



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA

Report No. : 0973/2024/4-12

Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120

Report Date : March 21, 2024

Sampling Date : March 13-16, 2024

Type of Sample : Ambient Air

Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385

Job No. : S670326/Mar

Item	Time	Result		
		บริเวณพื้นที่โครงการ (โรงงานเหนือ)		
		NO ₂ (ppm)		
		13-14/03/24	14-15/03/24	15-16/03/24
1.	09:00-10:00	0.0021	0.0016	0.0028
2.	10:00-11:00	0.0034	0.0027	0.0022
3.	11:00-12:00	0.0033	0.0015	0.0019
4.	12:00-13:00	0.0027	0.0014	0.0021
5.	13:00-14:00	0.0027	0.0039	0.0030
6.	14:00-15:00	0.0038	0.0042	0.0024
7.	15:00-16:00	0.0021	0.0024	0.0019
8.	16:00-17:00	0.0025	0.0024	0.0015
9.	17:00-18:00	0.0027	0.0021	0.0014
10.	18:00-19:00	0.0025	0.0022	0.0015
11.	19:00-20:00	0.0025	0.0022	0.0015
12.	20:00-21:00	0.0027	0.0025	0.0014
13.	21:00-22:00	0.0029	0.0025	0.0018
14.	22:00-23:00	0.0030	0.0022	0.0014
15.	23:00-00:00	0.0025	0.0020	0.0014
16.	00:00-01:00	0.0026	0.0020	0.0016
17.	01:00-02:00	0.0023	0.0021	0.0015
18.	02:00-03:00	0.0022	0.0018	0.0015
19.	03:00-04:00	0.0019	0.0021	0.0018
20.	04:00-05:00	0.0023	0.0032	0.0023
21.	05:00-06:00	0.0030	0.0006	0.0023
22.	06:00-07:00	0.0025	0.0018	0.0048
23.	07:00-08:00	0.0017	0.0017	0.0040
24.	08:00-09:00	0.0017	0.0015	0.0043
Minimum		0.0017	0.0006	0.0014
Maximum		0.0038	0.0042	0.0048
Average		0.0026	0.0022	0.0022
Standard ⁽¹⁾		0.17		

Standard : ⁽¹⁾ Notification of the National Environment Board No. 33 (2009) (B.E. 2552)

Pramual M.

Pramual Moonsarn



Wannasiri S.

Wannasiri Suriyawong

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Mar

Report No. : 0973/2024/5-12
Report Date : March 21, 2024
Sampling Date : March 13-16, 2024
Type of Sample : WS & WD

Item	Time	Result					
		วัดโพธิ์นิม					
		13-14/03/24		14-15/03/24		15-16/03/24	
		WS	WD	WS	WD	WS	WD
1.	12:00-13:00	1.8	NW	2.7	WNW	3.6	WSW
2.	13:00-14:00	2.7	WNW	1.8	WNW	3.6	WNW
3.	14:00-15:00	1.3	WNW	1.3	WNW	4.0	WSW
4.	15:00-16:00	1.8	NW	3.6	WNW	3.6	WNW
5.	16:00-17:00	2.7	NE	3.1	WNW	3.6	NNE
6.	17:00-18:00	3.6	NNE	3.6	WNW	3.1	NE
7.	18:00-19:00	3.1	WNW	2.7	WNW	3.1	NNW
8.	19:00-20:00	3.1	WNW	3.1	NNE	2.7	WNW
9.	20:00-21:00	3.1	NNE	3.6	NW	2.2	WNW
10.	21:00-22:00	1.8	NW	2.2	NNW	3.6	NE
11.	22:00-23:00	3.1	N	2.7	WNW	2.7	NNW
12.	23:00-00:00	4.5	NE	1.8	NNW	1.3	NW
13.	00:00-01:00	1.8	W	1.8	NW	1.3	NW
14.	01:00-02:00	2.2	N	1.3	WNW	1.3	WNW
15.	02:00-03:00	1.3	WNW	1.3	WNW	2.2	WNW
16.	03:00-04:00	1.8	WNW	1.3	WNW	1.8	WNW
17.	04:00-05:00	1.8	NW	2.2	WNW	2.7	WNW
18.	05:00-06:00	2.2	WNW	1.8	NW	1.3	WNW
19.	06:00-07:00	0.9	W	1.8	W	2.2	WNW
20.	07:00-08:00	3.1	WSW	4.0	WSW	4.5	SW
21.	08:00-09:00	3.1	SW	3.1	WSW	4.5	WSW
22.	09:00-10:00	4.0	WNW	4.0	WNW	4.5	WNW
23.	10:00-11:00	3.6	WNW	3.1	WSW	4.0	ENE
24.	11:00-12:00	3.1	WNW	3.6	WNW	3.6	N
Average		2.6	-	2.6	-	3.0	-

Remark : WS = WIND SPEED (m/s)
WD = WIND DIRECTION

Pramual M.

Pramual Moonsarn



Wannasiri S.

Wannasiri Suriyawong

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Mar

Report No. : 0973/2024/6-12
Report Date : March 21, 2024
Sampling Date : March 13-16, 2024
Type of Sample : WS & WD

Item	Time	Result					
		โรงเรียนวัดพิชนิมิตร					
		13-14/03/24		14-15/03/24		15-16/03/24	
		WS	WD	WS	WD	WS	WD
1.	10:00-11:00	0.4	NNE	1.3	SSE	1.3	SE
2.	11:00-12:00	0.9	NNE	0.9	SSE	1.3	ESE
3.	12:00-13:00	0.9	NNE	1.3	SSE	0.9	ESE
4.	13:00-14:00	0.9	NNE	0.9	SSE	0.9	ESE
5.	14:00-15:00	0.9	NE	0.9	SSE	0.9	ESE
6.	15:00-16:00	1.8	ESE	0.4	SSE	0.9	ESE
7.	16:00-17:00	2.2	ESE	0.4	SSE	1.8	ESE
8.	17:00-18:00	1.8	ESE	0.0	SSE	1.8	ESE
9.	18:00-19:00	1.8	ESE	1.3	SSE	1.8	ESE
10.	19:00-20:00	1.8	ESE	1.8	SSE	1.3	ESE
11.	20:00-21:00	1.8	ESE	0.0	SSE	1.3	ESE
12.	21:00-22:00	1.8	ESE	0.0	SSE	1.3	ESE
13.	22:00-23:00	1.3	ESE	0.4	SSE	1.3	ESE
14.	23:00-00:00	0.9	ESE	0.9	SSE	0.9	ESE
15.	00:00-01:00	0.9	ESE	0.9	SSE	0.9	ESE
16.	01:00-02:00	0.9	ESE	0.9	SSE	0.9	ESE
17.	02:00-03:00	0.4	ESE	0.9	SSE	1.3	ESE
18.	03:00-04:00	0.0	ESE	0.9	SSE	1.3	ESE
19.	04:00-05:00	1.3	ESE	0.4	SSE	0.9	ESE
20.	05:00-06:00	1.3	ESE	0.0	SSE	1.3	ESE
21.	06:00-07:00	1.3	ESE	0.9	SSE	1.3	ESE
22.	07:00-08:00	0.9	ESE	0.4	SSE	1.8	ESE
23.	08:00-09:00	1.3	ESE	0.9	SSE	1.3	ESE
24.	09:00-10:00	0.9	ESE	1.3	SSE	1.3	ESE
Average		1.2	-	0.8	-	1.3	-

Remark : WS = WIND SPEED (m/s)
WD = WIND DIRECTION

Pramual M.

Pramual Moonsarn



Wannasiri S.

Wannasiri Suriyawong

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Mar

Report No. : 0973/2024/7-12
Report Date : March 21, 2024
Sampling Date : March 13-16, 2024
Type of Sample : WS & WD

Item	Time	Result					
		วัดโกเมศรัตนาราม					
		13-14/03/24		14-15/03/24		15-16/03/24	
		WS	WD	WS	WD	WS	WD
1.	11:00-12:00	0.9	WSW	0.4	WSW	0.4	ESE
2.	12:00-13:00	0.4	W	0.9	W	0.4	W
3.	13:00-14:00	0.4	WSW	0.9	WSW	0.9	W
4.	14:00-15:00	0.9	W	0.9	WSW	0.9	W
5.	15:00-16:00	0.4	WSW	0.4	WSW	0.4	W
6.	16:00-17:00	0.0	W	0.4	W	0.9	W
7.	17:00-18:00	0.4	W	0.0	WSW	0.9	W
8.	18:00-19:00	0.0	SSE	0.0	WSW	0.4	W
9.	19:00-20:00	0.0	W	0.0	WSW	0.0	W
10.	20:00-21:00	0.0	WSW	0.0	WSW	0.0	W
11.	21:00-22:00	0.0	WSW	0.0	WSW	0.4	W
12.	22:00-23:00	0.0	WSW	0.0	W	0.4	W
13.	23:00-00:00	0.0	W	0.0	WSW	0.4	W
14.	00:00-01:00	0.4	W	0.0	WSW	0.4	W
15.	01:00-02:00	0.0	W	0.0	W	0.4	W
16.	02:00-03:00	0.0	WNW	0.0	W	0.0	W
17.	03:00-04:00	0.0	W	0.0	W	0.0	W
18.	04:00-05:00	0.0	WNW	0.0	W	0.0	W
19.	05:00-06:00	0.0	WNW	0.0	W	0.0	W
20.	06:00-07:00	0.0	WNW	0.0	W	0.0	W
21.	07:00-08:00	0.0	WNW	0.0	W	0.0	W
22.	08:00-09:00	0.0	E	0.0	SE	0.0	SE
23.	09:00-10:00	0.0	ESE	0.0	E	0.0	SE
24.	10:00-11:00	0.4	W	0.4	W	0.0	WSW
Average		0.2	-	0.2	-	0.3	-

Remark : WS = WIND SPEED (m/s)
WD = WIND DIRECTION

Pramual M.

Pramual Moonsarn



Wannasiri S.

Wannasiri Suriyawong

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Mar

Report No. : 0973/2024/8-12
Report Date : March 21, 2024
Sampling Date : March 13-16, 2024
Type of Sample : WS & WD

Item	Time	Result					
		บริเวณพื้นที่โครงการ (โรงงานเหนือ)					
		13-14/03/24		14-15/03/24		15-16/03/24	
		WS	WD	WS	WD	WS	WD
1.	09:00-10:00	0.9	NE	1.3	NNW	0.9	NNW
2.	10:00-11:00	0.9	NNE	1.3	ESE	1.8	NNW
3.	11:00-12:00	0.9	NE	1.8	ENE	1.3	NE
4.	12:00-13:00	1.3	NE	1.8	ENE	1.3	NE
5.	13:00-14:00	1.3	ENE	1.8	ENE	1.3	N
6.	14:00-15:00	0.9	ENE	1.3	ENE	1.3	NE
7.	15:00-16:00	1.3	NE	1.3	ESE	1.8	ENE
8.	16:00-17:00	1.8	N	0.4	ENE	1.8	NE
9.	17:00-18:00	1.8	NNW	0.4	SE	1.8	NNW
10.	18:00-19:00	1.3	NNE	0.4	S	1.3	NNW
11.	19:00-20:00	1.3	N	2.2	NNW	1.3	N
12.	20:00-21:00	1.3	N	0.9	N	1.3	N
13.	21:00-22:00	1.3	N	0.4	NNE	1.3	N
14.	22:00-23:00	1.8	N	0.9	NNE	1.3	N
15.	23:00-00:00	0.9	N	0.9	NE	0.9	N
16.	00:00-01:00	0.4	N	0.4	N	0.9	N
17.	01:00-02:00	0.9	N	0.9	N	0.9	N
18.	02:00-03:00	0.4	N	0.4	N	0.4	N
19.	03:00-04:00	0.9	NNW	0.9	N	1.3	N
20.	04:00-05:00	0.4	N	0.4	N	0.9	N
21.	05:00-06:00	0.9	NNW	0.4	NNW	0.4	NNW
22.	06:00-07:00	1.3	NNW	0.4	NNW	1.3	NNW
23.	07:00-08:00	1.3	NNW	0.9	N	0.9	NNW
24.	08:00-09:00	1.3	NNW	0.9	NNE	2.2	NNW
Average		1.1	-	0.9	-	1.2	-

Remark : WS = WIND SPEED (m/s)
WD = WIND DIRECTION

Pramual M.

Pramual Moonsarn



Wannasiri S.

Wannasiri Suriyawong

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Mar

Report No. : 0973/2024/9-12
Report Date : March 21, 2024
Sampling Date : March 13-16, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))								
		ทิศใต้								
		13-14/03/24			14-15/03/24			15-16/03/24		
		Leq	Lmax	L90	Leq	Lmax	L90	Leq	Lmax	L90
1.	13:00-14:00	56.0	78.9	49.4	59.6	87.6	54.5	62.6	91.6	54.7
2.	14:00-15:00	64.9	96.4	48.7	56.2	74.9	50.6	60.6	88.0	53.6
3.	15:00-16:00	61.8	90.3	50.5	67.6	98.9	50.6	55.1	70.8	50.3
4.	16:00-17:00	63.8	88.0	54.3	59.8	82.5	52.4	56.0	83.0	51.1
5.	17:00-18:00	65.6	93.1	51.0	61.4	91.7	52.7	58.9	86.8	52.6
6.	18:00-19:00	54.6	80.3	49.7	57.6	69.1	52.2	59.1	95.4	49.9
7.	19:00-20:00	60.1	90.9	54.3	61.1	88.2	55.3	52.1	80.2	49.3
8.	20:00-21:00	55.6	76.6	48.7	62.9	79.9	58.4	56.0	85.0	50.7
9.	21:00-22:00	52.5	80.5	48.0	65.1	82.6	59.2	61.1	93.0	52.1
10.	22:00-23:00	56.7	88.3	49.2	64.6	73.8	59.2	56.0	90.9	49.4
11.	23:00-00:00	64.2	94.9	53.9	67.2	80.5	63.5	62.3	97.4	49.8
12.	00:00-01:00	56.7	87.1	50.2	63.3	79.1	56.8	53.3	71.8	49.7
13.	01:00-02:00	55.6	73.5	50.7	58.9	85.1	50.1	59.9	93.7	53.1
14.	02:00-03:00	59.3	93.9	53.4	58.1	90.2	49.1	58.0	92.0	49.1
15.	03:00-04:00	59.9	91.7	54.4	62.4	95.1	49.8	59.2	96.3	49.1
16.	04:00-05:00	58.3	78.5	52.9	58.8	80.4	54.9	58.1	85.1	49.9
17.	05:00-06:00	58.0	79.3	51.9	59.1	90.2	50.5	65.7	92.7	54.3
18.	06:00-07:00	57.1	84.6	51.7	66.6	99.8	50.4	55.4	70.8	52.0
19.	07:00-08:00	57.5	78.4	53.1	61.3	88.2	51.7	63.4	95.4	52.5
20.	08:00-09:00	56.6	77.4	53.3	59.3	80.2	53.1	58.9	97.8	51.8
21.	09:00-10:00	61.8	80.6	56.6	65.5	94.1	48.5	58.9	90.1	53.8
22.	10:00-11:00	58.8	82.5	56.0	53.3	74.4	48.1	57.9	85.8	52.1
23.	11:00-12:00	56.7	82.4	51.7	60.1	87.4	50.9	57.9	65.9	55.9
24.	12:00-13:00	61.0	92.2	52.6	62.9	86.7	53.2	57.1	67.6	55.6
Leq 24 hr		60.3	-	-	62.7	-	-	59.6	-	-
Lmax		-	96.4	-	-	99.8	-	-	97.8	-
Standard ⁽¹⁾⁽²⁾		70	115	-	70	115	-	70	115	-
Ldn		65.9	-	-	69.6	-	-	66.5	-	-

Standard : ⁽¹⁾ Notification of the National Environment Board No. 15 (1997) (B.E 2540)

⁽²⁾ Notification of the Ministry of Industry (2005) (B.E 2548)

Pramual M.

Pramual Moonsarn



Wannasiri S.

Wannasiri Suriyawong

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240
1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

E-mail : admin@tet1995.com
Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Mar

Report No. : 0973/2024/10-12
Report Date : March 21, 2024
Sampling Date : March 13-16, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))								
		ทิศตะวันตก								
		13-14/03/24			14-15/03/24			15-16/03/24		
		Leq	Lmax	L90	Leq	Lmax	L90	Leq	Lmax	L90
1.	13:00-14:00	57.5	81.8	53.5	61.0	88.9	55.3	63.2	86.2	55.9
2.	14:00-15:00	63.1	92.8	54.5	64.3	96.1	56.5	65.9	95.7	55.8
3.	15:00-16:00	62.9	89.2	56.4	60.9	95.1	55.6	63.0	73.4	56.2
4.	16:00-17:00	58.5	79.1	55.8	60.8	85.3	56.3	62.8	90.3	56.4
5.	17:00-18:00	62.4	84.8	56.8	60.5	90.7	55.2	61.0	93.3	56.4
6.	18:00-19:00	59.3	82.5	55.1	59.8	89.6	56.4	63.1	95.0	56.1
7.	19:00-20:00	56.8	85.8	53.6	62.3	86.6	56.2	58.1	71.4	56.4
8.	20:00-21:00	61.1	81.2	54.9	58.1	83.6	54.7	62.3	88.2	56.5
9.	21:00-22:00	60.7	94.6	53.6	60.4	86.6	54.7	63.3	90.7	55.7
10.	22:00-23:00	60.6	94.0	54.0	61.8	86.8	55.3	56.6	76.6	54.4
11.	23:00-00:00	61.2	98.3	54.8	63.2	90.3	55.5	61.0	88.6	55.8
12.	00:00-01:00	56.6	75.3	53.8	56.1	73.0	54.4	59.5	79.6	55.4
13.	01:00-02:00	57.3	82.9	53.4	59.6	86.5	54.4	62.6	89.7	55.1
14.	02:00-03:00	56.9	81.8	53.3	61.5	81.1	56.4	63.3	94.2	56.7
15.	03:00-04:00	61.4	80.5	54.0	61.5	79.7	56.9	58.8	79.4	57.2
16.	04:00-05:00	59.4	89.2	55.2	64.9	90.7	56.0	59.3	79.8	58.1
17.	05:00-06:00	61.9	86.8	55.5	60.2	86.9	54.9	59.7	78.5	57.6
18.	06:00-07:00	61.9	88.5	56.3	57.1	84.5	54.2	61.0	79.4	59.7
19.	07:00-08:00	61.0	86.9	55.6	63.6	92.3	54.8	62.1	77.6	60.8
20.	08:00-09:00	57.0	74.6	54.1	58.5	80.5	54.8	61.9	82.8	60.3
21.	09:00-10:00	63.4	93.4	55.5	62.3	88.6	56.3	59.7	76.7	58.2
22.	10:00-11:00	63.3	93.0	55.4	60.5	93.2	54.9	59.7	81.3	57.3
23.	11:00-12:00	57.2	75.1	54.7	61.5	83.5	55.1	59.3	75.8	57.0
24.	12:00-13:00	58.6	91.7	54.1	67.8	97.6	58.7	59.5	80.3	57.3
Leq 24 hr		60.6	-	-	61.9	-	-	61.6	-	-
Lmax		-	98.3	-	-	97.6	-	-	95.7	-
Standard ⁽¹⁾⁽²⁾		70	115	-	70	115	-	70	115	-
Ldn		66.7	-	-	67.9	-	-	67.3	-	-

Standard : ⁽¹⁾ Notification of the National Environment Board No. 15 (1997) (B.E 2540)
⁽²⁾ Notification of the Ministry of Industry (2005) (B.E 2548)

Pramual M.

Pramual Moonsarn



Wannasiri S.

Wannasiri Suriyawong

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240
1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

E-mail : admin@tet1995.com
Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Mar

Report No. : 0973/2024/11-12
Report Date : March 21, 2024
Sampling Date : March 13-16, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))								
		ทิศเหนือ								
		13-14/03/24			14-15/03/24			15-16/03/24		
		Leq	Lmax	L90	Leq	Lmax	L90	Leq	Lmax	L90
1.	13:00-14:00	62.3	81.0	60.0	61.8	77.4	59.9	55.9	78.1	51.1
2.	14:00-15:00	63.1	81.8	60.8	62.3	80.2	61.0	61.6	83.0	51.9
3.	15:00-16:00	63.1	85.9	60.1	63.0	84.8	60.5	64.8	87.7	51.8
4.	16:00-17:00	63.1	78.3	61.1	61.1	76.2	59.5	53.2	74.2	50.2
5.	17:00-18:00	61.9	77.9	60.4	62.1	82.6	59.7	61.7	91.9	50.4
6.	18:00-19:00	62.6	88.5	59.8	62.6	85.8	60.6	59.5	82.8	51.3
7.	19:00-20:00	62.4	83.6	60.6	61.3	79.6	59.2	61.0	83.1	51.2
8.	20:00-21:00	61.7	71.2	60.4	62.2	74.9	60.8	57.4	85.6	50.5
9.	21:00-22:00	62.6	83.2	60.0	62.5	80.5	60.6	59.1	85.8	50.2
10.	22:00-23:00	61.0	83.5	59.5	62.0	84.5	60.4	60.2	82.8	51.4
11.	23:00-00:00	62.5	78.3	61.6	62.5	78.3	60.7	61.9	83.1	52.6
12.	00:00-01:00	62.5	77.3	61.4	62.1	78.2	60.7	62.1	94.9	51.8
13.	01:00-02:00	61.3	77.6	59.6	61.3	76.1	59.9	60.5	83.7	51.1
14.	02:00-03:00	62.1	77.5	60.4	61.5	79.7	60.1	61.1	82.0	51.4
15.	03:00-04:00	62.0	78.2	58.8	62.2	85.3	60.4	60.4	83.8	51.2
16.	04:00-05:00	60.7	79.8	58.5	61.7	76.6	59.9	61.4	88.9	49.7
17.	05:00-06:00	61.4	76.8	59.7	61.6	80.8	59.7	54.4	78.0	49.2
18.	06:00-07:00	61.5	80.4	59.9	61.5	80.8	59.9	62.4	86.0	51.1
19.	07:00-08:00	62.5	84.5	60.0	63.1	76.8	61.7	60.3	85.8	51.4
20.	08:00-09:00	62.0	79.5	60.2	63.1	88.3	52.1	61.7	85.4	53.0
21.	09:00-10:00	62.3	75.8	60.7	58.0	84.6	50.8	55.6	80.4	52.2
22.	10:00-11:00	62.8	86.1	60.0	60.2	83.7	52.1	62.1	83.3	53.2
23.	11:00-12:00	60.8	76.1	58.2	61.6	89.1	52.9	55.0	64.6	53.1
24.	12:00-13:00	61.2	80.0	58.5	59.1	87.5	51.6	60.4	90.6	53.2
Leq 24 hr		62.1	-	-	61.8	-	-	60.5	-	-
Lmax		-	88.5	-	-	89.1	-	-	94.9	-
Standard ⁽¹⁾⁽²⁾		70	115	-	70	115	-	70	115	-
Ldn		68.2	-	-	68.2	-	-	67.2	-	-

Standard : ⁽¹⁾ Notification of the National Environment Board No. 15 (1997) (B.E 2540)
⁽²⁾ Notification of the Ministry of Industry (2005) (B.E 2548)

Pramual M.

Pramual Moonsarn



Wannasiri S.

Wannasiri Suriyawong

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240
1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

E-mail : admin@tet1995.com
Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Mar

Report No. : 0973/2024/12-12
Report Date : March 21, 2024
Sampling Date : March 13-16, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))								
		ทิศตะวันออก								
		13-14/03/24			14-15/03/24			15-16/03/24		
		Leq	Lmax	L90	Leq	Lmax	L90	Leq	Lmax	L90
1.	13:00-14:00	59.0	78.2	52.6	57.8	74.6	54.2	59.4	87.1	48.2
2.	14:00-15:00	59.9	84.3	53.9	57.4	75.7	54.0	60.9	88.8	49.5
3.	15:00-16:00	60.8	83.0	55.0	56.3	75.5	53.2	61.7	87.6	51.7
4.	16:00-17:00	61.2	83.6	54.8	56.3	71.3	50.9	62.7	92.7	49.8
5.	17:00-18:00	57.4	75.6	52.7	54.6	74.8	51.9	58.4	77.6	47.6
6.	18:00-19:00	59.8	91.4	51.3	55.7	68.1	53.5	55.3	74.8	47.0
7.	19:00-20:00	54.9	82.5	51.0	56.6	72.2	54.1	57.0	85.5	47.1
8.	20:00-21:00	54.3	74.7	48.5	52.9	76.3	48.5	56.8	82.5	47.9
9.	21:00-22:00	54.0	78.0	49.4	54.8	83.9	45.8	57.1	84.3	46.7
10.	22:00-23:00	53.2	67.8	51.3	51.4	72.4	45.1	53.6	80.7	46.5
11.	23:00-00:00	53.5	70.1	51.4	53.1	81.5	47.1	51.7	79.2	46.3
12.	00:00-01:00	54.7	66.6	52.3	51.6	72.2	46.8	51.6	70.6	46.7
13.	01:00-02:00	54.1	68.8	48.9	50.8	70.8	45.3	53.1	79.9	47.0
14.	02:00-03:00	58.0	71.8	53.5	50.3	73.6	43.3	57.1	82.0	47.9
15.	03:00-04:00	63.2	86.9	58.4	53.5	77.1	46.8	64.0	84.7	53.3
16.	04:00-05:00	62.0	81.5	55.6	57.3	76.9	49.0	66.0	90.7	58.5
17.	05:00-06:00	60.3	77.1	53.2	56.1	76.2	47.0	61.7	87.8	52.1
18.	06:00-07:00	57.2	73.3	52.4	53.0	77.1	44.6	59.9	82.8	51.0
19.	07:00-08:00	55.0	78.3	48.6	59.3	88.9	46.6	59.7	81.3	50.7
20.	08:00-09:00	54.4	78.1	49.7	57.7	80.3	47.6	59.6	83.5	50.3
21.	09:00-10:00	54.0	71.6	50.5	59.0	84.8	47.0	59.0	80.8	50.4
22.	10:00-11:00	55.7	74.6	51.0	60.7	94.1	46.5	58.0	77.2	50.7
23.	11:00-12:00	57.5	76.8	52.4	58.3	87.7	45.9	58.7	81.1	53.0
24.	12:00-13:00	59.0	78.4	52.7	59.6	89.8	47.1	58.6	78.4	53.2
Leq 24 hr		58.3	-	-	56.5	-	-	59.8	-	-
Lmax		-	91.4	-	-	94.1	-	-	92.7	-
Standard ⁽¹⁾⁽²⁾		70	115	-	70	115	-	70	115	-
Ldn		65.1	-	-	60.9	-	-	66.8	-	-

Standard : ⁽¹⁾ Notification of the National Environment Board No. 15 (1997) (B.E 2540)
⁽²⁾ Notification of the Ministry of Industry (2005) (B.E 2548)

Pramual M.

Pramual Moonsarn



Wannasiri S.

Wannasiri Suriyawong

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-1803
Received Date : 23, 24, 27/05/24
Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965

Fax. (02) 529 4385

Report Date : 06/06/24
Analysis Date : 23-30/05/24
Job No. : S670326/May/Occ
Sampling By : TET
Type of Sample : Working Area

Sample No.	Sampling point	Parameter	Unit	Sampling Date	Result	Standard ⁽¹⁾	Analysis Date
2405-AW0979	บริเวณเตาหลอมอลูมิเนียม (CASTING GROUP) Melting Furnace/D-Line/CA	Total Dust	mg/m ³	23/05/24	< 0.010	10 ⁽²⁾	27-29/05/24
		Al	mg/m ³	23/05/24	< 0.04	15	30/05/24
		HF	ppm	23/05/24	< 0.012	3	29/05/24
2405-AW0980	บริเวณเครื่องรีด (EXTRUSION GROUP) Press Area/D-Line/EX	Total Dust	mg/m ³	23/05/24	1.419	10 ⁽²⁾	27-29/05/24
2405-AW1092	บริเวณพื้นที่ชุบ (SURFACE TREATMENT GROUP) Surface Area/D-Line/ST	Total Dust	mg/m ³	24/05/24	0.417	10 ⁽²⁾	27-29/05/24
		NaOH	mg/m ³	24/05/24	< 0.40	2	28/05/24
		H ₂ SO ₄	mg/m ³	24/05/24	< 0.05	1	27/05/24
		NH ₃	ppm	24/05/24	< 0.043	50	29/05/24
2405-AW0981	บริเวณโรงประกอบ (FABRICATION GROUP) Cutting Area/Fab4	Total Dust	mg/m ³	23/05/24	< 0.010	10 ⁽²⁾	27-29/05/24
2405-AW0875	Cutting Area/Fab6	Total Dust	mg/m ³	21/05/24	< 0.010	10 ⁽²⁾	27-29/05/24
2405-AW0876	บริเวณพื้นที่พ่นสี (PART PRODUCT GROUP) Paint Room/Fab5C/PT	Xylene	ppm	21/05/24	< 0.009	100	23-24/05/24
		Toluene	ppm	21/05/24	< 0.011	200	23-24/05/24
		Benzene	ppm	21/05/24	< 0.003	1	23-24/05/24

Method :

- Total Dust - Filtering, Gravimetric (NIOSH 0500, Issue 2 :Aug 1994)
- Al - Filtering, ICP (NIOSH 7300, Issue 3: Mar 2003)
- HF - Filtering, ISE (OSHA ID-110, Feb 1991)
- NaOH - Filtering, Titrimetric (NIOSH 7401, Issue 2 :Aug 1994)
- H₂SO₄ - Filtering, IC (NIOSH 7908, Issue 1 :May 2014)
- NH₃ - Absorbing Solution, Colorimetric (APHA 801)
- Xylene - Solid Sorbent Tube, GC/FID (NIOSH 1501, Issue 3 :Mar 2003)
- Toluene - Solid Sorbent Tube, GC/FID (NIOSH 1501, Issue 3 :Mar 2003)
- Benzene - Solid Sorbent Tube, GC/FID (NIOSH 1501, Issue 3 :Mar 2003)

Standard (1) Notification of the Department of Labour Protection and Welfare. (2017). (B.E. 2560). (TLV-TWA)
(2) American Conference of Governmental Industrial Hygienists : ACGIH (TLV-TWA)

Reviewed by

Ms. Wareerut Prachumdaeng
Chief of Laboratory
06/06/24



Approved by

Mrs. Pornpip Pethshee
Laboratory Manager
06/06/24

END OF REPORT

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



Thai Environmental Technic Limited
บริษัท เทคนิคสิ่งแวดล้อมไทย จำกัด

ORIGINAL
ต้นฉบับ

1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Apr/Occ

Report No. : 2024/1-6
Report Date : May 3, 2024
Sampling Date : April 25, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))	
		บริเวณเตาหลอมอลูมิเนียม (CASTING GROUP)	
		Melting Furnace/D-Line/CA	
		25/04/24	
		Leq 1 hr.	Lmax
1.	09.00-10.00	79.7	98.4
2.	10.00-11.00	78.6	91.2
3.	11.00-12.00	75.2	87.7
4.	12.00-13.00	75.0	87.9
5.	13.00-14.00	77.5	94.4
6.	14.00-15.00	76.8	90.8
7.	15.00-16.00	75.9	87.3
8.	16.00-17.00	76.3	86.8
Leq 8 hr		77.2	-
Lmax		-	98.4
Standard		90	140

Standard : Notification of the Ministry of Industry (2003) (B.E. 2546)

Pramual M.

Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Apr/Occ

Report No. : 2024/2-6
Report Date : May 3, 2024
Sampling Date : April 25, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))	
		เครื่องรีด/EXTRUSION GROUP	
		Press machine/D-line/EX	
		25/04/24	
		Leq 1 hr.	Lmax
1.	09.00-10.00	80.6	93.9
2.	10.00-11.00	78.1	92.7
3.	11.00-12.00	78.6	94.9
4.	12.00-13.00	78.9	86.4
5.	13.00-14.00	81.4	92.6
6.	14.00-15.00	81.0	90.6
7.	15.00-16.00	81.5	90.7
8.	16.00-17.00	81.0	90.4
Leq 8 hr		80.3	-
Lmax		-	94.9
Standard		90	140

Standard : Notification of the Ministry of Industry (2003) (B.E. 2546)

Pramual M.

Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Apr/Occ

Report No. : 2024/3-6
Report Date : May 3, 2024
Sampling Date : April 25, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))	
		พื้นที่ชุมชน/SURFACE TREATMENT GROUP	
		Chiller Area/D-line/ST	
		25/04/24	
		Leq 1 hr.	Lmax
1.	09.00-10.00	80.8	84.4
2.	10.00-11.00	78.3	80.6
3.	11.00-12.00	78.7	80.5
4.	12.00-13.00	79.2	82.0
5.	13.00-14.00	80.1	85.1
6.	14.00-15.00	79.2	80.3
7.	15.00-16.00	79.5	81.3
8.	16.00-17.00	80.0	82.8
Leq 8 hr		79.5	-
Lmax		-	85.1
Standard		90	140

Standard : Notification of the Ministry of Industry (2003) (B.E. 2546)

Pramual M.

Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonin

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Apr/Occ

Report No. : 2024/4-6
Report Date : May 3, 2024
Sampling Date : April 23-24, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))			
		โรงประกอบ/FABRICATION GROUP			
		Line Area FAB4/FA		Line Area FAB6/FA	
		24/04/24		23/04/24	
		Leq 1 hr.	Lmax	Leq 1 hr.	Lmax
1.	09.00-10.00	79.7	91.5	77.3	88.4
2.	10.00-11.00	75.6	83.2	76.6	95.1
3.	11.00-12.00	76.6	85.2	75.7	89.4
4.	12.00-13.00	71.0	83.0	71.1	81.6
5.	13.00-14.00	67.0	79.9	73.1	86.5
6.	14.00-15.00	76.0	87.7	76.1	86.8
7.	15.00-16.00	76.0	84.9	76.8	86.9
8.	16.00-17.00	76.9	86.8	77.0	89.0
Leq 8 hr		76.0	-	75.9	-
Lmax		-	91.5	-	95.1
Standard		90	140	90	140

Standard : Notification of the Ministry of Industry (2003) (B.E. 2546)

Pramual M.

Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/June/Occ

Report No. : 2024/1-4
Report Date : June 17, 2024
Sampling Date : June 10, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))	
		บริเวณเตาหลอมอลูมิเนียม (CASTING GROUP)	
		Melting Furnace/D-Line/CA	
		10/06/24	
		Leq 1 hr.	Lmax
1.	09.00-10.00	82.9	100.9
2.	10.00-11.00	80.2	98.6
3.	11.00-12.00	82.5	100.0
4.	12.00-13.00	77.2	92.9
5.	13.00-14.00	78.5	101.1
6.	14.00-15.00	78.2	97.0
7.	15.00-16.00	77.1	92.4
8.	16.00-17.00	79.8	94.0
Leq 8 hr		80.1	-
Lmax		-	101.1
Standard		90	140

Standard : Notification of the Ministry of Industry (2003) (B.E. 2546)

Pramual M.

Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/June/Occ

Report No. : 2024/2-4
Report Date : June 17, 2024
Sampling Date : June 11, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))	
		เครื่องรีด/EXTRUSION GROUP	
		Press machine/D-line/EX	
		11/06/24	
		Leq 1 hr.	Lmax
1.	09.00-10.00	84.6	93.0
2.	10.00-11.00	86.1	94.1
3.	11.00-12.00	83.8	92.1
4.	12.00-13.00	81.1	93.9
5.	13.00-14.00	78.7	90.6
6.	14.00-15.00	82.0	100.4
7.	15.00-16.00	84.2	91.9
8.	16.00-17.00	84.3	92.3
Leq 8 hr		83.6	-
Lmax		-	100.4
Standard		90	140

Standard : Notification of the Ministry of Industry (2003) (B.E. 2546)

Pramual M.

Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240
1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

E-mail : admin@tet1995.com
Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/June/Occ

Report No. : 2024/3-4
Report Date : June 17, 2024
Sampling Date : June 12, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))	
		พื้นที่ชุมชน/SURFACE TREATMENT GROUP	
		Chiller Area/D-line/ST	
		12/06/24	
		Leq 1 hr.	Lmax
1.	09.00-10.00	82.1	86.4
2.	10.00-11.00	79.4	82.4
3.	11.00-12.00	78.7	80.4
4.	12.00-13.00	78.8	80.4
5.	13.00-14.00	79.5	81.9
6.	14.00-15.00	79.5	81.1
7.	15.00-16.00	79.2	82.3
8.	16.00-17.00	79.5	81.2
Leq 8 hr		79.7	-
Lmax		-	86.4
Standard		90	140

Standard : Notification of the Ministry of Industry (2003) (B.E. 2546)

Pramual M.

Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/June/Occ

Report No. : 2024/4-4
Report Date : June 17, 2024
Sampling Date : June 10, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))			
		โรงประกอบ/FABRICATION GROUP			
		Line Area FAB4/FA		Line Area FAB6/FA	
		10/06/24		10/06/24	
		Leq 1 hr.	Lmax	Leq 1 hr.	Lmax
1.	09.00-10.00	73.7	81.8	76.2	84.3
2.	10.00-11.00	74.0	82.2	76.5	84.7
3.	11.00-12.00	73.2	82.6	75.7	85.1
4.	12.00-13.00	71.7	80.6	74.2	83.1
5.	13.00-14.00	73.7	82.8	60.6	65.5
6.	14.00-15.00	72.9	82.3	68.1	85.5
7.	15.00-16.00	73.4	82.4	76.2	85.3
8.	16.00-17.00	73.9	82.2	75.4	84.8
Leq 8 hr		73.4	-	74.7	-
Lmax		-	82.8	-	85.5
Standard		90	140	90	140

Standard : Notification of the Ministry of Industry (2003) (B.E. 2546)

Pramual M.

Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Apr/Occ

Report No. : 2024/5-6
Report Date : May 3, 2024
Sampling Date : April 22 & 25, 2024
Type of Sample : Heat

Item	Description	Sampling Date	Sampling Time	Result (°C)				
				NWB	DB	GT	WBGT	WBGT Average
1.	โรงงานเหนือ บริเวณเตาหลอมอลูมิเนียม (CASTING GROUP) Melting Furnace/D-Line/CA - ขับรถโฟล์คลิฟท์นำอลูมิเนียมเข้าเตาหลอม (80 นาที) - นั่งพัก/ทำงานเอกสาร (40 นาที)	25/04/24	10.00-12.00	29.0	36.0	37.0	31.4	28.2
	20.0			24.0	26.0	21.8		
2.	เครื่องรีด (EXTRUSION GROUP) Press area D-line/EX - ยืนควบคุมเครื่องรีดแผ่นอลูมิเนียมและเปลี่ยนหัวแม่พิมพ์ (Mold) (120 นาที)	25/04/24	10.00-12.00	29.0	36.0	37.0	31.4	31.4
3.	พื้นที่พ่นสี/Paint Line/Paint Room (PART PRODUCT GROUP) Paint room/Paint Line/PT - ยืนควบคุมเครื่องพ่นสี (80 นาที) - นั่งพัก/ทำงานเอกสาร (40 นาที)	22/04/24	10.00-12.00	26.6	32.0	36.2	29.5	29.7
	28.3			33.6	34.2	30.1		
Standard ⁽¹⁾⁽²⁾				-	-	-	-	32.0

Standard : ⁽¹⁾ Ministry of Labour's Regulation (2016) (B.E. 2559) ; Moderate Work Load

⁽²⁾ Notification of the Ministry of Industry (2003)(B.E. 2546) ; Moderate Work Load

Remark : Indoor (inside building or workplace) : WBGT = 0.7 NWB + 0.3 GT
When : DB = Dry Bulb Thermometer
GT = Globe Thermometer
NWB = Natural Wet Bulb Thermometer
WBGT = Wet Bulb Globe Temperature
WBGT Average =
$$\frac{(WBGT_1 \times t_1) + (WBGT_2 \times t_2) + \dots + (WBGT_n \times t_n)}{t_1 + t_2 + \dots + t_n}$$


Pramual Moonsarn




Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/Apr/Occ

Report No. : 2024/6-6
Report Date : May 3, 2024
Sampling Date : April 25, 2024
Type of Sample : Heat

Item	Description	Sampling Date	Sampling Time	Result (°C)				
				NWB	DB	GT	WBGT	WBGT Average
1.	โรงงานเหนือ บริเวณพื้นที่ขุบ (SURFACE TREATMENT GROUP) Unloading area D-line/ST - ยืนจัดเรียงชิ้นงานแผ่นอลูมิเนียมเข้าบ่อขุบ (120 นาที)	25/04/24	13.00-15.00	28.0	35.0	36.0	30.4	30.4
Standard ⁽¹⁾⁽²⁾				-	-	-	-	32.0

Standard : ⁽¹⁾ Ministry of Labour's Regulation (2016) (B.E. 2559) ; Moderate Work Load

⁽²⁾ Notification of the Ministry of Industry (2003)(B.E. 2546) ; Moderate Work Load

Remark : Indoor (inside building or workplace) : WBGT = 0.7 NWB + 0.3 GT
When : DB = Dry Bulb Thermometer
GT = Globe Thermometer
NWB = Natural Wet Bulb Thermometer
WBGT = Wet Bulb Globe Temperature

$$\text{WBGT Average} = \frac{(\text{WBGT}_1 \times t_1) + (\text{WBGT}_2 \times t_2) + \dots + (\text{WBGT}_n \times t_n)}{t_1 + t_2 + \dots + t_n}$$

Pramual M.

Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/June

Report No. : 2038/2024/1-2
Report Date : June 19, 2024
Sampling Date : June 10-13, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))					
		EXTRUDER					
		10-11/06/24		11-12/06/24		12-13/06/24	
		Leq 1 hr	Lmax	Leq 1 hr	Lmax	Leq 1 hr	Lmax
1.	09:00-10:00	82.2	99.1	83.3	104.4	81.9	102.5
2.	10:00-11:00	82.3	102.7	81.7	107.9	81.6	96.3
3.	11:00-12:00	81.7	96.0	80.0	97.0	79.1	92.7
4.	12:00-13:00	82.6	101.1	82.1	97.2	82.3	100.9
5.	13:00-14:00	80.0	91.6	82.9	105.3	81.9	95.7
6.	14:00-15:00	78.7	91.8	82.0	97.1	82.5	103.0
7.	15:00-16:00	82.3	94.9	84.0	107.1	85.1	113.3
8.	16:00-17:00	82.3	94.5	82.6	97.7	82.6	96.8
9.	17:00-18:00	82.8	102.7	82.0	97.4	82.6	101.6
10.	18:00-19:00	82.1	97.4	81.7	99.1	82.1	98.5
11.	19:00-20:00	82.3	97.9	80.4	99.4	79.1	91.1
12.	20:00-21:00	84.0	105.8	82.0	96.2	82.1	96.6
13.	21:00-22:00	83.5	101.3	82.2	95.9	82.2	97.4
14.	22:00-23:00	84.8	112.4	82.7	104.1	82.7	101.3
15.	23:00-00:00	82.1	96.3	82.5	101.0	82.1	96.3
16.	00:00-01:00	82.0	100.1	82.3	97.0	81.6	93.6
17.	01:00-02:00	82.0	96.2	82.6	102.2	82.0	99.5
18.	02:00-03:00	81.9	93.9	81.6	97.0	81.1	99.8
19.	03:00-04:00	82.7	100.8	80.0	99.1	80.2	96.5
20.	04:00-05:00	81.7	95.2	81.7	94.6	82.4	97.2
21.	05:00-06:00	78.5	97.1	82.5	99.6	82.1	99.9
22.	06:00-07:00	78.7	91.8	82.6	101.0	83.1	100.9
23.	07:00-08:00	82.3	94.7	82.7	97.8	82.2	97.9
24.	08:00-09:00	82.5	96.5	82.2	102.4	82.4	100.2
Leq 8 hr (09.00-17.00)		81.7	102.7	82.5	107.9	82.4	113.3
Leq 8 hr (17.00-01.00)		83.1	112.4	82.0	104.1	81.9	101.6
Leq 8 hr (01.00-09.00)		81.5	100.8	82.1	102.2	82.0	100.9
Standard		90	140	90	140	90	140

Standard : Notification of the Ministry of Industry (2003) (B.E. 2546)

Pramual M.

Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



1/6 Soi Ramkhamhaeng 145, Khwaeng / Khet Saphansung, Bangkok 10240

E-mail : admin@tet1995.com

1/6 ซอยรามคำแหง 145 แขวงสะพานสูง เขตสะพานสูง กรุงเทพมหานคร 10240

Tel : 0-2373-7799 (Auto) Fax : 0-2373-7979

TEST REPORT

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/June

Report No. : 2038/2024/2-2
Report Date : June 19, 2024
Sampling Date : June 10-13, 2024
Type of Sample : Sound Level

Item	Time	Result (dB(A))					
		CASTING					
		10-11/06/24		11-12/06/24		12-13/06/24	
		Leq 1 hr	Lmax	Leq 1 hr	Lmax	Leq 1 hr	Lmax
1.	09:00-10:00	82.1	100.1	81.4	107.5	81.3	94.1
2.	10:00-11:00	84.8	100.9	80.4	94.7	84.2	106.6
3.	11:00-12:00	77.7	92.7	80.5	98.8	82.3	90.5
4.	12:00-13:00	78.2	93.5	82.7	105.6	77.9	93.2
5.	13:00-14:00	78.5	92.7	78.1	95.2	78.2	92.4
6.	14:00-15:00	79.7	102.5	78.4	94.4	79.4	102.2
7.	15:00-16:00	80.3	96.2	80.4	93.7	80.0	95.9
8.	16:00-17:00	81.0	99.1	79.8	95.2	80.7	98.8
9.	17:00-18:00	83.2	97.0	85.2	100.8	82.9	96.7
10.	18:00-19:00	83.0	99.9	86.1	105.7	82.7	99.6
11.	19:00-20:00	78.1	92.9	80.8	98.9	77.8	92.6
12.	20:00-21:00	79.7	97.7	79.6	90.9	79.4	97.4
13.	21:00-22:00	77.9	92.6	78.3	89.8	77.6	92.3
14.	22:00-23:00	77.4	92.1	79.9	96.1	77.1	91.8
15.	23:00-00:00	80.0	95.0	79.8	95.1	79.7	94.7
16.	00:00-01:00	80.6	94.5	81.9	98.1	80.3	94.2
17.	01:00-02:00	80.8	90.5	84.1	101.0	80.5	90.2
18.	02:00-03:00	85.2	109.3	82.3	101.3	84.9	109.0
19.	03:00-04:00	81.9	102.9	80.7	95.1	81.6	102.6
20.	04:00-05:00	82.1	104.3	79.0	90.9	81.8	104.0
21.	05:00-06:00	78.3	94.7	78.3	90.6	78.0	94.4
22.	06:00-07:00	80.6	95.0	78.4	84.4	80.3	94.7
23.	07:00-08:00	80.3	97.0	81.2	96.9	80.0	96.7
24.	08:00-09:00	84.8	103.8	80.6	92.5	84.5	103.5
Leq 8 hr (09.00-17.00)		80.9	102.5	80.4	107.5	81.0	106.6
Leq 8 hr (17.00-01.00)		80.5	99.9	82.3	105.7	80.2	99.6
Leq 8 hr (01.00-09.00)		82.3	109.3	81.0	101.3	82.0	109.0
Standard		90	140	90	140	90	140

Standard : Notification of the Ministry of Industry (2003) (B.E. 2546)

Pramual M.

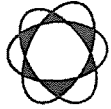
Pramual Moonsarn



Suphakchaya Y.

Suphakchaya Yoonim

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



Thai Environmental Technic Limited
บริษัท เทคนิคสิ่งแวดล้อมไทย จำกัด

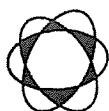
Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1,
Phaholyothin Rd., Klongnueng, Klongluang,
Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Job No. : S670326/June

Report No. : 2038/2024/1-2
Report Date : June 19, 2024
Sampling Date : June 11, 2024
Type of Sample : Noise Contour

(1/1-2)

EXTRUDER											
Item	Sampling Point	Result (dB(A))		Item	Sampling Point	Result (dB(A))		Item	Sampling Point	Result (dB(A))	
		11/06/24	Leq			11/06/24	Leq			11/06/24	Leq
1.	A1	77.4	81.1	31.	C1	77.5	85.8	61.	E1	78.0	85.1
2.	A2	79.7	81.7	32.	C2	79.5	87.1	62.	E2	78.3	86.8
3.	A3	78.7	82.8	33.	C3	-	-	63.	E3	77.6	88.2
4.	A4	78.0	83.1	34.	C4	-	-	64.	E4	79.2	87.4
5.	A5	76.9	84.3	35.	C5	-	-	65.	E5	80.5	89.6
6.	A6	79.2	83.4	36.	C6	-	-	66.	E6	80.3	90.8
7.	A7	78.7	84.2	37.	C7	-	-	67.	E7	81.6	92.3
8.	A8	79.6	82.5	38.	C8	-	-	68.	E8	83.7	94.1
9.	A9	79.5	81.9	39.	C9	-	-	69.	E9	82.4	96.2
10.	A10	79.2	86.8	40.	C10	-	-	70.	E10	85.3	95.6
11.	A11	82.1	93.6	41.	C11	-	-	71.	E11	80.4	97.4
12.	A12	80.7	96.4	42.	C12	-	-	72.	E12	82.6	99.7
13.	A13	81.6	88.7	43.	C13	-	-	73.	E13	84.9	101.3
14.	A14	79.9	93.3	44.	C14	-	-	74.	E14	-	-
15.	A15	80.4	92.5	45.	C15	-	-	75.	E15	-	-
16.	B1	76.9	85.0	46.	D1	78.6	84.1	76.	F1	78.3	86.1
17.	B2	77.1	85.8	47.	D2	79.6	87.5	77.	F2	79.6	87.3
18.	B3	-	-	48.	D3	-	-	78.	F3	-	-
19.	B4	-	-	49.	D4	-	-	79.	F4	-	-
20.	B5	-	-	50.	D5	-	-	80.	F5	-	-
21.	B6	-	-	51.	D6	-	-	81.	F6	-	-
22.	B7	-	-	52.	D7	-	-	82.	F7	-	-
23.	B8	-	-	53.	D8	-	-	83.	F8	-	-
24.	B9	-	-	54.	D9	-	-	84.	F9	-	-
25.	B10	-	-	55.	D10	-	-	85.	F10	-	-
26.	B11	-	-	56.	D11	-	-	86.	F11	-	-
27.	B12	-	-	57.	D12	-	-	87.	F12	-	-
28.	B13	-	-	58.	D13	-	-	88.	F13	85.7	96.6
29.	B14	-	-	59.	D14	-	-	89.	F14	-	-
30.	B15	-	-	60.	D15	-	-	90.	F15	-	-

Remark : - บริเวณติดตั้งเครื่องจักร

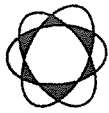


Thai Environmental Technic Limited
บริษัท เทคนิคสิ่งแวดล้อมไทย จำกัด

(1/2-2)

EXTRUDER							
Item	Sampling Point	Result (dB(A))		Item	Sampling Point	Result (dB(A))	
		11/06/24	Leq			11/06/24	Leq
			Lmax				Lmax
91.	G1	78.7	85.8	121.	I1	76.6	84.8
92.	G2	78.4	87.1	122.	I2	78.6	86.4
93.	G3	-	-	123.	I3	79.6	87.6
94.	G4	-	-	124.	I4	78.5	87.5
95.	G5	-	-	125.	I5	79.4	89.1
96.	G6	-	-	126.	I6	79.5	88.9
97.	G7	-	-	127.	I7	80.2	89.7
98.	G8	-	-	128.	I8	80.3	93.1
99.	G9	-	-	129.	I9	81.6	91.2
100.	G10	-	-	130.	I10	80.5	90.8
101.	G11	-	-	131.	I11	82.7	94.4
102.	G12	-	-	132.	I12	82.3	97.6
103.	G13	86.2	98.1	133.	I13	83.7	96.5
104.	G14	-	-	134.	I14	80.7	93.3
105.	G15	-	-	135.	I15	81.4	94.6
106.	H1	77.9	84.7				
107.	H2	78.5	86.1				
108.	H3	-	-				
109.	H4	-	-				
110.	H5	-	-				
111.	H6	-	-				
112.	H7	-	-				
113.	H8	-	-				
114.	H9	-	-				
115.	H10	-	-				
116.	H11	-	-				
117.	H12	-	-				
118.	H13	85.5	97.4				
119.	H14	-	-				
120.	H15	-	-				

Remark : - บริเวณติดตั้งเครื่องจักร



Thai Environmental Technic Limited

บริษัท เทคนิคสิ่งแวดล้อมไทย จำกัด

Customer Name : Tostem Thai Co., Ltd./North Factory/EIA
 Address : 101/104 Moo 20, Soi Navanakorn 1,
 Phaholyothin Rd., Klongnueng, Klongluang,
 Pathumthani 12120
 Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
 Job No. : S670326/June

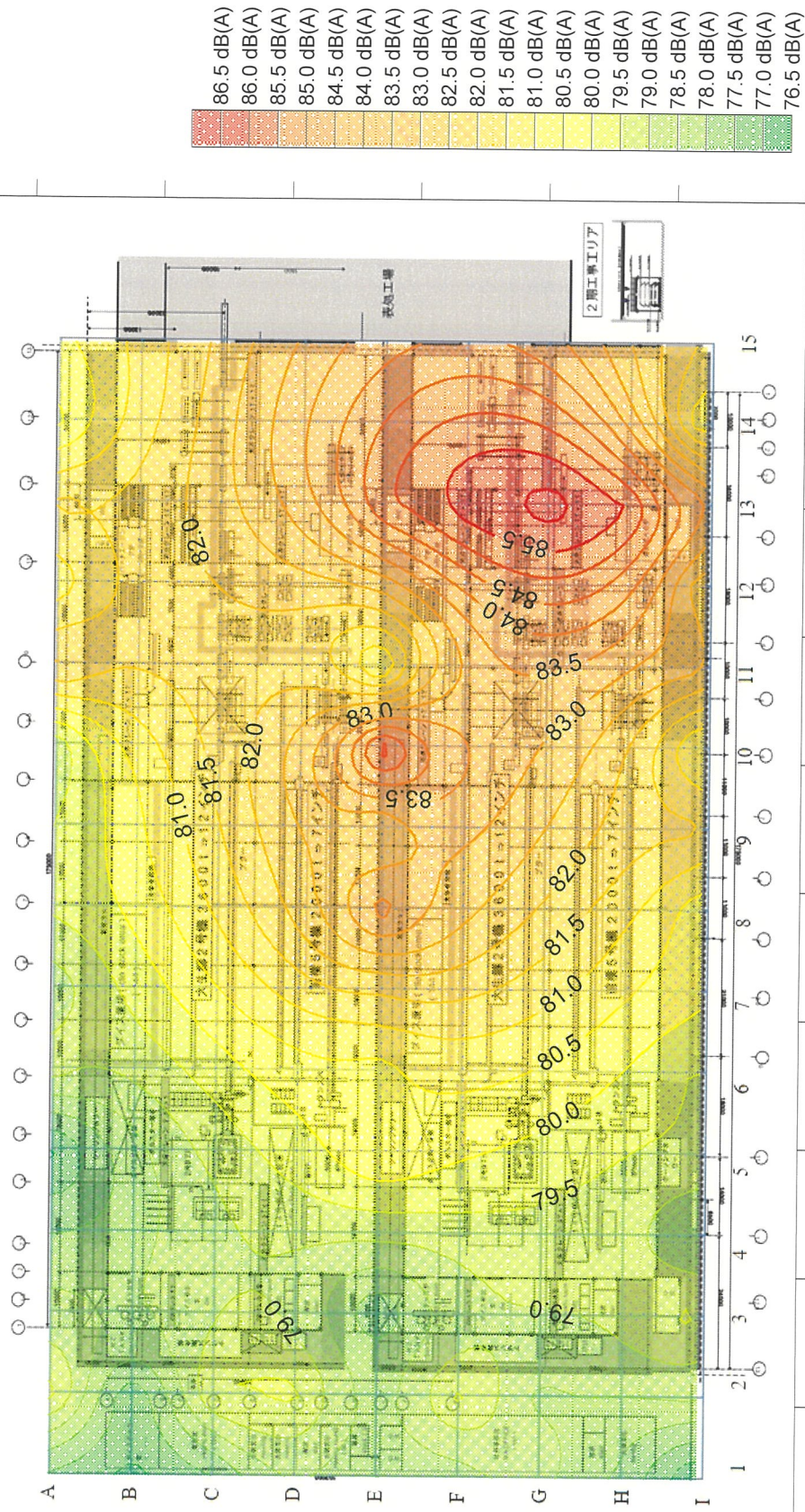
Report No. : 2038/2024/2-2
 Report Date : June 19, 2024
 Sampling Date : June 10, 2024
 Type of Sample : Noise Contour

CASTING											
Item	Sampling Point	Result (dB(A))		Item	Sampling Point	Result (dB(A))		Item	Sampling Point	Result (dB(A))	
		10/06/24	Leq			10/06/24	Leq			10/06/24	Leq
1.	A1	76.9	82.6	31.	C9	86.2	89.6	61.	F6	84.7	89.7
2.	A2	77.9	82.7	32.	C10	87.0	89.9	62.	F7	85.1	92.6
3.	A3	77.5	85.0	33.	C11	84.2	91.0	63.	F8	84.5	90.7
4.	A4	78.2	86.4	34.	D1	80.2	85.6	64.	F9	86.0	92.9
5.	A5	76.9	80.3	35.	D2	80.1	89.2	65.	F10	83.7	89.7
6.	A6	79.8	89.6	36.	D3	-	-	66.	F11	84.8	92.7
7.	A7	80.7	94.2	37.	D4	-	-	67.	G1	-	-
8.	A8	82.4	91.2	38.	D5	-	-	68.	G2	-	-
9.	A9	86.1	94.4	39.	D6	84.5	90.3	69.	G3	-	-
10.	A10	85.4	95.4	40.	D7	83.3	90.2	70.	G4	-	-
11.	A11	84.7	91.5	41.	D8	84.6	91.1	71.	G5	82.6	89.6
12.	B1	76.1	80.2	42.	D9	85.9	90.7	72.	G6	82.0	88.7
13.	B2	76.5	79.9	43.	D10	84.9	91.6	73.	G7	83.9	89.3
14.	B3	77.0	80.3	44.	D11	85.2	90.3	74.	G8	86.5	92.5
15.	B4	75.5	76.9	45.	E1	81.0	86.7	75.	G9	85.0	91.7
16.	B5	79.3	80.4	46.	E2	80.5	85.9	76.	G10	84.9	89.9
17.	B6	82.3	90.1	47.	E3	-	-	77.	G11	83.7	90.7
18.	B7	84.6	93.9	48.	E4	-	-				
19.	B8	86.4	92.9	49.	E5	84.2	91.5				
20.	B9	88.4	93.2	50.	E6	83.3	89.2				
21.	B10	86.6	94.7	51.	E7	84.2	88.7				
22.	B11	84.5	92.6	52.	E8	82.9	86.7				
23.	C1	79.8	84.2	53.	E9	85.6	89.3				
24.	C2	79.4	83.8	54.	E10	86.7	91.0				
25.	C3	-	-	55.	E11	83.7	89.6				
26.	C4	-	-	56.	F1	-	-				
27.	C5	-	-	57.	F2	-	-				
28.	C6	84.8	87.6	58.	F3	-	-				
29.	C7	82.3	88.4	59.	F4	-	-				
30.	C8	83.3	90.2	60.	F5	83.8	91.6				

Remark : - บริเวณติดตั้งเครื่องจักร

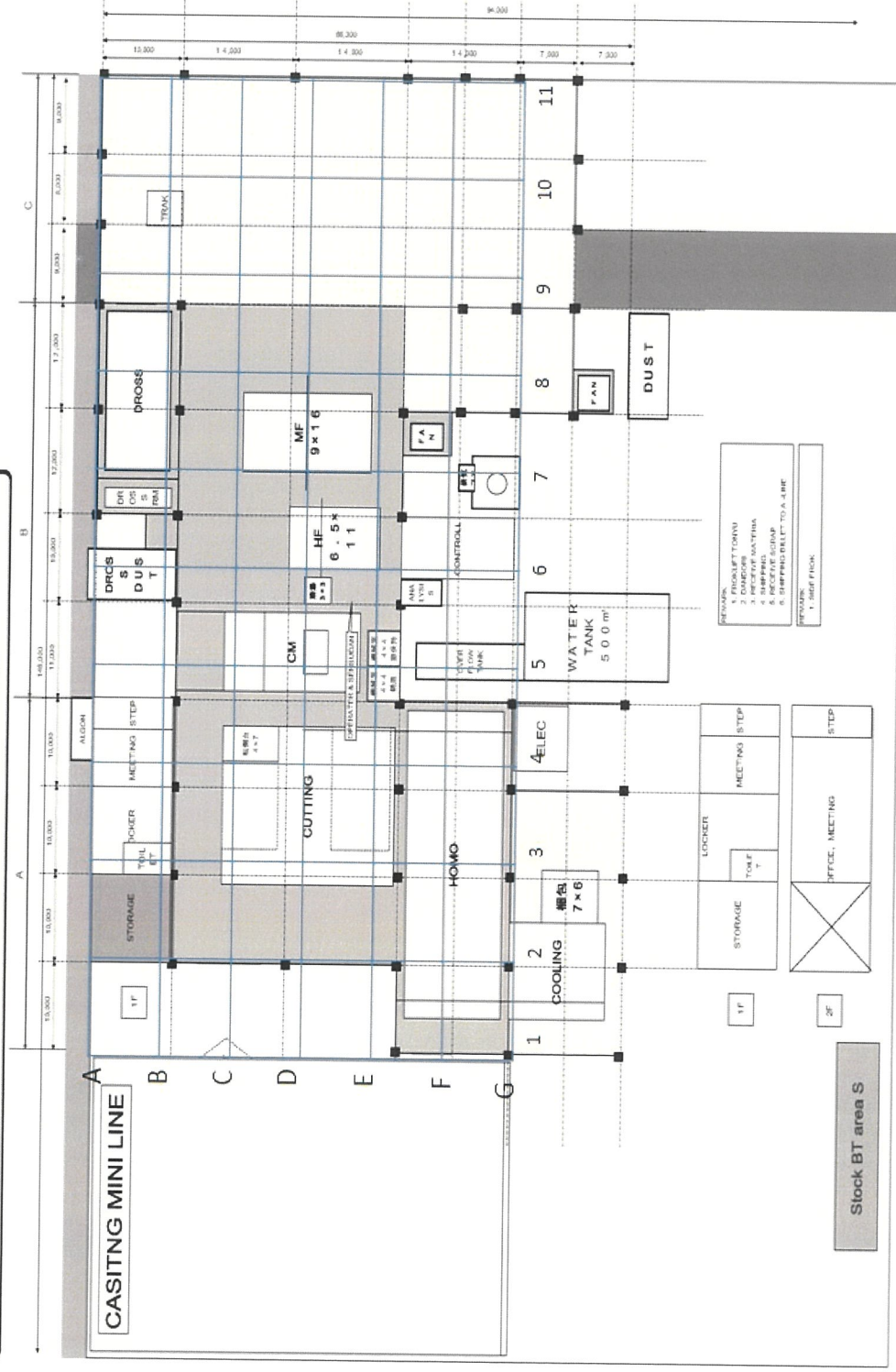
รูปที่ 1 ตำแหน่งตรวจวัดระดับเสียงเพื่อจัดทำแผนผังแสดงระดับเสียง (Noise Contour Map) บริเวณ EXTRUDER

PHASE 5 PJ. MACHINE EXTRUSION D -LINE



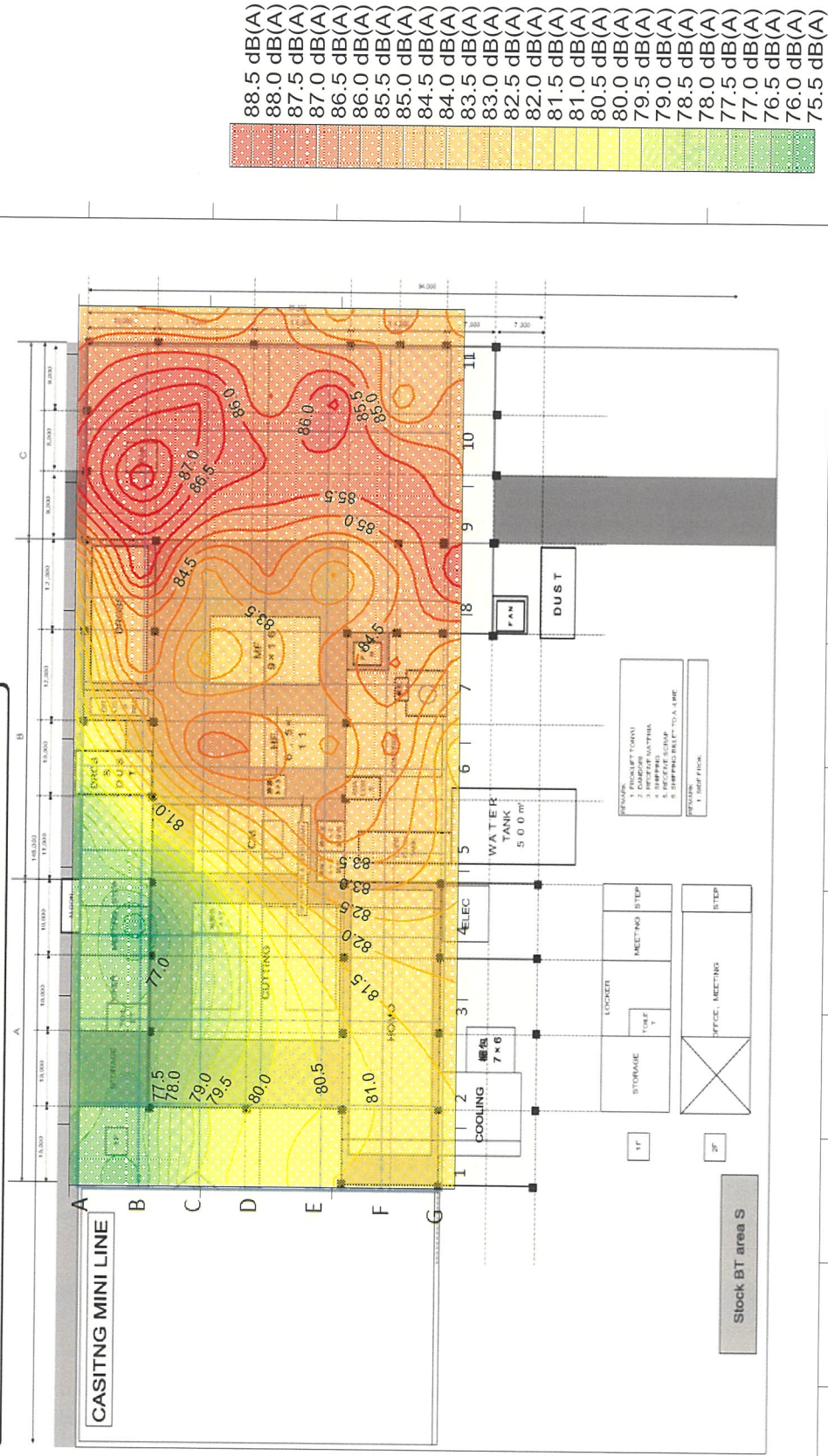
รูปที่ 2 แผนผังแสดงระดับเสียง (Noise Contour Map) บริเวณ EXTRUDER

LAY OUT TOSTEM THAI PHASE 5 CASTING



รูปที่ 3 ตำแหน่งตรวจวัดระดับเสียงเพื่อจัดทำแผนผังแสดงระดับเสียง (Noise Contour Map) บริเวณ CASTING

LAY OUT TOSTEM THAI PHASE 5 CASTING



รูปที่ 4 แผนผังแสดงระดับเสียง (Noise Contour Map) บริเวณ CASTING



TEST REPORT

Analysis No. : R24-1808
Received Date : 24/05/24
Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Sample Conditions : 2405-WW0471 = yellow turbid/slight black sediment

Report Date : 06/06/24
Analysis Date : 23-30/05/24
Job No. : S670326/May
Sampling Date * : 23/05/24
Sampling By * : TET
Type of Sample : Wastewater

Item	Parameter	Unit	Method ^(a)	Result	Standard	Analysis Date
				2405-WW0471		
				Water Circulate		
1	Temperature *	°C	Laboratory and Field, Methods (SM 2550B)	31.1	40	23/05/24
2	pH *	-	Electrometric Method (SM 4500 B)	7.93	5.5-9.0	23/05/24
3	SS *	mg/L	Volumetric, Dried at 103-105 °C (SM 2540 F)	< 2.5	-	28/05/24
4	TDS *	mg/L	Dried at 180 °C (SM 2540 C)	144	3,000	27/05/24
5	BOD *	mg/L	5-Days BOD Test, Azide Modification Method (SM 5210 B)	0.2 ^Δ	20	24-29/05/24
6	COD *	mg/L	Closed Reflux Titrimetric Method (SM 5220 C)	21 ^Δ	120	24/05/24
7	Oil & Grease *	mg/L	Liquid-Liquid, Partition Gravimetric Method (SM 5520 B)	0.6	5	29/05/24
8	TKN *	mg/L	Macro-Kjeldahl/Titrimetric Method (SM 4500-N _{org} B&4500-NH ₃ C)	1.61	100	27/05/24
9	Cyanide *	mg/L	Distillation, Colorimetric Method (SM 4500-CN ⁻ B/E)	< 0.001	0.2	27/05/24
10	Phenol *	mg/L	Distillation, Direct Photometric Method (SM 5530 D)	< 0.001	1.0	29/05/24
11	Sulfide *	mg/L	ZnS Precipitation, Methylene Blue Colorimetric Method (SM 4500-S ²⁻ D)	< 0.01	1.0	24/05/24
12	Formaldehyde *	mg/L	Distillation, Colorimetric Method ^(b)	< 0.01	1.0	28/05/24
13	Free Chlorine *	mg/L	DPD Ferrous Titrimetric Method (SM 4500-Cl ₂ F)	< 0.01	1.0	24/05/24
14	Cr ⁺³ *	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B) ^[2] ; Filtration, Colorimetric Method (SM 3500-Cr B) ; Calculation	< 0.02	0.75	24/05/24
15	Cr ⁺⁶ *	mg/L	Filtration, Colorimetric Method (SM 3500-Cr B)	< 0.02	0.25	24/05/24
16	Hg *	mg/L	Cold-Vapor AAS Method (SM 3112 B)	< 0.0005	0.005	30/05/24
17	As *	mg/L	Digestion, Continuous Hydride generation/AAS Method (SM 3114C)	0.0016	0.25	30/05/24
18	Se *	mg/L		< 0.0005	0.02	27/05/24

continue

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-1808 **Report Date** : 06/06/24
Received Date : 24/05/24 **Analysis Date** : 23-30/05/24
Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA **Job No.** : S670326/May
Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120 **Sampling Date *** : 23/05/24
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385 **Sampling By *** : TET
Type of Sample : Wastewater

Item	Parameter	Unit	Method ^(a)	Result	Standard	Analysis Date
				2405-WW0471		
				Water Circulate		
19	Ba	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	1.0	29/05/24
20	Cd	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	0.03	29/05/24
21	Cu	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	2.0	29/05/24
22	Fe	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.37	-	29/05/24
23	Mn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.03	5.0	29/05/24
24	Ni	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	1.0	29/05/24
25	Pb	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.04	0.2	29/05/24
26	Zn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.05	5.0	29/05/24

Remarks * "Test marked "Not TISI Accredited" in this Report are not included in the TISI Accreditation Schedule for our Laboratory"
: Water Circulate = 47P 0671093 UTM 1561035
: BOD มีค่าปริมาณต่ำสุดที่สามารถรายงานเป็นตัวเลขได้ = 2 mg/L
: COD มีค่าปริมาณต่ำสุดที่สามารถรายงานเป็นตัวเลขได้ = 40 mg/L
Δ รายงานผลการวิเคราะห์ดังกล่าวใช้สำหรับการคำนวณค่าความคลาดเคลื่อนของเครื่องตรวจวัดค่าบีโอดีหรือเครื่องตรวจวัดค่าซีโอดีตามประกาศกรมโรงงานอุตสาหกรรมเรื่อง หลักเกณฑ์การให้ความเห็นชอบให้โรงงานที่ต้องมีระบบบำบัดน้ำเสียต้องติดตั้งเครื่องมือหรือเครื่องอุปกรณ์พิเศษและเครื่องมือหรือเครื่องอุปกรณ์เพิ่มเติม (ฉบับที่ 2) พ.ศ. 2565
Method (a) SM = Standard Method for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023
(b) คู่มือวิเคราะห์น้ำเสีย พิมพ์ครั้งที่ 3 ธงชัย พรหมสวัสดิ์, วิบูลย์ลักษณ์ วิศุทธิ์ศักดิ์
Standard : Notification of the Ministry of Industry (2017) (B.E. 2560)

Reviewed by 
Ms. Wareerut Prachumdaeng
Chief of Laboratory
06/06/24

Approved by 
Mrs. Pornpip Pethshee
Laboratory Manager
06/06/24



..... END OF REPORT

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-1808/DIW

Report Date : 06/06/24

Received Date : 24/05/24

Analysis Date : 23-30/05/24

Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA

Job No. : S670326/May

Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120

Sampling Date * : 23/05/24

Sampling By * : Mr. Jirawad Intasay

Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385

Registration No. : ว-236-จ-0013

Type of Sample : Wastewater

Sample Conditions : 2405-WW0471 = yellow turbid/slight black sediment

Item	Parameter	Unit	Method ^(a)	Result	Standard	Analysis Date
				2405-WW0471		
				Water Circulate		
1	Temperature *	°C	Laboratory and Field, Methods (SM 2550B)	31.1	40	23/05/24
2	pH *	-	Electrometric Method (SM 4500 B)	7.93	5.5-9.0	23/05/24
3	TDS *	mg/L	Dried at 180 °C (SM 2540 C)	144	3,000	27/05/24
4	BOD *	mg/L	5-Days BOD Test, Azide Modification Method (SM 5210 B)	0.2 ^Δ	20	24-29/05/24
5	COD *	mg/L	Closed Reflux Titrimetric Method (SM 5220 C)	21 ^Δ	120	24/05/24
6	Oil & Grease *	mg/L	Liquid-Liquid, Partition Gravimetric Method (SM 5520 B)	0.6	5	29/05/24
7	TKN *	mg/L	Macro-Kjeldahl/Titrimetric Method (SM 4500-N _{org} B&4500-NH ₃ C)	1.61	100	27/05/24
8	Cyanide *	mg/L	Distillation, Colorimetric Method (SM 4500-CN ⁻ B/E)	< 0.001	0.2	27/05/24
9	Phenol *	mg/L	Distillation, Direct Photometric Method (SM 5530 D)	< 0.001	1.0	29/05/24
10	Sulfide *	mg/L	ZnS Precipitation, Methylene Blue Colorimetric Method (SM 4500-S ²⁻ D)	< 0.01	1.0	24/05/24
11	Formaldehyde *	mg/L	Distillation, Colorimetric Method ^(b)	< 0.01	1.0	28/05/24
12	Free Chlorine *	mg/L	DPD Ferrous Titrimetric Method (SM 4500-Cl ₂ F)	< 0.01	1.0	24/05/24
13	Cr ⁺³ *	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B) ⁽²⁾ ; Filtration, Colorimetric Method (SM 3500-Cr B) ; Calculation	< 0.02	0.75	24/05/24
14	Cr ⁺⁶ *	mg/L	Filtration, Colorimetric Method (SM 3500-Cr B)	< 0.02	0.25	24/05/24
15	Hg *	mg/L	Cold-Vapor AAS Method (SM 3112 B)	< 0.0005	0.005	30/05/24
16	As *	mg/L	Digestion, Continuous Hydride generation/AAS Method (SM 3114C)	0.0016	0.25	30/05/24
17	Se *	mg/L		< 0.0005	0.02	27/05/24

continue

- PRIVATE LABORATORY REGISTERED NO. ว-236
- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-1808/DIW
Received Date : 24/05/24
Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385

Report Date : 06/06/24
Analysis Date : 23-30/05/24
Job No. : S670326/May
Sampling Date * : 23/05/24
Sampling By * : Mr. Jirawad Intasay
Registration No. : จ-236-จ-0013
Type of Sample : Wastewater

Item	Parameter	Unit	Method ^(a)	Result	Standard	Analysis Date
				2405-WW0471		
				Water Circulate		
18	Ba	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	1.0	29/05/24
19	Cd	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	0.03	29/05/24
20	Cu	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	2.0	29/05/24
21	Mn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.03	5.0	29/05/24
22	Ni	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	1.0	29/05/24
23	Pb	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.04	0.2	29/05/24
24	Zn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.05	5.0	29/05/24

Remarks * "Test marked "Not TISI Accredited" in this Report are not included in the TISI Accreditation Schedule for our Laboratory"
: Water Circulate = 47P 0671093 UTM 1561035
: BOD มีค่าปริมาณค่าสูงสุดที่สามารถรายงานเป็นตัวเลขได้ = 2 mg/L
: COD มีค่าปริมาณค่าสูงสุดที่สามารถรายงานเป็นตัวเลขได้ = 40 mg/L
Δ รายงานผลการวิเคราะห์ดังกล่าวใช้สำหรับการคำนวณค่าความคลาดเคลื่อนของเครื่องตรวจวัดค่าบีโอดีหรือเครื่องตรวจวัดค่าซีโอดีตามประกาศกรมโรงงานอุตสาหกรรม เรื่อง หลักเกณฑ์การให้ความเห็นชอบให้โรงงานที่ต้องมีระบบบำบัดน้ำเสียต้องติดตั้งเครื่องมือหรือเครื่องอุปกรณ์พิเศษและเครื่องมือหรือเครื่องอุปกรณ์เพิ่มเติม (ฉบับที่ 2) พ.ศ. 2565

Method (a) SM = Standard Method for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023
(b) คู่มือวิเคราะห์น้ำเสีย พิมพ์ครั้งที่ 3 รชชช พรพรรณสวัสดิ์, วิทยาลัยเกษตร วิสุทธรักษ์

Standard : Notification of the Ministry of Industry (2017) (B.E. 2560)

Reviewed by

Ms. Wareerut Prachumdaeng
Chief of Laboratory
จ-236-ก-0002
06/06/24



Approved by

Mrs. Pornpip Pethshee
Laboratory Manager
จ-236-ก-0003
06/06/24

..... END OF REPORT

- PRIVATE LABORATORY REGISTERED NO. จ-236
- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-1023
Received Date : 18/03/24
Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385
Sample Conditions : 2403-WW0457 = yellow turbid/high black sediment/covered with oil slick/smell, Flow Rate = 2.5 m³/hr.
2403-WW0458 = yellow turbid/slight black sediment, Flow Rate = 2.5 m³/hr.

Report Date : 27/03/24
Analysis Date : 15-26/03/24
Job No. : S670326/Mar/1
Sampling Date * : 15/03/24
Sampling By * : TET
Type of Sample : Wastewater

Item	Parameter	Unit	Method ^(a)	Result		Standard		Analysis Date
				PT Wastewater Treatment Plant (WWTP3)				
				2403-WW0457	2403-WW0458			
				Inlet ⁽³⁾	Outlet	(1)	(2)	
1	Temperature *	°C	Laboratory and Field, Methods (SM 2550B)	31.7	32.0	40	45	15/03/24
2	pH *	-	Electrometric Method (SM 4500 B)	7.27	7.40	5.5-9.0	6.0-9.0	15/03/24
3	SS *	mg/L	Volumetric, Dried at 103-105 °C (SM 2540 F)	125.8	< 2.5	-	500	22/03/24
4	TDS *	mg/L	Dried at 180 °C (SM 2540 C)	790	248	3,000	3,000	21/03/24
5	BOD *	mg/L	5-Days BOD Test, Azide Modification Method (SM 5210 B)	202.5	2.5	20	450	20-25/03/24
6	COD *	mg/L	Closed Reflux Titrimetric Method (SM 5220 C)	543	27 ^Δ	120	600	19/03/24
7	Oil & Grease *	mg/L	Liquid-Liquid, Partition Gravimetric Method (SM 5520 B)	39.3	0.8	5	100	20/03/24
8	TKN *	mg/L	Macro-Kjeldahl/Titrimetric Method (SM 4500-N _{org} B&4500-NH ₃ C)	5.22	0.93	100	100	21/03/24
9	Cyanide *	mg/L	Distillation, Colorimetric Method (SM 4500-CN ⁻ B/E)	< 0.001	< 0.001	0.2	5.0	22/03/24
10	Phenol *	mg/L	Distillation, Direct Photometric Method (SM 5530 D)	0.246	< 0.001	1.0	10	21/03/24
11	Sulfate *	mg/L	Turbidimetric (SM 4500-SO ₄ ²⁻ E)	94.79	34.14	-		21/03/24
12	Formaldehyde *	mg/L	Distillation, Colorimetric Method ^(b)	0.06	< 0.01	1.0	1.0	21/03/24
13	Cr ⁺³ *	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B) ; Filtration, Colorimetric Method (SM 3500-Cr B) ; Calculation	1.70	0.03	0.75	0.75	20/03/24
14	Cr ⁺⁶ *	mg/L	Filtration, Colorimetric Method (SM 3500-Cr B)	< 0.02	< 0.02	0.25	0.25	19/03/24
15	Hg *	mg/L	Cold-Vapor AAS Method (SM 3112 B)	< 0.0005	< 0.0005	0.005	0.01	22/03/24
16	Se *	mg/L	Digestion, Continuous Hydride generation/AAS Method (SM 3114C)	< 0.0005	< 0.0005	0.02	1.0	26/03/24

continue

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-1023

Received Date : 18/03/24

Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA

Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120

Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385

Report Date : 27/03/24

Analysis Date : 15-26/03/24

Job No. : S670326/Mar/1

Sampling Date * : 15/03/24

Sampling By * : TET

Type of Sample : Wastewater

Item	Parameter	Unit	Method ^(a)	Result		Standard		Analysis Date
				PT Wastewater Treatment Plant (WWTP3)				
				2403-WW0457	2403-WW0458			
				Inlet ⁽³⁾	Outlet	(1)	(2)	
17	Al *	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	13.53	0.32	-	5.0	20/03/24
18	Co *	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	< 0.05	-	-	26/03/24
19	Ba	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.16	< 0.05	1.0	1.0	20/03/24
20	Cd	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	< 0.02	0.03	1.0	20/03/24
21	Cu	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	< 0.05	2.0	1.0	20/03/24
22	Fe	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.78	< 0.05	-	5.0	20/03/24
23	Mn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	< 0.02	5.0	5.0	20/03/24
24	Ni	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.03	< 0.02	1.0	1.0	20/03/24
25	Pb	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.04	< 0.04	0.2	1.0	20/03/24
26	Zn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.13	0.06	5.0	5.0	20/03/24

Remarks * "Test marked "Not TISI Accredited" in this Report are not included in the TISI Accreditation Schedule for our Laboratory"

: PT Wastewater Treatment Plant (WWTP3) Inlet = 47P 0671542 UTM 1561274

PT Wastewater Treatment Plant (WWTP3) Outlet = 47P 0671541 UTM 1561260

: BOD มีค่าปริมาณค่าสูงสุดที่สามารถรายงานเป็นตัวเลขได้ = 2 mg/L

COD มีค่าปริมาณค่าสูงสุดที่สามารถรายงานเป็นตัวเลขได้ = 40 mg/L

Δ รายงานผลการวิเคราะห์ดังกล่าวใช้สำหรับการคำนวณค่าความคลาดเคลื่อนของเครื่องตรวจวัดค่าบีโอดีหรือเครื่องตรวจวัดค่าซีโอดีตามประกาศกรมโรงงานอุตสาหกรรม เรื่อง หลักเกณฑ์การให้ความเห็นชอบให้โรงงานที่ต้องมีระบบบำบัดน้ำเสียต้องติดตั้งเครื่องมือหรือเครื่องอุปกรณ์พิเศษและเครื่องมือหรือเครื่องอุปกรณ์เพิ่มเติม (ฉบับที่ 2) พ.ศ. 2565

Method (a) SM = Standard Method for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023

(b) คู่มือวิเคราะห์น้ำเสีย พิมพ์ครั้งที่ 3 ชงชัย พรหมสวัสดิ์, วิบูลย์ลักษณ์ วิสุทธรักษ์

Standard (1) Notification of the Ministry of Industry (2017) (B.E. 2560)

(2) Standard of Central Wastewater Treatment Plant in Nava Nakorn Industrial Zone. (2016) (B.E. 2559)

(3) no established standard

Reviewed by

Ms. Wareerut Prachumdaeng

Chief of Laboratory

17/03/24



Approved by

Mrs. Pomtip Pethshee

Laboratory Manager

17/03/24

END OF REPORT

● REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY

● DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-1023/DIW

Received Date : 18/03/24

Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA

Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120

Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385

Sample Conditions : 2403-WW0458 = yellow turbid/slight black sediment

Report Date : 27/03/24

Analysis Date : 15-26/03/24

Job No. : S670326/Mar/1

Sampling Date * : 15/03/24

Sampling By * : Mr. Jirawad Intasay

Registration No. : จ-236-จ-0013

Type of Sample : Wastewater

Item	Parameter	Unit	Method ^(a)	Result	Standard	Analysis Date
				PT Wastewater Treatment Plant		
				(WWTP3)		
				2403-WW0458		
				Outlet		
1	Temperature *	°C	Laboratory and Field, Methods (SM 2550B)	32.0	40	15/03/24
2	pH *	-	Electrometric Method (SM 4500 B)	7.40	5.5-9.0	15/03/24
3	TDS *	mg/L	Dried at 180 °C (SM 2540 C)	248	3,000	21/03/24
4	BOD *	mg/L	5-Days BOD Test, Azide Modification Method (SM 5210 B)	2.5	20	20-25/03/24
5	COD *	mg/L	Closed Reflux Titrimetric Method (SM 5220 C)	27 ^Δ	120	19/03/24
6	Oil & Grease *	mg/L	Liquid-Liquid, Partition Gravimetric Method (SM 5520 B)	0.8	5	20/03/24
7	TKN *	mg/L	Macro-Kjeldahl/Titrimetric Method (SM 4500-N _{org} B&4500-NH ₃ C)	0.93	100	21/03/24
8	Cyanide *	mg/L	Distillation, Colorimetric Method (SM 4500-CN ⁻ B/E)	< 0.001	0.2	22/03/24
9	Phenol *	mg/L	Distillation, Direct Photometric Method (SM 5530 D)	< 0.001	1.0	21/03/24
10	Formaldehyde *	mg/L	Distillation, Colorimetric Method ^(b)	< 0.01	1.0	21/03/24
11	Cr ⁺³ *	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B) ; Filtration, Colorimetric Method (SM 3500-Cr B) ; Calculation	0.03	0.75	20/03/24
12	Cr ⁺⁶ *	mg/L	Filtration, Colorimetric Method (SM 3500-Cr B)	< 0.02	0.25	19/03/24
13	Hg *	mg/L	Cold-Vapor AAS Method (SM 3112 B)	< 0.0005	0.005	22/03/24
14	Se *	mg/L	Digestion, Continuous Hydride generation/AAS Method (SM 3114C)	< 0.0005	0.02	26/03/24

continue

- PRIVATE LABORATORY REGISTERED NO. จ-236
- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-1023/DIW **Report Date** : 27/03/24
Received Date : 18/03/24 **Analysis Date** : 15-26/03/24
Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA **Job No.** : S670326/Mar/1
Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120 **Sampling Date *** : 15/03/24
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385 **Sampling By *** : Mr. Jirawad Intasay
Registration No. : ๖-236-จ-0013
Type of Sample : Wastewater

Item	Parameter	Unit	Method ^(a)	Result	Standard	Analysis Date
				PT Wastewater Treatment Plant (WWTP3)		
				2403-WW0458		
				Outlet		
15	Ba	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	1.0	20/03/24
16	Cd	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	0.03	20/03/24
17	Cu	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	2.0	20/03/24
18	Mn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	5.0	20/03/24
19	Ni	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	1.0	20/03/24
20	Pb	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.04	0.2	20/03/24
21	Zn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.06	5.0	20/03/24

Remarks * "Test marked "Not TISI Accredited" in this Report are not included in the TISI Accreditation Schedule for our Laboratory"
: PT Wastewater Treatment Plant (WWTP3) Outlet = 47P 0671541 UTM 1561260
: BOD มีค่าปริมาณต่ำสุดที่สามารถรายงานเป็นตัวเลขได้ = 2 mg/L
: COD มีค่าปริมาณต่ำสุดที่สามารถรายงานเป็นตัวเลขได้ = 40 mg/L
Δ รายงานผลการวิเคราะห์ดังกล่าวใช้สำหรับการคำนวณค่าความคลาดเคลื่อนของเครื่องตรวจวัดค่าบีโอดีหรือเครื่องตรวจวัดค่าซีโอดีตามประกาศกรมโรงงานอุตสาหกรรม เรื่อง หลักเกณฑ์การให้ความเห็นชอบให้โรงงานที่ต้องมีระบบบำบัดน้ำเสียต้องติดตั้งเครื่องมือหรือเครื่องอุปกรณ์พิเศษและเครื่องมือหรือเครื่องอุปกรณ์เพิ่มเติม (ฉบับที่ 2) พ.ศ. 2565
Method (a) SM = Standard Method for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023
(b) คู่มือวิเคราะห์น้ำเสีย พิมพ์ครั้งที่ 3 ชงชัย พรธนะสวัสดิ์, วิบูลย์ลักษณ์ วิสุทธีศักดิ์
Standard : Notification of the Ministry of Industry (2017) (B.E. 2560)

Reviewed by

Ms. Wareerut Prachumdaeng
Chief of Laboratory

๖-236-จ-0002
.....



Approved by

Mrs. Pornpip Pethshee
Laboratory Manager

๖-236-จ-0003
.....

..... END OF REPORT

- PRIVATE LABORATORY REGISTERED NO. ๖-236
- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-2038 **Report Date** : 24/06/24
Received Date : 12/06/24 **Analysis Date** : 11-20/06/24
Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA **Job No.** : S670326/June
Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120 **Sampling Date *** : 11/06/24
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385 **Sampling By *** : TET
Type of Sample : Wastewater
Sample Conditions : 2406-WW0280 = black turbid/high black sediment/covered with oil slick/smell, Flow Rate = 2.5 m³/hr.
2406-WW0281 = light white/slight moderate sediment/covered with oil slick/smell, Flow Rate = 2.5 m³/hr.

Item	Parameter	Unit	Method ^(a)	Result		Standard		Analysis Date
				PT Wastewater Treatment Plant (WWTP3)				
				2406-WW0280	2406-WW0281			
				Inlet ⁽³⁾	Outlet	(1)	(2)	
1	Temperature *	°C	Laboratory and Field, Methods (SM 2550B)	33.1	32.3	40	45	11/06/24
2	pH *	-	Electrometric Method (SM 4500 B)	7.48	8.19	5.5-9.0	6.0-9.0	11/06/24
3	SS *	mg/L	Volumetric, Dried at 103-105 °C (SM 2540 F)	208.7	< 2.5	-	500	17/06/24
4	TDS *	mg/L	Dried at 180 °C (SM 2540 C)	850	230	3,000	3,000	17/06/24
5	BOD *	mg/L	5-Days BOD Test, Azide Modification Method (SM 5210 B)	525.0	1.7	20	450	12-17/06/24
6	COD *	mg/L	Closed Reflux Titrimetric Method (SM 5220 C)	1,548	10	120	600	17/06/24
7	Oil & Grease *	mg/L	Liquid-Liquid, Partition Gravimetric Method (SM 5520 B)	382.1	1.0	5	100	17/06/24
8	TKN *	mg/L	Macro-Kjeldahl/Titrimetric Method (SM 4500-N _{org} B&4500-NH ₃ C)	34.44	1.03	100	100	13/06/24
9	Cyanide *	mg/L	Distillation, Colorimetric Method (SM 4500-CN ⁻ B/E)	< 0.001	< 0.001	0.2	5.0	14/06/24
10	Phenol *	mg/L	Distillation, Direct Photometric Method (SM 5530 D)	0.046	< 0.001	1.0	10	19/06/24
11	Sulfate *	mg/L	Turbidimetric (SM 4500-SO ₄ ²⁻ E)	202.25	58.52	-		13/06/24
12	Formaldehyde *	mg/L	Distillation, Colorimetric Method ^(b)	0.05	< 0.01	1.0	1.0	18/06/24
13	Cr ⁺³ *	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B) ; Filtration, Colorimetric Method (SM 3500-Cr B) ; Calculation	< 0.02	< 0.02	0.75	0.75	12/06/24
14	Cr ⁺⁶ *	mg/L	Filtration, Colorimetric Method (SM 3500-Cr B)	< 0.02	< 0.02	0.25	0.25	12/06/24
15	Hg *	mg/L	Cold-Vapor AAS Method (SM 3112 B)	< 0.0005	< 0.0005	0.005	0.01	14/06/24
16	Se *	mg/L	Digestion, Continuous Hydride generation/AAS Method (SM 3114C)	< 0.0005	< 0.0005	0.02	1.0	20/06/24

continue

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-2038
Received Date : 12/06/24
Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385

Report Date : 24/06/24
Analysis Date : 11-20/06/24
Job No. : S670326/June
Sampling Date * : 11/06/24
Sampling By * : TET
Type of Sample : Wastewater

Item	Parameter	Unit	Method ^(a)	Result		Standard		Analysis Date
				PT Wastewater Treatment Plant (WWTP3)				
				2406-WW0280	2406-WW0281			
				Inlet ⁽³⁾	Outlet	(1)	(2)	
17	Al *	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	38.01	0.41	-	5.0	17/06/24
18	Co *	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	< 0.05	-	-	17/06/24
19	Ba	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.07	0.05	1.0	1.0	18/06/24
20	Cd	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	< 0.02	0.03	1.0	18/06/24
21	Cu	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	< 0.05	2.0	1.0	18/06/24
22	Fe	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	3.91 *	0.08	-	5.0	18/06/24
23	Mn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.04	< 0.02	5.0	5.0	18/06/24
24	Ni	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.06	< 0.02	1.0	1.0	18/06/24
25	Pb	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.04	< 0.04	0.2	1.0	19/06/24
26	Zn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.21	0.04	5.0	5.0	18/06/24

Remarks * "Test marked "Not TISI Accredited" in this Report are not included in the TISI Accreditation Schedule for our Laboratory"

: PT Wastewater Treatment Plant (WWTP3) Inlet = 47P 0671542 UTM 1561274
PT Wastewater Treatment Plant (WWTP3) Outlet = 47P 0671541 UTM 1561260
: BOD มีค่าปริมาณค่าสูงสุดที่สามารถรายงานเป็นตัวเลขได้ = 2 mg/L
COD มีค่าปริมาณค่าสูงสุดที่สามารถรายงานเป็นตัวเลขได้ = 40 mg/L

Method (a) SM = Standard Method for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023

(b) คู่มือวิเคราะห์น้ำเสีย พิมพ์ครั้งที่ 3 ของชัย พรหมสวัสดิ์, วิทยาลัยเกษตรและเทคโนโลยีสุพรรณบุรี

Standard (1) Notification of the Ministry of Industry (2017) (B.E. 2560)
(2) Standard of Central Wastewater Treatment Plant in Nava Nakorn Industrial Zone. (2016) (B.E. 2559)
(3) no established standard

Reviewed by

Ms. Wareerut Prachumdaeng

Chief of Laboratory

24/06/24



Approved by

Mrs. Pomtip Pethshee

Laboratory Manager

24/06/24

END OF REPORT

- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-2038/DIW **Report Date** : 24/06/24
Received Date : 12/06/24 **Analysis Date** : 11-20/06/24
Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA **Job No.** : S670326/June
Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120 **Sampling Date *** : 11/06/24
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385 **Sampling By *** : Mr. Natdanai Sriratchachawan
Sample Conditions : 2406-WW0281 = light white/moderate black sediment/covered with oil slick/smell **Registration No.** : จ-236-จ-0031
Type of Sample : Wastewater

Item	Parameter	Unit	Method ^(a)	Result	Standard	Analysis Date
				PT Wastewater Treatment Plant (WWTP3)		
				2406-WW0281		
				Outlet		
1	Temperature *	°C	Laboratory and Field, Methods (SM 2550B)	32.3	40	11/06/24
2	pH *	-	Electrometric Method (SM 4500 B)	8.19	5.5-9.0	11/06/24
3	TDS *	mg/L	Dried at 180 °C (SM 2540 C)	230	3,000	17/06/24
4	BOD *	mg/L	5-Days BOD Test, Azide Modification Method (SM 5210 B)	1.7	20	12-17/06/24
5	COD *	mg/L	Closed Reflux Titrimetric Method (SM 5220 C)	10	120	17/06/24
6	Oil & Grease *	mg/L	Liquid-Liquid, Partition Gravimetric Method (SM 5520 B)	1.0	5	17/06/24
7	TKN *	mg/L	Macro-Kjeldahl/Titrimetric Method (SM 4500-N _{org} B&4500-NH ₃ C)	1.03	100	13/06/24
8	Cyanide *	mg/L	Distillation, Colorimetric Method (SM 4500-CN ⁻ B/E)	< 0.001	0.2	14/06/24
9	Phenol *	mg/L	Distillation, Direct Photometric Method (SM 5530 D)	< 0.001	1.0	19/06/24
10	Formaldehyde *	mg/L	Distillation, Colorimetric Method ^(b)	< 0.01	1.0	18/06/24
11	Cr ⁺³ *	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B) ; Filtration, Colorimetric Method (SM 3500-Cr B) ; Calculation	< 0.02	0.75	12/06/24
12	Cr ⁺⁶ *	mg/L	Filtration, Colorimetric Method (SM 3500-Cr B)	< 0.02	0.25	12/06/24
13	Hg *	mg/L	Cold-Vapor AAS Method (SM 3112 B)	< 0.0005	0.005	14/06/24
14	Se *	mg/L	Digestion, Continuous Hydride generation/AAS Method (SM 3114C)	< 0.0005	0.02	20/06/24

continue

- PRIVATE LABORATORY REGISTERED NO. จ-236
- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL



TEST REPORT

Analysis No. : R24-2038/DIW
Received Date : 12/06/24
Customer : Technical Division of Thai Environmental Technic Limited
For Tostem Thai Co., Ltd./North Factory/EIA
Address : 101/104 Moo 20, Soi Navanakorn 1, Phaholyothin Road,
Klongnueng, Klongluang, Pathumthani 12120
Contact : Tel. (02) 529 0474 # 1965 Fax. (02) 529 4385

Report Date : 24/06/24
Analysis Date : 11-20/06/24
Job No. : S670326/June
Sampling Date * : 11/06/24
Sampling By * : Mr. Natdanai Sriratchachawan
Registration No. : จ-236-จ-0031
Type of Sample : Wastewater

Item	Parameter	Unit	Method ^(a)	Result	Standard	Analysis Date
				PT Wastewater Treatment Plant (WWTP3)		
				2406-WW0281		
				Outlet		
15	Ba	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.05	1.0	18/06/24
16	Cd	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	0.03	18/06/24
17	Cu	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.05	2.0	18/06/24
18	Mn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	5.0	18/06/24
19	Ni	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.02	1.0	18/06/24
20	Pb	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	< 0.04	0.2	19/06/24
21	Zn	mg/L	Digestion, ICP-OES Method (SM 3030F and 3120B)	0.04	5.0	18/06/24

Remarks * "Test marked "Not TISI Accredited" in this Report are not included in the TISI Accreditation Schedule for our Laboratory"

: PT Wastewater Treatment Plant (WWTP3) Outlet = 47P 0671541 UTM 1561260
: BOD มีค่าปริมาณต่ำสุดที่สามารถรายงานเป็นตัวเลขได้ = 2 mg/L
: COD มีค่าปริมาณต่ำสุดที่สามารถรายงานเป็นตัวเลขได้ = 40 mg/L

Method (a) SM = Standard Method for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023

(b) คู่มือวิเคราะห์น้ำเสีย พิมพ์ครั้งที่ 3 ธงชัย พรหมสวัสดิ์, วิทยาลัยกษัตริย์ วชิราวุธวิทยาลัย

Standard : Notification of the Ministry of Industry (2017) (B.E. 2560)

Reviewed by

Ms. Wareerut Prachumdaeng
Chief of Laboratory

จ-236-ก-0002
24/06/24



Approved by

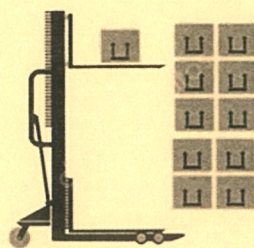
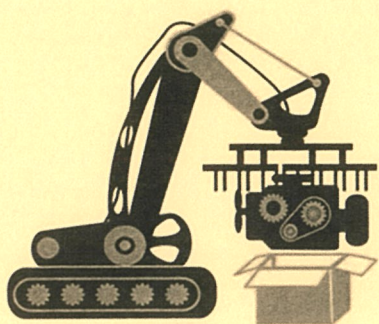
Mrs. Porntip Pethshee
Laboratory Manager


จ-236-ก-0003
24/06/24

..... END OF REPORT

- PRIVATE LABORATORY REGISTERED NO. จ-236
- REPORTED RESULTS REFER TO SUBMITTED SAMPLE(S) ONLY
- DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL

ผลการวิเคราะห์น้ำทิ้งอุตสาหกรรม
บริษัท คูริตะ-จีเค เคมีคอล จำกัด



Customer name:	KURITA-GK CHEMICAL CO., LTD.	
Tostem Thai Co., Ltd.	460 Moo 17 Bangphli Industrial Estate	
Project name:	Bangsaothong, Bangsaothong district, Samutprakarn 10570	
Surface Section D Line	Tel. (66)2-315-2300 Fax. (66)2-315-2301-2	

WASTE WATER ANALYSIS REPORT

Reference No.: SD22-1052-0301

Lab No.: 03-0-88018-GC1518

27-Mar-24

ITEM NAME \ SAMPLE NAME	RAW WASTE WATER WWTP1 (ระบบบำบัดน้ำเสีย WWT ST-Plant)	DISCHARGE WATER WWTP1 (ระบบบำบัดน้ำเสีย WWT ST-Plant)	Effluent Standard of MOI (Not excess)	Navanakorn standard
Sampling Date	15-Mar-24	15-Mar-24		
Sampling Time				
Flow rate (m3/hr)	50	75		
Odour	-	not disagreeable	-	-
Color (ADMI) ADMI	32	16 ✓	300	300
pH	-	4.15	5.5 - 9.0	6.0 - 9.0
Temperature °C	29.0	30.5	-	-
Sulfate mg/l as SO ₄ ²⁻	82.10	46.16	-	-
Total Dissolved Solids mg/l	2575	2780 ✓	3000	3000
Suspended Solids mg/l	828	< 2.5 ✓	50	500
COD(Cr) mg/l as O ₂	< 25	42 ✓	120	600
BOD mg/l as O ₂	7	8 ✓	20	450
Oil & Grease mg/l	8.5	2.9 ✓	5	100
Formaldehyde mg/l as HCHO	< 0.12	< 0.12 ✓	1	1
Phenolic mg/l as phenol	0.005	0.001 ✓	1	10
Total Kjeldahl Nitrogen mg/l as N	12.60	29.10 ✓	100	100
Fluoride mg/l as F	1.10	0.81 ✓	-	8
Remark : <div style="text-align: right;">on STD CL</div>				


Report results refer to submitted sample(s) only



Manager:

Sale representative:

Thitima T.

Customer name: Tostem Thai Co., Ltd.	KURITA-GK CHEMICAL CO., LTD. 460 Moo 17 Bangphli Industrial Estate Bangsaothong, Bangsaothong district, Samutprakarn 10570 Tel. (66)2-315-2300 Fax. (66)2-315-2301-2	
Project name: Surface Section D Line		

WASTE WATER ANALYSIS REPORT

Reference No.: SD22-1052-0301

Lab No.: 03-0-88018-GC1518

27-Mar-24

ITEM NAME \ SAMPLE NAME		RAW WASTE WATER	DISCHARGE WATER	Effluent Standard of MOI (Not excess)	Navanakorn standard
		WWTP 1 (ระบบ บำบัดน้ำเสีย WWT-IR)	WWTP 1 (ระบบ บำบัดน้ำเสีย WWT-IR)		
Sampling Date		15-Mar-24	15-Mar-24		
Sampling Time					
Copper	mg/l as Cu	1.21	0.04 ✓	2	1
Manganese	mg/l as Mn	0.31	0.11 ✓	5	5
Zinc	mg/l as Zn	0.20	0.03 ✓	5	5
Cyanide	mg/l as CN ⁻	ND	0.01 ✓	0.2	5
Aluminium	mg/l as Al	316.30	0.84 ✓	-	5
Barium	mg/l as Ba	< 0.30	< 0.30 ✓	1	1
Cadmium	mg/l as Cd	< 0.009	< 0.009 ✓	0.03	1
Trivalent Chromium	mg/l as Cr ³⁺	< 0.1	< 0.1 ✓	0.75	0.75
Hexavalent Chromium	mg/l as Cr ⁶⁺	ND	ND ✓	0.25	0.25
Lead	mg/l as Pb	< 0.06	< 0.06 ✓	0.2	1
Mercury	mg/l as Hg	< 0.0004	< 0.0004 ✓	0.005	0.01
Nickel	mg/l as Ni	2.68	0.18 ✓	1	1
Selenium	mg/l as Se	< 0.0004	< 0.0004 ✓	0.02	1
Iron (AAS)	mg/l as Fe	2.28	0.09 ✓	-	5
Cobalt	mg/l as Co	< 0.007	< 0.007	-	-
Remark : on STD Ch					


Report results refer to submitted sample(s) only

Manager:



Sale representative:

Thitima T.

Customer name: Tostem Thai Co., Ltd.	KURITA-GK CHEMICAL CO., LTD. 460 Moo 17 Bangphli Industrial Estate Bangsaothong, Bangsaothong district, Samutprakarn 10570 Tel. (66)2-315-2300 Fax. (66)2-315-2301-2	
Project name: Surface Section D Line		

WASTE WATER ANALYSIS REPORT

Reference No.: SD22-1052-0601

Lab No.: 03-0-88018-GF1314

28-Jun-24

ITEM NAME \ SAMPLE NAME		RAW WASTE WATER WWTP1 (ระบบ บำบัดน้ำเสีย WWT ST-Plant)	DISCHARGE WATER WWTP1 (ระบบ บำบัดน้ำเสีย WWT ST-Plant)	Effluent Standard of MOI (Not excess)	Navanakorn standard
Sampling Date		13-Jun-24	13-Jun-24		
Sampling Time					
Copper	mg/l as Cu	1.00	0.04 /	2	1
Manganese	mg/l as Mn	0.22	0.08 /	5	5
Zinc	mg/l as Zn	0.11	0.04 /	5	5
Cyanide	mg/l as CN ⁻	ND	ND /	0.2	5
Aluminium	mg/l as Al	199.40	0.72 /	-	5
Barium	mg/l as Ba	< 0.30	< 0.30 /	1	1
Cadmium	mg/l as Cd	< 0.009	< 0.009 /	0.03	1
Trivalent Chromium	mg/l as Cr ³⁺	< 0.1	< 0.1 /	0.75	0.75
Hexavalent Chromium	mg/l as Cr ⁶⁺	ND	ND /	0.25	0.25
Lead	mg/l as Pb	< 0.06	< 0.06 /	0.2	1
Mercury	mg/l as Hg	< 0.0004	< 0.0004 /	0.005	0.01
Nickel	mg/l as Ni	1.45	0.15 /	1	1
Selenium	mg/l as Se	< 0.0004	< 0.0004 /	0.02	1
Iron (AAS)	mg/l as Fe	1.77	0.10 /	-	5
Cobalt	mg/l as Co	< 0.007	< 0.007	-	-
Flow rate	m3/h	50.00	75.00	-	-
Remark :					
<div style="text-align: right;">on std</div> <div style="text-align: right;">CL</div>					


Report results refer to submitted sample(s) only

 KURITA-GK

Manager: _____

Sale representative: _____

Thitima T.

Customer name:	KURITA-GK CHEMICAL CO., LTD.	
Tostem Thai Co., Ltd.	460 Moo 17 Bangphli Industrial Estate	
Project name:	Bangsaothong, Bangsaothong district, Samutprakarn 10570	
Surface Section D Line	Tel. (66)2-315-2300 Fax. (66)2-315-2301-2	

WASTE WATER ANALYSIS REPORT

Reference No.: SD22-1052-0601

Lab No.: 03-0-88018-GF1314

28-Jun-24

ITEM NAME \ SAMPLE NAME	RAW WASTE WATER WWTP1 (ระบบบำบัดน้ำเสีย WWT ST-Plant)	DISCHARGE WATER WWTP1 (ระบบบำบัดน้ำเสีย WWT ST-Plant)	Effluent Standard of MOI (Not excess)	Navanakorn standard
Sampling Date	13-Jun-24	13-Jun-24		
Sampling Time				
Flow rate (m3/hr)	50	75		
Odour -	not disagreeable	not disagreeable	-	-
Color (ADMI) ADMI	22	19 ✓	300	300
pH -	4.09	6.98 ✓	5.5 - 9.0	6.0 - 9.0
Temperature °C	29.7	29.0	-	-
Sulfate mg/l as SO ₄ ²⁻	2258.53	1749.13	-	-
Total Dissolved Solids mg/l	2568	2292 ✓	3000	3000
Suspended Solids mg/l	306	11 ✓	50	500
COD(Cr) mg/l as O ₂	< 25	< 25 ✓	120	600
BOD mg/l as O ₂	3	< 3 ✓	20	450
Oil & Grease mg/l	3.0	1.0 ✓	5	100
Formaldehyde mg/l as HCHO	ND	ND ✓	1	1
Phenolic mg/l as phenol	1.280	0.001 ✓	1	10
Total Kjeldahl Nitrogen mg/l as N	12.00	17.60 ✓	100	100
Fluoride mg/l as F	0.64	0.85 ✓	-	8
Remark : on JTD OK				


Report results refer to submitted sample(s) only



Manager: _____

Sale representative: _____

Thitima T.

Customer name:	KURITA-GK CHEMICAL CO., LTD.	
Tostem Thai Co., Ltd.	460 Moo 17 Bangphli Industrial Estate	
Project name:	Bangsaothong, Bangsaothong district, Samutprakarn 10570	
Surface Section D Line	Tel. (66)2-315-2300 Fax. (66)2-315-2301-2	

WASTE WATER ANALYSIS REPORT

Reference No.: SD22-1052-0301

Lab No.: 03-0-88018-GC1518

27-Mar-24

ITEM NAME \ SAMPLE NAME		RAW WASTE WATER WWTP2 (ระบบ บำบัดน้ำเสีย WWT IR)	DISCHARGE WATER WWTP2 (ระบบ บำบัดน้ำเสีย WWT IR)	Effluent Standard of MOI (Not excess)	Navanakorn standard
Sampling Date		15-Mar-24	15-Mar-24		
Sampling Time					
Flow rate (m3/hr)		0.19	3		
Odour		not disagreeable	not disagreeable	-	-
Color (ADMI)	ADMI	2	2 ✓	300	300
pH	-	4.76	7.75 ✓	5.5 - 9.0	6.0 - 9.0
Temperature	°C	32.2	32.3	-	-
Sulfate	mg/l as SO ₄ ²⁻	32.12	23.67	-	-
Total Dissolved Solids	mg/l	238	619 ✓	3000	3000
Suspended Solids	mg/l	15	8 ✓	50	500
COD(Cr)	mg/l as O ₂	3362	27 ✓	120	600
BOD	mg/l as O ₂	3200	8 ✓	20	450
Oil & Grease	mg/l	2.0	2.2 ✓	5	100
Formaldehyde	mg/l as HCHO	2.12	< 0.12 ✓	1	1
Phenolic	mg/l as phenol	0.184	0.004 ✓	1	10
Total Kjeldahl Nitrogen	mg/l as N	19.30	4.40 ✓	100	100
Fluoride	mg/l as F	3.90	0.27 ✓	-	8
Remark : on STD ✓					


Report results refer to submitted sample(s) only



Manager:

Sale representative:

Thitima T.

Customer name: Tostem Thai Co., Ltd.	KURITA-GK CHEMICAL CO., LTD. 460 Moo 17 Bangphli Industrial Estate Bangsaothong, Bangsaothong district, Samutprakarn 10570 Tel. (66)2-315-2300 Fax. (66)2-315-2301-2	
Project name: Surface Section D Line		

WASTE WATER ANALYSIS REPORT

Reference No.: SD22-1052-0301

Lab No.: 03-0-88018-GC1518


27-Mar-24

ITEM NAME \ SAMPLE NAME	RAW WASTE WATER WWTP 2 (ระบบบำบัดน้ำเสีย WWT-IR)	DISCHARGE WATER WWTP 2 (ระบบบำบัดน้ำเสีย WWT-IR)	Effluent Standard of MOI (Not excess)	Navanakorn standard
Sampling Date	15-Mar-24	15-Mar-24		
Sampling Time				
Copper mg/l as Cu	0.08	0.05 ✓	2	1
Manganese mg/l as Mn	0.13	0.02 ✓	5	5
Zinc mg/l as Zn	0.09	0.03 ✓	5	5
Cyanide mg/l as CN ⁻	ND	ND ✓	0.2	5
Aluminium mg/l as Al	8.56	0.94 ✓	-	5
Barium mg/l as Ba	0.47	< 0.30 ✓	1	1
Cadmium mg/l as Cd	< 0.009	< 0.009 ✓	0.03	1
Trivalent Chromium mg/l as Cr ³⁺	0.14	< 0.1 ✓	0.75	0.75
Hexavalent Chromium mg/l as Cr ⁶⁺	ND	ND ✓	0.25	0.25
Lead mg/l as Pb	< 0.06	< 0.06 ✓	0.2	1
Mercury mg/l as Hg	< 0.0004	< 0.0004 ✓	0.005	0.01
Nickel mg/l as Ni	2.93	0.04 ✓	1	1
Selenium mg/l as Se	< 0.0004	< 0.0004 ✓	0.02	1
Iron (AAS) mg/l as Fe	21.87	0.28 ✓	-	5
Cobalt mg/l as Co	< 0.007	< 0.007	-	-
Remark : <div style="text-align: right;">Gm STD OK</div>				

Report results refer to submitted sample(s) only

Manager:  KURITA-GK

Sale representative: Thitima T.

Customer name:	KURITA-GK CHEMICAL CO., LTD.	
Tostem Thai Co., Ltd.	460 Moo 17 Bangphli Industrial Estate	
Project name:	Bangsaothong, Bangsaothong district, Samutprakarn 10570	
Surface Section D Line	Tel. (66)2-315-2300 Fax. (66)2-315-2301-2	

WASTE WATER ANALYSIS REPORT

Reference No.: SD22-1052-0601

Lab No.: 03-0-88018-GF1314

28-Jun-24

ITEM NAME \ SAMPLE NAME	RAW WASTE WATER WWTP2 (ระบบบำบัดน้ำเสีย WWT IR)	DISCHARGE WATER WWTP2 (ระบบบำบัดน้ำเสีย WWT IR)	Effluent Standard of MOI (Not excess)	Navanakorn standard
Sampling Date	13-Jun-24	13-Jun-24		
Sampling Time				
Flow rate (m3/hr)	0.19	3		
Odour	-	not disagreeable	-	-
Color (ADMI)	ADMI	115	22 /	300
pH	-	8.27	7.04 /	5.5 - 9.0
Temperature	°C	30.6	30	-
Sulfate	mg/l as SO ₄ ²⁻	53.45	2253.33	-
Total Dissolved Solids	mg/l	702	2201 /	3000
Suspended Solids	mg/l	113	6 /	500
COD(Cr)	mg/l as O ₂	2457	29 /	120
BOD	mg/l as O ₂	1410	5 /	20
Oil & Grease	mg/l	2.5	1.4 /	5
Formaldehyde	mg/l as HCHO	0.15	ND /	1
Phenolic	mg/l as phenol	0.150	0.001 /	1
Total Kjeldahl Nitrogen	mg/l as N	19.60	24.40 /	100
Fluoride	mg/l as F	0.35	1.40 /	-
Remark : <div style="text-align: right;">On STD OK</div>				


Report results refer to submitted sample(s) only



Manager: _____

Sale representative: _____

Thitima T. _____

Customer name:	KURITA-GK CHEMICAL CO., LTD.	
Tostem Thai Co., Ltd.	460 Moo 17 Bangphli Industrial Estate	
Project name:	Bangsaothong, Bangsaothong district, Samutprakarn 10570	
Surface Section D Line	Tel. (66)2-315-2300 Fax. (66)2-315-2301-2	

WASTE WATER ANALYSIS REPORT

Reference No.: SD22-1052-0601

Lab No.: 03-0-88018-GF1314

28-Jun-24

ITEM NAME \ SAMPLE NAME		RAW WASTE WATER WWTP 2 (ระบบ บำบัดน้ำเสีย WWT-IR)	DISCHARGE WATER WWTP 2 (ระบบ บำบัดน้ำเสีย WWT-IR)	Effluent Standard of MOI (Not excess)	Navanakorn standard
Sampling Date		13-Jun-24	13-Jun-24		
Sampling Time					
Copper	mg/l as Cu	0.20	0.04 /	2	1
Manganese	mg/l as Mn	0.04	0.07 /	5	5
Zinc	mg/l as Zn	0.09	0.05 /	5	5
Cyanide	mg/l as CN ⁻	ND	ND /	0.2	5
Aluminium	mg/l as Al	8.79	0.97 /	-	5
Barium	mg/l as Ba	< 0.30	0.33 /	1	1
Cadmium	mg/l as Cd	< 0.009	< 0.009 /	0.03	1
Trivalent Chromium	mg/l as Cr ³⁺	< 0.1	< 0.1 /	0.75	0.75
Hexavalent Chromium	mg/l as Cr ⁶⁺	ND	ND /	0.25	0.25
Lead	mg/l as Pb	< 0.06	< 0.06 /	0.2	1
Mercury	mg/l as Hg	< 0.0004	< 0.0004 /	0.005	0.01
Nickel	mg/l as Ni	2.96	0.14 /	1	1
Selenium	mg/l as Se	< 0.0004	< 0.0004 /	0.02	1
Iron (AAS)	mg/l as Fe	6.79	0.11 /	-	5
Cobalt	mg/l as Co	< 0.007	< 0.007	-	-
Flow rate	m3/h	0.19	3.00	-	-
Remark : on STD OK					

Report results refer to submitted sample(s) only

Manager:



Sale representative:

Thitima T.