:04 PM	67.6	77.0	63.1
12:04 PM - 12:05 PM	65.8	72.4	63.3
12:05 PM - 12:06 PM	70.3	76.3	67.5
12:06 PM - 12:07 PM	67.6	74.4	66.0
12:07 PM - 12:08 PM	66.9	69.4	65.5
12:08 PM - 12:09 PM	64.0	67.5	62.0
12:09 PM - 12:10 PM	62.9	67.4	59.5
12:10 PM - 12:11 PM	64.7	69.0	60.7
12:11 PM - 12:12 PM	62.9	73.3	58.8
12:12 PM - 12:13 PM	57.9	64.7	55.7
12:13 PM - 12:14 PM	56.1	60.5	55.0
12:14 PM - 12:15 PM	59.6	65.8	57.5

Leq Average 15 min. (dB(A))

66.5

Lmax (dB(A))

83.0

Standard (dB(A))

115

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย
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Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
Section Head

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S:\Reports_Air Noise.rpt (9:29AM)



Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglailok Rd.,, Nonglailok, Bankhai, Rayong Thailand 21120

P/O : 54250182

Project Name : Monitoring

Project Location : WHA ESIE 5

Lot ID: 2537203

Date Received : May 19, 2025

Date Reported : May 27, 2025

Report Number: 3314645-1

Page 1 of 1

Sample Number 2537203-5
Parameter Noise (Leq15min)
Location เครื่องจักร/ เครื่องมือ ซึ่งเป็นแหล่งกำเนิดเสียงในการก่อสร้าง จุดที่ 5 (GPS 47P 0741821, 1420691))
Measurement Date May 17, 2025
Measurement by Supot Salamteh

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:10 PM - 12:11 PM	65.0	71.7	59.1
12:11 PM - 12:12 PM	61.1	67.8	58.9
12:12 PM - 12:13 PM	67.5	73.1	60.0
12:13 PM - 12:14 PM	69.4	76.8	61.4
12:14 PM - 12:15 PM	65.5	74.1	61.6
12:15 PM - 12:16 PM	69.7	81.1	61.9
12:16 PM - 12:17 PM	66.6	73.7	62.3
12:17 PM - 12:18 PM	70.6	78.5	64.0
12:18 PM - 12:19 PM	70.2	78.7	62.5
12:19 PM - 12:20 PM	61.5	71.7	59.5
12:20 PM - 12:21 PM	62.5	70.1	59.4
12:21 PM - 12:22 PM	68.6	80.3	59.4
12:22 PM - 12:23 PM	67.8	76.7	60.6
12:23 PM - 12:24 PM	71.0	81.7	61.8
12:24 PM - 12:25 PM	67.9	73.8	64.8

Leq Average 15 min. (dB(A))

67.9

Lmax (dB(A))

81.7

Standard (dB(A))

115

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย
ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

Supot Salamteh
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ภาคผนวก ค-4

คุณภาพน้ำผิวดิน



Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglalo Rd.,, Nonglalo, Bankhai, Rayong Thailand 21120

P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 1 of 16

Sample Number	2548610-1						
Sampled Date	May 23, 2025 9:40 AM						
Sample Description	Surface Water						
Location	คลองบางตาพรุก่อนไหลผ่านพื้นที่โครงการ (SW1)						
Date Analysis Commenced	May 23, 2025						
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Physical Property	Yellow, some odour, solid and no turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
^[A] Arsenic	mg/L	0.0003	0.0005	0.003	≤0.01	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Copper	mg/L	0.0003	0.0005	0.001	≤0.10	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
^[A] Lead	mg/L	0.0003	0.0005	Not Detected	≤0.05	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Manganese	mg/L	0.0003	0.0005	0.51	≤1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Photchana Seeda
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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglalo Rd.,, Nonglalo, Bankhai, Rayong Thailand 21120

P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 2 of 16

Sample Number	2548610-1						
Sampled Date	May 23, 2025 9:40 AM						
Sample Description	Surface Water						
Location	คลองบางตาพรุก่อนไหลผ่านพื้นที่โครงการ (SW1)						
Date Analysis Commenced	May 23, 2025						
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Physical Property	Yellow, some odour, solid and no turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
^[A] Nickel	mg/L	0.0003	0.0005	0.003	≤0.10	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Zinc	mg/L	0.003	0.005	0.05	≤1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Microbiological Testing								
^[A] Fecal Coliform	MPN/100mL	-	-	790.0	≤4000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B, E	Bangkok
^[A] Total Coliform	MPN/100mL	-	-	2400.0	≤20000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B	Bangkok
Pesticides - Organochlorine Group								
^[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Photchana Seeda
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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 3 of 16

Sample Number	2548610-1
Sampled Date	May 23, 2025 9:40 AM
Sample Description	Surface Water
Location	คลองนาบตาปรกก่อนไหลผ่านพื้นที่โครงการ (SW1)
Date Analysis Commenced	May 23, 2025
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120

P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 4 of 16

Sample Number	2548610-1
Sampled Date	May 23, 2025 9:40 AM
Sample Description	Surface Water
Location	คลองนาบตาปรกก่อนไหลผ่านพื้นที่โครงการ (SW1)
Date Analysis Commenced	May 23, 2025
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property	Yellow, some odour, solid and no turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglalo Rd.,, Nonglalo, Bankhai, Rayong Thailand 21120

P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 5 of 16

Sample Number	2548610-1							
Sampled Date	May 23, 2025 9:40 AM							
Sample Description	Surface Water							
Location	คลองนาบตาปรกก่อนไหลผ่านพื้นที่โครงการ (SW1)							
Date Analysis Commenced	May 23, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, solid and no turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endosulfan sulfate	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglalo Rd.,, Nonglalo, Bankhai, Rayong Thailand 21120

P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

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Sample Number	2548610-1							
Sampled Date	May 23, 2025 9:40 AM							
Sample Description	Surface Water							
Location	คลองนาบตาปรกก่อนไหลผ่านพื้นที่โครงการ (SW1)							
Date Analysis Commenced	May 23, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, solid and no turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] Heptachlor	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Water Testing								
Ammonia Nitrogen *	mg/L	0.02	0.05	0.48	≤0.5	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NH3 (F)	Rayong

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
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P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 7 of 16

Sample Number	2548610-1							
Sampled Date	May 23, 2025 9:40 AM							
Sample Description	Surface Water							
Location	คลองบางตาปรุกก่อนไหลผ่านพื้นที่โครงการ (SW1)							
Date Analysis Commenced	May 23, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, solid and no turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
BOD *	mg/L	-	2	<2.0	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O C	Rayong
Color *	Color unit	-	5	20	(a)	(a)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 B	Rayong
Cyanide as CN	mg/L	0.001	0.005	Not Detected	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	4.5	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-O (G)	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.44	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NO3 (E)	Rayong
Odour *	-	-	-	Odourless	(a)	(a)	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	7.4	5.0-9.0	5.0-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
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P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 8 of 16

Sample Number	2548610-1							
Sampled Date	May 23, 2025 9:40 AM							
Sample Description	Surface Water							
Location	คลองบางตาพรหมเหนือผ่านพื้นที่โครงการ (SW1)							
Date Analysis Commenced	May 23, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, solid and no turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5530 B, D	Rayong
Sulfide *	mg/L	-	0.01	0.08	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-S2 (D)	Rayong
Temperature *	Degree C	-	-	28.2	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	376	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
(2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

Sampling By : Suphanat Sakulkitimasak , Pattarapol Sawangjaitam

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.
- Sampling is not included in scope of accreditation ISO/IEC 17025

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120

P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 9 of 16

Sample Number	2548610-2						
Sampled Date	May 23, 2025 9:10 AM						
Sample Description	Surface Water						
Location	คลองนาบตาปรังบริเวณ ทล. 3143 (SW2)						
Date Analysis Commenced	May 23, 2025						
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Physical Property	Yellow, some odour, a lot of solid and turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
^[A] Arsenic	mg/L	0.0003	0.0005	0.02	≤0.01	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Copper	mg/L	0.0003	0.0005	0.002	≤0.10	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
^[A] Lead	mg/L	0.0003	0.0005	0.006	≤0.05	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Manganese	mg/L	0.0003	0.0005	1.34	≤1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
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P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 10 of 16

Sample Number	2548610-2						
Sampled Date	May 23, 2025 9:10 AM						
Sample Description	Surface Water						
Location	คลองนาบตาปรังบริเวณ ทล. 3143 (SW2)						
Date Analysis Commenced	May 23, 2025						
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Physical Property	Yellow, some odour, a lot of solid and turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
^[A] Nickel	mg/L	0.0003	0.0005	0.003	≤0.10	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
^[A] Zinc	mg/L	0.003	0.005	0.10	≤1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Microbiological Testing								
^[A] Fecal Coliform	MPN/100mL	-	-	1100.0	≤4000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B, E	Bangkok
^[A] Total Coliform	MPN/100mL	-	-	13000.0	≤20000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B	Bangkok
Pesticides - Organochlorine Group								
^[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
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P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 11 of 16

Sample Number	2548610-2							
Sampled Date	May 23, 2025 9:10 AM							
Sample Description	Surface Water							
Location	คลองนาบตาปรุงบริเวณ ทล. 3143 (SW2)							
Date Analysis Commenced	May 23, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, a lot of solid and turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120

P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 12 of 16

Sample Number	2548610-2							
Sampled Date	May 23, 2025 9:10 AM							
Sample Description	Surface Water							
Location	คลองนาบตาปรุงบริเวณ ทล. 3143 (SW2)							
Date Analysis Commenced	May 23, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, a lot of solid and turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
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P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 13 of 16

Sample Number	2548610-2							
Sampled Date	May 23, 2025 9:10 AM							
Sample Description	Surface Water							
Location	คลองนาบตาปรุงบริเวณ ทล. 3143 (SW2)							
Date Analysis Commenced	May 23, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, a lot of solid and turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endosulfan sulfate	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B.	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
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P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 14 of 16

Sample Number	2548610-2							
Sampled Date	May 23, 2025 9:10 AM							
Sample Description	Surface Water							
Location	คลองนาบตาปรุงบริเวณ ทล. 3143 (SW2)							
Date Analysis Commenced	May 23, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, a lot of solid and turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] Heptachlor	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Water Testing								
Ammonia Nitrogen *	mg/L	0.02	0.05	0.24	≤0.5	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NH3 (F)	Rayong

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120
P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 15 of 16

Sample Number	2548610-2							
Sampled Date	May 23, 2025 9:10 AM							
Sample Description	Surface Water							
Location	คลองบางตาพรหมบริเวณ ทล. 3143 (SW2)							
Date Analysis Commenced	May 23, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, a lot of solid and turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
BOD *	mg/L	-	2	<2.0	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O C	Rayong
Color *	Color unit	-	5	60	(a)	(a)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 B	Rayong
Cyanide as CN	mg/L	0.001	0.005	<0.005	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.6	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-O (G)	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.98	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NO3 (E)	Rayong
Odour *	-	-	-	Odourless	(a)	(a)	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	7.2	5.0-9.0	5.0-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglaloek Rd.,, Nonglaloek, Bankhai, Rayong Thailand 21120
P/O :
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2548610
Date Received : May 23, 2025
Date Reported : May 31, 2025
Report Number : 3312210-1

Page 16 of 16

Sample Number	2548610-2							
Sampled Date	May 23, 2025 9:10 AM							
Sample Description	Surface Water							
Location	คลองบางตาพรหมบริเวณ ทล. 3143 (SW2)							
Date Analysis Commenced	May 23, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, a lot of solid and turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Phenol *	mg/L	0.0005	0.001	Not Detected	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5530 B, D	Rayong
Sulfide *	mg/L	-	0.01	0.06	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-S2 (D)	Rayong
Temperature *	Degree C	-	-	27.9	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	260	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3) (2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4) (a) Not Change from natural condition (b) Non Objectionable (c) Change from Natural condition not more than 3 degree C								
Sampling By : Suphanat Sakulkittimasak , Pattarapol Sawangjaitam								
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. - Sampling is not included in scope of accreditation ISO/IEC 17025								

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314086-1

Page 1 of 8

Sample Number 2537218-3
Sampled Date May 14, 2025 9:30 AM
Sample Description Surface Water
Location คลองน้ำเย็นก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (SW3)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Arsenic	mg/L	0.0003	0.0005	0.007	≤0.01	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.002	≤0.10	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.003	≤0.05	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.60	≤1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314086-1

Page 2 of 8

Sample Number 2537218-3
Sampled Date May 14, 2025 9:30 AM
Sample Description Surface Water
Location คลองน้ำเย็นก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (SW3)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Nickel	mg/L	0.0003	0.0005	0.003	≤0.10	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.07	≤1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Microbiological Testing								
^[A] Fecal Coliform	MPN/100mL	-	-	1100.0	≤4000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B, E	Bangkok
^[A] Total Coliform	MPN/100mL	-	-	7900.0	≤20000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B	Bangkok
Pesticides - Organochlorine Group								
^[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

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P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314086-1

Page 3 of 8

Sample Number 2537218-3
Sampled Date May 14, 2025 9:30 AM
Sample Description Surface Water
Location คลองน้ำเย็นก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (SW3)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314086-1

Page 4 of 8

Sample Number 2537218-3
Sampled Date May 14, 2025 9:30 AM
Sample Description Surface Water
Location คลองน้ำเย็นก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (SW3)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglalo Rd.,, Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314086-1

Page 5 of 8

Sample Number 2537218-3
Sampled Date May 14, 2025 9:30 AM
Sample Description Surface Water
Location คลองน้ำเย็นก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (SW3)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endosulfan sulfate	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
, Bankhai-Nonglalo Rd.,, Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314086-1

Page 6 of 8

Sample Number 2537218-3
Sampled Date May 14, 2025 9:30 AM
Sample Description Surface Water
Location คลองน้ำเย็นก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (SW3)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] Heptachlor	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Water Testing								
Ammonia Nitrogen *	mg/L	0.02	0.05	0.12	≤0.5	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NH3 (F)	Rayong

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314086-1

Page 7 of 8

Sample Number	2537218-3							
Sampled Date	May 14, 2025 9:30 AM							
Sample Description	Surface Water							
Location	คลองน้ำเย็นก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (SW3)							
Date Analysis Commenced	May 14, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, solid and turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
BOD *	mg/L	-	2	<2.0	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O C	Rayong
Color *	Color unit	-	5	15	(a)	(a)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 B	Rayong
Dissolved Oxygen *	mg/L	-	0.1	7.1	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-O (G)	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.55	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NO3 (E)	Rayong
Odour *	-	-	-	Odourless	(a)	(a)	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	7.3	5.0-9.0	5.0-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	0.004	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5530 B, D	Rayong

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314086-1

Page 8 of 8

Sample Number	2537218-3							
Sampled Date	May 14, 2025 9:30 AM							
Sample Description	Surface Water							
Location	คลองน้ำเย็นก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (SW3)							
Date Analysis Commenced	May 14, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, solid and turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Sulfide *	mg/L	-	0.01	0.09	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-S2 (D)	Rayong
Temperature *	Degree C	-	-	27.2	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	312	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
(2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

Sampling By : Kosin Khomwisat

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.
- Sampling is not included in scope of accreditation ISO/IEC 17025

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314086-2

Page 1 of 1

Sample Number 2537218-3
Sampled Date May 14, 2025 9:30 AM
Sample Description Surface Water
Location คลองน้ำเย็นก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (SW3)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Cyanide as CN	mg/L	0.001	0.005	0.010	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-CN (C, E)	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
(2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

Sampling By : Kosi Khomwisat

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.
- Sampling is not included in scope of accreditation ISO/IEC 17025

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
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P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314087-1

Page 1 of 8

Sample Number 2537218-4
Sampled Date May 14, 2025 10:30 AM
Sample Description Surface Water
Location คลองน้ำเย็นจุดระบายน้ำทิ้งของโครงการ (SW4)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Arsenic	mg/L	0.0003	0.0005	0.007	≤0.01	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.002	≤0.10	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.004	≤0.05	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.54	≤1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314087-1

Page 2 of 8

Sample Number 2537218-4
Sampled Date May 14, 2025 10:30 AM
Sample Description Surface Water
Location คลองน้ำเย็นจุดระบายน้ำทิ้งของโครงการ (SW4)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Nickel	mg/L	0.0003	0.0005	0.002	≤0.10	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.06	≤1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Pesticides - Organochlorine Group								
^[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314087-1

Page 3 of 8

Sample Number 2537218-4
Sampled Date May 14, 2025 10:30 AM
Sample Description Surface Water
Location คลองน้ำเย็นจุดระบายน้ำทิ้งของโครงการ (SW4)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314087-1

Page 6 of 8

Sample Number	2537218-4						
Sampled Date	May 14, 2025 10:30 AM						
Sample Description	Surface Water						
Location	คลองน้ำเย็นจุดระบายน้ำทิ้งของโครงการ (SW4)						
Date Analysis Commenced	May 14, 2025						
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Physical Property	Yellow, some odour, solid and turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Water Testing								
Ammonia Nitrogen *	mg/L	0.02	0.05	0.11	≤0.5	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NH3 (F)	Rayong
BOD *	mg/L	-	2	<2.0	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O C	Rayong
Color *	Color unit	-	5	15	(a)	(a)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 B	Rayong

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314087-1

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Sample Number	2537218-4						
Sampled Date	May 14, 2025 10:30 AM						
Sample Description	Surface Water						
Location	คลองน้ำเย็นจุดระบายน้ำทิ้งของโครงการ (SW4)						
Date Analysis Commenced	May 14, 2025						
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Physical Property	Yellow, some odour, solid and turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Dissolved Oxygen *	mg/L	-	0.1	6.7	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-O (G)	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.51	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NO3 (E)	Rayong
Odour *		-	-	Odourless	(a)	(a)	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.4	5.0-9.0	5.0-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	0.002	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5530 B, D	Rayong
Sulfide *	mg/L	-	0.01	0.03	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-S2 (D)	Rayong
Temperature *	Degree C	-	-	29.8	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314087-1

Page 8 of 8

Sample Number	2537218-4						
Sampled Date	May 14, 2025 10:30 AM						
Sample Description	Surface Water						
Location	คลองน้ำเย็นจุดระบายน้ำทิ้งของโครงการ (SW4)						
Date Analysis Commenced	May 14, 2025						
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Physical Property	Yellow, some odour, solid and turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	296	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
(2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

Sampling By : Kosin Khomwisat

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.
- Sampling is not included in scope of accreditation ISO/IEC 17025

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Analysis / Test Report

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P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314087-2

Page 1 of 1

Sample Number	2537218-4						
Sampled Date	May 14, 2025 10:30 AM						
Sample Description	Surface Water						
Location	คลองน้ำเย็นจุดระบายน้ำทิ้งของโครงการ (SW4)						
Date Analysis Commenced	May 14, 2025						
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Physical Property	Yellow, some odour, solid and turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Microbiological Testing								
^[A] Fecal Coliform	MPN/100mL	-	-	7000.0	≤4000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B, E	Bangkok
^[A] Total Coliform	MPN/100mL	-	-	49000.0	≤20000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B	Bangkok
Water Testing								
Cyanide as CN	mg/L	0.001	0.005	0.007	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-CN (C, E)	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
(2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

Sampling By : Kosin Khomwisat

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.
- Sampling is not included in scope of accreditation ISO/IEC 17025

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Analysis / Test Report

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Bankhai-Nonglalek Rd., Nonglalek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314088-1

Page 1 of 8

Sample Number	2537218-5						
Sampled Date	May 14, 2025 10:10 AM						
Sample Description	Surface Water						
Location	คลองน้ำเย็นหลังจตุรรมายน้ำทิ้งของโครงการ 400 เมตร (SW5)						
Date Analysis Commenced	May 14, 2025						
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Physical Property	Yellow, some odour, solid and turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Arsenic	mg/L	0.0003	0.0005	0.006	≤0.01	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.001	≤0.10	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.002	≤0.05	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.51	≤1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
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P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314088-1

Page 2 of 8

Sample Number	2537218-5						
Sampled Date	May 14, 2025 10:10 AM						
Sample Description	Surface Water						
Location	คลองน้ำเย็นหลังจตุรรมายน้ำทิ้งของโครงการ 400 เมตร (SW5)						
Date Analysis Commenced	May 14, 2025						
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Physical Property	Yellow, some odour, solid and turbid						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Nickel	mg/L	0.0003	0.0005	0.003	≤0.10	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.05	≤1	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Microbiological Testing								
^[A] Total Coliform	MPN/100mL	-	-	4900.0	≤20000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B	Bangkok
Pesticides - Organochlorine Group								
^[A] 2,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 2,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 2,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314088-1

Page 3 of 8

Sample Number 2537218-5
Sampled Date May 14, 2025 10:10 AM
Sample Description Surface Water
Location คลองน้ำเย็นหลังจตุรบานายน้ำทิ้งของโครงการ 400 เมตร (SW5)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] 4,4-DDD	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 4,4-DDE	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] 4,4-DDT	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Aldrin	ug/L	0.01	0.02	Not Detected	≤0.10	≤0.10	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] alpha-BHC	ug/L	0.01	0.02	Not Detected	≤0.02	≤0.02	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] alpha-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314088-1

Page 4 of 8

Sample Number 2537218-5
Sampled Date May 14, 2025 10:10 AM
Sample Description Surface Water
Location คลองน้ำเย็นหลังจตุรบานายน้ำทิ้งของโครงการ 400 เมตร (SW5)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] beta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Chlordane	ug/L	0.02	0.04	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] DDT	ug/L	0.06	0.12	Not Detected	≤1	≤1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] delta-BHC	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Dieldrin	ug/L	0.01	0.02	Not Detected	≤0.1	≤0.1	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endosulfan I	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314088-1

Page 5 of 8

Sample Number	2537218-5							
Sampled Date	May 14, 2025 10:10 AM							
Sample Description	Surface Water							
Location	คลองน้ำเย็นหลังจตุรรมายน้ำทั้งของโครงการ 400 เมตร (SW5)							
Date Analysis Commenced	May 14, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, solid and turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] Endosulfan II	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endosulfan sulfate	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin aldehyde	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Endrin ketone	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] gamma-Chlordane	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd.,, Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314088-1

Page 6 of 8

Sample Number	2537218-5							
Sampled Date	May 14, 2025 10:10 AM							
Sample Description	Surface Water							
Location	คลองน้ำเย็นหลังจตุรรมายน้ำทั้งของโครงการ 400 เมตร (SW5)							
Date Analysis Commenced	May 14, 2025							
Condition of Sample	Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property	Yellow, some odour, solid and turbid							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
^[A] Heptachlor	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor and Heptachlor epoxide *	ug/L	0.01	0.02	Not Detected	≤0.2	≤0.2	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
^[A] Methoxychlor	ug/L	0.01	0.02	Not Detected	No Standard	No Standard	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Water Testing								
Color *	Color unit	-	5	15	(a)	(a)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 B	Rayong

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314088-1

Page 7 of 8

Sample Number 2537218-5
Sampled Date May 14, 2025 10:10 AM
Sample Description Surface Water
Location คลองน้ำเย็นหลังจตุรฆานายาทั้งของโครงการ 400 เมตร (SW5)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Cyanide as CN	mg/L	0.001	0.005	<0.005	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-CN (C, E)	Rayong
Dissolved Oxygen *	mg/L	-	0.1	6.5	≥4	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-O (G)	Rayong
Formaldehyde *	mg/L	0.03	0.1	Not Detected	No Standard	No Standard	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Nitrate as N *	mg/L	0.015	0.05	0.80	≤5	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NO3 (E)	Rayong
Odour *		-	-	Odourless	(a)	(a)	TIS, 257-2549	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	7.3	5.0-9.0	5.0-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Phenol *	mg/L	0.0005	0.001	0.004	≤0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5530 B, D	Rayong
Sulfide *	mg/L	-	0.01	0.03	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-S2 (D)	Rayong

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5



TESTING
No.0042
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314088-1

Page 8 of 8

Sample Number 2537218-5
Sampled Date May 14, 2025 10:10 AM
Sample Description Surface Water
Location คลองน้ำเย็นหลังจตุรฆานายาทั้งของโครงการ 400 เมตร (SW5)
Date Analysis Commenced May 14, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Temperature *	Degree C	-	-	29.8	(c)	(c)	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	310	No Standard	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
(2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

Sampling By : Kosin Khomwisat

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.
- Sampling is not included in scope of accreditation ISO/IEC 17025

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5

TESTING
No.0009
Lot ID: 2537218
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3314088-2

Page 1 of 1

Sample Number 2537218-5
Sampled Date May 14, 2025 10:10 AM
Sample Description Surface Water
Location คลองน้ำเย็นหลังจตุรรมายน้ำทิ้งของโครงการ 400 เมตร (SW5)
Date Analysis Commenced May 15, 2025
Condition of Sample Contained in two glass vials, three amber glass bottles and eight plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Microbiological Testing								
Fecal Coliform	MPN/100mL	-	-	4900.0	≤4000	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B, E	Bangkok
Water Testing								
Ammonia Nitrogen *	mg/L	0.02	0.05	0.71	≤0.5	≤0.5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NH3 (F)	Rayong
BOD *	mg/L	-	2	4.6	≤2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O C	Rayong

Guideline : (1) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)
(2) Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
(a) Not Change from natural condition
(b) Non Objectionable
(c) Change from Natural condition not more than 3 degree C

Sampling By : Kosin Khomwisat

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.
- Sampling is not included in scope of accreditation ISO/IEC 17025

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2537222
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3287352-1

Page 1 of 6

Sample Number : 2537222-1
Sampled Date : May 14, 2025 9:30 AM
Sample Description : Sediment
Location : คลองน้ำเขื่อนกอนจตุรบานน้ำทั้งของโครงการ 400 เมตร (SD1)
Date Analysis Commenced : May 16, 2025
Condition of Sample : Packed in one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/kg	-	0.50	3.47	≤10	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	≤1	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Copper	mg/kg	-	1.00	<1.00	≤31.5	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	0.25	<0.25	No Standard	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	1.84	≤36	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤0.2	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	<1.00	≤23	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Zinc	mg/kg	-	1.00	4.69	≤120	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	15.2	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 G	Bangkok

Guideline : Notification of The National Environmental Board B.E.2565, for protect benthic animals

Note : Analysis Results expressed on dry basis.

Sampling By : Kosin Khomwisat

Remark :
- LOD : Limit of Detection

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Approved by

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
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P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2537222
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3287352-1

Page 2 of 6

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

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5

Lot ID: 2537222
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3287352-1

Page 3 of 6

Sample Number 2537222-2
Sampled Date May 14, 2025 10:30 AM
Sample Description Sediment
Location คลองน้ำเขื่อนจระเข้ท่าช้างของโครงการ (SD2)
Date Analysis Commenced May 16, 2025
Condition of Sample Packed in one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/kg	-	0.50	10.9	≤10	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	≤1	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Copper	mg/kg	-	1.00	4.97	≤31.5	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	0.25	<0.25	No Standard	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	17.7	≤36	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤0.2	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	2.31	≤23	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Zinc	mg/kg	-	1.00	54.4	≤120	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	39.6	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 G	Bangkok

Guideline : Notification of The National Environmental Board B.E.2565, for protect benthic animals

Note : Analysis Results expressed on dry basis.

Sampling By : Kosin Khomwisat

Remark :
- LOD : Limit of Detection

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

Approved by

Chanatt L.

Chanattagam Imchom
Section Head

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5

Lot ID: 2537222
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3287352-1

Page 4 of 6

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

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2537222
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3287352-1

Page 5 of 6

Sample Number : 2537222-3
Sampled Date : May 14, 2025 10:10 AM
Sample Description : Sediment
Location : คลองน้ำเย็นหลังจตุรรมายน้ำทั้งของโครงการ 400 เมตร (SD3)
Date Analysis Commenced : May 16, 2025
Condition of Sample : Packed in one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/kg	-	0.50	19.6	≤10	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	≤1	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Copper	mg/kg	-	1.00	8.76	≤31.5	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	0.25	<0.25	No Standard	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	25.8	≤36	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤0.2	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	4.08	≤23	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Zinc	mg/kg	-	1.00	104	≤120	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	50.5	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 G	Bangkok

Guideline : Notification of The National Environmental Board B.E.2565, for protect benthic animals

Note : Analysis Results expressed on dry basis.

Sampling By : Kosin Khomwisat

Remark :
- LOD : Limit of Detection

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Approved by

Chanatt L.

Chanattagarn Imchom
Section Head

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2537222
Date Received : May 14, 2025
Date Reported : May 23, 2025
Report Number : 3287352-1

Page 6 of 6

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

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Chanatt L.

Chanattagarn Imchom
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คุณภาพดิน



Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296667-1

Page 1 of 1

Sample Number 2533984-2
Sampled Date Apr 24, 2025 9:50 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศตะวันตกของโครงการ (S1) ระดับความลึก 30 เซนติเมตร
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/kg	-	0.50	6.57	≤25	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	≤762	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	0.25	<0.25	≤212	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	9.61	≤800	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Manganese	mg/kg	-	1.00	185	≤19640	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤263	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	1.76	≤5205	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	≤4380	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna ทะเบียนเลขที่ ๖-204-๖-0101

Remark :

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296667-2

Page 1 of 1

Sample Number 2533984-2
Sampled Date Apr 24, 2025 9:50 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศตะวันตกของโครงการ (S1) ระดับความลึก 30 เซนติเมตร
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/kg	-	1.00	1.34	≤35040	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	6.3	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 G	Bangkok
Soil Testing							
pH aqueous phase 50% (w/v)		-	-	4.6	No Standard	United States Environmental Protection Agency, EPA Method 9045 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna

Remark :

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

Approved by

Chanatt L.

Chanattagarn Imchom
Section Head

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296668-1

Page 1 of 1

Sample Number 2533984-3
Sampled Date Apr 24, 2025 10:05 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศเหนือของโครงการ (S2) ระดับความลึก 5 เซนติเมตร (GPS 47P 0744209, 1421488)
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/kg	-	0.50	2.89	≤25	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	≤762	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	0.25	<0.25	≤212	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	3.86	≤800	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Manganese	mg/kg	-	1.00	6.34	≤19640	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤263	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	1.42	≤5205	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	≤4380	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna ทะเบียนเลขที่ ๖-204-๖-0101

Remark :

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296668-2

Page 1 of 1

Sample Number 2533984-3
Sampled Date Apr 24, 2025 10:05 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศเหนือของโครงการ (S2) ระดับความลึก 5 เซนติเมตร (GPS 47P 0744209, 1421488)
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/kg	-	1.00	1.07	≤35040	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	4.1	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 G	Bangkok
Soil Testing							
pH aqueous phase 50% (w/v)		-	-	4.5	No Standard	United States Environmental Protection Agency, EPA Method 9045 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna

Remark :

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

Approved by

Chanatt L.

Chanattagarn Imchom
Section Head

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296669-1

Page 1 of 1

Sample Number 2533984-4
Sampled Date Apr 24, 2025 10:10 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศเหนือของโครงการ (S2) ระดับความลึก 30 เซนติเมตร
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/kg	-	0.50	3.30	≤25	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	≤762	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	0.25	<0.25	≤212	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	4.78	≤800	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Manganese	mg/kg	-	1.00	5.90	≤19640	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤263	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	2.38	≤5205	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	≤4380	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna ทะเบียนเลขที่ ๖-204-๖-0101

Remark :

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296669-2

Page 1 of 1

Sample Number 2533984-4
Sampled Date Apr 24, 2025 10:10 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศเหนือของโครงการ (S2) ระดับความลึก 30 เซนติเมตร
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/kg	-	1.00	1.25	≤35040	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	5.3	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 G	Bangkok
Soil Testing							
pH aqueous phase 50% (w/v)		-	-	4.4	No Standard	United States Environmental Protection Agency, EPA Method 9045 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna

Remark :

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

Approved by

Chanatt L.

Chanattagarn Imchom
Section Head

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296670-1

Page 1 of 1

Sample Number 2533984-5
Sampled Date Apr 24, 2025 10:30 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศตะวันออกของโครงการ (S3) ระดับความลึก 5 เซนติเมตร (GPS 47P 0746745, 1420282)
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/kg	-	0.50	<0.50	≤25	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	≤762	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	0.25	<0.25	≤212	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	6.32	≤800	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Manganese	mg/kg	-	1.00	7.30	≤19640	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤263	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	1.06	≤5205	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	≤4380	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna ทะเบียนเลขที่ ๖-204-๖-0101

Remark :

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglaloek Rd., Nonglaloek, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296670-2

Page 1 of 1

Sample Number 2533984-5
Sampled Date Apr 24, 2025 10:30 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศตะวันออกของโครงการ (S3) ระดับความลึก 5 เซนติเมตร (GPS 47P 0746745, 1420282)
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/kg	-	1.00	1.06	≤35040	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	8.4	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 G	Bangkok
Soil Testing							
pH aqueous phase 50% (w/v)		-	-	4.0	No Standard	United States Environmental Protection Agency, EPA Method 9045 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna

Remark :

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

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296671-1

Page 1 of 1

Sample Number 2533984-6
Sampled Date Apr 24, 2025 10:35 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศตะวันออกของโครงการ (S3) ระดับความลึก 30 เซนติเมตร
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/kg	-	0.50	<0.50	≤25	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	≤762	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	0.25	<0.25	≤212	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	6.10	≤800	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Manganese	mg/kg	-	1.00	3.27	≤19640	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	No Standard	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	1.30	≤5205	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	≤4380	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna ทะเบียนเลขที่ ๖-204-๖-0101

Remark :

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location: WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296671-2

Page 1 of 1

Sample Number 2533984-6
Sampled Date Apr 24, 2025 10:35 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศตะวันออกของโครงการ (S3) ระดับความลึก 30 เซนติเมตร
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/kg	-	1.00	<1.00	≤35040	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	8.0	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 G	Bangkok
Soil Testing							
pH aqueous phase 50% (w/v)		-	-	4.2	No Standard	United States Environmental Protection Agency, EPA Method 9045 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna

Remark :

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

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296672-1

Page 1 of 1

Sample Number 2533984-7
Sampled Date Apr 24, 2025 9:20 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศใต้ของโครงการ (S4) ระดับความลึก 5 เซนติเมตร (GPS 47P 0742560, 1420347)
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/kg	-	0.50	2.64	≤25	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	≤762	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	0.25	<0.25	≤212	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	4.69	≤800	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Manganese	mg/kg	-	1.00	45.6	≤19640	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤263	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	<1.00	≤5205	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	≤4380	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna ทะเบียนเลขที่ ๖-204-๖-0101

Remark :

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296672-2

Page 1 of 1

Sample Number 2533984-7
Sampled Date Apr 24, 2025 9:20 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศใต้ของโครงการ (S4) ระดับความลึก 5 เซนติเมตร (GPS 47P 0742560, 1420347)
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/kg	-	1.00	1.77	≤35040	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	7.2	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 G	Bangkok
Soil Testing							
pH aqueous phase 50% (w/v)		-	-	5.2	No Standard	United States Environmental Protection Agency, EPA Method 9045 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna

Remark :

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

Approved by

Chanatt L.

Chanattagarn Imchom
Section Head

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296673-1

Page 1 of 1

Sample Number 2533984-8
Sampled Date Apr 24, 2025 9:25 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศใต้ของโครงการ (S4) ระดับความลึก 30 เซนติเมตร
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/kg	-	0.50	2.15	≤25	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	≤762	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Hexavalent Chromium	mg/kg	-	0.25	<0.25	≤212	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A	Bangkok
Lead	mg/kg	-	1.00	4.62	≤800	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Manganese	mg/kg	-	1.00	45.1	≤19640	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	≤263	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	1.39	≤5205	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	≤4380	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna ทะเบียนเลขที่ ๖-204-๖-0101

Remark :

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : WHA Industrial Development Public Company Limited
Bankhai-Nonglajok Rd., Nonglajok, Bankhai, Rayong Thailand 21120
P/O : 54250182
Project Name : Monitoring
Project Location : WHA ESIE 5

Lot ID: 2533984
Date Received : Apr 24, 2025
Date Reported : May 06, 2025
Report Number : 3296673-2

Page 1 of 1

Sample Number 2533984-8
Sampled Date Apr 24, 2025 9:25 AM
Sample Description Soil
Location พื้นที่สีเขียวและแนวกันชนด้านทิศใต้ของโครงการ (S4) ระดับความลึก 30 เซนติเมตร
Date Analysis Commenced Apr 25, 2025
Condition of Sample Packed in one plastic bag, one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/kg	-	1.00	1.73	≤35040	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters							
Moisture	%	-	0.1	6.0	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 G	Bangkok
Soil Testing							
pH aqueous phase 50% (w/v)		-	-	5.2	No Standard	United States Environmental Protection Agency, EPA Method 9045 D	Bangkok

Guideline : Notification of National Environmental Board B.E. 2564 (2021), published in the Royal Government Gazette No. 138 Special Part 54 D dated March 11, B.E.2564

Class 2: Soil usage for commercial, agricultural and others.

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna

Remark :

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

Approved by

Chanatt L.

Chanattagarn Imchom
Section Head

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ทรัพยากรชีวภาพทางน้ำ



สถานีวิจัยประมงศรีราชา

101/12 หมู่ 9 ต. บางพระ

อ. ศรีราชา จ. ชลบุรี 20110

โทร./โทรสาร. (038) 311379

Client : WHA Industrial Development Public Company Limited

Address : Bankhai-Nonglalom Rd., Nonglalom, Bankhai, Rayong, Thailand, 21120

Project Name : Monitoring

Project Location : WHA ESIE 5

รายงานผลการวิเคราะห์แพลงก์ตอนพืช

ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568)

ชนิดแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลูกบาศก์เมตร)		
	2537240-1	2537240-2	2537240-3
Division Cyanophyta			
Class Cyanophyceae			
Order Nostocales			
Family Oscillatoriaceae			
1. <i>Lyngbya birgei</i>	10,000	-	-
2. <i>Lyngbya</i> sp.	10,000	9,000	38,000
3. <i>Oscillatoria limnetica</i>	10,000	9,000	115,000
4. <i>Oscillatoria</i> sp.	207,000	107,000	1,108,000
5. <i>Oscillatoria tenuis</i>	83,000	179,000	229,000
Family Nostocaceae			
6. <i>Anabaena azollae</i>	-	9,000	-

ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568)

(ต่อ)

ชนิดแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลูกบาศก์เมตร)		
	2537240-1	2537240-2	2537240-3
Division Chlorophyta			
Class Chlorophyceae			
Order Volvocales			
Family Volvocaceae			
7. <i>Eudorina elegans</i>	-	9,000	-
Family Spondylomoraceae			
8. <i>Spondylomorom quarternarium</i>	-	-	10,000
Order Chlorococcales			
Family Hydrodictyaceae			
9. <i>Pediastrum duplex</i>	-	-	10,000
Family Scenedesmaceae			
10. <i>Actinastrum</i> sp.	-	-	10,000
11. <i>Scenedesmus dimorphus</i>	-	-	10,000
12. <i>Scenedesmus opoliensis</i>	-	-	38,000
13. <i>Scenedesmus quadricauda</i>	-	-	315,000
Order Zygomatales			
Family Zygnemataceae			
14. <i>Spirogyra weberi</i>	-	18,000	-
Family Desmidiaceae			
15. <i>Closterium acerosum</i>	-	9,000	19,000
16. <i>Closterium</i> sp.	10,000	-	-
17. <i>Cosmarium nudum</i>	10,000	9,000	10,000
18. <i>Desmidium swartzii</i>	-	45,000	-
19. <i>Gonatozygon aculeatum</i>	41,000	63,000	-
20. <i>Hyalotheca</i> sp.	-	-	10,000

ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568)

ชนิดแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลูกบาศก์เมตร)		
	2537240-1	2537240-2	2537240-3
Class Euglenophyceae			
Order Euglenales			
Family Euglenaceae			
21. <i>Euglena acus</i>	166,000	18,000	67,000
22. <i>Euglena oxyuris</i>	21,000	9,000	10,000
23. <i>Euglena</i> sp.	124,000	18,000	29,000
24. <i>Euglena splendens</i>	31,000	-	-
25. <i>Lepocinclis ovum</i>	52,000	18,000	29,000
26. <i>Phacus hamatus</i>	-	9,000	29,000
27. <i>Phacus horridus</i>	-	-	19,000
28. <i>Phacus longicauda</i>	-	18,000	-
29. <i>Phacus myersi</i>	-	-	19,000
30. <i>Phacus pleuronectes</i>	10,000	9,000	-
31. <i>Phacus</i> sp.	10,000	9,000	29,000
32. <i>Phacus tortus</i>	-	18,000	10,000
33. <i>Strombomonas fluviatilis</i>	-	9,000	-
34. <i>Trachelomonas daugerdiana</i>	-	-	10,000
Division Chromophyta			
Class Bacillariophyceae			
Order Biddulphiales			
Suborder Coscinodiscineae			
Family Thalassiosiraceae			
35. <i>Cyclotella meneghiniana</i>	10,000	-	-
36. <i>Cyclotella stelligera</i>	10,000	9,000	-
37. <i>Stephanodiscus hantzschii</i>	31,000	-	-

ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568)


ชนิดแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลูกบาศก์เมตร)		
	2537240-1	2537240-2	2537240-3
Order Bacillariales			
Suborder Fragilariineae			
Family Fragilariaceae			
38. <i>Fragilaria capucina</i>	-	-	96,000
39. <i>Synedra ulna</i>	21,000	36,000	38,000
Suborder Bacillariineae			
Family Eunotiaceae			
40. <i>Eunotia flexuosa</i>	-	18,000	-
41. <i>Eunotia lineolata</i>	21,000	36,000	19,000
42. <i>Eunotia pectinalis</i>	62,000	27,000	57,000
Family Cymbellaceae			
43. <i>Gomphonema parvulum</i>	10,000	-	10,000
Family Naviculaceae			
44. <i>Amphora</i> sp.	-	9,000	-
45. <i>Gyrosigma attenuatum</i>	10,000	-	-
46. <i>Gyrosigma scalproides</i>	31,000	-	10,000
47. <i>Gyrosigma</i> sp.	-	9,000	-
48. <i>Navicula cuspidata</i>	10,000	9,000	-
49. <i>Pinnularia gibba</i>	135,000	98,000	38,000
50. <i>Pinnularia pulchella</i>	-	-	10,000
51. <i>Stauroneis anceps</i>	-	18,000	-
Family Surirellaceae			
52. <i>Surirella elegans</i>	62,000	45,000	57,000
53. <i>Surirella linearis</i>	10,000	18,000	29,000
54. <i>Surirella ovata</i>	10,000	-	-
55. <i>Surirella robusta</i>	41,000	63,000	153,000
56. <i>Surirella tenera</i>	52,000	27,000	-


ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568)

ชนิดแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลูกบาศก์เมตร)		
	2537240-1	2537240-2	2537240-3
Class Cryophyceae			
Order Synurales			
Family Mallomonadaceae			
57. Mallomonas litomesa	-	18,000	-
Class Dinophyceae			
Order Peridiniales			
Family Peridiniaceae			
58. Peridinium gatunense	-	-	19,000
ชนิดแพลงก์ตอนพืช	31	36	35
ปริมาณแพลงก์ตอนพืช	1,321,000	1,041,000	2,709,000
ดัชนีความหลากหลายแพลงก์ตอนพืช	2.9167	3.1099	2.3978
ดัชนีความสม่ำเสมอแพลงก์ตอนพืช	0.8494	0.8678	0.6744

Sample Location : 1. สถานี 2537240-1 : คลองน้ำขึ้นก่อนจุลระบายน้ำทิ้งของโครงการ 400 เมตร (Bio1)
2. สถานี 2537240-2 : คลองน้ำขึ้นจุลระบายน้ำทิ้งของโครงการ (Bio2)
3. สถานี 2537240-3 : คลองน้ำขึ้นหลังจุลระบายน้ำทิ้งของโครงการ 400 เมตร (Bio3)

Condition of Sample : contained in one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)


(นางสาวกนกวรรณ ขวค้อน)
ผู้วิเคราะห์


(นายอลงกต อินทรชาติ)
หัวหน้าสถานีวิจัยประมงศรีราชา



สถานีวิจัยประมงศรีราชา
101/12 หมู่ 9 ต. บางพระ
อ. ศรีราชา จ. ชลบุรี 20110
โทร./โทรสาร. (038) 311379

Client : WHA Industrial Development Public Company Limited
Address : Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong, Thailand, 21120
Project Name : Monitoring
Project Location : WHA ESIE 5

รายงานผลการวิเคราะห์แพลงก์ตอนสัตว์

ตาราง ผลการวิเคราะห์แพลงก์ตอนสัตว์ (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568)

ชนิดแพลงก์ตอนสัตว์	ปริมาณแพลงก์ตอนสัตว์ (หน่วยต่อลูกบาศก์เมตร)		
	2537240-1	2537240-2	2537240-3
Phylum Protozoa			
Subphylum Plasmodroma			
Class Sarcodina			
Subclass Rhizopoda			
Order Testacida			
Family Arcellidae			
1. Arcella sp.	31,000	36,000	10,000
2. Arcella vulgaris	21,000	9,000	19,000
Family Diffugiidae			
3. Centropyxis aculeata	10,000	9,000	-
4. Diffugia lobostoma	-	9,000	-
5. Diffugia oblonga	10,000	-	-
Family Euglyphidae			
6. Euglypha acanthophora	10,000	18,000	19,000

ตาราง ผลการวิเคราะห์แพลงก์ตอนสัตว์ (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568)

ชนิดแพลงก์ตอนสัตว์	ปริมาณแพลงก์ตอนสัตว์ (หน่วยต่อลูกบาศก์เมตร)		
	2537240-1	2537240-2	2537240-3
7. <i>Euglypha cristata</i>	10,000	-	-
8. <i>Euglypha rotunda</i>	10,000	9,000	19,000
Subphylum Ciliophora			
Class Ciliata			
Subclass Holotricha			
Order Gymnostomatida			
9. <i>Didinium</i> sp.	10,000	-	-
Phylum Rotifera			
Class Monogononta			
Order Ploima			
Family Brachionidae			
10. <i>Anuraeopsis fissa</i>	31,000	27,000	29,000
11. <i>Brachionus angularis</i>	-	-	10,000
Family Lecanidae			
12. <i>Lecane closteroerca</i>	10,000	-	-
13. <i>Lecane leontina</i>	-	-	10,000
Family Notommatidae			
14. <i>Cephalodella gibba</i>	21,000	-	-
Family Asplanchnidae			
15. <i>Asplanchna priodonta</i>	-	9,000	-
Order Flosculariacea			
Family Testudinellidae			
16. <i>Testudinella patina</i>	-	-	10,000
Class Digononta			
Family Philodinidae			
17. <i>Rotaria rotatoria</i>	-	9,000	-


ตาราง ผลการวิเคราะห์แพลงก์ตอนสัตว์ (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568)

ชนิดแพลงก์ตอนสัตว์	ปริมาณแพลงก์ตอนสัตว์ (หน่วยต่อลูกบาศก์เมตร)		
	2537240-1	2537240-2	2537240-3
Phylum Arthropoda			
Class Crustacea			
Subclass Copepoda			
18. Copepod naulius	-	9,000	10,000
ชนิดแพลงก์ตอนสัตว์	11	10	9
ปริมาณแพลงก์ตอนสัตว์	174,000	144,000	136,000
ดัชนีความหลากหลายแพลงก์ตอนสัตว์	2.2742	2.1334	2.1140
ดัชนีความสม่ำเสมอแพลงก์ตอนสัตว์	0.9484	0.9265	0.9621

Sample Location : 1. สถานี 2537240-1 : คลองน้ำขึ้นก่อนจุลระบายน้ำทิ้งของโครงการ 400 เมตร (Bio1)
2. สถานี 2537240-2 : คลองน้ำขึ้นจุลระบายน้ำทิ้งของโครงการ (Bio2)
3. สถานี 2537240-3 : คลองน้ำขึ้นหลังจุลระบายน้ำทิ้งของโครงการ 400 เมตร (Bio3)

Condition of Sample : contained in one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)


(นางสาวกนกวรรณ ขวค้อน)
ผู้วิเคราะห์


(นายอลงกต อินทรชาติ)
หัวหน้าสถานีวิจัยประมงศรีราชา



สถานีวิจัยประมงศรีราชา
101/12 หมู่ 9 ต. บางพระ
อ. ศรีราชา จ. ชลบุรี 20110
โทร./โทรสาร. (038) 311379

Client : WHA Industrial Development Public Company Limited
Address : Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong, Thailand, 21120
Project Name : Monitoring
Project Location : WHA ESIE 5

รายงานผลการวิเคราะห์สัตว์หน้าดิน

ตาราง ผลการวิเคราะห์สัตว์หน้าดิน (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568)

สกุลสัตว์หน้าดิน	ปริมาณสัตว์หน้าดิน (ตัว/ตารางเมตร)		
	2537242-1	2537242-2	2537242-3
Phylum Annelida			
Class Clitellata			
Order Lumbriculida			
Family Lumbriculidae			
<i>Lumbriculus</i> sp. (ไส้เดือนน้ำ)	-	15	30
Order Tubificida			
Family Naididae			
<i>Branchiura</i> sp. (ไส้เดือนน้ำ)	475	-	608
Phylum Arthropoda			
Class Insecta			
Order Diptera			
Family Chironomidae			
<i>Chironomus</i> sp. (หนอนแดง)	15	238	30

ตาราง ผลการวิเคราะห์สัตว์หน้าดิน (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568) (ต่อ)

สกุลสัตว์หน้าดิน	ปริมาณสัตว์หน้าดิน (ตัว/ตารางเมตร)		
	2537242-1	2537242-2	2537242-3
Order Ephemeroptera			
Family Ephemeridae			
<i>Ephemera</i> sp. (ตัวอ่อนแมลงชีปะขาว)	15	-	30
Class Malacostraca			
Order Decapoda			
Family Gecarcinucidae			
<i>Sayamia</i> sp. (ปูนา)	-	-	30
Family Palaemonidae			
<i>Macrobrachium</i> sp. (กุ้งฝอย)	-	-	15
รวมจำนวนสกุลที่พบทั้งหมด	3	2	6
รวมปริมาณที่พบทั้งหมด	505	253	743
ค่าดัชนีความหลากหลาย	0.2665	0.2250	0.7612

Sample Location : 1. สถานี 2537242-1 : คลองน้ำขึ้นก่อนจุดระบายน้ำทั้งของโครงการ 400 เมตร (Bio1)
2. สถานี 2537242-2 : คลองน้ำขึ้นจุดระบายน้ำทั้งของโครงการ (Bio2)
3. สถานี 2537242-3 : คลองน้ำขึ้นหลังจุดระบายน้ำทั้งของโครงการ 400 เมตร (Bio3)

Condition of Sample : contained in one plastic zip bag

นายอรรถวุฒิ กันทะวงศ์
ผู้วิเคราะห์

นายอลงกต อินทรชาติ
หัวหน้าสถานีวิจัยประมงศรีราชา



สถานีวิจัยประมงศรีราชา

101/12 หมู่ 9 ต. บางพระ อ. ศรีราชา จ. ชลบุรี 21110

โทร./โทรสาร. (038) 311379

Client : WHA Industrial Development Public Company Limited

Address : Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong, Thailand, 21120

Project Name : Monitoring

Project Location : WHA ESIE 5

รายงานผลการวิเคราะห์สัตว์น้ำ

ตาราง ผลการวิเคราะห์สัตว์น้ำ (Aquatic animal) (เก็บตัวอย่างเมื่อวันที่ 14 พฤษภาคม 2568)

ชนิดสัตว์น้ำ	ปริมาณสัตว์น้ำ (ตัว)			ช่วงขนาด (ซม.)	น้ำหนักรวม (กรัม)
	2537234-1	2537234-2	2537234-3		
Phylum Chordata					
Class Actinopterygii					
Order Cypriniformes					
Family Cyprinidae					
<i>Labiochanna leptochanna</i> (ปลาซำ)	-	-	1	13.10	27.10

ตาราง ผลการวิเคราะห์สัตว์น้ำ (Aquatic animal) (เก็บตัวอย่างเมื่อวันที่ 14 พฤษภาคม 2568) (ต่อ)

ชนิดสัตว์น้ำ	ปริมาณสัตว์น้ำ (ตัว)			ช่วงขนาด (ซม.)	น้ำหนักรวม (กรัม)
	2537234-1	2537234-2	2537234-3		
<i>Puntius brevis</i> (ปลาดุกเพียนทราย)	5	5	7	5.70-9.00	69.60
<i>Rasbora paviana</i> (ปลาซิวควายแถบดำ)	2	2	2	7.10-8.60	29.90
Order Synbranchiformes					
Family Mastacembelidae					
<i>Mastacembelus armatus</i> (ปลากระทิง)	1	-	-	33.80	93.30
ชนิดสัตว์น้ำ	3	2	3	5.70-33.80	219.90
ปริมาณสัตว์น้ำ	8	7	10		
ดัชนีความหลากหลายสัตว์น้ำ	0.9003	0.5983	0.8018		

- Sample Location :
- สถานี 2537234-1 : คลองน้ำเขื่อนก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (Bio1)
 - สถานี 2537234-2 : คลองน้ำเขื่อนจุดระบายน้ำทิ้งของโครงการ (Bio2)
 - สถานี 2537234-3 : คลองน้ำเขื่อนหลังจุดระบายน้ำทิ้งของโครงการ 400 เมตร (Bio3)

Condition of Sample : fishing gear

อรรถวุฒิ กันทะวงศ์

(นายอรรถวุฒิ กันทะวงศ์)

ผู้วิเคราะห์

นายอลงกต อินทรชาติ

(นายอลงกต อินทรชาติ)

หัวหน้าสถานีวิจัยประมงศรีราชา



สถานีวิจัยประมงศรีราชา

101/12 หมู่ 9 ต. บางพระ อ. ศรีราชา จ. ชลบุรี 20110

โทร./โทรสาร. (038) 311379

Client : WHA Industrial Development Public Company Limited

Address : Bankhai-Nonglalo Rd., Nonglalo, Bankhai, Rayong, Thailand, 21120

Project Name : Monitoring

Project Location : WHA ESIE 5

รายงานผลการวิเคราะห์พืชน้ำ

ตาราง ผลการวิเคราะห์พืชน้ำ (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568)

วงศ์	ชื่อวิทยาศาสตร์	ชื่อภาษาไทย	บริเวณที่ทำการสำรวจ		
			2537237-1	2537237-2	2537237-3
พืชชายน้ำ					
Amaranthaceae	<i>Alternanthera sessilis</i>	ผักเบี้ยไทย	+	+	-
Araceae	<i>Colocasia esculenta</i>	บอน	+	+	+

ตาราง ผลการวิเคราะห์พืชน้ำ (เก็บตัวอย่างวันที่ 14 พฤษภาคม 2568) (ต่อ)

วงศ์	ชื่อวิทยาศาสตร์	ชื่อภาษาไทย	บริเวณที่ทำการสำรวจ		
			2537237-1	2537237-2	2537237-3
Athyriaceae	<i>Diplazium esculentum</i>	ผักกูด	+	-	-
Commelinaceae	<i>Commelina diffusa</i>	ผักปลาใบแคบ	+	+	+
Compositae	<i>Wedelia trilobata</i>	กระดุมทองเลื้อย	++	++	-
Cyperaceae	<i>Cyperus iria</i>	กกทราย	-	-	+
	<i>Cyperus pigmaeus</i>	กกริงกา	-	+	+
	<i>Cyperus pilosus</i>	กกสามเหลี่ยม	+	-	+
Mimosaceae	<i>Mimosa pigra</i>	ไมยราพยักษ์	+	-	+
Onagraceae	<i>Jussiaea linifolia</i>	เทียนนา	-	-	+
Poaceae	<i>Brachiaria mutica</i>	หญ้าขน	+	+	++
	<i>Brachiaria reptans</i>	หญ้าคันดิน	++	+	+
	<i>Leptochloa chinensis</i>	หญ้าดอกขาว	+	+	+
	<i>Phragmites karka</i>	แขม	+	-	-
Polygonaceae	<i>Polygonum tomentosum</i>	เอื้องเผือกม้า	+	-	-
รวมจำนวนชนิดพืชน้ำที่พบทั้งหมด			12	8	10

Sample Location : - ไม่พบ + น้อย ++ ปานกลาง +++ มาก

1. สถานี 2537237-1 : คลองน้ำขึ้นก่อนจุดระบายน้ำทิ้งของโครงการ 400 เมตร (Bio1)

2. สถานี 2537237-2 : คลองน้ำขึ้นจุดระบายน้ำทิ้งของโครงการ (Bio2)

3. สถานี 2537237-3 : คลองน้ำขึ้นหลังจุดระบายน้ำทิ้งของโครงการ 400 เมตร (Bio3)

Condition of Sample : Data sheet

.....
(นายอรรถวุฒิ กันทะวงศ์)
ผู้วิเคราะห์

.....
(นายอลงกต อินทรชาติ)
หัวหน้าสถานีวิจัยประมงศรีราชา