

ภาคผนวก ง

หนังสือรับรองผลการตรวจวัดและวิเคราะห์คุณภาพสิ่งแวดล้อม

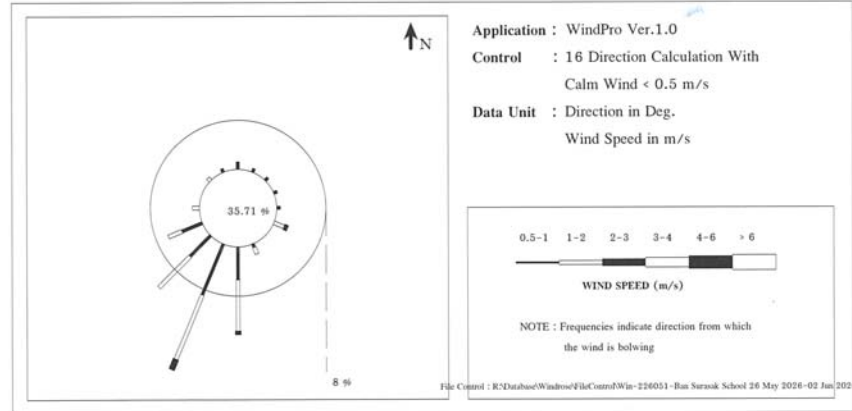
คุณภาพอากาศในบรรยากาศ



Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Ban Surasak School Monitor period : 26 May 2026-02 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2205DR0038
Wind Direction Model : Scarlet WL-21 Serial No : 2205DR0038

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0119
NNE	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
NE	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
ENE	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
E	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
ESE	0.0000	0.0179	0.0060	0.0000	0.0000	0.0000	0.0238
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0060	0.0119	0.0000	0.0000	0.0000	0.0000	0.0179
S	0.0536	0.0833	0.0060	0.0000	0.0000	0.0000	0.1429
SSW	0.0893	0.1131	0.0179	0.0000	0.0000	0.0000	0.2202
SW	0.0476	0.0714	0.0000	0.0000	0.0000	0.0000	0.1190
WSW	0.0357	0.0238	0.0000	0.0000	0.0000	0.0000	0.0595
W	0.0000	0.0119	0.0000	0.0000	0.0000	0.0000	0.0119
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0060
NNW	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
CALM	0.3571						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Ban Surasak School Monitor period : 26 May 2026-02 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2205DR0038
Wind Direction Model : Scarlet WL-21 Serial No : 2205DR0038

Time	26-27 May 2026		27-28 May 2026		28-29 May 2026		29-30 May 2026	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
10:00 - 11:00	1.7	S	1.3	SW	1.4	SW	1.4	ESE
11:00 - 12:00	1.5	SSW	1.4	SW	1.3	SSW	1.3	S
12:00 - 13:00	1.5	SW	1.5	SW	1.4	SW	1.5	SSW
13:00 - 14:00	1.6	SW	1.5	SSW	2.3	S	1.7	NW
14:00 - 15:00	1.4	WSW	1.3	SSW	2.5	SSW	1.2	S
15:00 - 16:00	1.6	SW	1.4	WSW	2.2	SSW	0.5	N
16:00 - 17:00	1.4	SW	1.6	SSW	1.7	SSW	0.4	SSW
17:00 - 18:00	1.1	SSW	1.9	SSW	1.6	SSW	0.6	SW
18:00 - 19:00	1.3	S	1.9	S	1.4	SSW	1.1	SSW
19:00 - 20:00	1.1	S	1.7	SSW	1.7	SSW	0.9	SSW
20:00 - 21:00	1.1	S	1.2	S	1.4	SSW	0.7	SW
21:00 - 22:00	1.1	S	0.9	SSW	1.0	SSW	0.3	S
22:00 - 23:00	1.0	S	0.7	SSW	0.8	S	0.4	SW
23:00 - 24:00	0.8	S	0.7	SSW	0.6	SW	0.4	W
00:00 - 01:00	0.3	SSW	0.8	SSW	0.4	SW	0.2	SW
01:00 - 02:00	0.5	SW	0.5	SW	0.3	WSW	0.3	WSW
02:00 - 03:00	0.4	SW	0.4	SW	0.3	SW	0.6	WSW
03:00 - 04:00	0.6	WSW	0.5	SW	0.4	WSW	0.0	SW
04:00 - 05:00	0.1	SSW	0.1	WSW	0.2	SW	0.1	SSE
05:00 - 06:00	0.2	SW	0.0	SW	0.3	SSW	0.1	WSW
06:00 - 07:00	0.4	SSW	0.1	SW	0.5	SSW	0.2	NW
07:00 - 08:00	0.8	S	0.8	SSW	1.0	S	0.4	SW
08:00 - 09:00	1.0	SSE	1.2	SSW	1.0	S	0.6	SSE
09:00 - 10:00	1.1	W	1.2	WSW	0.9	E	0.9	S



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Ban Surasak School Monitor period : 26 May 2026-02 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2205DR0038
Wind Direction Model : Scarlet WL-21 Serial No : 2205DR0038

Time	30-31 May 2026		31 May-01 Jun 2026		01-02 Jun 2026		
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	
10:00 - 11:00	0.8	S	1.1	S	1.0	SSW	
11:00 - 12:00	0.9	NNE	0.9	SSW	1.0	W	
12:00 - 13:00	2.1	SSW	1.9	SSE	1.1	SW	
13:00 - 14:00	0.8	S	1.8	WSW	1.1	SW	
14:00 - 15:00	0.6	SW	0.9	WSW	1.4	SSW	
15:00 - 16:00	1.0	ESE	0.7	SSW	2.4	ESE	
16:00 - 17:00	0.8	S	0.5	SSW	0.9	S	
17:00 - 18:00	0.8	SSW	1.0	ESE	0.6	SSW	
18:00 - 19:00	0.5	SW	0.6	NNW	0.4	SW	
19:00 - 20:00	0.2	S	0.5	ENE	0.1	SW	
20:00 - 21:00	0.1	SW	0.4	W	0.2	ESE	
21:00 - 22:00	0.3	SW	0.2	WSW	0.1	NNW	
22:00 - 23:00	0.3	SW	0.3	SW	0.0	WSW	
23:00 - 24:00	0.1	SW	0.9	WSW	0.0	SSW	
00:00 - 01:00	0.1	SW	0.6	WSW	0.1	SW	
01:00 - 02:00	0.0	SSW	0.5	WSW	0.0	ESE	
02:00 - 03:00	0.2	SE	0.4	ENE	0.0	WSW	
03:00 - 04:00	0.1	W	0.3	SSE	0.0	WSW	
04:00 - 05:00	0.1	SW	0.4	NNE	0.0	SW	
05:00 - 06:00	0.2	WSW	0.3	NNE	0.0	S	
06:00 - 07:00	0.0	WSW	0.4	N	0.0	WSW	
07:00 - 08:00	0.6	S	0.7	N	0.4	S	
08:00 - 09:00	1.0	S	0.7	NE	0.8	SSW	
09:00 - 10:00	0.9	SSW	0.8	SSW	1.1	SW	

Wind Rose



WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-226051-Ban Surasak School 26 May 2026-02 Jun 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

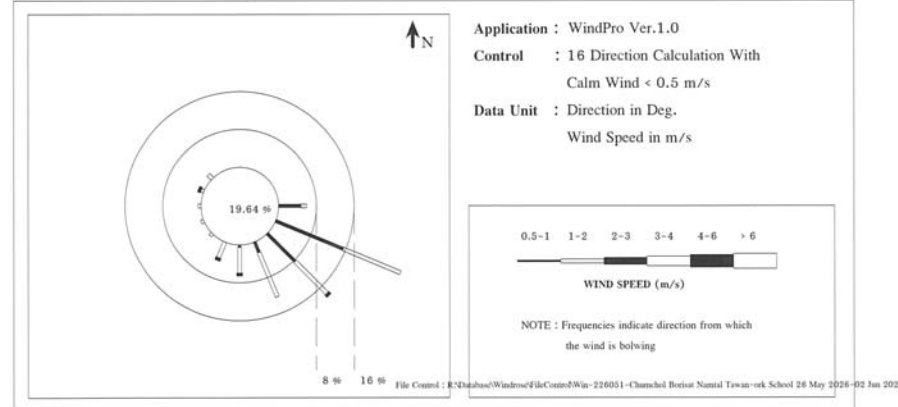
Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Chumchol Borisat Namtal Tawan-ork School Monitor period : 26 May 2026-02 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2112DR0016
Wind Direction Model : Scarlet WL-21 Serial No : 2112DR0016

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0476	0.0119	0.0000	0.0000	0.0000	0.0000	0.0595
ESE	0.1548	0.1310	0.0000	0.0000	0.0000	0.0000	0.2857
SE	0.0833	0.0952	0.0060	0.0000	0.0000	0.0000	0.1845
SSE	0.0238	0.1012	0.0000	0.0000	0.0000	0.0000	0.1250
S	0.0060	0.0536	0.0060	0.0000	0.0000	0.0000	0.0655
SSW	0.0000	0.0357	0.0060	0.0000	0.0000	0.0000	0.0417
SW	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0060
WSW	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0060
W	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0060
WNW	0.0000	0.0060	0.0060	0.0000	0.0000	0.0000	0.0119
NW	0.0000	0.0119	0.0000	0.0000	0.0000	0.0000	0.0119
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.1964						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

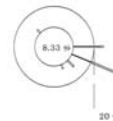
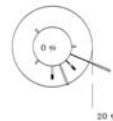


Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Chumchol Borisat Namtal Tawan-ork School Monitor period : 26 May 2026-02 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2112DR0016
Wind Direction Model : Scarlet WL-21 Serial No : 2112DR0016

Time	26-27 May 2026		27-28 May 2026		28-29 May 2026		29-30 May 2026	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
09:00 - 10:00	1.5	SSE	1.1	S	1.2	SW	1.5	ESE
10:00 - 11:00	1.6	S	2.1	WNW	1.2	S	1.2	SE
11:00 - 12:00	1.4	S	1.8	W	1.4	SSE	1.4	SSE
12:00 - 13:00	1.8	SSW	1.6	SSW	1.9	SSE	1.3	SE
13:00 - 14:00	1.7	SSW	1.4	SSE	2.0	SE	1.6	NW
14:00 - 15:00	1.8	SSW	1.4	S	2.1	S	0.8	E
15:00 - 16:00	1.6	SSW	1.7	SSE	1.6	NW	0.1	E
16:00 - 17:00	1.4	S	1.7	SSE	1.5	SSE	0.9	ESE
17:00 - 18:00	1.5	SE	1.6	SE	1.4	SSE	1.0	ESE
18:00 - 19:00	1.4	SE	1.5	SSE	1.4	S	1.2	ESE
19:00 - 20:00	1.2	SE	1.3	SE	1.4	SSE	1.3	ESE
20:00 - 21:00	1.0	SE	1.2	ESE	1.0	SE	1.0	ESE
21:00 - 22:00	1.2	SE	1.0	ESE	1.0	ESE	1.1	ESE
22:00 - 23:00	1.1	SE	1.1	ESE	1.1	ESE	0.9	E
23:00 - 24:00	0.9	SE	1.3	ESE	0.9	ESE	0.6	ESE
00:00 - 01:00	0.9	SE	1.1	ESE	0.6	SE	0.8	E
01:00 - 02:00	0.7	SE	0.6	SE	0.7	ESE	0.8	E
02:00 - 03:00	0.7	SE	0.7	ESE	0.6	ESE	0.5	E
03:00 - 04:00	0.8	SE	0.4	SE	0.6	ESE	0.5	E
04:00 - 05:00	0.6	SSE	0.4	SE	0.7	ESE	0.6	ESE
05:00 - 06:00	0.5	SSE	0.3	SE	1.1	E	0.2	ESE
06:00 - 07:00	0.9	SE	0.9	ESE	0.9	ESE	0.5	ESE
07:00 - 08:00	1.5	SE	1.2	SSE	1.4	ESE	1.0	E
08:00 - 09:00	1.2	SSE	1.0	SSW	1.2	ESE	0.9	ESE

Wind Rose



File Control : R:\Database\Windrose\Folder\Win-226051-Chumchol Borisat Namtal Tawan-ork School 26 May 2026-02 Jun 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

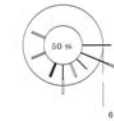
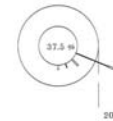


Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Chumchol Borisat Namtal Tawan-ork School Monitor period : 26 May 2026-02 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2112DR0016
Wind Direction Model : Scarlet WL-21 Serial No : 2112DR0016

Time	30-31 May 2026		31 May-01 Jun 2026		01-02 Jun 2026	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
09:00 - 10:00	0.8	ESE	0.9	S	1.0	SSE
10:00 - 11:00	0.9	ESE	1.1	SSE	0.9	SSE
11:00 - 12:00	1.4	SE	0.9	ESE	0.9	SE
12:00 - 13:00	1.4	S	2.6	SSW	0.6	SE
13:00 - 14:00	0.4	SE	1.7	WSW	1.0	SSE
14:00 - 15:00	1.3	ESE	1.3	S	1.8	SE
15:00 - 16:00	1.2	ESE	0.4	SE	1.2	SE
16:00 - 17:00	0.9	ESE	1.1	ESE	1.1	SSE
17:00 - 18:00	0.9	ESE	0.6	ESE	1.1	ESE
18:00 - 19:00	0.8	ESE	0.1	SE	1.0	ESE
19:00 - 20:00	1.5	ESE	0.6	SE	1.2	ESE
20:00 - 21:00	0.9	ESE	0.4	SE	0.4	ESE
21:00 - 22:00	0.8	ESE	0.1	SE	0.0	SE
22:00 - 23:00	0.7	ESE	0.3	WSW	0.4	SE
23:00 - 24:00	0.3	SE	1.3	WNW	0.9	ESE
00:00 - 01:00	0.4	SE	0.1	E	0.8	ESE
01:00 - 02:00	0.3	SE	0.4	NE	0.3	SE
02:00 - 03:00	0.4	SE	0.3	SE	0.7	SE
03:00 - 04:00	0.3	SE	0.3	ESE	0.3	E
04:00 - 05:00	0.4	ESE	0.1	ESE	0.3	ESE
05:00 - 06:00	0.0	SE	0.4	ESE	0.1	SE
06:00 - 07:00	0.3	SE	0.4	ESE	0.6	SE
07:00 - 08:00	1.0	SE	0.5	E	0.8	SE
08:00 - 09:00	0.8	SSE	0.8	E	0.7	ESE

Wind Rose



File Control : R:\Database\Windrose\Folder\Win-226051-Chumchol Borisat Namtal Tawan-ork School 26 May 2026-02 Jun 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Gulf Tasit4 Power Plant Project)-Operation Phase

Location : Ban Ra Woeng (Raj U-Pratum) School

Monitor period : 26 May 2026-03 Jun 2026

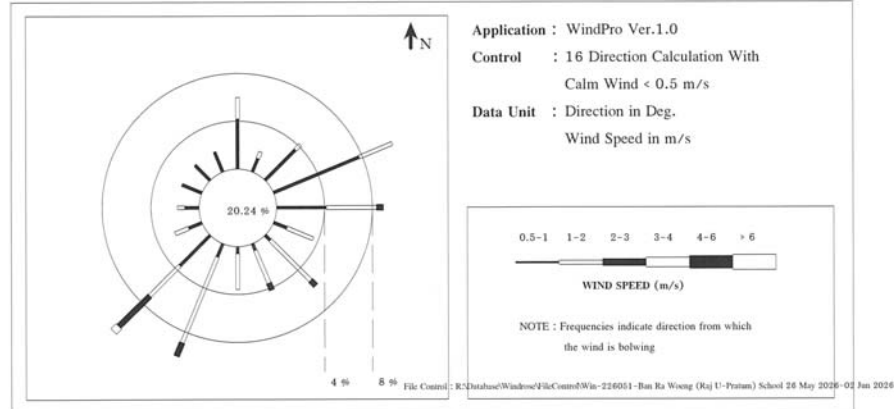
Wind Speed Model : Scarlet WL-21

Serial No : 2205DR0067

Wind Direction Model : Scarlet WL-21

Serial No : 2205DR0067

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0417	0.0179	0.0000	0.0000	0.0000	0.0000	0.0595
NNE	0.0119	0.0060	0.0000	0.0000	0.0000	0.0000	0.0179
NE	0.0357	0.0060	0.0000	0.0000	0.0000	0.0000	0.0417
ENE	0.0774	0.0298	0.0000	0.0000	0.0000	0.0000	0.1071
E	0.0417	0.0417	0.0060	0.0000	0.0000	0.0000	0.0893
ESE	0.0119	0.0238	0.0000	0.0000	0.0000	0.0000	0.0357
SE	0.0060	0.0476	0.0060	0.0000	0.0000	0.0000	0.0595
SSE	0.0060	0.0298	0.0060	0.0000	0.0000	0.0000	0.0417
S	0.0060	0.0298	0.0000	0.0000	0.0000	0.0000	0.0357
SSW	0.0119	0.0774	0.0119	0.0000	0.0000	0.0000	0.1012
SW	0.0357	0.0357	0.0357	0.0060	0.0000	0.0000	0.1131
WSW	0.0119	0.0119	0.0000	0.0000	0.0000	0.0000	0.0238
W	0.0119	0.0060	0.0000	0.0000	0.0000	0.0000	0.0179
WNW	0.0179	0.0000	0.0000	0.0000	0.0000	0.0000	0.0179
NW	0.0179	0.0000	0.0000	0.0000	0.0000	0.0000	0.0179
NNW	0.0179	0.0000	0.0000	0.0000	0.0000	0.0000	0.0179
CALM	0.2024						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Gulf Tasit4 Power Plant Project)-Operation Phase

Location : Ban Ra Woeng (Raj U-Pratum) School

Monitor period : 26 May 2026-03 Jun 2026

Wind Speed Model : Scarlet WL-21

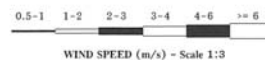
Serial No : 2205DR0067

Wind Direction Model : Scarlet WL-21

Serial No : 2205DR0067

Time	26-27 May 2026		27-28 May 2026		28-29 May 2026		29-30 May 2026	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
11:00 - 12:00	1.6	SW	3.1	SW	1.9	SW	1.4	ENE
12:00 - 13:00	2.2	SW	2.5	SW	1.6	SE	1.6	E
13:00 - 14:00	2.1	SSW	2.0	SSW	1.8	SE	2.4	SW
14:00 - 15:00	1.6	SE	1.5	SE	2.0	SE	1.2	SSE
15:00 - 16:00	2.2	SW	1.6	SSW	1.9	S	0.8	WNW
16:00 - 17:00	1.7	SSE	1.8	SE	1.3	SSE	0.7	NNW
17:00 - 18:00	1.4	SSE	1.6	ESE	1.4	ESE	0.5	WNW
18:00 - 19:00	1.2	E	1.5	ESE	1.2	ESE	0.6	SW
19:00 - 20:00	1.0	E	1.2	SE	1.1	SE	1.0	SSW
20:00 - 21:00	0.9	ENE	1.1	E	1.1	SSE	0.7	SSE
21:00 - 22:00	0.9	S	0.9	E	0.9	E	0.5	SSW
22:00 - 23:00	0.9	E	0.8	ESE	0.7	ENE	0.6	SW
23:00 - 24:00	0.9	E	0.7	ENE	0.8	NE	0.5	NNW
00:00 - 01:00	0.5	W	0.7	SSW	0.5	NE	0.4	NW
01:00 - 02:00	0.6	WSW	0.6	WSW	0.3	WNW	0.3	W
02:00 - 03:00	0.4	SW	0.5	SW	0.5	ENE	0.4	W
03:00 - 04:00	0.3	SW	0.5	NNE	0.5	W	0.4	NNW
04:00 - 05:00	0.4	N	0.5	NNW	0.5	NW	0.4	N
05:00 - 06:00	0.4	NNE	0.4	NNW	0.3	N	0.4	N
06:00 - 07:00	0.4	N	0.4	WNW	0.6	ENE	0.6	N
07:00 - 08:00	1.1	E	0.6	SW	1.0	SE	0.4	NNE
08:00 - 09:00	1.4	ENE	1.4	SSW	0.9	SE	0.8	ENE
09:00 - 10:00	1.3	WSW	2.1	SW	1.1	ENE	1.1	NE
10:00 - 11:00	1.8	SSW	2.0	SW	1.7	ENE	1.4	E

Wind Rose



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

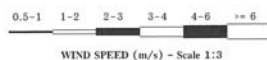


Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Gulf Tasit4 Power Plant Project)-Operation Phase

Location : Ban Ra Woeng (Raj U-Pratum) School Monitor period : 26 May 2026-03 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2205DR0067
Wind Direction Model : Scarlet WL-21 Serial No : 2205DR0067

Time	30-31 May 2026		01-02 Jun 2026		02-03 Jun 2026		
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	
11:00 - 12:00	1.6	NNE	1.3	SSW	1.5	S	
12:00 - 13:00	2.1	E	1.4	WSW	1.6	SSW	
13:00 - 14:00	1.6	S	1.8	SW	1.4	SSW	
14:00 - 15:00	0.9	NW	1.3	SSW	1.7	SSW	
15:00 - 16:00	1.2	ENE	2.3	SSE	1.7	SW	
16:00 - 17:00	0.9	ENE	1.4	SSW	1.3	SW	
17:00 - 18:00	0.7	E	0.7	ENE	0.7	ENE	
18:00 - 19:00	0.5	N	0.6	ENE	0.8	E	
19:00 - 20:00	0.3	NW	0.6	ENE	1.0	E	
20:00 - 21:00	0.6	NE	0.8	N	0.9	E	
21:00 - 22:00	0.6	NE	0.7	N	0.5	NNE	
22:00 - 23:00	0.6	SW	0.5	WNW	0.3	WNW	
23:00 - 24:00	0.4	ESE	0.4	ENE	0.2	WSW	
00:00 - 01:00	1.6	SSW	0.6	ENE	0.4	NW	
01:00 - 02:00	0.7	SW	0.4	NE	0.6	ENE	
02:00 - 03:00	0.6	NE	0.2	NW	0.3	NW	
03:00 - 04:00	0.7	NW	0.4	WNW	0.1	NNE	
04:00 - 05:00	0.4	NE	0.1	ENE	0.3	W	
05:00 - 06:00	0.6	N	0.3	WSW	0.4	NNE	
06:00 - 07:00	0.7	N	0.3	WNW	0.3	NNE	
07:00 - 08:00	1.1	N	0.6	N	0.7	ESE	
08:00 - 09:00	1.1	N	0.9	NE	1.5	SSW	
09:00 - 10:00	1.1	N	1.2	S	1.2	S	
10:00 - 11:00	1.1	W	1.2	SW	1.3	SSW	

Wind Rose



File Control: R:\Database\Windrose\FileControl\Win-226051-Ban Ra Woeng (Raj U-Pratum) School 26 May 2026-02 Jun 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

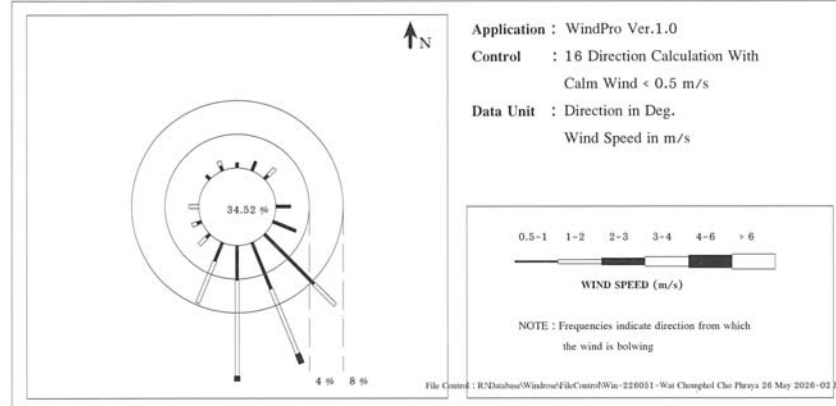
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Wat Chomphol Cho Phraya Monitor period : 26 May 2026-02 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2112DR0042
Wind Direction Model : Scarlet WL-21 Serial No : 2112DR0042

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	Total
N	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
NNE	0.0119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0119
NE	0.0060	0.0119	0.0000	0.0000	0.0000	0.0000	0.0179
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0179	0.0000	0.0000	0.0000	0.0000	0.0000	0.0179
ESE	0.0298	0.0000	0.0000	0.0000	0.0000	0.0000	0.0298
SE	0.0833	0.0357	0.0000	0.0000	0.0000	0.0000	0.1190
SSE	0.0595	0.0833	0.0119	0.0000	0.0000	0.0000	0.1548
S	0.0417	0.1131	0.0060	0.0000	0.0000	0.0000	0.1607
SSW	0.0238	0.0536	0.0000	0.0000	0.0000	0.0000	0.0774
SW	0.0060	0.0119	0.0000	0.0000	0.0000	0.0000	0.0179
WSW	0.0060	0.0060	0.0000	0.0000	0.0000	0.0000	0.0119
W	0.0000	0.0119	0.0000	0.0000	0.0000	0.0000	0.0119
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
NNW	0.0060	0.0060	0.0000	0.0000	0.0000	0.0000	0.0119
CALM	0.3452						



File Control: R:\Database\Windrose\FileControl\Win-226051-Wat Chomphol Cho Phraya 26 May 2026-02 Jun 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

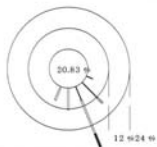
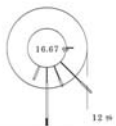


Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Wat Chomphol Cho Phraya Monitor period : 26 May 2026-02 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2112DR0042
Wind Direction Model : Scarlet WL-21 Serial No : 2112DR0042

Time	26-27 May 2026		27-28 May 2026		28-29 May 2026		29-30 May 2026	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
09:00 - 10:00	1.4	S	1.1	S	1.4	SSW	0.9	NE
10:00 - 11:00	1.8	S	1.3	SSW	1.4	SSW	1.1	NE
11:00 - 12:00	1.8	SSW	1.3	SW	1.2	S	1.4	SSE
12:00 - 13:00	1.9	SSW	1.6	S	1.6	SSE	1.4	SSE
13:00 - 14:00	1.8	S	1.8	S	1.8	SE	1.4	WSW
14:00 - 15:00	2.1	S	1.6	SSE	2.1	SSE	1.4	SSW
15:00 - 16:00	1.9	S	1.8	SSW	2.1	SSE	0.7	NW
16:00 - 17:00	1.7	S	1.6	SSE	1.7	S	0.4	SE
17:00 - 18:00	1.3	SSE	1.6	SSE	1.5	SSE	0.6	SSE
18:00 - 19:00	1.1	SE	1.6	SSE	1.6	SSE	1.1	S
19:00 - 20:00	0.9	SE	1.4	SSE	1.8	S	1.1	S
20:00 - 21:00	0.9	SE	1.0	SE	1.4	SSE	0.9	S
21:00 - 22:00	0.9	SSE	0.7	SE	1.0	SSE	0.8	SSW
22:00 - 23:00	0.8	SE	0.6	SE	0.8	SE	0.4	SE
23:00 - 24:00	0.6	E	0.6	SE	0.4	SE	0.4	S
00:00 - 01:00	0.4	E	0.6	SE	0.3	SE	0.2	S
01:00 - 02:00	0.7	S	0.4	ESE	0.3	SE	0.2	S
02:00 - 03:00	0.4	S	0.4	SE	0.3	SSE	0.4	SSW
03:00 - 04:00	0.5	S	0.4	SSE	0.6	SSE	0.2	SSW
04:00 - 05:00	0.6	SSE	0.3	S	0.4	SSE	0.2	SSE
05:00 - 06:00	0.4	SSE	0.1	SSW	0.5	SE	0.1	SSE
06:00 - 07:00	0.4	SSE	0.3	SSE	0.6	ESE	0.3	SSE
07:00 - 08:00	0.8	SE	1.2	S	0.8	SE	0.8	ESE
08:00 - 09:00	1.0	SE	1.3	S	0.9	SSE	0.7	SSE

Wind Rose



File Control R:\Database\Windrose\FileControl\Win-226051-Wat Chomphol Cho Phraya 26 May 2026-02 Jun 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Wat Chomphol Cho Phraya Monitor period : 26 May 2026-02 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2112DR0042
Wind Direction Model : Scarlet WL-21 Serial No : 2112DR0042

Time	30-31 May 2026		31 May-01 Jun 2026		01-02 Jun 2026	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
09:00 - 10:00	0.9	S	0.9	SSE	0.9	N
10:00 - 11:00	0.9	NNE	1.0	SE	1.0	W
11:00 - 12:00	1.1	NE	1.3	SSE	1.1	W
12:00 - 13:00	1.4	S	1.3	SE	1.1	S
13:00 - 14:00	0.9	WSW	1.6	SW	1.0	S
14:00 - 15:00	0.8	ESE	1.3	SSW	1.5	S
15:00 - 16:00	0.8	ESE	0.9	S	1.2	NNW
16:00 - 17:00	0.5	SE	0.6	SSE	1.3	SSW
17:00 - 18:00	0.3	SSE	0.6	E	0.8	S
18:00 - 19:00	0.4	SSW	0.4	SE	0.8	SSE
19:00 - 20:00	0.4	S	0.4	E	0.6	SE
20:00 - 21:00	0.4	ENE	0.1	SSE	0.2	NE
21:00 - 22:00	0.4	SE	0.0	SW	0.2	WSW
22:00 - 23:00	0.4	SSW	0.0	SW	0.1	SSW
23:00 - 24:00	0.1	SSE	0.5	SW	0.0	S
00:00 - 01:00	0.1	SSE	0.6	SSW	0.0	SSW
01:00 - 02:00	0.3	ESE	0.6	SE	0.0	SSE
02:00 - 03:00	0.2	SE	0.5	E	0.0	SSW
03:00 - 04:00	0.2	SE	0.7	S	0.0	SSE
04:00 - 05:00	0.2	S	0.3	SE	0.0	S
05:00 - 06:00	0.2	SSW	0.2	SE	0.0	W
06:00 - 07:00	0.0	SSW	0.1	ESE	0.1	WSW
07:00 - 08:00	0.9	SSE	0.7	NNW	0.7	ESE
08:00 - 09:00	0.9	SSW	0.7	NNE	0.7	SSW

Wind Rose



File Control R:\Database\Windrose\FileControl\Win-226051-Wat Chomphol Cho Phraya 26 May 2026-02 Jun 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : Gulf TS4 Co., Ltd. REFERENCE NO. : 226051-Ambient-2605-0055
(Tasit 4 Power Plant) SAMPLING DATE : 26/05/2026-02/06/2026
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 16-19/06/2026
RECEIVED DATE : 12/06/2026 SAMPLE CONDITION : Normal
REPORT DATE : 20/06/2026 SITE OPERATOR : Mr. Song Hengchwankul
LOCATION DESCRIPTION : 1. Ban Surasak School
2. Chumchol Borisat Namtal Tawan-ork School
3. Wat Chomphol Cho Phraya

PARAMETER	SAMPLING DATE	UNITS	RESULTS			STANDARD*	REFERENCE METHODS
			1	2	3		
TSP (24 hr)	26-27/05/2026	µg/m ³	35.7	66.0	23.8	200	High Volume Air Sampler/Gravimetric Method
	27-28/05/2026	µg/m ³	37.2	56.9	15.9		
	28-29/05/2026	µg/m ³	34.6	81.3	19.8		
	29-30/05/2026	µg/m ³	20.5	27.8	17.3		
	30-31/05/2026	µg/m ³	15.4	18.3	15.1		
	31/05/2026-01/06/2026	µg/m ³	15.9	16.0	16.8		
	01-02/06/2026	µg/m ³	17.1	17.4	14.4		

Bongsa Puthum

(Miss Pornnapa Budthum)

Analyst

Narisa Poowasanetch

(Miss Narisa Poowasanetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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3. * Notification of National Environment Board, B.E.2569 (2026).



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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : Gulf TS4 Co., Ltd. REFERENCE NO. : 226051-Ambient-2605-0055
(Tasit 4 Power Plant) SAMPLING DATE : 26-31/05/2026, 01-03/06/2026
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 16-19/06/2026
RECEIVED DATE : 12/06/2026 SAMPLE CONDITION : Normal
REPORT DATE : 20/06/2026 SITE OPERATOR : Mr. Song Hengchwankul

PARAMETER	SAMPLING DATE	UNITS	RESULTS	STANDARD*	REFERENCE METHODS
			Ban Ra Woeng (Raj U-Pratum) School		
TSP (24 hr)	26-27/05/2026	µg/m ³	25.1	200	High Volume Air Sampler/Gravimetric Method
	27-28/05/2026	µg/m ³	17.4		
	28-29/05/2026	µg/m ³	25.5		
	29-30/05/2026	µg/m ³	21.6		
	30-31/05/2026	µg/m ³	22.9		
	01-02/06/2026	µg/m ³	17.1		
	02-03/06/2026	µg/m ³	18.8		

Bongsa Puthum

(Miss Pornnapa Budthum)

Analyst

Narisa Poowasanetch

(Miss Narisa Poowasanetch)

Technical Management Team

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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd.	REFERENCE NO.	: 226051-Ambient-2605-0055
	(Tasit 4 Power Plant)	SAMPLING DATE	: 26/05/2026-02/06/2026
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 16-19/06/2026
RECEIVED DATE	: 12/06/2026	SAMPLE CONDITION	: Normal
REPORT DATE	: 20/06/2026	SITE OPERATOR	: Mr. Song Hengchwankul

LOCATION DESCRIPTION : 1. Ban Surasak School

2. Chumchol Borisat Namtal Tawan-ork School

3. Wat Chomphol Cho Phraya

PARAMETER	SAMPLING DATE	UNITS	RESULTS			STANDARD*	REFERENCE METHODS
			1	2	3		
PM-10 (24 hr)	26-27/05/2026	µg/m ³	13.9	15.8	12.8	100	High Volume Air Sampler
	27-28/05/2026	µg/m ³	14.6	15.1	10.3		(Hi-Vol PM-10 Size
	28-29/05/2026	µg/m ³	12.4	18.6	13.6		Selective Inlet)/
	29-30/05/2026	µg/m ³	13.4	11.2	14.1		Gravimetric Method
	30-31/05/2026	µg/m ³	11.3	8.3	13.2		
	31/05/2026-01/06/2026	µg/m ³	10.9	7.8	11.7		
	01-02/06/2026	µg/m ³	12.6	8.8	12.3		

Pornnapa Budthum

(Miss Pornnapa Budthum)

Analyst

Narisara Poowasanpetch

(Miss Narisa Poowasanpetch)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd.	REFERENCE NO.	: 226051-Ambient-2605-0055
	(Tasit 4 Power Plant)	SAMPLING DATE	: 26-31/05/2026, 01-03/06/2026
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 16-19/06/2026
RECEIVED DATE	: 12/06/2026	SAMPLE CONDITION	: Normal
REPORT DATE	: 20/06/2026	SITE OPERATOR	: Mr. Song Hengchwankul

PARAMETER	SAMPLING DATE	UNITS	RESULTS	STANDARD*	REFERENCE METHODS
			Ban Ra Woeng (Raj U-Pratum) School		
PM-10 (24 hr)	26-27/05/2026	µg/m ³	10.9	100	High Volume Air Sampler
	27-28/05/2026	µg/m ³	10.8		(Hi-Vol PM-10 Size
	28-29/05/2026	µg/m ³	13.4		Selective Inlet)/
	29-30/05/2026	µg/m ³	10.9		Gravimetric Method
	30-31/05/2026	µg/m ³	12.6		
	01-02/06/2026	µg/m ³	9.7		
	02-03/06/2026	µg/m ³	9.6		

Pornnapa Budthum

(Miss Pornnapa Budthum)

Analyst

Narisara Poowasanpetch

(Miss Narisa Poowasanpetch)

Technical Management Team

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Ambient Air Monitoring Results : Sulfur dioxide MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Ban Surasak School Monitor Period : 26 May 2026-02 Jun 2026
Analyzer Model : Thermo 43C Station No : SCT-17
Serial No : 0607415773 Site Operator : Mr. Song Hengchwankun

Calibrator Model : Teledyne 700E Serial No : 1367
Calibration Gas Cylinder I.D. : EB0102326
Certified Date : 10 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 09 Jan 2027

Time	SO2 Concentration (ppb)						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-01 Jun 2026	01-02 Jun 2026
11:00 - 12:00	3.1	3.7	2.9	3.6	2.8	2.8	2.7
12:00 - 13:00	3.5	3.3	3.6	3.5	3.0	2.3	2.7
13:00 - 14:00	3.1	2.0	2.0	3.5	2.7	2.1	1.9
14:00 - 15:00	3.6	3.7	2.2	4.2	2.1	2.9	1.6
15:00 - 16:00	3.6	3.5	2.8	4.2	2.3	3.4	1.1
16:00 - 17:00	3.8	3.6	2.2	4.8	2.6	2.3	2.9
17:00 - 18:00	3.3	2.4	2.0	4.2	2.6	2.1	2.6
18:00 - 19:00	2.6	2.1	2.5	3.4	2.5	4.1	2.5
19:00 - 20:00	2.7	2.1	2.4	1.5	2.4	3.7	2.4
20:00 - 21:00	1.0	2.8	2.5	2.0	2.1	2.3	2.6
21:00 - 22:00	2.0	2.1	2.7	2.0	1.0	2.1	2.9
22:00 - 23:00	2.6	2.1	2.5	3.3	2.8	2.1	2.4
23:00 - 00:00	2.6	2.2	2.9	3.9	2.1	3.2	3.0
00:00 - 01:00	2.0	2.5	2.1	3.7	2.5	2.9	3.0
01:00 - 02:00	3.5	2.3	3.0	3.9	2.2	2.2	3.2
02:00 - 03:00	2.2	2.7	3.3	3.6	2.4	2.0	2.9
03:00 - 04:00	2.2	1.4	4.2	3.5	2.9	3.1	2.8
04:00 - 05:00	2.6	1.3	2.8	1.8	1.5	3.2	1.1
05:00 - 06:00	1.6	2.8	2.8	1.6	2.4	1.8	3.0
06:00 - 07:00	2.0	3.0	3.4	2.9	2.7	3.9	4.3
07:00 - 08:00	3.9	3.0	3.0	3.9	2.2	2.6	4.0
08:00 - 09:00	3.2	2.9	3.5	3.5	2.8	3.1	4.0
09:00 - 10:00	3.6	3.8	3.9	3.2	2.6	1.1	3.0
10:00 - 11:00	3.6	2.1	3.3	3.6	2.3	1.5	3.5
Average-24Hr*	2.8	2.6	2.9	3.3	2.4	2.6	2.8
Max-1Hr	3.9	3.8	4.2	4.8	3.0	4.1	4.3
Min-1Hr	1.0	1.3	2.0	1.5	1.0	1.1	1.1
Standard-1Hr	100 ppb						
Standard-24Hr	50 ppb						

Remark : * Average time between 11:00-11:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Chumchol Borisat Namtal Tawan-ork School Monitor Period : 26 May 2026-02 Jun 2026
Analyzer Model : API 100A Station No : SCT-18
Serial No : 342 Site Operator : Mr. Song Hengchwankun

Calibrator Model : Teledyne 700E Serial No : 1367
Calibration Gas Cylinder I.D. : EB0102326
Certified Date : 10 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 09 Jan 2027

Time	SO2 Concentration (ppb)						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-01 Jun 2026	01-02 Jun 2026
10:00 - 11:00	2.9	2.4	2.0	3.2	2.7	1.5	2.7
11:00 - 12:00	2.7	2.1	2.3	3.2	2.9	1.2	2.2
12:00 - 13:00	3.2	2.2	2.1	3.6	2.9	1.5	1.9
13:00 - 14:00	4.0	2.4	2.6	3.3	2.9	1.9	2.1
14:00 - 15:00	3.5	2.8	2.7	3.2	3.0	1.9	2.3
15:00 - 16:00	3.4	2.7	2.9	3.0	2.8	2.0	2.1
16:00 - 17:00	3.5	4.2	2.6	3.1	2.6	2.0	2.3
17:00 - 18:00	3.3	4.1	2.7	3.2	3.0	2.5	2.4
18:00 - 19:00	3.5	3.4	2.8	2.9	2.9	2.2	2.5
19:00 - 20:00	2.1	3.5	3.0	3.1	3.4	3.8	2.6
20:00 - 21:00	4.0	4.1	3.0	3.0	3.7	4.3	2.5
21:00 - 22:00	3.6	4.5	3.5	3.2	4.1	3.0	2.5
22:00 - 23:00	4.0	3.8	3.0	3.0	3.5	4.4	3.2
23:00 - 00:00	3.1	3.2	3.0	3.2	2.2	3.3	3.4
00:00 - 01:00	3.4	3.3	2.8	3.3	2.6	4.7	3.0
01:00 - 02:00	4.7	3.3	3.0	3.2	4.0	4.0	2.8
02:00 - 03:00	3.9	1.9	3.4	3.4	2.8	4.5	2.5
03:00 - 04:00	4.3	3.0	3.1	3.1	4.0	4.1	2.4
04:00 - 05:00	4.1	2.9	3.0	2.8	2.4	3.7	4.0
05:00 - 06:00	3.1	2.8	2.8	2.4	2.9	4.7	3.3
06:00 - 07:00	2.8	2.5	2.7	2.5	2.3	3.5	3.5
07:00 - 08:00	2.9	2.1	2.8	2.8	1.7	3.2	3.7
08:00 - 09:00	2.2	2.0	2.9	3.0	1.4	3.2	2.9
09:00 - 10:00	2.1	1.9	2.8	3.0	1.5	3.7	4.1
Average-24Hr*	3.3	3.0	2.8	3.1	2.8	3.1	2.8
Max-1Hr	4.7	4.5	3.5	3.6	4.1	4.7	4.1
Min-1Hr	2.1	1.9	2.0	2.4	1.4	1.2	1.9
Standard-1Hr	100 ppb						
Standard-24Hr	50 ppb						

Remark : * Average time between 10:00-10:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Ban Ra Woeng (Raj U-Pratum) School Monitor Period : 26 May 2026-03 Jun 2026
Analyzer Model : Teledyne T100 Station No : SCT-16
Serial No : 120 Site Operator : Mr. Song Hengchwankun

Calibrator Model : Teledyne 700E Serial No : 1367
Calibration Gas Cylinder I.D. : EB0102326
Certified Date : 10 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 09 Jan 2027

Time	SO2 Concentration (ppb)						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	01-02 Jun 2026	02-03 Jun 2026
11:00 - 12:00	3.7	3.2	3.1	3.6	3.9	1.0	1.5
12:00 - 13:00	3.9	2.5	3.0	3.5	3.2	0.5	1.7
13:00 - 14:00	2.9	3.6	3.4	2.3	3.7	0.9	1.7
14:00 - 15:00	2.6	3.3	3.7	3.8	3.9	0.8	3.0
15:00 - 16:00	2.3	3.0	3.5	3.2	3.8	1.3	3.4
16:00 - 17:00	2.2	3.1	3.9	3.7	3.0	1.5	4.0
17:00 - 18:00	3.9	2.6	3.7	3.0	3.0	2.0	3.7
18:00 - 19:00	3.4	3.1	2.9	3.1	3.4	2.5	3.3
19:00 - 20:00	3.8	2.9	2.4	3.5	2.4	3.7	3.9
20:00 - 21:00	1.7	2.1	2.3	3.7	1.6	3.8	1.9
21:00 - 22:00	1.4	2.3	3.0	2.0	1.5	4.0	1.4
22:00 - 23:00	1.3	2.6	2.3	3.9	1.9	3.7	1.7
23:00 - 00:00	1.0	2.9	2.0	2.0	1.5	3.8	1.7
00:00 - 01:00	1.7	3.5	2.3	3.9	1.4	3.6	1.5
01:00 - 02:00	1.3	3.1	4.0	2.4	1.4	3.7	1.0
02:00 - 03:00	1.1	2.9	3.3	2.8	1.4	3.7	1.4
03:00 - 04:00	2.8	3.7	3.8	2.3	1.4	3.6	1.3
04:00 - 05:00	2.8	2.8	3.8	2.2	1.4	3.7	3.3
05:00 - 06:00	3.4	3.2	3.7	2.6	1.2	3.2	3.9
06:00 - 07:00	3.7	3.3	3.7	2.6	1.6	3.6	1.9
07:00 - 08:00	2.6	3.4	2.7	3.4	1.8	1.4	1.4
08:00 - 09:00	2.7	3.5	2.7	3.7	2.2	1.4	4.0
09:00 - 10:00	2.7	3.0	2.6	3.7	1.6	1.4	3.7
10:00 - 11:00	3.5	3.0	3.6	2.7	2.3	1.5	3.8
Average-24Hr*	2.6	3.0	3.1	3.1	2.3	2.5	2.5
Max-1Hr	3.9	3.7	4.0	3.9	3.9	4.0	4.0
Min-1Hr	1.0	2.1	2.0	2.0	1.2	0.5	1.0
Standard-1Hr	100 ppb						
Standard-24Hr	50 ppb						

Remark : * Average time between 11:00-11:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Wat Chomphol Cho Phraya Monitor Period : 26 May 2026-02 Jun 2026
Analyzer Model : API 100A Station No : SCT-14
Serial No : 906 Site Operator : Mr. Song Hengchwankun

Calibrator Model : Teledyne 700E Serial No : 1367
Calibration Gas Cylinder I.D. : EB0102326
Certified Date : 10 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 09 Jan 2027

Time	SO2 Concentration (ppb)						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-01 Jun 2026	01-02 Jun 2026
10:00 - 11:00	3.2	2.8	3.1	3.0	3.1	3.2	3.1
11:00 - 12:00	3.1	3.0	3.0	3.0	3.1	3.1	3.1
12:00 - 13:00	3.2	3.1	3.0	3.1	3.2	2.8	3.3
13:00 - 14:00	3.1	3.1	3.0	3.1	3.2	3.1	3.4
14:00 - 15:00	3.1	3.0	3.1	3.3	3.1	3.2	3.4
15:00 - 16:00	3.0	3.2	2.9	3.1	3.0	3.2	3.3
16:00 - 17:00	3.2	3.0	3.1	3.0	3.1	3.1	3.3
17:00 - 18:00	3.6	3.2	3.3	3.1	3.2	3.1	3.3
18:00 - 19:00	3.7	3.0	3.3	3.2	3.1	3.1	3.3
19:00 - 20:00	3.6	2.7	3.2	2.9	3.0	3.2	3.5
20:00 - 21:00	3.5	2.8	2.8	3.1	3.2	4.1	3.4
21:00 - 22:00	3.3	3.2	3.1	3.1	3.3	3.9	3.3
22:00 - 23:00	3.4	3.3	3.1	2.9	3.4	3.6	3.5
23:00 - 00:00	4.0	3.2	3.4	3.1	4.0	3.8	3.4
00:00 - 01:00	3.4	3.2	3.4	2.5	4.5	4.0	3.2
01:00 - 02:00	3.9	3.3	3.2	3.0	4.6	3.8	3.4
02:00 - 03:00	3.6	3.3	3.2	3.0	4.3	3.8	3.7
03:00 - 04:00	3.4	3.1	3.1	3.0	3.9	4.2	4.0
04:00 - 05:00	3.3	3.3	3.0	3.0	4.4	4.2	3.3
05:00 - 06:00	3.3	3.0	3.0	3.1	4.4	4.0	3.2
06:00 - 07:00	3.2	3.0	3.3	3.1	3.6	4.1	2.8
07:00 - 08:00	3.0	2.9	3.0	3.1	3.3	4.0	3.1
08:00 - 09:00	3.0	3.0	2.8	3.2	3.2	3.4	3.4
09:00 - 10:00	2.8	2.9	3.0	3.0	3.1	4.3	3.7
Average-24Hr*	3.3	3.1	3.1	3.0	3.5	3.6	3.4
Max-1Hr	4.0	3.3	3.4	3.3	4.6	4.3	4.0
Min-1Hr	2.8	2.7	2.8	2.5	3.0	2.8	2.8
Standard-1Hr	100 ppb						
Standard-24Hr	50 ppb						

Remark : * Average time between 10:00-10:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Ban Surasak School Monitor Period : 26 May 2026-02 Jun 2026
Analyzer Model : API 200A Station No : SCT-17
Serial No : 074 Site Operator : Mr. Song Hengchwankun

Calibrator Model : Teledyne 700E Serial No : 1367
Calibration Gas Cylinder I.D. : EB0102326
Certified Date : 08 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 07 Jan 2027

Time	NO2 Concentration (ppb)						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-01 Jun 2026	01-02 Jun 2026
11:00 - 12:00	9.1	11.2	10.4	12.6	8.1	8.4	12.8
12:00 - 13:00	10.2	12.1	12.7	11.5	8.5	10.7	15.1
13:00 - 14:00	10.8	16.5	16.3	15.9	6.3	10.7	20.5
14:00 - 15:00	9.9	16.1	17.5	14.1	5.3	12.1	13.0
15:00 - 16:00	12.9	16.8	16.8	15.6	5.2	10.5	10.8
16:00 - 17:00	14.8	15.7	18.3	14.6	4.6	10.0	9.7
17:00 - 18:00	18.0	14.0	18.3	10.4	2.8	10.9	11.1
18:00 - 19:00	12.9	13.5	17.4	8.1	2.6	11.5	10.1
19:00 - 20:00	12.1	19.6	15.5	7.7	2.7	11.8	9.1
20:00 - 21:00	13.5	26.0	16.3	7.3	2.3	11.7	6.1
21:00 - 22:00	13.1	26.5	16.4	6.9	1.5	10.8	5.1
22:00 - 23:00	11.4	22.4	14.2	6.7	1.6	11.1	5.3
23:00 - 00:00	17.8	18.1	12.3	6.3	1.2	10.9	3.8
00:00 - 01:00	15.2	12.0	13.1	6.4	2.8	12.2	5.7
01:00 - 02:00	12.0	11.7	13.8	5.9	3.9	11.1	5.6
02:00 - 03:00	11.2	12.4	13.5	6.0	7.0	10.4	8.8
03:00 - 04:00	11.7	12.8	13.8	6.0	8.3	14.3	8.7
04:00 - 05:00	12.8	13.4	12.4	5.0	8.3	17.7	7.8
05:00 - 06:00	14.2	11.9	10.5	5.2	7.0	18.5	8.1
06:00 - 07:00	14.7	12.5	11.0	12.6	8.2	14.4	7.9
07:00 - 08:00	11.6	11.9	11.1	10.8	9.1	15.3	9.2
08:00 - 09:00	11.4	10.7	11.2	8.6	6.4	14.7	8.1
09:00 - 10:00	11.7	9.4	10.9	6.4	7.6	13.1	7.4
10:00 - 11:00	10.7	10.4	11.3	8.6	6.7	11.9	11.3
Average-24Hr*	12.7	14.9	14.0	9.1	5.3	12.3	9.2
Max-1Hr	18.0	26.5	18.3	15.9	9.1	18.5	20.5
Min-1Hr	9.1	9.4	10.4	5.0	1.2	8.4	3.8
Standard-1Hr	120 ppb						
Standard-24Hr	-						

Remark : * Average time between 11:00-11:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Chumchol Borist Namtal Tawan-ork School Monitor Period : 26 May 2026-02 Jun 2026
Analyzer Model : RP 8400N Station No : SCT-18
Serial No : 096 Site Operator : Mr. Song Hengchwankun

Calibrator Model : Teledyne 700E Serial No : 1367
Calibration Gas Cylinder I.D. : EB0102326
Certified Date : 08 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 07 Jan 2027

Time	NO2 Concentration (ppb)						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-01 Jun 2026	01-02 Jun 2026
10:00 - 11:00	5.2	15.2	4.3	10.3	10.8	14.0	16.5
11:00 - 12:00	4.7	14.9	5.5	16.0	12.0	13.1	18.9
12:00 - 13:00	4.7	9.8	4.1	20.0	10.6	8.4	11.8
13:00 - 14:00	6.1	8.5	3.6	13.4	7.5	9.8	17.3
14:00 - 15:00	5.6	11.3	3.3	8.4	8.3	9.0	15.7
15:00 - 16:00	6.4	9.9	9.1	7.7	10.8	8.7	12.7
16:00 - 17:00	6.5	7.6	6.5	12.1	9.4	9.0	15.0
17:00 - 18:00	7.0	9.0	19.3	11.7	7.7	5.5	17.2
18:00 - 19:00	7.4	4.0	19.1	11.3	12.7	6.7	14.5
19:00 - 20:00	7.8	3.5	21.7	13.0	6.3	11.2	11.0
20:00 - 21:00	8.2	3.6	15.8	9.7	10.5	25.7	5.8
21:00 - 22:00	8.4	3.7	16.2	11.2	11.1	22.4	7.7
22:00 - 23:00	9.7	5.1	18.7	10.2	13.5	15.6	7.4
23:00 - 00:00	8.3	5.1	18.5	9.2	14.2	13.1	5.9
00:00 - 01:00	7.0	5.2	12.1	7.5	14.6	13.3	5.3
01:00 - 02:00	5.8	5.4	10.9	5.8	8.7	10.9	5.4
02:00 - 03:00	5.7	5.0	9.0	4.1	15.2	7.8	4.7
03:00 - 04:00	5.4	4.5	7.3	2.8	9.6	8.0	4.1
04:00 - 05:00	7.7	3.5	6.9	2.2	10.3	6.8	3.0
05:00 - 06:00	3.9	3.3	5.1	7.5	15.8	4.0	2.2
06:00 - 07:00	3.3	3.3	5.7	9.5	12.0	4.4	2.0
07:00 - 08:00	8.4	3.5	6.2	10.3	11.9	5.2	1.3
08:00 - 09:00	7.5	4.4	5.6	6.6	14.6	6.8	1.9
09:00 - 10:00	9.2	4.8	7.4	10.6	10.6	11.3	2.4
Average-24Hr*	6.7	6.4	10.1	9.6	11.2	10.4	8.7
Max-1Hr	9.7	15.2	21.7	20.0	15.8	25.7	18.9
Min-1Hr	3.3	3.3	3.3	2.2	6.3	4.0	1.3
Standard-1Hr	120 ppb						
Standard-24Hr	-						

Remark : * Average time between 10:00-10:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Ban Ra Woeng (Raj U-Pratum) School Monitor Period : 26 May 2026-03 Jun 2026
Analyzer Model : API 200AU Station No : SCT-16
Serial No : 144 Site Operator : Mr. Song Hengchwankun

Calibrator Model : Teledyne 700E Serial No : 1367
Calibration Gas Cylinder I.D. : EB0102326
Certified Date : 08 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 07 Jan 2027

Time	NO2 Concentration (ppb)						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	01-02 Jun 2026	02-03 Jun 2026
11:00 - 12:00	11.1	9.9	11.0	5.5	6.9	5.4	7.3
12:00 - 13:00	16.9	9.4	14.2	7.6	6.0	5.4	7.3
13:00 - 14:00	17.9	18.3	14.9	5.9	5.4	10.9	7.3
14:00 - 15:00	13.2	13.7	12.7	4.1	5.0	14.2	17.4
15:00 - 16:00	8.6	15.3	15.6	3.8	4.4	10.5	13.7
16:00 - 17:00	13.1	16.4	12.9	5.0	4.4	9.6	12.8
17:00 - 18:00	17.6	15.7	9.8	6.0	5.6	7.3	10.5
18:00 - 19:00	13.4	6.3	12.4	6.2	5.1	6.1	9.3
19:00 - 20:00	10.2	5.5	12.6	7.7	7.9	3.7	6.9
20:00 - 21:00	6.6	8.3	14.2	8.5	7.4	3.6	6.8
21:00 - 22:00	10.4	7.0	13.4	8.9	7.2	4.2	7.4
22:00 - 23:00	12.1	5.1	9.0	6.2	8.6	3.3	6.5
23:00 - 00:00	7.3	5.2	4.8	5.8	7.0	3.2	6.4
00:00 - 01:00	6.1	3.7	7.4	3.2	5.5	2.9	6.1
01:00 - 02:00	5.6	4.3	3.0	4.1	9.2	2.0	5.2
02:00 - 03:00	3.3	3.5	6.2	4.5	8.0	2.3	5.5
03:00 - 04:00	3.1	3.2	4.5	5.1	10.2	3.4	6.6
04:00 - 05:00	3.1	5.0	6.2	6.9	8.0	5.5	8.7
05:00 - 06:00	3.1	3.7	9.9	7.6	9.7	6.4	9.6
06:00 - 07:00	4.6	5.0	7.1	9.0	18.4	9.0	17.4
07:00 - 08:00	5.4	7.1	12.0	9.1	13.5	3.8	13.7
08:00 - 09:00	6.1	11.3	14.8	9.3	14.0	9.2	12.8
09:00 - 10:00	4.9	14.5	18.0	6.4	8.5	7.2	10.5
10:00 - 11:00	7.0	17.2	8.1	4.9	5.9	7.3	9.3
Average-24Hr*	8.8	8.9	10.6	6.3	8.0	6.1	9.4
Max-1Hr	17.9	18.3	18.0	9.3	18.4	14.2	17.4
Min-1Hr	3.1	3.2	3.0	3.2	4.4	2.0	5.2
Standard-1Hr	120 ppb						
Standard-24Hr	-						

Remark : * Average time between 11:00-11:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Wat Chomphol Cho Phraya Monitor Period : 26 May 2026-02 Jun 2026
Analyzer Model : Thermo 43C Station No : SCT-14
Serial No : 0426708263 Site Operator : Mr. Song Hengchwankun

Calibrator Model : Teledyne 700E Serial No : 1367
Calibration Gas Cylinder I.D. : EB0102326
Certified Date : 10 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 09 Jan 2027

Time	NO2 Concentration (ppb)						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-01 Jun 2026	01-02 Jun 2026
10:00 - 11:00	10.8	20.7	14.6	24.9	17.5	9.3	13.3
11:00 - 12:00	10.1	27.3	20.6	22.5	12.8	9.5	18.6
12:00 - 13:00	11.1	22.7	28.7	21.2	11.3	8.6	18.0
13:00 - 14:00	13.0	19.8	25.9	18.2	14.1	8.0	19.8
14:00 - 15:00	11.7	24.7	26.0	21.6	11.9	9.9	19.1
15:00 - 16:00	7.6	22.7	21.8	20.6	10.6	9.0	18.6
16:00 - 17:00	7.8	29.5	21.0	16.5	9.8	11.2	19.2
17:00 - 18:00	9.5	26.5	19.6	16.8	12.4	11.8	18.3
18:00 - 19:00	9.5	22.2	14.7	19.6	9.8	11.3	17.3
19:00 - 20:00	9.0	22.4	20.6	18.3	8.8	11.6	18.5
20:00 - 21:00	12.6	19.2	12.0	18.9	8.7	11.7	18.3
21:00 - 22:00	9.9	16.3	10.8	18.7	8.1	13.6	17.0
22:00 - 23:00	10.3	11.9	10.5	10.9	7.9	13.4	20.2
23:00 - 00:00	8.5	10.9	9.9	12.9	7.0	11.9	18.2
00:00 - 01:00	9.9	10.7	8.7	10.6	6.8	9.8	7.3
01:00 - 02:00	7.2	7.3	7.3	11.0	6.7	13.3	7.1
02:00 - 03:00	7.2	6.8	7.7	12.4	6.9	9.0	7.1
03:00 - 04:00	6.8	7.6	8.8	11.2	6.8	7.6	7.6
04:00 - 05:00	7.1	7.6	7.5	14.4	6.4	8.1	8.6
05:00 - 06:00	8.1	7.8	9.5	11.8	6.7	8.5	9.1
06:00 - 07:00	10.0	9.5	11.9	14.9	7.1	9.5	9.8
07:00 - 08:00	8.8	9.9	16.7	17.1	8.1	10.7	9.9
08:00 - 09:00	11.9	10.3	25.2	17.2	8.1	11.7	9.7
09:00 - 10:00	13.2	12.6	24.3	18.5	9.7	10.5	9.4
Average-24Hr*	9.7	16.1	16.0	16.7	9.3	10.4	14.2
Max-1Hr	13.2	29.5	28.7	24.9	17.5	13.6	20.2
Min-1Hr	6.8	6.8	7.3	10.6	6.4	7.6	7.1
Standard-1Hr	120 ppb						
Standard-24Hr	-						

Remark : * Average time between 10:00-10:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

คุณภาพอากาศจากปล่องระบายอากาศ



บริษัท ซีคอต จำกัด
SECOT CO., LTD.

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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd. (Tasit4 Power Plant)	REFERENCE NO.	: 226051-CEMS-2605-0054
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION NO.	: 7-239
SAMPLING DATE	: 29/05/2026	SAMPLING TIME	: 10.10-11.12 a.m.
RECEIVED DATE	: 02/06/2026	ANALYTICAL DATE	: 04-06/06/2026
REPORT DATE	: 12/06/2026	OPERATOR	: Mr. Kittipong Thakoengsuk (7-239-0-0024)
STACK LOCATION	: HRSG 11 Stack	FUEL TYPE	: Natural Gas
SOURCE DESCRIPTION	: Combustion	SAMPLE CONDITION	: Normal

STACK DESCRIPTION

Height	: 40	m	Flow Rate*	: 291,060	Ncu.m/hr
Diameter	: 3.00	m	Excess Oxygen	: 13.9	%
Temperature	: 119.4	°C	Moisture Content	: 8.2	%
Gas Velocity	: 16.5	m/s			

PARAMETER	RESULT*		STANDARD ^{2/} / EIA ^{1/}	EMISSION RATE		REFERENCE METHOD
	mg/Ncu.m.		mg/Ncu.m.	g/s		
	13.9%O ₂	7%O ₂	7%O ₂	RESULT	EIA ^{1/}	
Particulate Matter (PM)	0.69	1.36	60/28	0.056	1.8	U.S. EPA Method 5

Boonpa Puthum

(Miss Pornnapa Budthum)

Analyst

REG.NO. 7-239-0-0018

Naris Pooasanpetch

(Miss Narisa Poowasanpetch)

Technical Management Team

REG.NO. 7-239-0-0010

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3. * At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. ^{1/} The assigned value is specified in EIA report, B.E.2558.

5. ^{2/} Notification of the Ministry of Natural Resources and Environment, B.E.2566 (2023).



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd. (Tasit4 Power Plant)	REFERENCE NO.	: 226051-CEMS-2605-0054
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION NO.	: 7-239
SAMPLING DATE	: 29/05/2026	SAMPLING TIME	: 10.10-11.12 a.m.
RECEIVED DATE	: 02/06/2026	ANALYTICAL DATE	: 03-16/06/2026
REPORT DATE	: 17/06/2026	OPERATOR	: Mr. Kittipong Thakoengsuk (7-239-0-0024)
STACK LOCATION	: HRSG 11 Stack	FUEL TYPE	: Natural Gas
SOURCE DESCRIPTION	: Combustion	SAMPLE CONDITION	: Normal

STACK DESCRIPTION

Height	: 40.0	m	Flow Rate*	: 291,060	Ncu.m/hr
Diameter	: 3.00	m	Excess Oxygen	: 13.9	%
Temperature	: 119.4	°C	Moisture Content	: 8.2	%
Gas Velocity	: 16.5	m/s			

PARAMETER	RESULT*				STANDARD ^{2/} / EIA ^{1/}		EMISSION RATE		REFERENCE METHOD
	ppm		mg/Ncu.m.		ppm	mg/Ncu.m.	g/s		
	13.9%O ₂	7%O ₂	13.9%O ₂	7%O ₂	7%O ₂	7%O ₂	RESULT	EIA ^{1/}	
Sulfur Dioxide (SO ₂)	0.44	0.86	1.14	2.26	20/6	52/16	0.092	1.0	US.EPA Method 6C
Oxide of Nitrogen (NOx)	11.29	22.31	21.23	41.94	120/60	226/113	1.716	7.4	US.EPA Method 7E
Carbon Monoxide (CO)	0.48	0.95	0.55	1.09	690 ^{3/} /-	790 ^{3/} /-	0.045	-	US.EPA Method 10

Katesarin Vorradetwittaya

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG.NO. 7-239-0-0006

Preeda S.

(Miss Preeda Somjai)

Technical Management Team

REG.NO. 7-239-0-0006

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3. * At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. ^{1/} The assigned value is specified in EIA report, B.E.2558.

5. ^{2/} Notification of the Ministry of Natural Resources and Environment, B.E.2566 (2023).

6. ^{3/} Notification of the Ministry of Natural Resources and Environment, B.E.2549 (2006).

The Monitoring Result of Emission Concentration
HRSG 11
Gulf TS4 Company Limited
May 29, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	13.63	13.55	11.59	11.56	21.86
2	13.98	13.90	11.14	11.11	22.06
3	14.23	14.14	11.24	11.21	23.05
Average	13.95	13.86	11.32	11.29	22.31

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	13.63	13.55	0.42	0.36	0.68
2	13.98	13.90	0.51	0.46	0.91
3	14.23	14.14	0.53	0.49	1.01
Average	13.95	13.86	0.49	0.44	0.86

Run Number	Oxygen content (%)		Carbonmonoxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	13.63	13.55	0.58	0.54	1.02
2	13.98	13.90	0.48	0.44	0.87
3	14.23	14.14	0.49	0.46	0.95
Average	13.95	13.86	0.52	0.48	0.95

Gulf TS4 Company Limited
EMISSION TEST RESULT

Date: May 29, 2026
 Start time: 10:10 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: TELEDYNE 200 EM
 SO₂ instrument Model: API 100 AH
 CO instrument Model: THERMO 48 C
 Fuel Type : Natural Gas

Run # : 1
 Location : HRSG 11
 Finish time : 10:30 AM
 Serial No.: 161212-13
 Serial No.: 435
 Serial No.: 058
 Serial No.: 78253-388
 Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)	CO (ppm)
10:10 AM	13.74	11.70	0.39	0.62
10:11 AM	13.74	11.50	0.38	0.64
10:12 AM	13.80	11.39	0.40	0.67
10:13 AM	13.83	11.43	0.37	0.62
10:14 AM	13.83	11.57	0.42	0.62
10:15 AM	13.78	11.63	0.41	0.62
10:16 AM	13.74	11.59	0.40	0.62
10:17 AM	13.70	11.56	0.43	0.62
10:18 AM	13.62	11.58	0.43	0.57
10:19 AM	13.52	11.64	0.43	0.54
10:20 AM	13.71	11.67	0.42	0.62
10:21 AM	13.53	11.71	0.42	0.47
10:22 AM	13.45	11.77	0.42	0.44
10:23 AM	13.51	11.78	0.42	0.62
10:24 AM	13.45	11.78	0.42	0.63
10:25 AM	13.56	11.68	0.46	0.63
10:26 AM	13.53	11.49	0.43	0.63
10:27 AM	13.59	11.39	0.45	0.63
10:28 AM	13.46	11.47	0.43	0.47
10:29 AM	13.50	11.56	0.48	0.42
10:30 AM	13.59	11.49	0.48	0.42
Average	13.63	11.59	0.42	0.58

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

Gulf TS4 Company Limited EMISSION TEST RESULT

Run # : 2

Date: May 29, 2026
 Start time: 10:31 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: TELEDYNE 200 EM
 SO₂ instrument Model: API 100 AH
 CO instrument Model: THERMO 48 C
 Fuel Type : Natural Gas

Location : HRSR 11
 Finish time : 10:51 AM
 Serial No.: 161212-13
 Serial No.: 435
 Serial No.: 058
 Serial No.: 78253-388
 Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)	CO (ppm)
10:31 AM	13.69	11.42	0.48	0.42
10:32 AM	13.75	11.40	0.48	0.48
10:33 AM	13.72	11.35	0.48	0.61
10:34 AM	13.95	11.34	0.48	0.46
10:35 AM	13.90	11.36	0.48	0.42
10:36 AM	13.96	11.35	0.48	0.42
10:37 AM	13.95	11.30	0.48	0.42
10:38 AM	13.69	11.19	0.48	0.42
10:39 AM	13.96	11.09	0.49	0.51
10:40 AM	13.69	11.08	0.54	0.63
10:41 AM	13.54	11.12	0.54	0.63
10:42 AM	14.06	11.10	0.54	0.63
10:43 AM	13.96	11.15	0.54	0.63
10:44 AM	14.25	11.26	0.54	0.44
10:45 AM	14.16	11.29	0.53	0.43
10:46 AM	14.11	11.18	0.53	0.43
10:47 AM	14.33	10.20	0.53	0.43
10:48 AM	14.30	10.89	0.53	0.43
10:49 AM	14.29	10.18	0.53	0.43
10:50 AM	14.14	11.66	0.53	0.43
10:51 AM	14.13	10.94	0.53	0.43
Average	13.98	11.14	0.51	0.48

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

Gulf TS4 Company Limited EMISSION TEST RESULT

Run # : 3

Date: May 29, 2026
 Start time: 10:52 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: TELEDYNE 200 EM
 SO₂ instrument Model: API 100 AH
 CO instrument Model: THERMO 48 C
 Fuel Type : Natural Gas

Location : HRSR 11
 Finish time : 11:12 AM
 Serial No.: 161212-13
 Serial No.: 435
 Serial No.: 058
 Serial No.: 78253-388
 Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)	CO (ppm)
10:52 AM	14.04	11.58	0.53	0.43
10:53 AM	13.98	11.10	0.53	0.43
10:54 AM	14.25	11.04	0.53	0.43
10:55 AM	14.25	11.13	0.53	0.43
10:56 AM	14.25	11.25	0.53	0.43
10:57 AM	14.25	11.23	0.53	0.48
10:58 AM	14.24	11.22	0.53	0.63
10:59 AM	14.25	11.19	0.53	0.63
11:00 AM	13.99	11.16	0.55	0.48
11:01 AM	14.18	11.20	0.53	0.55
11:02 AM	14.25	11.24	0.53	0.52
11:03 AM	14.25	11.26	0.53	0.43
11:04 AM	14.25	11.33	0.53	0.43
11:05 AM	14.25	11.36	0.53	0.43
11:06 AM	14.25	11.29	0.53	0.43
11:07 AM	14.25	11.29	0.53	0.43
11:08 AM	14.29	11.31	0.53	0.49
11:09 AM	14.34	11.26	0.53	0.64
11:10 AM	14.35	11.22	0.52	0.62
11:11 AM	14.35	11.16	0.52	0.47
11:12 AM	14.35	11.12	0.52	0.44
Average	14.23	11.24	0.53	0.49

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd. (Tasit4 Power Plant)	REFERENCE NO.	: 226051-CEMS-2605-0054
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION NO.	: 7-239
SAMPLING DATE	: 29/05/2026	SAMPLING TIME	: 04.00-05.02 p.m.
RECEIVED DATE	: 02/06/2026	ANALYTICAL DATE	: 04-06/06/2026
REPORT DATE	: 12/06/2026	OPERATOR	: Mr. Kittipong Thakoengsuk (7-239-8-0024)
STACK LOCATION	: HRSG 12 Stack	FUEL TYPE	: Natural Gas
SOURCE DESCRIPTION	: Combustion	SAMPLE CONDITION	: Normal

STACK DESCRIPTION

Height	: 40	m	Flow Rate*	: 292,260	Ncu.m/hr
Diameter	: 3.00	m	Excess Oxygen	: 14.2	%
Temperature	: 118.4	°C	Moisture Content	: 8.1	%
Gas Velocity	: 16.5	m/s			

PARAMETER	RESULT*		STANDARD ^{2/} / EIA ^{1/}		EMISSION RATE		REFERENCE METHOD
	mg/Ncu.m.		mg/Ncu.m.		g/s		
	14.2%O ₂	7%O ₂	7%O ₂		RESULT	EIA ^{1/}	
Particulate Matter (PM)	2.12	4.38	60/28		0.172	1.8	U.S. EPA Method 5

Bong Pongthum

(Miss Pornnapa Budthum)

Analyst

REG.NO. 7-239-8-0018

Maing Poowasanpetch

(Miss Narisa Poowasanpetch)

Technical Management Team

REG.NO. 7-239-8-0010

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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd. (Tasit4 Power Plant)	REFERENCE NO.	: 226051-CEMS-2605-0054
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION NO.	: 7-239
SAMPLING DATE	: 29/05/2026	SAMPLING TIME	: 04.00-05.02 p.m.
RECEIVED DATE	: 02/06/2026	ANALYTICAL DATE	: 03-16/06/2026
REPORT DATE	: 17/06/2026	OPERATOR	: Mr. Kittipong Thakoengsuk (7-239-8-0024)
STACK LOCATION	: HRSG 12 Stack	FUEL TYPE	: Natural Gas
SOURCE DESCRIPTION	: Combustion	SAMPLE CONDITION	: Normal

STACK DESCRIPTION

Height	: 40.0	m	Flow Rate*	: 292,260	Ncu.m/hr
Diameter	: 3.00	m	Excess Oxygen	: 14.2	%
Temperature	: 118.4	°C	Moisture Content	: 8.1	%
Gas Velocity	: 16.5	m/s			

PARAMETER	RESULT*				STANDARD ^{2/} / EIA ^{1/}		EMISSION RATE		REFERENCE METHOD
	ppm		mg/Ncu.m.		ppm	mg/Ncu.m.	g/s		
	14.2%O ₂	7%O ₂	14.2%O ₂	7%O ₂	7%O ₂	7%O ₂	RESULT	EIA ^{1/}	
Sulfur Dioxide (SO ₂)	0.34	0.70	0.88	1.82	20/6	52/16	0.072	1.0	US.EPA Method 6C
Oxide of Nitrogen (NOx)	13.33	27.52	25.07	51.75	120/60	226/113	2.035	7.4	US.EPA Method 7E
Carbon Monoxide (CO)	0.12	0.24	0.13	0.28	690 ^{3/} /-	790 ^{3/} /-	0.011	-	US.EPA Method 10

Miss Katesarin Vorradetwittaya

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG.NO. 7-239-8-0006

Preeda S.

(Miss Preeda Somjai)

Technical Management Team

REG.NO. 7-239-8-0006

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6. ^{3/} Notification of the Ministry of Natural Resources and Environment, B.E.2549 (2006).

The Monitoring Result of Emission Concentration
HRSG 12
Gulf TS4 Company Limited
May 29, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	14.24	14.15	13.48	13.45	27.70
2	14.25	14.17	13.27	13.23	27.32
3	14.24	14.18	13.36	13.32	27.55
Average	14.24	14.17	13.37	13.33	27.52

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	14.24	14.15	0.40	0.35	0.72
2	14.25	14.17	0.40	0.34	0.70
3	14.24	14.18	0.39	0.32	0.66
Average	14.24	14.17	0.40	0.34	0.70

Run Number	Oxygen content (%)		Carbonmonoxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	14.24	14.15	0.15	0.12	0.25
2	14.25	14.17	0.03	0.00	0.00
3	14.24	14.18	0.27	0.23	0.48
Average	14.24	14.17	0.15	0.12	0.24

Gulf TS4 Company Limited
EMISSION TEST RESULT

Date: May 29, 2026
 Start time: 4:00 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: TELEDYNE 200 EM
 SO₂ instrument Model: API 100 AH
 CO instrument Model: THERMO 48 C
 Fuel Type : Natural Gas

Run # : 1
 Location : HRSG 12
 Finish time : 4:20 PM
 Serial No.: 161212-13
 Serial No.: 435
 Serial No.: 058
 Serial No.: 78253-388
 Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)	CO (ppm)
4:00 PM	14.25	12.76	0.40	0.23
4:01 PM	14.26	12.74	0.41	0.23
4:02 PM	14.26	12.77	0.41	0.23
4:03 PM	14.25	12.95	0.41	0.23
4:04 PM	14.25	13.16	0.41	0.23
4:05 PM	14.25	13.03	0.41	0.23
4:06 PM	14.25	13.03	0.41	0.23
4:07 PM	14.25	13.17	0.41	0.23
4:08 PM	14.25	13.13	0.41	0.23
4:09 PM	14.25	13.09	0.41	0.22
4:10 PM	14.25	13.37	0.41	0.03
4:11 PM	14.25	12.85	0.40	0.03
4:12 PM	14.19	14.39	0.40	0.03
4:13 PM	14.22	14.27	0.41	0.03
4:14 PM	14.25	13.66	0.37	0.03
4:15 PM	14.20	13.80	0.36	0.03
4:16 PM	14.12	16.45	0.35	0.03
4:17 PM	14.25	14.28	0.39	0.03
4:18 PM	14.26	13.66	0.39	0.18
4:19 PM	14.25	13.26	0.41	0.24
4:20 PM	14.25	13.33	0.40	0.24
Average	14.24	13.48	0.40	0.15

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

Gulf TS4 Company Limited EMISSION TEST RESULT

Run # : 2

Date: May 29, 2026
 Start time: 4:21 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: TELEDYNE 200 EM
 SO₂ instrument Model: API 100 AH
 CO instrument Model: THERMO 48 C
 Fuel Type : Natural Gas

Location : HRSG 12
 Finish time : 4:41 PM
 Serial No.: 161212-13
 Serial No.: 435
 Serial No.: 058
 Serial No.: 78253-388
 Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)	CO (ppm)
4:21 PM	14.25	12.78	0.40	0.08
4:22 PM	14.25	12.91	0.38	0.03
4:23 PM	14.25	13.74	0.40	0.03
4:24 PM	14.25	13.28	0.41	0.03
4:25 PM	14.25	13.00	0.40	0.03
4:26 PM	14.25	13.08	0.39	0.03
4:27 PM	14.25	13.02	0.38	0.03
4:28 PM	14.25	13.00	0.40	0.03
4:29 PM	14.25	13.67	0.41	0.03
4:30 PM	14.25	13.77	0.41	0.03
4:31 PM	14.25	13.27	0.40	0.03
4:32 PM	14.25	13.24	0.40	0.03
4:33 PM	14.25	13.36	0.41	0.03
4:34 PM	14.25	13.14	0.41	0.03
4:35 PM	14.16	14.97	0.41	0.03
4:36 PM	14.25	13.77	0.41	0.03
4:37 PM	14.25	12.98	0.41	0.03
4:38 PM	14.26	12.90	0.38	0.03
4:39 PM	14.25	12.92	0.36	0.03
4:40 PM	14.25	12.98	0.38	0.03
4:41 PM	14.25	12.90	0.41	0.03
Average	14.25	13.27	0.40	0.03

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

Gulf TS4 Company Limited EMISSION TEST RESULT

Run # : 3

Date: May 29, 2026
 Start time: 4:42 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: TELEDYNE 200 EM
 SO₂ instrument Model: API 100 AH
 CO instrument Model: THERMO 48 C
 Fuel Type : Natural Gas

Location : HRSG 12
 Finish time : 5:02 PM
 Serial No.: 161212-13
 Serial No.: 435
 Serial No.: 058
 Serial No.: 78253-388
 Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)	CO (ppm)
4:42 PM	14.25	12.83	0.41	0.13
4:43 PM	14.25	12.84	0.39	0.24
4:44 PM	14.26	12.99	0.39	0.24
4:45 PM	14.25	13.06	0.38	0.24
4:46 PM	14.25	13.00	0.41	0.24
4:47 PM	14.25	12.96	0.41	0.20
4:48 PM	14.25	12.96	0.41	0.20
4:49 PM	14.25	13.31	0.41	0.24
4:50 PM	14.25	13.08	0.41	0.24
4:51 PM	14.25	13.88	0.38	0.24
4:52 PM	14.21	13.39	0.38	0.27
4:53 PM	14.20	15.07	0.36	0.44
4:54 PM	14.25	13.91	0.37	0.44
4:55 PM	14.26	13.02	0.39	0.44
4:56 PM	14.25	13.14	0.38	0.44
4:57 PM	14.25	12.82	0.39	0.27
4:58 PM	14.21	12.96	0.40	0.24
4:59 PM	14.24	14.71	0.41	0.23
5:00 PM	14.25	13.65	0.40	0.24
5:01 PM	14.25	13.82	0.40	0.23
5:02 PM	14.25	13.24	0.41	0.23
Average	14.24	13.36	0.39	0.27

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

ระดับเสียงโดยทั่วไป



Noise Monitoring Result : Community Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Fence of the Power Plant	Monitor Period : 26 May 2026-02 Jun 2026
SLM Model : Cirrus CR162B	Serial No : G302237
Site Operator : Mr. Song Hengchwankun	
Calibrator Model : Cirrus CR:515	Serial No : 97097
Calibration Ref dB(A) : 94.0	Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 93.7/0.0	Expire Date : 13 Oct 2026
Cal Sheet No. : CR-515-2026-146	

Time	Equivalent Sound Pressure Level (dB(A))						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-01 Jun 2026	01-02 Jun 2026
10:00 - 11:00	62.3	61.5	61.0	62.0	61.9	60.0	62.0
11:00 - 12:00	61.1	61.2	61.0	61.4	62.0	60.1	61.4
12:00 - 13:00	60.6	59.7	60.3	60.6	65.6	60.1	61.2
13:00 - 14:00	60.8	61.1	61.1	64.1	64.2	65.7	61.1
14:00 - 15:00	61.1	61.4	61.1	69.4	62.5	62.7	61.1
15:00 - 16:00	60.9	61.3	61.0	63.3	62.9	60.1	67.1
16:00 - 17:00	61.1	61.6	61.4	63.3	62.6	60.6	68.0
17:00 - 18:00	60.9	61.7	61.6	63.0	62.5	63.1	64.4
18:00 - 19:00	61.7	61.9	61.7	62.6	62.4	62.7	62.6
19:00 - 20:00	62.2	62.0	61.5	62.0	61.9	62.7	62.9
20:00 - 21:00	62.0	61.8	61.6	62.3	62.5	62.4	65.9
21:00 - 22:00	61.8	62.1	61.6	62.5	63.0	62.2	63.0
22:00 - 23:00	61.9	61.9	61.8	62.9	62.6	62.5	62.7
23:00 - 00:00	61.9	62.1	61.7	62.3	62.4	61.7	62.7
00:00 - 01:00	61.9	61.9	61.6	62.4	62.2	61.3	62.5
01:00 - 02:00	61.2	62.1	61.4	62.8	61.8	61.5	61.4
02:00 - 03:00	61.3	61.9	61.6	62.4	62.3	62.2	62.2
03:00 - 04:00	61.2	62.1	60.8	62.4	62.4	62.3	62.1
04:00 - 05:00	61.1	62.1	59.8	62.5	62.1	62.4	62.1
05:00 - 06:00	61.1	62.2	65.6	62.8	61.9	62.4	62.0
06:00 - 07:00	61.1	62.2	60.1	62.8	61.6	62.4	61.7
07:00 - 08:00	62.1	62.5	61.5	62.8	61.2	63.2	63.1
08:00 - 09:00	61.5	61.4	61.3	61.8	61.0	62.6	62.4
09:00 - 10:00	61.8	61.5	62.3	61.9	60.0	62.7	62.1
Leq(24)*	61.5	61.7	61.6	63.2	62.4	62.3	63.3
Ldn	67.8	68.4	68.3	69.1	68.6	68.5	68.9
Lmax **	83.6	81.4	106.8	108.9	101.2	95.6	104.0
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 10:00-10:00

** Maximum Sound Pressure Level between 10:00-10:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Fence of the Power Plant	Monitor Period : 26 May 2026-02 Jun 2026
SLM Model : Cirrus CR162B	Serial No : G302237
Site Operator : Mr. Song Hengchwankun	
Calibrator Model : Cirrus CR:515	Serial No : 97097
Calibration Ref dB(A) : 94.0	Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 93.7/0.0	Expire Date : 13 Oct 2026
Cal Sheet No. : CR-515-2026-146	

Time	L90 (dB(A))						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-01 Jun 2026	01-02 Jun 2026
10:00 - 11:00	60.1	60.8	60.3	61.4	61.4	59.5	61.3
11:00 - 12:00	60.2	60.5	60.2	60.8	61.4	59.5	60.9
12:00 - 13:00	59.5	59.2	59.4	59.9	60.3	59.5	60.4
13:00 - 14:00	60.0	60.3	60.4	60.7	62.2	59.2	60.3
14:00 - 15:00	60.2	60.5	60.4	63.6	62.1	59.5	60.4
15:00 - 16:00	60.0	60.4	60.3	62.5	62.3	59.6	61.2
16:00 - 17:00	60.3	60.9	60.7	62.6	62.1	60.0	66.2
17:00 - 18:00	59.9	61.0	61.0	62.5	62.1	60.7	62.1
18:00 - 19:00	61.3	61.2	61.0	62.1	61.9	62.0	62.2
19:00 - 20:00	61.6	61.3	60.9	61.5	61.5	62.0	62.3
20:00 - 21:00	61.5	61.2	60.9	61.8	62.0	62.0	62.7
21:00 - 22:00	61.3	61.6	61.0	62.1	62.3	61.7	62.6
22:00 - 23:00	61.4	61.4	61.3	62.4	62.2	61.8	62.3
23:00 - 00:00	61.4	61.7	61.2	61.9	61.9	60.8	62.2
00:00 - 01:00	61.4	61.4	61.1	61.6	61.8	60.7	61.8
01:00 - 02:00	59.9	61.6	59.9	62.1	60.3	61.1	60.1
02:00 - 03:00	59.9	61.5	60.0	62.0	60.4	61.6	60.5
03:00 - 04:00	60.2	61.6	59.4	61.8	60.6	61.7	60.6
04:00 - 05:00	60.2	61.6	59.3	62.0	60.5	61.9	60.6
05:00 - 06:00	60.2	61.6	59.4	62.1	60.4	61.9	60.6
06:00 - 07:00	60.4	61.7	59.6	62.3	60.3	61.9	60.4
07:00 - 08:00	60.6	61.5	59.7	62.1	60.2	62.1	61.8
08:00 - 09:00	60.6	60.5	60.5	61.2	60.0	62.0	61.9
09:00 - 10:00	61.2	60.7	61.6	61.3	59.6	62.0	61.4
L90(avg)*	60.6	61.1	60.4	61.9	61.3	61.1	61.8

Remark : * Average time between 10:00-10:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Ban Surasak School	Monitor Period : 26 May 2026-02 Jun 2026
SLM Model : Cirrus CR162C	Serial No : G301029
Site Operator : Mr. Song Hengchwankun	
Calibrator Model : Cirrus CR:515	Serial No : 97097
Calibration Ref dB(A) : 94.0	Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 93.7/0.0	Expire Date : 13 Oct 2026
Cal Sheet No. : CR-515-2026-146	

Time	Equivalent Sound Pressure Level (dB(A))						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-Jun 2026	01-02 Jun 2026
12:00 - 13:00	57.4	60.4	60.1	60.8	61.7	52.1	55.1
13:00 - 14:00	59.3	57.3	54.2	60.7	62.0	61.9	51.6
14:00 - 15:00	57.0	57.3	55.5	61.4	53.8	58.9	50.9
15:00 - 16:00	56.7	57.0	57.8	62.7	53.9	53.2	60.8
16:00 - 17:00	56.9	57.0	55.5	61.0	54.4	53.8	56.6
17:00 - 18:00	56.1	57.4	57.0	62.6	58.0	55.4	58.7
18:00 - 19:00	55.6	56.5	56.8	57.9	56.1	58.1	56.3
19:00 - 20:00	55.5	56.6	55.6	57.1	55.9	55.5	58.2
20:00 - 21:00	55.8	56.0	54.3	56.0	56.0	55.0	61.5
21:00 - 22:00	52.4	52.5	51.3	53.7	54.8	54.1	55.1
22:00 - 23:00	52.4	51.1	50.8	51.8	51.7	50.9	52.9
23:00 - 00:00	48.4	47.7	47.2	51.3	51.3	49.2	51.4
00:00 - 01:00	46.5	48.9	47.4	51.5	48.8	48.0	48.7
01:00 - 02:00	45.2	47.1	44.3	47.8	50.7	46.1	51.9
02:00 - 03:00	51.9	44.9	43.7	46.1	48.3	47.4	44.4
03:00 - 04:00	42.9	43.1	43.3	46.4	46.3	42.7	45.9
04:00 - 05:00	44.9	44.1	43.7	46.6	47.0	43.9	47.4
05:00 - 06:00	54.4	53.1	50.4	53.0	52.2	56.8	52.8
06:00 - 07:00	57.7	57.0	57.5	53.0	53.0	56.6	60.4
07:00 - 08:00	55.6	66.8	56.8	57.5	56.0	60.5	60.4
08:00 - 09:00	57.7	56.9	57.4	55.5	54.6	54.1	56.4
09:00 - 10:00	56.2	54.0	53.8	54.6	53.3	53.8	57.3
10:00 - 11:00	57.8	58.1	55.4	54.0	55.1	53.0	55.4
11:00 - 12:00	56.6	56.5	54.3	53.7	53.9	54.9	61.0
Leq(24)*	55.4	57.3	54.8	57.4	55.5	55.4	56.8
Ldn	59.4	59.8	58.3	59.7	58.6	59.3	60.9
Lmax **	89.4	89.3	88.4	107.7	88.6	96.5	95.0
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 12:00-12:00

** Maximum Sound Pressure Level between 12:00-12:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



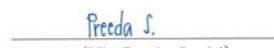
Noise Monitoring Result : Background Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Ban Surasak School	Monitor Period : 26 May 2026-02 Jun 2026
SLM Model : Cirrus CR162C	Serial No : G301029
Site Operator : Mr. Song Hengchwankun	
Calibrator Model : Cirrus CR:515	Serial No : 97097
Calibration Ref dB(A) : 94.0	Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 93.7/0.0	Expire Date : 13 Oct 2026
Cal Sheet No. : CR-515-2026-146	

Time	L90 (dB(A))						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-Jun 2026	01-02 Jun 2026
12:00 - 13:00	52.3	47.9	46.5	48.1	47.6	43.5	42.1
13:00 - 14:00	54.2	47.0	47.6	49.9	48.1	48.6	40.8
14:00 - 15:00	48.7	49.4	49.4	58.3	45.8	46.8	41.0
15:00 - 16:00	51.9	51.3	50.4	53.2	44.4	45.9	44.2
16:00 - 17:00	50.8	50.7	49.1	51.6	46.1	46.4	51.4
17:00 - 18:00	48.5	50.1	49.1	51.5	49.0	47.7	49.4
18:00 - 19:00	47.8	48.3	47.3	50.3	48.8	48.0	48.9
19:00 - 20:00	46.7	47.3	46.4	49.2	52.0	47.2	52.3
20:00 - 21:00	45.6	47.0	45.8	48.9	49.2	46.7	57.9
21:00 - 22:00	44.4	44.8	44.2	48.0	47.3	44.5	48.1
22:00 - 23:00	43.3	43.3	42.7	46.1	45.4	43.0	47.0
23:00 - 00:00	42.5	41.6	42.4	45.7	44.9	42.0	43.9
00:00 - 01:00	41.9	41.4	41.7	44.5	43.0	41.5	43.9
01:00 - 02:00	41.1	41.8	40.6	43.3	42.4	40.9	41.1
02:00 - 03:00	41.4	41.2	39.2	40.7	41.5	41.3	41.3
03:00 - 04:00	39.2	40.1	38.7	40.9	42.2	40.3	42.4
04:00 - 05:00	39.0	39.2	39.0	40.4	42.7	41.0	44.5
05:00 - 06:00	40.9	40.6	42.2	42.8	42.9	43.2	46.2
06:00 - 07:00	46.6	46.9	46.6	45.2	44.6	45.8	51.8
07:00 - 08:00	51.3	53.5	52.2	47.5	46.1	50.5	54.5
08:00 - 09:00	49.6	48.1	50.6	45.9	45.4	43.8	51.5
09:00 - 10:00	47.2	45.7	45.4	43.3	43.8	42.7	51.9
10:00 - 11:00	47.1	47.7	46.2	43.3	42.8	43.2	49.7
11:00 - 12:00	47.3	46.9	47.1	43.1	44.1	42.8	48.5
L90(avg)*	48.1	47.5	46.9	49.3	46.3	45.4	49.9

Remark : * Average time between 12:00-12:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Ban Nong Kang Kaw Monitor Period : 26 May 2026-02 Jun 2026
SLM Model : Cirrus CR162B Serial No : G301014
Site Operator : Mr. Song Hengchwankun

Calibrator Model : Cirrus CR:515 Serial No : 97097
Calibration Ref dB(A) : 94.0 Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Oct 2026
Cal Sheet No. : CR-515-2026-146

Time	Equivalent Sound Pressure Level (dB(A))						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-Jun 2026	01-02 Jun 2026
16:00 - 17:00	49.0	53.2	46.9	49.0	49.0	49.5	46.6
17:00 - 18:00	48.7	51.8	46.7	48.9	47.8	47.8	48.9
18:00 - 19:00	47.6	46.7	48.7	48.0	48.1	47.8	49.6
19:00 - 20:00	47.5	45.5	59.6	46.3	48.1	47.4	48.7
20:00 - 21:00	47.8	45.0	50.2	46.6	45.8	45.6	48.4
21:00 - 22:00	47.8	46.0	48.5	46.1	45.1	44.9	48.3
22:00 - 23:00	48.0	48.5	47.8	47.0	45.6	44.7	48.6
23:00 - 00:00	48.1	49.5	46.2	47.9	45.5	46.1	48.5
00:00 - 01:00	47.8	48.4	45.0	48.7	46.9	46.9	48.3
01:00 - 02:00	48.1	44.3	45.7	47.7	45.2	47.6	48.9
02:00 - 03:00	48.8	44.8	43.4	45.5	46.6	47.8	48.6
03:00 - 04:00	49.3	44.9	44.1	44.8	48.4	47.0	45.8
04:00 - 05:00	49.4	44.9	44.3	45.1	48.0	48.1	45.4
05:00 - 06:00	49.2	47.7	44.3	45.3	46.1	45.7	45.7
06:00 - 07:00	49.2	46.9	44.8	45.4	44.6	44.2	45.8
07:00 - 08:00	48.5	45.5	47.4	45.8	44.8	44.8	46.0
08:00 - 09:00	53.7	49.1	51.1	51.3	50.0	47.2	49.6
09:00 - 10:00	52.6	51.3	51.9	52.6	51.2	49.6	51.5
10:00 - 11:00	53.3	51.8	50.9	52.9	48.6	49.3	50.4
11:00 - 12:00	53.3	46.8	50.0	50.3	48.2	48.1	48.7
12:00 - 13:00	53.9	46.8	47.8	49.0	52.6	50.2	49.5
13:00 - 14:00	54.1	49.4	49.0	46.9	49.3	51.7	50.1
14:00 - 15:00	53.0	49.1	47.2	48.9	48.5	49.3	50.9
15:00 - 16:00	52.9	49.3	47.9	52.5	50.1	46.2	51.6
Leq(24)*	50.8	48.6	50.0	48.8	48.2	47.8	48.9
Ldn	55.7	53.9	53.3	53.6	53.4	53.3	54.3
Lmax **	64.8	70.1	89.1	63.9	61.3	61.3	63.2
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 16:00-16:00

** Maximum Sound Pressure Level between 16:00-16:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-GTS4 (Tasit 4 Power Plant Project)

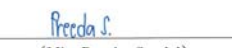
Location : Ban Nong Kang Kaw Monitor Period : 26 May 2026-02 Jun 2026
SLM Model : Cirrus CR162B Serial No : G301014
Site Operator : Mr. Song Hengchwankun

Calibrator Model : Cirrus CR:515 Serial No : 97097
Calibration Ref dB(A) : 94.0 Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 93.7/0.0 Expire Date : 13 Oct 2026
Cal Sheet No. : CR-515-2026-146

Time	L90 (dB(A))						
	26-27 May 2026	27-28 May 2026	28-29 May 2026	29-30 May 2026	30-31 May 2026	31-Jun 2026	01-02 Jun 2026
16:00 - 17:00	47.7	51.9	42.3	47.7	46.8	46.6	43.1
17:00 - 18:00	46.1	47.2	42.5	46.8	45.8	46.8	47.7
18:00 - 19:00	45.6	43.2	44.8	45.3	46.8	46.8	45.8
19:00 - 20:00	45.9	43.2	46.6	43.8	47.1	44.8	46.6
20:00 - 21:00	46.8	43.2	46.7	45.4	43.3	43.6	47.3
21:00 - 22:00	46.9	45.0	44.5	43.6	43.3	43.3	47.4
22:00 - 23:00	47.2	46.5	41.9	46.1	44.5	43.3	47.7
23:00 - 00:00	47.2	49.1	40.0	47.0	44.6	44.6	47.6
00:00 - 01:00	46.9	45.2	39.4	48.0	44.8	46.1	47.3
01:00 - 02:00	47.1	43.3	43.0	45.4	44.4	47.1	47.8
02:00 - 03:00	47.9	43.7	42.2	43.3	44.7	47.4	46.8
03:00 - 04:00	48.4	44.3	43.2	43.3	48.1	44.8	43.7
04:00 - 05:00	48.4	44.3	43.4	44.3	47.4	47.7	44.0
05:00 - 06:00	48.0	45.9	43.3	44.5	43.3	43.3	44.8
06:00 - 07:00	47.7	44.8	43.6	44.3	43.3	43.2	44.9
07:00 - 08:00	46.1	44.9	43.7	44.6	43.3	43.4	44.9
08:00 - 09:00	47.9	44.6	49.3	48.6	45.3	43.3	45.2
09:00 - 10:00	51.1	49.4	50.2	50.9	49.6	43.7	49.6
10:00 - 11:00	52.1	50.9	47.5	50.2	43.3	44.2	44.9
11:00 - 12:00	52.2	43.2	47.0	48.9	43.3	45.9	43.6
12:00 - 13:00	52.9	43.2	45.4	47.1	50.1	47.6	46.2
13:00 - 14:00	52.9	45.0	47.0	46.4	46.8	50.5	49.1
14:00 - 15:00	51.8	44.2	46.3	45.6	47.0	43.2	49.0
15:00 - 16:00	51.4	43.2	46.8	49.1	47.7	43.1	50.2
L90(avg)*	49.3	46.3	45.4	46.8	46.1	45.7	46.9

Remark : * Average time between 16:00-16:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team

คุณภาพน้ำทิ้ง



Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS4



TESTING
No.0042

Lot ID: 25115842
Date Received : Jan 13, 2026
Date Reported : Jan 20, 2026
Report Number : 3481412-1

Page 1 of 2

Sample Number	25115842-1						
Sampled Date	Jan 13, 2026 11:10 AM						
Sample Description	Wastewater						
Location	บ่อกักน้ำทิ้งรวม						
Date Analysis Commenced	Jan 13, 2026						
Condition of Sample	Contained in one amber glass bottle and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
Color (at Original pH)	ADMI	-	5	7	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	6	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	8.0	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	25.5	≤45	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	170	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

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

Sampling By : Warunyoo Chimphalee ทะเบียนเลขที่ 7-323-จ-0020

Technical Management

Photchana S

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ 7-323-จ-0028

Approved by

D. Chumchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ 7-323-ก-0001

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 : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS4



TESTING
No.0042

Lot ID: 25115842
Date Received : Jan 13, 2026
Date Reported : Jan 20, 2026
Report Number : 3481412-1

Page 2 of 2

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

Technical Management

Photchana S

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ 7-323-จ-0028

Approved by

D. Chumchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ 7-323-ก-0001

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS4



TESTING
No.0042

Lot ID: 269110
Date Received : Jeb 05, 2026
Date Reported : Jeb 13, 2026
Report number : 348 - 88N

Page 1 of 2

Sample Number	268110N						
Sampled Date	Jeb 05, 2026 10:33 AM						
Sample Description	Waste(ater						
Location	บ่อกักน้ำทิ้งรวม						
Date Analysis Commenced	Jeb 05, 2026						
Condition of Sample	Contained in one awber glass bottle and t(o plastic bottles, sawple containers cowply to pretreatment Npreservation standards UAPHA,) SEPAB						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Ox D U5 days at 20 Degree CB	wg/L	N	2.0	<2.0	≤500	Standard Methods for the E&awination of Water and Waste(ater, APHA, AWWA F WEJ, 24th ed., 2023, part 5210 Q, part 4500 Nx G	Rayong
Color Lat x riginal pH B	ADMI	N	5	10	≤600	Standard Methods for the E&awination of Water and Waste(ater, APHA, AWWA F WEJ, 24th ed., 2023, part 2120 J	Rayong
Color Lat pH -.0B	ADMI	N	5	10	≤600	Standard Methods for the E&awination of Water and Waste(ater, APHA, AWWA F WEJ, 24th ed., 2023, part 2120 J	Rayong
x il F Grease	wg/L	N	3	<3	≤10	Standard Methods for the E&awination of Water and Waste(ater, APHA, AWWA F WEJ, 24th ed., 2023, part 5520 O	Rayong
pH at 25 degree C		N	N	7.0	5.5N8.0	Standard Methods for the E&awination of Water and Waste(ater, APHA, AWWA F WEJ, 24th ed., 2023, part 4500 NH UDB	Rayong
Tewperature 9	Degree C	N	N	28.5	≤45	Standard Methods for the E&awination of Water and Waste(ater, APHA, AWWA F WEJ, 24th ed., 2023, part 2550 O	Rayong
Total Dissolved Solids Dried at 170 degree C	wg/L	N	5	214	≤3000	Standard Methods for the E&awination of Water and Waste(ater, APHA, AWWA F WEJ, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103N05 degree C	wg/L	N	5	<5	≤200	Standard Methods for the E&awination of Water and Waste(ater, APHA, AWWA F WEJ, 24th ed., 2023, part 2540 D	Rayong

Guideline : motification of the Industrial Estate Authority of Thailand mo.028/256- : General Standards for Waste(ater drainage into central (aste(ater treatment systems in Industrial Estates.

Sampling By : Sura(it marapong ทะเบียนเลขที่ ๖N823๙N0011

Technical Management

Jitsupa P.
*itsupa Pratuangsuk
Scientist U2B
ทะเบียนเลขที่ ๖N823๙N0004

Approved by

D. Chumon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ๖N823๙N0001

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS4



TESTING
No.0042

Lot ID: 269110
Date Received : Jeb 05, 2026
Date Reported : Jeb 13, 2026
Report number : 348 - 88N

Page 2 of 2

Remark :
- Lx D : Liwit of Detection
- "<" : Lo(er than Lx Q Liwit of QuantitationB/ Lx R Liwit of ReportingB
- Analyte(s) marked 9 is/are not included in scope of Accreditation ISx /IEC 1-025.
- Sawpling is not included in scope of accreditation ISx /IEC 1-025

Technical Management

Jitsupa P.
*itsupa Pratuangsuk
Scientist U2B
ทะเบียนเลขที่ ๖N823๙N0004

Approved by

D. Chumon
Dej Changchon
Senior Manager
ทะเบียนเลขที่ ๖N823๙N0001

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GTS4



TESTING
No.0042

Lot ID: 269112
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3497802-1

Page 1 of 2

Sample Number	269112-1
Sampled Date	Feb 05, 2026 10:26 AM
Sample Description	Wastewater
Location	บ่อกักน้ำพลัดเป็น
Date Analysis Commenced	Feb 05, 2026
Condition of Sample	Contained in four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
Color (at Original pH)	ADMI	-	5	13	≤300	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	11	≤300	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
pH at 25 degree C		-	-	8.4	5.5-9.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	30.2	≤40	≤34	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	788	≤3000	≤1300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TS4 Co., Ltd.

Sampling By : Surawit Narapong ทะเบียนเลขที่ ร-323-จ-0011 , Samart Khumphlee ทะเบียนเลขที่ ร-204-จ-0084

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

Technical Management

Photchana S

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ร-323-จ-0028

Approved by

D. Chumson

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ร-323-ก-0001

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GTS4



TESTING
No.0042

Lot ID: 269112
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3497802-1

Page 2 of 2

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

Technical Management

Photchana S

Photchana Seeda
Scientist (4)
ทะเบียนเลขที่ ร-323-จ-0028

Approved by

D. Chumson

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ร-323-ก-0001

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS4

Lot ID: 269112
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3497802-2

Page 1 of 1

Sample Number	269112-1						
Sampled Date	Feb 05, 2026 10:26 AM						
Sample Description	Wastewater						
Location	บ่อกักน้ำพลัดเนิน						
Date Analysis Commenced	Feb 05, 2026						
Condition of Sample	Contained in four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method
Metals Testing							
Calcium	meq/L	0.003	0.005	2.97	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7
Magnesium	meq/L	0.003	0.005	0.93	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7
SAR	-	-	0.10	7.06	No Standard	0-10	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7
Sodium	meq/L	0.003	0.005	9.86	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7
Water Testing							
Chlorite	mg/L	0.05	0.1	0.11	No Standard	≤1.0	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1
Dissolved Oxygen	mg/L	-	0.1	7.2	No Standard	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-O (G)

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TS4 Co., Ltd.

Sampling By : Surawit Narapong , Samart Khumphlee

Remark :
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Approved by

Siriluk P.

Siriluk Bunnak
Section Head



บริษัท ซีคอต จำกัด SECOT CO., LTD.

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239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND
TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0379/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 05/03/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 06/03/2026	SAMPLING TIME	: 14:22
ANALYTICAL DATE	: 06-13/03/2026	SITE OPERATOR	: Mr. Chitpon Somprasong
REPORT DATE	: 13/03/2026		: 7-239-0-0008
SAMPLE CONDITION	: เหลือถังใส	FILE CODE	: 226051_WW_March

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Holding Pond	
Temperature	°C	2550 B	< 0.5	31.0	≤ 45
pH	-	4500-H ⁺ B	< 0.10	7.93	5.5-9.0
Color	ADMI	2120 F	< 6.0	21.1	≤ 600
Total Dissolved Solids	mg/l	2540 C	< 25	274	≤ 3,000
Total Suspended Solids	mg/l	2540 D	< 2.5	3.4	≤ 200
BOD ₅	mg/l	5210 B	< 1.0	2.5	≤ 500
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 10

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Bong P. Budthum
(Miss Pornnapa Budthum)
Analyst
REG. NO. 7-239-0-0018

Khemchuda Inorn
(Miss Khemchuda Inorn)
Technical Management Team
REG. NO. 7-239-0-0005

Remark : 1. Reported analysis refers to submitted sample only.
2. This report shall not be reproduced, except in full, without official approval.
3. ^{1/} Notification of the Industrial Estate Authority of Thailand No.029/2567(2024).
4. - Not available.



บริษัท ซีคอต จำกัด
SECOT CO., LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร 10800
239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND
TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0380/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 05/03/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 06/03/2026	SAMPLING TIME	: 14.13
ANALYTICAL DATE	: 06-13/03/2026	SITE OPERATOR	: Mr. Chitpon Somprasong
REPORT DATE	: 13/03/2026		: 7-239-0-0008
SAMPLE CONDITION	: เหลืองขุ่น	FILE CODE	: 226051_WW_March

PARAMETER	UNIT	ANALYSIS	ND	STATION		STANDARD ^{1/}
		METHODS	(non-detectable)	Cooling Water Blowdown Pond		
Temperature	°C	2550 B	< 0.5		31.4	≤ 34 ^{2/}
pH	-	4500-H ⁺ B	< 0.10		8.27	5.5-9.0
Color	ADMI	2120 F	< 6.0		21.3	≤ 300
Total Dissolved Solids	mg/l	2540 C	< 25		534	≤ 1,300 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 2.5		3.6	≤ 50
BOD ₅	mg/l	5210 B	< 1.0		< 1.0	≤ 20

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Pornnapa Budthum

(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-0-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-0-0005

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E. 2560 (2017).

4. ^{2/} Assigned Value in EIA report, B.E. 2558 (2015).

5. - Not available.



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0380/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 05/03/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 06/03/2026	SAMPLING TIME	: 14.13
ANALYTICAL DATE	: 06-13/03/2026	SITE OPERATOR	: Mr. Chitpon Somprasong
REPORT DATE	: 13/03/2026		: -
SAMPLE CONDITION	: เหลืองขุ่น	FILE CODE	: 226051_WW_March

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ¹
		METHODS	(non-detectable)	Cooling Water Blowdown Pond	
Dissolved Oxygen	mg/l	4500-O G	< 0.1	5.8	≥ 4 ^{2/}
Chlorite (ClO ₂ ⁻)	mg/l	EPA Method 300.1	< 0.05	0.29	≤ 1 ^{2/}
Sodium (Na)	meq/l	3120 B	< 0.004	5.62	-
Calcium (Ca)	meq/l	3120 B	< 0.005	1.08	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.36	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	6.61	0-10 ^{2/}

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

REFERENCE : U.S.Environmental Protection Agency. Method 300.1 , Revision 1.0 (1997).

Pornnapa Budthum

(Miss Pornnapa Budthum)

Analyst

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E. 2560 (2017).

4. ^{2/} Assigned Value in EIA report, B.E. 2558 (2015).

5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0605/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 08/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 09/04/2026	SAMPLING TIME	: 14:51
ANALYTICAL DATE	: 09-20/04/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 20/04/2026		: 7-239-8-0005
SAMPLE CONDITION	: เหลืองใส	FILE CODE	: 226051_WW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Holding Pond	
Temperature	°C	2550 B	< 0.5	34.4	≤ 45
pH	-	4500-H ⁺ B	< 0.10	8.31	5.5-9.0
Color	ADMI	2120 F	< 6.0	30.1	≤ 600
Total Dissolved Solids	mg/l	2540 C	< 25	250	≤ 3,000
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 200
BOD ₅	mg/l	5210 B	< 1.0	1.8	≤ 500
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 10

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Bong Puthum
(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-8-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-8-0005

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3. ^{1/} Notification of the Industrial Estate Authority of Thailand No.029/2567(2024).

4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0605/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 08/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 09/04/2026	SAMPLING TIME	: 14:37
ANALYTICAL DATE	: 09-20/04/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 20/04/2026		: 7-239-8-0005
SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226051_WW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Cooling Water Blowdown Pond	
Temperature	°C	2550 B	< 0.5	33.0	≤ 34 ^{2/}
pH	-	4500-H ⁺ B	< 0.10	8.28	5.5-9.0
Color	ADMI	2120 F	< 6.0	25.4	≤ 300
Total Dissolved Solids	mg/l	2540 C	< 25	782	≤ 1,300 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 2.5	10	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	1.4	≤ 20

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Bong Puthum

(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-8-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-8-0005

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3. ^{1/} Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E. 2560 (2017).

4. ^{2/} Assigned Value in EIA report, B.E. 2558 (2015).

5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0605/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 08/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 09/04/2026	SAMPLING TIME	: 14.37
ANALYTICAL DATE	: 08.09-20/04/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 20/04/2026		: -
SAMPLE CONDITION	: เก็บตัวอย่างน้ำดื่ม	FILE CODE	: 226051_WW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Cooling Water Blowdown Pond	
Dissolved Oxygen	mg/l	4500-O G	< 0.1	5.3	≥ 4 ^{2/}
Chlorite (ClO ₂)	mg/l	EPA Method 300.1	< 0.05	0.64	≤ 1 ^{2/}
Sodium (Na)	meq/l	3120 B	< 0.004	6.83	-
Calcium (Ca)	meq/l	3120 B	< 0.005	2.53	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.84	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	5.26	0-10 ^{2/}

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2021 (AWWA, APHA, WEF)
REFERENCE : U.S.Environmental Protection Agency. Method 300.1, Revision 1.0 (1997).

(Miss Pornnapa Budthum)
Analyst

(Miss Khemchuda Insorn)
Technical Management Team

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4. ^{2/} Assigned Value in EIA report, B.E. 2558 (2015).
5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0736/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 16:16
ANALYTICAL DATE	: 07-19/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026		: 7-239-0-0005
SAMPLE CONDITION	: เก็บตัวอย่างน้ำดื่ม	FILE CODE	: 226051_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Holding Pond	
Temperature	°C	2550 B	< 0.5	31.6	≤ 45
pH	-	4500-H B	< 0.10	7.31	5.5-9.0
Color	ADMI	2120 F	< 6.0	20.6	≤ 600
Total Dissolved Solids	mg/l	2540 C	< 25	323	$\leq 3,000$
Total Suspended Solids	mg/l	2540 D	< 2.5	6.5	≤ 200
BOD ₅	mg/l	5210 B	< 1.0	4.2	≤ 500
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 10

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2021 (AWWA, APHA, WEF)

(Miss Pornnapa Budthum)
Analyst
REG. NO. 7-239-0-0018

(Miss Khemchuda Insorn)
Technical Management Team
REG. NO. 7-239-0-0005

- Remark :** 1. Reported analysis refers to submitted sample only.
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3. ^{1/} Notification of the Industrial Estate Authority of Thailand No.029/2567(2024).
4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0736/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 15:42
ANALYTICAL DATE	: 07-19/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026		: 7-239-0-0005
SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226051_WW_May

PARAMETER	UNIT	ANALYSIS	ND	STATION		STANDARD ¹
		METHODS	(non-detectable)	Cooling Water Blowdown Pond		
Temperature	°C	2550 B	< 0.5	29.8		≤ 34 ²⁾
pH	-	4500-H B	< 0.10	7.63		5.5-9.0
Color	ADMI	2120 F	< 6.0	23.1		≤ 300
Total Dissolved Solids	mg/l	2540 C	< 25	838		≤ 1,300 ²⁾
Total Suspended Solids	mg/l	2540 D	< 2.5	7.7		≤ 50
BOD ₅	mg/l	5210 B	< 1.0	1.8		≤ 20

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2022 (AWWA, APHA, WEF)

Bongporn Budthum
(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-0-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-0-0005

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3. ^{1/} Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E. 2560 (2017).

4. ^{2/} Assigned Value in EIA report, B.E. 2558 (2015).

5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0736/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 15:42
ANALYTICAL DATE	: 06-13/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026		: -
SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226051_WW_May

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD
		METHODS	(non-detectable)	Cooling Water Blowdown Pond	
Dissolved Oxygen	mg/l	4500-O G	< 0.1	6.1	≥ 4
Chlorite (ClO ₂)	mg/l	EPA Method 300.1	< 0.05	ND	≤ 1 ^{2/}
Sodium (Na)	mcq/l	3120 B	< 0.004	8.48	-
Calcium (Ca)	mcq/l	3120 B	< 0.005	2.77	-
Magnesium (Mg)	mcq/l	3120 B	< 0.002	0.88	-
Sodium Adsorption Ratio (SAR)	-	-	-	6.28	0-10 ^{3/}

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2022 (AWWA, APHA, WEF)

REFERENCE : U.S.Environmental Protection Agency, Method 300.1, Revision 1.0 (1997).

Bongporn Budthum
(Miss Pornnapa Budthum)

Analyst

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

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3. ^{1/} Assigned Value in EIA report, B.E. 2558 (2015).

4. ^{2/} In the case of watering plants.

5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd.	REQUEST SERVICE No.	: 0950/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 04/06/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 05/06/2026	SAMPLING TIME	: 14:23
ANALYTICAL DATE	: 08-12/06/2026	SITE OPERATOR	: Mr. Chitpon Somprasong
REPORT DATE	: 12/06/2026		: 7-239-0-0008
SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226051_WW_June

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Holding Pond	
Temperature	°C	2550 B	< 0.5	31.4	≤ 45
pH	-	4500-H ⁺ B	< 0.10	8.02	5.5-9.0
Color	ADMI	2120 F	< 6.0	21.7	≤ 600
Total Dissolved Solids	mg/l	2540 C	< 25	269	≤ 3,000
Total Suspended Solids	mg/l	2540 D	< 2.5	13	≤ 200
BOD ₅	mg/l	5210 B	< 1.0	2.4	≤ 500
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 10

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2021 (AWWA, APHA, WEF)

Bongp. puthum.

(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-0-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-0-0005

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 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd.	REQUEST SERVICE No.	: 0950/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 04/06/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 05/06/2026	SAMPLING TIME	: 14:12
ANALYTICAL DATE	: 05-12/06/2026	SITE OPERATOR	: Mr. Chitpon Somprasong
REPORT DATE	: 12/06/2026		: 7-239-0-0008
SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226051_WW_June

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Cooling Water Blowdown Pond	
Temperature	°C	2550 B	< 0.5	32.2	≤ 34 ^{2/}
pH	-	4500-H ⁺ B	< 0.10	7.78	5.5-9.0
Color	ADMI	2120 F	< 6.0	20.2	≤ 300
Total Dissolved Solids	mg/l	2540 C	< 25	927	≤ 1,300 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2021 (AWWA, APHA, WEF)

Bongp. puthum.

(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-0-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-0-0005

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 4. ^{2/} Assigned Value in EIA report, B.E. 2558 (2015).
 5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd.	REQUEST SERVICE No.	: 0950/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 04/06/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 05/06/2026	SAMPLING TIME	: 14:12
ANALYTICAL DATE	: 04/05-12/06/2026	SITE OPERATOR	: Mr. Chitpon Somprasong
REPORT DATE	: 12/06/2026		: -
SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226051_WW_June

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Cooling Water Blowdown Pond	
Dissolved Oxygen	mg/l	4500-O G	< 0.1	5.3	≥ 4 ^{2/}
Chlorite (ClO ₂)	mg/l	EPA Method 300.1	< 0.05	0.48	≤ 1 ^{2/}
Sodium (Na)	meq/l	3120 B	< 0.004	6.83	-
Calcium (Ca)	meq/l	3120 B	< 0.005	3.14	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	1.11	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	4.68	0-10 ^{2/}

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)
REFERENCE : U.S.Environmental Protection Agency. Method 300.1, Revision 1.0 (1997).

Bongpa Puthum

(Miss Pornnapa Budthum)
Analyst

Khemchuda Insorn

(Miss Khemchuda Insorn)
Technical Management Team

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4. ^{2/} Assigned Value in EIA report, B.E. 2558 (2015).

5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0736/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 16:16
ANALYTICAL DATE	: 07-19/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026		: 7-239-8-0005
SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226051_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Holding Pond	
Temperature	°C	2550 B	< 0.5	31.6	≤ 45
pH	-	4500-H B	< 0.10	7.31	5.5-9.0
Color	ADMI	2120 F	< 6.0	20.6	≤ 600
Total Dissolved Solids	mg/l	2540 C	< 25	323	$\leq 3,000$
Total Suspended Solids	mg/l	2540 D	< 2.5	6.5	≤ 200
Free Chlorine	mg/l	4500-Cl G	< 0.01	0.04	≤ 1.0
Sulfide	mg/l	4500-S ⁻ F	< 0.20	ND	≤ 1.0
BOD ₅	mg/l	5210 B	< 1.0	4.2	≤ 500
COD	mg/l	5220 D	< 10.00	28.72	≤ 750
TKN	mg/l	4500-N _{org} B	< 0.20	2.2	≤ 100
Cyanide	mg/l	4500-CN C,E	< 0.001	ND	≤ 0.2
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 10
Formaldehyde	mg/l	Colorimetric Method	< 0.10	ND	≤ 1.0
Phenols	mg/l	5530 B,C	< 0.001	ND	≤ 1.0

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Bongpa Puthum

(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-8-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-8-0005

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3. ^{1/} Notification of the Industrial Estate Authority of Thailand No.029/2567(2024).

4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0736/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 16:16
ANALYTICAL DATE	: 07-19/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026		: -
SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226051_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Holding Pond	
Odor	-	-	-	Not objectionable	Not objectionable
Chloride	mg/l	4500-Cl B	< 1.0	61.9	-
Fluoride	mg/l	4500-F D	< 0.01	0.27	≤ 5.0
Surfactants	mg/l	5540 B	< 0.01	0.04	≤ 30

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Bongna putthum
(Miss Pornnapa Budthum)

Analyst

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

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4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0736/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๓-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 16:16
ANALYTICAL DATE	: 07-13/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026		: ๓-239-๓-0005
SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226051_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Holding Pond	
Arsenic (As)	mg/l	3114 C	< 0.0001	0.0007	≤ 0.25
Barium (Ba)	mg/l	3120 B	< 0.001	ND	≤ 1.0
Cadmium (Cd)	mg/l	3120 B	< 0.001	ND	≤ 0.03
Chromium Hexavalent (Cr ⁶⁺)	mg/l	3500-B Cr	< 0.01	ND	≤ 0.25
Chromium Trivalent (Cr ³⁺)	mg/l	3120 B	< 0.01	ND	≤ 0.75
Copper (Cu)	mg/l	3120 B	< 0.001	< 0.02	≤ 2.0
Lead (Pb)	mg/l	3120 B	< 0.008	ND	≤ 0.2
Manganese (Mn)	mg/l	3120 B	< 0.001	0.10	≤ 5.0
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005
Nickel (Ni)	mg/l	3120 B	< 0.002	ND	≤ 1.0
Selenium (Se)	mg/l	3114 C	< 0.0005	0.0016	≤ 0.02
Silver (Ag)	mg/l	3120 B	< 0.02	ND	≤ 1.0
Total Iron (Fe)	mg/l	3120 B	< 0.004	0.28	≤ 10.0
Zinc (Zn)	mg/l	3120 B	< 0.003	0.09	≤ 5.0

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Jutarat Jaemruen
(Miss Jutarat Jaemruen)

Analyst

REG. NO. ๓-239-๓-0022

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. ๓-239-๓-0005

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0736/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 16:16
ANALYTICAL DATE	: 11-12/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026		: 7-239-0-0005
SAMPLE CONDITION	: เหลืองใต้มีตะกอน	FILE CODE	: 226051_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	
				Holding Pond	STANDARD ^{1/}
alpha-BHC	µg/l	US EPA 3510C/8081B	< 0.001	ND	None
gamma-BHC	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Heptachlor	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Aldrin	µg/l	US EPA 3510C/8081B	< 0.001	ND	None
beta-BHC	µg/l	US EPA 3510C/8081B	< 0.001	ND	None
delta-BHC	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Heptachlor epoxide	µg/l	US EPA 3510C/8081B	< 0.001	ND	None
o,p'-DDE	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Endosulfan I	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
gamma-Chlordane	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
alpha-Chlordane	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
p,p'-DDE	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Dieldrin	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
o,p'-DDD	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Endrin	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
o,p'-DDT	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
p,p'-DDD	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Endosulfan II	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
p,p'-DDT	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Endrin aldehyde	µg/l	US EPA 3510C/8081B	< 0.001	ND	None
Endosulfan sulfate	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Endrin ketone	µg/l	US EPA 3510C/8081B	< 0.003	ND	None

REFERENCE : US EPA SW 846 TEST METHODS FOR EVALUATING WATER AND SOLID WASTE, 3rd ED., 2020

Sudaporn S.
(Miss Sudaporn Soonthorn)

Analyst

REG. NO. 7-239-0-0001

Khemchuda Insorn
(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-0-0005

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0736/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 15:42
ANALYTICAL DATE	: 07-19/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026		: 7-239-0-0005
SAMPLE CONDITION	: เหลืองใต้มีตะกอน	FILE CODE	: 226051_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	
				Cooling Water Blowdown Pond	STANDARD ^{1/}
Temperature	°C	2550 B	< 0.5	29.8	≤ 34 ^{2/}
pH	-	4500-H B	< 0.10	7.63	5.5-9.0
Color	ADMI	2120 F	< 6.0	23.1	≤ 300
Total Dissolved Solids	mg/l	2540 C	< 25	838	≤ 1,300 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 2.5	7.7	≤ 50
Free Chlorine	mg/l	4500-Cl G	< 0.01	0.20	≤ 1.0
Sulfide	mg/l	4500-S F	< 0.20	ND	≤ 1.0
BOD ₅	mg/l	5210 B	< 1.0	1.8	≤ 20
COD	mg/l	5220 D	< 10.00	35.90	≤ 120
TKN	mg/l	4500-N _{org} B	< 0.20	6.3	≤ 100
Cyanide	mg/l	4500-CN C,E	< 0.001	ND	≤ 0.2
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 5.0
Formaldehyde	mg/l	Colorimetric Method	< 0.10	ND	≤ 1.0
Phenols	mg/l	5530 B,C	< 0.001	ND	≤ 1.0

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA-APHA-WEF)

Pornnapha Budthum
(Miss Pornnapha Budthum)

Analyst

REG. NO. 7-239-0-0018

Khemchuda Insorn
(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-0-0005

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3. ^{1/} Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E. 2560 (2017).
4. ^{2/} Assigned Value in EIA report, B.E. 2558 (2015).
5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0736/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 15:42
ANALYTICAL DATE	: 07-13/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026	FILE CODE	: 7-239-8-0005
SAMPLE CONDITION	: เหลืองใต้มีตะกอน		

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}
		METHODS	(non-detectable)	Cooling Water Blowdown Pond	
Arsenic (As)	mg/l	3114 C	< 0.0001	0.0020	≤ 0.25
Barium (Ba)	mg/l	3120 B	< 0.001	0.16	≤ 1.0
Cadmium (Cd)	mg/l	3120 B	< 0.001	ND	≤ 0.03
Chromium Hexavalent (Cr ⁶⁺)	mg/l	3500-B Cr	< 0.01	ND	≤ 0.25
Chromium Trivalent (Cr ³⁺)	mg/l	3120 B	< 0.01	ND	≤ 0.75
Copper (Cu)	mg/l	3120 B	< 0.001	ND	≤ 2.0
Lead (Pb)	mg/l	3120 B	< 0.008	ND	≤ 0.2
Manganese (Mn)	mg/l	3120 B	< 0.001	0.17	≤ 5.0
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005
Nickel (Ni)	mg/l	3120 B	< 0.002	< 0.01	≤ 1.0
Selenium (Se)	mg/l	3114 C	< 0.0005	0.0006	≤ 0.02
Zinc (Zn)	mg/l	3120 B	< 0.003	0.19	≤ 5.0

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA/APHA, WEF)

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

REG. NO. 7-239-8-0022

Khemchuda Inorn

(Miss Khemchuda Inorn)

Technical Management Team

REG. NO. 7-239-8-0005

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0736/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 15:42
ANALYTICAL DATE	: 11-12/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026	FILE CODE	: 7-239-8-0005
SAMPLE CONDITION	: เหลืองใต้มีตะกอน		

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}
		METHODS	(non-detectable)	Cooling Water Blowdown Pond	
alpha-BHC	µg/l	US EPA 3510C/8081B	< 0.001	ND	None
gamma-BHC	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Heptachlor	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Aldrin	µg/l	US EPA 3510C/8081B	< 0.001	ND	None
beta-BHC	µg/l	US EPA 3510C/8081B	< 0.001	ND	None
delta-BHC	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Heptachlor epoxide	µg/l	US EPA 3510C/8081B	< 0.001	ND	None
o,p'-DDE	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Endosulfan I	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
gamma-Chlordane	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
alpha-Chlordane	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
p,p'-DDE	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Dieldrin	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
o,p'-DDD	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Endrin	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
o,p'-DDT	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
p,p'-DDD	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Endosulfan II	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
p,p'-DDT	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Endrin aldehyde	µg/l	US EPA 3510C/8081B	< 0.001	ND	None
Endosulfan sulfate	µg/l	US EPA 3510C/8081B	< 0.003	ND	None
Endrin ketone	µg/l	US EPA 3510C/8081B	< 0.003	ND	None

REFERENCE : US EPA SW 846 TEST METHODS FOR EVALUATING WATER AND SOLID WASTE, 3rd ED., 2020

Sudaporn S.

(Miss Sudaporn Soonthorn)

Analyst

REG. NO. 7-239-8-0001

Khemchuda Inorn

(Miss Khemchuda Inorn)

Technical Management Team

REG. NO. 7-239-8-0005

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WATER AND WASTEWATER ANALYSIS REPORT

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SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 15:42
ANALYTICAL DATE	: 06-13/05/2026	SITE OPERATOR	: Mr. Baworn Deechaiya
REPORT DATE	: 19/05/2026		: -
SAMPLE CONDITION	: เหลือไม่ถึงตะกอน	FILE CODE	: 226051_WW_May

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}
		METHODS	(non-detectable)	Cooling Water Blowdown Pond	
Odor	-	-	-	Not objectionable	Not objectionable



(Miss Pornnapa Budthum)

Analyst



(Miss Khemchuda Insorn)

Technical Management Team

- Remark :**
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 3. ^{1/} Assigned Value in EIA report, B.E. 2558 (2015).
 4. ^{2/} In the case of watering plants.
 5. - Not available.

คุณภาพน้ำผิวดิน



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0575/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 06/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/04/2026	SAMPLING TIME	: 10.10
ANALYTICAL DATE	: 07-18/04/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 18/04/2026		: -
SAMPLE CONDITION	: เกือบใส	FILE CODE	: 226051_SW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	ค่าเฉลี่ยน้ำในเขตพื้นที่กม.1 200 เมตร	STANDARD ^{1/}
Temperature	°C	2550 B	< 0.5	30.1	n [*]
pH	-	4500-H ⁺ B	< 0.10	6.69	5.0 - 9.0
Total Dissolved Solids	mg/l	2540 C	< 25	118	-
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	-
Dissolved Oxygen	mg/l	4500-O C	< 0.1	6.8	≥ 2.0
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 4.0
Chlorite (ClO ₂ ⁻)	mg/l	EPA Method 300.1	< 0.05	ND	-
Calcium (Ca)	meq/l	3120 B	< 0.005	0.67	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.22	-
Sodium(Na)	meq/l	3120 B	< 0.004	0.52	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	0.78	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2021 (AWWA-APHA, WEF)

REFERENCE : U.S.Environmental Protection Agency. Method 300.1, Revision 1.0 (1997).

Bongsa Puthum.

(Miss Pornnapa Budthum)

Analyst

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

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5. - Not available.



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0575/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 06/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/04/2026	SAMPLING TIME	: 10.30
ANALYTICAL DATE	: 07-18/04/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 18/04/2026		: -
SAMPLE CONDITION	: เกือบใส	FILE CODE	: 226051_SW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	ค่าเฉลี่ยน้ำในเขตพื้นที่กม.1 200 เมตร	STANDARD ^{1/}
Temperature	°C	2550 B	< 0.5	30.9	n [*]
pH	-	4500-H ⁺ B	< 0.10	7.33	5.0 - 9.0
Total Dissolved Solids	mg/l	2540 C	< 25	226	-
Total Suspended Solids	mg/l	2540 D	< 2.5	2.8	-
Dissolved Oxygen	mg/l	4500-O C	< 0.1	7.2	≥ 2.0
BOD ₅	mg/l	5210 B	< 1.0	2.5	≤ 4.0
Chlorite (ClO ₂ ⁻)	mg/l	EPA Method 300.1	< 0.05	ND	-
Calcium (Ca)	meq/l	3120 B	< 0.005	1.11	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.40	-
Sodium(Na)	meq/l	3120 B	< 0.004	1.45	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	1.67	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2021 (AWWA-APHA, WEF)

REFERENCE : U.S.Environmental Protection Agency. Method 300.1, Revision 1.0 (1997).

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(Miss Pornnapa Budthum)

Analyst

Khemchuda Insorn

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Technical Management Team

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5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0575/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 06/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/04/2026	SAMPLING TIME	: 10.50
ANALYTICAL DATE	: 07-18/04/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 18/04/2026		: -
SAMPLE CONDITION	: เติลิ่งใส	FILE CODE	: 226051_SW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	คลองกร้าหลังผ่านจุดทิ้งน้ำของนิคมฯ 200 เมตร	STANDARD ^{1/}
Temperature	°C	2550 B	< 0.5	31.6	n'
pH	-	4500-H ⁺ B	< 0.10	7.61	5.0 - 9.0
Total Dissolved Solids	mg/l	2540 C	< 25	768	-
Total Suspended Solids	mg/l	2540 D	< 2.5	3.6	-
Dissolved Oxygen	mg/l	4500-O C	< 0.1	5.4	≥ 2.0
BOD ₅	mg/l	5210 B	< 1.0	1.1	≤ 4.0
Chlorite (ClO ₂ ⁻)	mg/l	EPA Method 300.1	< 0.05	ND	-
Calcium (Ca)	meq/l	3120 B	< 0.005	3.78	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	1.30	-
Sodium(Na)	meq/l	3120 B	< 0.004	5.26	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	3.30	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2021 (AWWA,APHA, WEF)

REFERENCE : U.S.Environmental Protection Agency, Method 300.1, Revision 1.0 (1997).

Bong Puthum

(Miss Pornnapa Budthum)

Analyst

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0575/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 06/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/04/2026	SAMPLING TIME	: 11.10
ANALYTICAL DATE	: 07-18/04/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 18/04/2026		: -
SAMPLE CONDITION	: เติลิ่งใส	FILE CODE	: 226051_SW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	คลองระเวียงหลังผ่านบ้านวังแขวง 200 เมตร	STANDARD ^{1/}
Temperature	°C	2550 B	< 0.5	32.0	n'
pH	-	4500-H ⁺ B	< 0.10	7.07	5.0 - 9.0
Total Dissolved Solids	mg/l	2540 C	< 25	640	-
Total Suspended Solids	mg/l	2540 D	< 2.5	4.3	-
Dissolved Oxygen	mg/l	4500-O C	< 0.1	4.9	≥ 2.0
BOD ₅	mg/l	5210 B	< 1.0	2.0	≤ 4.0
Chlorite (ClO ₂ ⁻)	mg/l	EPA Method 300.1	< 0.05	ND	-
Calcium (Ca)	meq/l	3120 B	< 0.005	2.35	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.73	-
Sodium(Na)	meq/l	3120 B	< 0.004	5.13	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	4.13	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2021 (AWWA,APHA, WEF)

REFERENCE : U.S.Environmental Protection Agency, Method 300.1, Revision 1.0 (1997).

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(Miss Pornnapa Budthum)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0575/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 06/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/04/2026	SAMPLING TIME	: 11.45
ANALYTICAL DATE	: 07-18/04/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 18/04/2026		: -
SAMPLE CONDITION	: เหลือถังมีตะกอน	FILE CODE	: 226051_SW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	อ้างอิงน้ำหนักของปลาไหลหางจากปากคลองระเว็จประมาณ 2 กิโลเมตร	STANDARD ^{1/}
Temperature	°C	2550 B	< 0.5	32.5	n ¹
pH	-	4500-H ⁺ B	< 0.10	8.74	5.0 - 9.0
Total Dissolved Solids	mg/l	2540 C	< 25	204	-
Total Suspended Solids	mg/l	2540 D	< 2.5	14	-
Dissolved Oxygen	mg/l	4500-O C	< 0.1	5.1	≥ 2.0
BOD ₅	mg/l	5210 B	< 1.0	3.9	≤ 4.0
Chlorite (ClO ₂ ⁻)	mg/l	EPA Method 300.1	< 0.05	ND	-
Calcium (Ca)	meq/l	3120 B	< 0.005	0.84	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.33	-
Sodium(Na)	meq/l	3120 B	< 0.004	1.28	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	1.67	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2021 (AWWA,APHA, WEF)

REFERENCE : U.S.Environmental Protection Agency. Method 300.1, Revision 1.0 (1997).

Bong Puthum

(Miss Pornnapa Budthum)

Analyst

Khemchuda Insorn

(Miss Khemchuda Insorn)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf TS 4 Co., Ltd.	REQUEST SERVICE No.	: 0575/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: -
SAMPLING DATE	: 06/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/04/2026	SAMPLING TIME	: 12.15
ANALYTICAL DATE	: 07-18/04/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 18/04/2026		: -
SAMPLE CONDITION	: เหลือถังใส	FILE CODE	: 226051_SW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	อ้างอิงน้ำหนักของปลาไหลหางจากปากคลองระเว็จประมาณ 4 กิโลเมตร	STANDARD ^{1/}
Temperature	°C	2550 B	< 0.5	32.8	n ¹
pH	-	4500-H ⁺ B	< 0.10	7.62	5.0 - 9.0
Total Dissolved Solids	mg/l	2540 C	< 25	174	-
Total Suspended Solids	mg/l	2540 D	< 2.5	8.0	-
Dissolved Oxygen	mg/l	4500-O C	< 0.1	4.3	≥ 2.0
BOD ₅	mg/l	5210 B	< 1.0	2.6	≤ 4.0
Chlorite (ClO ₂ ⁻)	mg/l	EPA Method 300.1	< 0.05	ND	-
Calcium (Ca)	meq/l	3120 B	< 0.005	0.75	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.32	-
Sodium(Na)	meq/l	3120 B	< 0.004	1.25	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	1.70	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2021 (AWWA,APHA, WEF)

REFERENCE : U.S.Environmental Protection Agency. Method 300.1, Revision 1.0 (1997).

Bong Puthum

(Miss Pornnapa Budthum)

Analyst

Khemchuda Insorn

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Technical Management Team

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5. - Not available.

ระดับเสียงในสถานประกอบการ



Analysis / Test Report

Client : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS4

Lot ID: 269104

Date Received : Feb 17, 2026

Date Reported : Feb 24, 2026

Report Number: 3514571-1

Page 1 of 1

Sample Number 269104-1
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Cooling Tower
Measurement Date Feb 16, 2026
Measurement by Anawat Kongpik

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	79.2	83.2	79.0
10:00 AM - 11:00 AM	79.1	79.4	79.0
11:00 AM - 12:00 PM	79.1	80.4	79.0
12:00 PM - 01:00 PM	79.0	79.5	78.9
01:00 PM - 02:00 PM	79.1	79.7	79.0
02:00 PM - 03:00 PM	79.1	79.8	78.9
03:00 PM - 04:00 PM	79.5	81.3	79.1
04:00 PM - 05:00 PM	79.7	81.0	79.4

Leq Average 8 hrs. (dB(A)) 79.2

Lmax (dB(A)) 83.2

Standard (dB(A)) 85

Reference Method : ISO 1996-1 : 2016

Standard : Environmental Impact Assessment Report of Gulf TS4 Co., Ltd.

ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสถานะแวดล้อมในการทำงาน 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 : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS4

Lot ID: 269104

Date Received : Feb 17, 2026

Date Reported : Feb 24, 2026

Report Number: 3514572-1

Page 1 of 1

Sample Number 269104-2
Parameter Noise (Leq 8 hrs.)
Location บริเวณ boiler Feed Pump
Measurement Date Feb 16, 2026
Measurement by AnaKat Bongpik

Time	Leq (dw(A))	Lmax (dw(A))	L90 (dw(A))
08:59 AM - 09:59 AM	84.4	85.4	84.1
09:59 AM - 10:59 AM	84.2	85.1	83.9
10:59 AM - 11:59 AM	83.8	84.7	83.4
11:59 AM - 12:59 PM	82.7	84.0	82.3
12:59 PM - 01:59 PM	82.7	83.5	82.5
01:59 PM - 02:59 PM	83.1	93.2	82.8
02:59 PM - 03:59 PM	83.4	86.6	83.1
03:59 PM - 04:59 PM	83.7	88.7	83.1

Leq Average 8 hrs. (dw(A)) 83.5

Lmax (dw(A)) 93.2

Standard (dw(A)) 85

Reference Method : ISO 1996-1 : 2016

Standard : Environmental Impact Assessment Report of Gulf TS4 Co., Ltd.

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ในการประกอบกิจการโรงงานเกี่ยวกับสถานะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Chontichak

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Approved by

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS4

Lot ID: 269104

Date Received : Feb 17, 2026

Date Reported : Feb 24, 2026

Report Number: 3514573-1

Page 1 of 1

Sample Number 269104-3
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Gas Metering
Measurement Date Feb 16, 2026
Measurement by Anawat Kongpik

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	65.8	68.1	65.6
10:00 AM - 11:00 AM	65.6	70.5	65.4
11:00 AM - 12:00 PM	65.7	68.0	65.3
12:00 PM - 01:00 PM	64.8	67.4	64.4
01:00 PM - 02:00 PM	65.1	67.9	64.8
02:00 PM - 03:00 PM	65.4	76.8	65.1
03:00 PM - 04:00 PM	66.4	76.2	65.2
04:00 PM - 05:00 PM	66.7	76.6	65.8

Leq Average 8 hrs. (dB(A))

65.7

Lmax (dB(A))

76.8

Standard (dB(A))

85

140

Reference Method : ISO 1996-1 : 2016

Standard : Environmental Impact Assessment Report of Gulf TS4 Co., Ltd.

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Technical Management

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS4

Lot ID: 269104

Date Received : Feb 17, 2026

Date Reported : Feb 24, 2026

Report Number: 3514574-1

Page 1 of 1

Sample Number 269104-4
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Gas Turbine Accessories System (ห้องกลางระหว่าง GTG 11 และ GTG12)
Measurement Date Feb 16, 2026
Measurement by Anawat Kongpik

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:27 AM - 10:27 AM	78.8	84.5	78.0
10:27 AM - 11:27 AM	78.3	80.3	77.8
11:27 AM - 12:27 PM	79.3	82.9	78.1
12:27 PM - 01:27 PM	77.8	80.1	77.2
01:27 PM - 02:27 PM	78.0	80.8	77.3
02:27 PM - 03:27 PM	78.3	80.5	77.7
03:27 PM - 04:27 PM	79.1	85.7	78.4
04:27 PM - 05:27 PM	79.8	82.0	79.0

Leq Average 8 hrs. (dB(A))

78.7

Lmax (dB(A))

85.7

Standard (dB(A))

85

140

Reference Method : ISO 1996-1 : 2016

Standard : Environmental Impact Assessment Report of Gulf TS4 Co., Ltd.

ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย

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Section Head

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S:\Reports_Air Noise.rpt (3:08PM)



Analysis / Test Report

Client : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS4

Lot ID: 269104

Date Received : Feb 17, 2026

Date Reported : Feb 24, 2026

Report Number: 3514575-1

Page 1 of 1

Sample Number : 269104-5
Parameter : Noise (Leq 8 hrs.)
Location : บริเวณ Steam Turbine Generator
Measurement Date : Feb 16, 2026
Measurement by : Anawat Kongpik

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:15 AM - 10:15 AM	81.5	89.5	81.1
10:15 AM - 11:15 AM	81.1	82.1	80.8
11:15 AM - 12:15 PM	80.9	81.8	80.5
12:15 PM - 01:15 PM	79.7	81.1	79.2
01:15 PM - 02:15 PM	79.8	82.7	79.6
02:15 PM - 03:15 PM	79.6	82.7	79.3
03:15 PM - 04:15 PM	80.0	84.3	79.5
04:15 PM - 05:15 PM	81.0	84.4	80.4

Leq Average 8 hrs. (dB(A))

80.5

Lmax (dB(A))

89.5

Standard (dB(A))

85

140

Reference Method : ISO 1996-1 : 2016

Standard : Environmental Impact Assessment Report of Gulf TS4 Co., Ltd.

ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสถานะแวดล้อมในการทำงาน 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 : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS4

Lot ID: 269104

Date Received : Feb 17, 2026

Date Reported : Feb 24, 2026

Report Number: 3514576-1

Page 1 of 1

Sample Number : 269104-6
Parameter : Noise (Leq 8 hrs.)
Location : บริเวณ Steam Turbine Lube oil Skid
Measurement Date : Feb 16, 2026
Measurement by : AnaKat Bongpik

Time	Leq (dx(A))	LmaO(dx(A))	L90 (dx(A))
09:38 AM - 10:38 AM	72.0	85.7	71.4
10:38 AM - 11:38 AM	71.7	73.0	71.3
11:38 AM - 12:38 PM	73.4	76.6	71.8
12:38 PM - 01:38 PM	72.9	76.5	71.6
01:38 PM - 02:38 PM	73.7	78.6	73.2
02:38 PM - 03:38 PM	73.6	76.4	73.0
03:38 PM - 04:38 PM	74.0	79.8	73.1
04:38 PM - 05:38 PM	74.9	80.1	74.0

Leq Average 8 hrs. (dx(A))

73.4

LmaO(dx(A))

85.7

Standard (dx(A))

85

140

Reference Method : ISw 1996-1 : 2016

Standard : Environmental Impact Assessment Report of Gulf TS4 Co., Ltd.

ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย

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Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

Supot S

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Noise Monitoring Result : Working Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Cooling Tower Area		Monitor Period : May 29, 2026	
SLM Model : SCARLET ST-21D		Serial No : 820731	
Site Operator : Mr. Pongsiri Jukkeaw			
Calibrator Model : Cirrus CR:515		Serial No : 97097	
Calibration Ref dB(A) : 94.0		Certified Date : Oct 14 2025	
SLM Reading / Adjust dB(A) : 94.0/-0.2		Expire Date : Oct 13 2026	
Cal Sheet No. : CR-515-2026-134			
Time	Equivalent Sound Pressure Level (dB(A))		
	May 29, 2026		
00:00 - 01:00			
01:00 - 02:00			
02:00 - 03:00			
03:00 - 04:00			
04:00 - 05:00			
05:00 - 06:00			
06:00 - 07:00			
07:00 - 08:00			
08:00 - 09:00	77.4		
09:00 - 10:00	77.0		
10:00 - 11:00	77.5		
11:00 - 12:00	77.7		
12:00 - 13:00	79.4		
13:00 - 14:00	80.6		
14:00 - 15:00	79.1		
15:00 - 16:00	78.9		
16:00 - 17:00			
17:00 - 18:00			
18:00 - 19:00			
19:00 - 20:00			
20:00 - 21:00			
21:00 - 22:00			
22:00 - 23:00			
23:00 - 24:00			
Leq(8) *	78.6		
Lmax **	105.0		
Standard-8Hr	90 dB(A)		
Standard-Max	140 dB(A)		

Remark : * Average time between 08:00-16:00

** Maximum Sound Pressure Level between 08:00-16:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Boiler Feed Pump Area		Monitor Period : May 29, 2026		
SLM Model : SCARLET ST-21D		Serial No : 820723		
Site Operator : Mr. Pongsiri Jukkeaw				
Calibrator Model : Cirrus CR:515		Serial No : 97097		
Calibration Ref dB(A) : 94.0		Certified Date : Oct 14 2025		
SLM Reading / Adjust dB(A) : 93.8/0.0		Expire Date : Oct 13 2026		
Cal Sheet No. : CR-515-2026-134				
Time	Equivalent Sound Pressure Level (dB(A))			
	May 29, 2026			
00:00 - 01:00				
01:00 - 02:00				
02:00 - 03:00				
03:00 - 04:00				
04:00 - 05:00				
05:00 - 06:00				
06:00 - 07:00				
07:00 - 08:00				
08:00 - 09:00				80.5
09:00 - 10:00				80.2
10:00 - 11:00				82.3
11:00 - 12:00				82.1
12:00 - 13:00				82.0
13:00 - 14:00				82.0
14:00 - 15:00				82.1
15:00 - 16:00				82.1
16:00 - 17:00				
17:00 - 18:00				
18:00 - 19:00				
19:00 - 20:00				
20:00 - 21:00				
21:00 - 22:00				
22:00 - 23:00				
23:00 - 24:00				
Leq(8) *	81.7			
Lmax **	87.5			
Standard-8Hr	90 dB(A)			
Standard-Max	140 dB(A)			

Remark : * Average time between 08:00-16:00

** Maximum Sound Pressure Level between 08:00-16:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Gas Metering	Monitor Period : May 29, 2026
SLM Model : SCARLET ST-21D	Serial No : 821080
Site Operator : Mr. Pongsiri Jukkeaw	
Calibrator Model : Cirrus CR:515	Serial No : 97097
Calibration Ref dB(A) : 94.0	Certified Date : Oct 14 2025
SLM Reading / Adjust dB(A) : 94.0/-0.2	Expire Date : Oct 13 2026
Cal Sheet No. : CR-515-2026-134	

Time	Equivalent Sound Pressure Level (dB(A))	
	May 29, 2026	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	64.8	
09:00 - 10:00	64.6	
10:00 - 11:00	64.4	
11:00 - 12:00	63.9	
12:00 - 13:00	74.5	
13:00 - 14:00	71.1	
14:00 - 15:00	65.5	
15:00 - 16:00	67.8	
16:00 - 17:00		
17:00 - 18:00		
18:00 - 19:00		
19:00 - 20:00		
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 24:00		
Leq(8)*	68.9	
Lmax **	108.3	
Standard-8Hr	90 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Average time between 08:00-16:00

** Maximum Sound Pressure Level between 08:00-16:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Gas Turbine Accessories System Area	Monitor Period : May 29, 2026
SLM Model : SCARLET ST-21D	Serial No : 820726
Site Operator : Mr. Pongsiri Jukkeaw	
Calibrator Model : Cirrus CR:515	Serial No : 97097
Calibration Ref dB(A) : 94.0	Certified Date : Oct 14 2025
SLM Reading / Adjust dB(A) : 94.0/-0.2	Expire Date : Oct 13 2026
Cal Sheet No. : CR-515-2026-134	

Time	Equivalent Sound Pressure Level (dB(A))	
	May 29, 2026	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	78.2	
09:00 - 10:00	77.1	
10:00 - 11:00	77.2	
11:00 - 12:00	76.0	
12:00 - 13:00	79.5	
13:00 - 14:00	78.3	
14:00 - 15:00	77.8	
15:00 - 16:00	78.4	
16:00 - 17:00		
17:00 - 18:00		
18:00 - 19:00		
19:00 - 20:00		
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 24:00		
Leq(8)*	77.9	
Lmax **	106.5	
Standard-8Hr	90 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Average time between 08:00-16:00

** Maximum Sound Pressure Level between 08:00-16:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Sununta Sirawuttinanon)
Technical Management Team



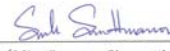
Noise Monitoring Result : Working Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Steam Turbine Generator Area		Monitor Period : May 29, 2026		
SLM Model : SCARLET ST-21D		Serial No : 821079		
Site Operator : Mr. Pongsiri Jukkeaw				
Calibrator Model : Cirrus CR:515		Serial No : 97097		
Calibration Ref dB(A) : 94.0		Certified Date : Oct 14 2025		
SLM Reading / Adjust dB(A) : 93.8/0.0		Expire Date : Oct 13 2026		
Cal Sheet No. : CR-515-2026-134				
Time	Equivalent Sound Pressure Level (dB(A))			
	May 29, 2026			
00:00 - 01:00				
01:00 - 02:00				
02:00 - 03:00				
03:00 - 04:00				
04:00 - 05:00				
05:00 - 06:00				
06:00 - 07:00				
07:00 - 08:00				
08:00 - 09:00				74.8
09:00 - 10:00				76.3
10:00 - 11:00				76.3
11:00 - 12:00				75.9
12:00 - 13:00				76.4
13:00 - 14:00				76.9
14:00 - 15:00				76.6
15:00 - 16:00				76.6
16:00 - 17:00				
17:00 - 18:00				
18:00 - 19:00				
19:00 - 20:00				
20:00 - 21:00				
21:00 - 22:00				
22:00 - 23:00				
23:00 - 24:00				
Leq(8) *	76.3			
Lmax **	97.9			
Standard-8Hr	90 dB(A)			
Standard-Max	140 dB(A)			

Remark : * Average time between 08:00-16:00

** Maximum Sound Pressure Level between 08:00-16:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise MTR-GTS4 (Tasit 4 Power Plant Project)

Location : Steam Turbine Lube Oil Skid Area		Monitor Period : May 29, 2026	
SLM Model : SCARLET ST-21D		Serial No : 821078	
Site Operator : Mr. Pongsiri Jukkeaw			
Calibrator Model : Cirrus CR:515		Serial No : 97097	
Calibration Ref dB(A) : 94.0		Certified Date : Oct 14 2025	
SLM Reading / Adjust dB(A) : 94.0/-0.2		Expire Date : Oct 13 2026	
Cal Sheet No. : CR-515-2026-134			
Time	Equivalent Sound Pressure Level (dB(A))		
	May 29, 2026		
00:00 - 01:00			
01:00 - 02:00			
02:00 - 03:00			
03:00 - 04:00			
04:00 - 05:00			
05:00 - 06:00			
06:00 - 07:00			
07:00 - 08:00			
08:00 - 09:00	76.4		
09:00 - 10:00	75.5		
10:00 - 11:00	75.4		
11:00 - 12:00	74.1		
12:00 - 13:00	78.5		
13:00 - 14:00	76.9		
14:00 - 15:00	75.8		
15:00 - 16:00	76.6		
16:00 - 17:00			
17:00 - 18:00			
18:00 - 19:00			
19:00 - 20:00			
20:00 - 21:00			
21:00 - 22:00			
22:00 - 23:00			
23:00 - 24:00			
Leq(8)*	76.3		
Lmax **	109.0		
Standard-8Hr	90 dB(A)		
Standard-Max	140 dB(A)		

Remark : * Average time between 08:00-16:00

** Maximum Sound Pressure Level between 08:00-16:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team

ระดับความร้อนในสถานประกอบการ



Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng,
Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS4

Lot ID: 269105

Date Received : Feb 17, 2026

Date Reported : Feb 24, 2026

Report Number: 3497796-1

Page 1 of 4

Sample Number 269105-1
Parameter Heat Stress (Sampling Time : 09.30 AM - 11.30 AM)
Measurement Date Feb 16, 2026
Measurement by Anawat Kongpik
Location ปฏิบัติงาน 1 พื้นที่ (ข้อ-นามสกุล ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Condenser Exhaust Unit	120	30.5	28.2	36.1	35.4
Average (WBGT)		30.5			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

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

Technical Management

Supt S
Supot Salamteh
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng,
Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS4

Lot ID: 269105

Date Received : Feb 17, 2026

Date Reported : Feb 24, 2026

Report Number: 3497796-1

Page 2 of 4

Sample Number 269105-2
Parameter Heat Stress (Sampling Time : 09.30 AM - 11.30 AM)
Measurement Date Feb 16, 2026
Measurement by Anawat Kongpik
Location ปฏิบัติงาน 1 พื้นที่ (ข้อ-นามสกุล ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณท่อลำเลียงไอน้ำ	120	33.9	32.8	36.9	35.6
Average (WBGT)		33.9			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

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

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng,
Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS4

Lot ID: 2619321

Date Received : Mar 04, 2026

Date Reported : Mar 10, 2026

Report Number: 3518353-1

Page 1 of 1

Sample Number 2619321-1
Parameter Heat Stress (Sampling Time : 11.00 AM - 01.00 PM)
Measurement Date Mar 04, 2026
Measurement by Chaimongkol Saenmath
Location ปรุขันธ์งาน 1 พื้นที่ (ข้อ-นามสกุล ปรุขันธ์งาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Generator	120	31.2	27.5	41.0	37.3
Average (WBGT)		31.2			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

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

Technical Management

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Supt Salamteh
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Assistant Manager

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng,
Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS4

Lot ID: 269105

Date Received : Feb 17, 2026

Date Reported : Feb 24, 2026

Report Number: 3497796-1

Page 4 of 4

Sample Number 269105-4
Parameter Heat Stress (Sampling Time : 09.30 AM - 11.30 AM)
Measurement Date Feb 16, 2026
Measurement by Anawat Kongpik
Location ปรุขันธ์งาน 1 พื้นที่ (ข้อ-นามสกุล ปรุขันธ์งาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Gas Turbine	120	32.4	31.5	35.6	32.1
Average (WBGT)		32.4			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

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

Technical Management

Supt S
Supt Salamteh
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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บริษัท ซีคอต จำกัด
SECOT CO., LTD.

239 ถนนวิภาวดีรังสิต แขวงบางซื่อ เขตบางซื่อ กรุงเทพฯ 10800
239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND
TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

HEAT STRESS MEASUREMENT REPORT

CLIENT NAME : Gulf TS4 Co., Ltd. REFERENCE NO. : 226051-Heat-2605-0060
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : WBGT Meter
MEASUREMENT DATE : 29/05/2026 MODEL NO. : JT2011-E2A
MEASUREMENT LOCATION : Tasit 4 Power Plant Area SERIAL NO. : 3522210179
SITE OPERATOR : Mr. Phongsiri Chakkaeo

LOCATION	TIME	MEASURED TEMPERATURE (°C)					STANDARD (°C) *
		NWB	DB	GT	WBGT	WBGT _{Avg}	
Generator Area	10.00-10.30	30.3	34.4	37.1	32.0	31.6	34.0
	10.30-11.00	30.2	34.2	36.9	32.0		
	11.00-11.30	29.0	32.6	35.6	30.7		
	11.30-12.00	29.8	34.1	36.5	31.5		


(Miss Katesarin Vorradeewittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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3. * WBGT standard was notified by the Ministerial Regulations of Labour, B.E.2559 (2016).

4. NWB = Natural Wet Bulb Temperature

DB = Dry Bulb Temperature

GT = Globe Temperature

WBGT = Wet Bulb Globe Temperature

5. Work Load - Light work load = 34 °C, Moderate work load = 32 °C and Heavy work load = 30 °C



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SECOT CO., LTD.

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HEAT STRESS MEASUREMENT REPORT

CLIENT NAME : Gulf TS4 Co., Ltd. REFERENCE NO. : 226051-Heat-2605-0060
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : WBGT Meter
MEASUREMENT DATE : 29/05/2026 MODEL NO. : JT2011-E2A
MEASUREMENT LOCATION : Tasit 4 Power Plant Area SERIAL NO. : 3522210181
SITE OPERATOR : Mr. Phongsiri Chakkaeo

LOCATION	TIME	MEASURED TEMPERATURE (°C)					STANDARD (°C) *
		NWB	DB	GT	WBGT	WBGT _{Avg}	
Gas Turbine Area	10.00-10.30	28.0	33.9	36.0	30.2	30.9	34.0
	10.30-11.00	29.3	34.7	39.8	32.0		
	11.00-11.30	28.6	34.2	37.2	30.9		
	11.30-12.00	27.9	35.1	36.7	30.4		


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HEAT STRESS MEASUREMENT REPORT

CLIENT NAME : Gulf TS4 Co., Ltd. REFERENCE NO. : 226051-Heat-2605-0060
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : WBGT Meter
MEASUREMENT DATE : 29/05/2026 MODEL NO. : JT2011-E2A
MEASUREMENT LOCATION : Tasit 4 Power Plant Area SERIAL NO. : 3522210174
SITE OPERATOR : Mr. Phongsiri Chakkaeo

LOCATION	TIME	MEASURED TEMPERATURE (°C)					STANDARD (°C) *
		NWB	DB	GT	WBGT	WBGT _{Avg}	
Condenser Exhaust Unit Area	10.00-10.30	30.9	33.1	37.0	32.3	32.1	34.0
	10.30-11.00	31.8	34.4	39.5	33.6		
	11.00-11.30	30.5	32.9	37.8	32.2		
	11.30-12.00	29.3	31.3	32.9	30.2		


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Technical Management Team

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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

HEAT STRESS MEASUREMENT REPORT

CLIENT NAME : Gulf TS4 Co., Ltd. REFERENCE NO. : 226051-Heat-2605-0060
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : WBGT Meter
MEASUREMENT DATE : 29/05/2026 MODEL NO. : JT2011-E2A
MEASUREMENT LOCATION : Tasit 4 Power Plant Area SERIAL NO. : 3522210176
SITE OPERATOR : Mr. Phongsiri Chakkaeo

LOCATION	TIME	MEASURED TEMPERATURE (°C)					STANDARD (°C) *
		NWB	DB	GT	WBGT	WBGT _{Avg}	
Steam Pipeline Area	10.00-10.30	28.6	34.6	36.8	30.6	31.4	34.0
	10.30-11.00	30.0	36.4	37.9	32.1		
	11.00-11.30	28.4	35.8	37.5	30.8		
	11.30-12.00	29.7	36.7	38.1	32.0		


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Environmental Scientist


(Miss Sununta Sirawuttinanon)

Technical Management Team

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5. Work Load - Light work load = 34°C, Moderate work load = 32°C and Heavy work load = 30°C

แสงสว่างภายในสถานประกอบการ



Analysis / Test Report

Client : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (1)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (1)-1 C1

Page 1 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
1	Spot : Administration Building : 1st Floor : เครื่องถ่ายเอกสาร	269077 (1)-1	16-Feb-26	Day time	1	607	-	300-400	-	Pass
2	Spot : Administration Building : 1st Floor : โต๊ะ Admin 1	269077 (1)-2	16-Feb-26	Day time	1	466	-	400-500	-	Pass
3	Spot : Administration Building : 1st Floor : โต๊ะ Admin 2	269077 (1)-3	16-Feb-26	Day time	1	605	-	400-500	-	Pass
4	Spot : Administration Building : 1st Floor : โต๊ะ Operation Manager	269077 (1)-4	16-Feb-26	Day time	1	532	-	400-500	-	Pass
5	Spot : Administration Building : 1st Floor : โต๊ะ EHS	269077 (1)-5	16-Feb-26	Day time	1	739	-	400-500	-	Pass
6	Spot : Administration Building : 1st Floor : โต๊ะ EHS Manager	269077 (1)-6	16-Feb-26	Day time	1	1,246	-	400-500	-	Pass
		269077 (1)-7	16-Feb-26	Day time	2	1,359	-	300	-	
		269077 (1)-8	16-Feb-26	Day time	3	1,462	-	200	-	
7	Spot : Administration Building : 1st Floor : โต๊ะ Admin Manager	269077 (1)-9	16-Feb-26	Day time	1	511	-	400-500	-	Pass
8	Spot : Administration Building : 1st Floor : โต๊ะ Plant Manager	269077 (1)-10	16-Feb-26	Day time	1	485	-	400-500	-	Pass
9	Spot : Administration Building : 1st Floor : โต๊ะ IT	269077 (1)-11	16-Feb-26	Day time	1	415	-	400-500	-	Pass
10	Spot : Administration Building : 1st Floor : โต๊ะจัดซื้อ 1	269077 (1)-12	16-Feb-26	Day time	1	602	-	400-500	-	Pass
11	Spot : Administration Building : 1st Floor : โต๊ะจัดซื้อ 2	269077 (1)-13	16-Feb-26	Day time	1	590	-	400-500	-	Pass
12	Area : Administration Building : 1st Floor : ทางเดิน	269077 (1)-14	16-Feb-26	Day time	1	523	543	50	100	Pass
		269077 (1)-15	16-Feb-26	Day time	2	532				
		269077 (1)-16	16-Feb-26	Day time	3	468				
		269077 (1)-17	16-Feb-26	Day time	4	502				
		269077 (1)-18	16-Feb-26	Day time	5	582				
		269077 (1)-19	16-Feb-26	Day time	6	651				
13	Area : Administration Building : 1st Floor : ห้องเก็บเอกสาร	269077 (1)-20	16-Feb-26	Day time	1	489	584	100	200	Pass
		269077 (1)-21	16-Feb-26	Day time	2	679				

Technical Management

Supt S
Supt Salamatheh
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (1)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (1)-1 C1

Page 2 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
15	Area : Administration Building : 1st Floor : ห้องประชุมใหญ่	269077 (1)-22	16-Feb-26	Day time	1	374	495	150	300	Pass
		269077 (1)-23	16-Feb-26	Day time	2	432				
		269077 (1)-24	16-Feb-26	Day time	3	450				
		269077 (1)-25	16-Feb-26	Day time	4	522				
		269077 (1)-26	16-Feb-26	Day time	5	599				
		269077 (1)-27	16-Feb-26	Day time	6	637				
		269077 (1)-28	16-Feb-26	Day time	7	454				
		269077 (1)-29	16-Feb-26	Day time	8	512				
		269077 (1)-30	16-Feb-26	Day time	9	509				
		269077 (1)-31	16-Feb-26	Day time	10	535				
		269077 (1)-32	16-Feb-26	Day time	11	482				
		269077 (1)-33	16-Feb-26	Day time	12	435				
16	Area : Administration Building : 1st Floor : ห้องรับแขก	269077 (1)-34	16-Feb-26	Day time	1	211	302	50	100	Pass
		269077 (1)-35	16-Feb-26	Day time	2	226				
		269077 (1)-36	16-Feb-26	Day time	3	321				
		269077 (1)-37	16-Feb-26	Day time	4	451				
17	Area : Administration Building : 1st Floor : ห้องประชุมเล็ก	269077 (1)-38	16-Feb-26	Day time	1	222	324	150	300	Pass
		269077 (1)-39	16-Feb-26	Day time	2	236				
		269077 (1)-40	16-Feb-26	Day time	3	338				
		269077 (1)-41	16-Feb-26	Day time	4	501				

Measurement by : Anawat Kongplik

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Supt S
Supt Salamatheh
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (2)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (2)-1 C1

Page 1 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
1	Area : CCR : Control Building : 1st Floor : Switchgear Room	269077 (2)-1	16-Feb-26	Day time	1	704	470	100	200	Pass
		269077 (2)-2	16-Feb-26	Day time	2	569				
		269077 (2)-3	16-Feb-26	Day time	3	700				
		269077 (2)-4	16-Feb-26	Day time	4	256				
		269077 (2)-5	16-Feb-26	Day time	5	444				
		269077 (2)-6	16-Feb-26	Day time	6	398				
		269077 (2)-7	16-Feb-26	Day time	7	648				
		269077 (2)-8	16-Feb-26	Day time	8	644				
		269077 (2)-9	16-Feb-26	Day time	9	550				
		269077 (2)-10	16-Feb-26	Day time	10	372				
		269077 (2)-11	16-Feb-26	Day time	11	246				
		269077 (2)-12	16-Feb-26	Day time	12	381				
		269077 (2)-13	16-Feb-26	Day time	13	632				
		269077 (2)-14	16-Feb-26	Day time	14	370				
		269077 (2)-15	16-Feb-26	Day time	15	486				
		269077 (2)-16	16-Feb-26	Day time	16	369				
		269077 (2)-17	16-Feb-26	Day time	17	450				
		269077 (2)-18	16-Feb-26	Day time	18	624				
		269077 (2)-19	16-Feb-26	Night time	1	668	477	100	200	Pass
		269077 (2)-20	16-Feb-26	Night time	2	603				
		269077 (2)-21	16-Feb-26	Night time	3	687				
		269077 (2)-22	16-Feb-26	Night time	4	264				
		269077 (2)-23	16-Feb-26	Night time	5	456				
		269077 (2)-24	16-Feb-26	Night time	6	432				
		269077 (2)-25	16-Feb-26	Night time	7	414				
		269077 (2)-26	16-Feb-26	Night time	8	854				
		269077 (2)-27	16-Feb-26	Night time	9	546				
		269077 (2)-28	16-Feb-26	Night time	10	402				
		269077 (2)-29	16-Feb-26	Night time	11	310				
		269077 (2)-30	16-Feb-26	Night time	12	374				
		269077 (2)-31	16-Feb-26	Night time	13	628				
		269077 (2)-32	16-Feb-26	Night time	14	364				
		269077 (2)-33	16-Feb-26	Night time	15	501				
		269077 (2)-34	16-Feb-26	Night time	16	403				
		269077 (2)-35	16-Feb-26	Night time	17	448				
		269077 (2)-36	16-Feb-26	Night time	18	596				

Technical Management

Supot S
Supot Salamtah
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (2)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (2)-1 C1

Page 2 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
2	Area : CCR : Control Building : 1st Floor : ทางเดินบันได	269077 (2)-37	16-Feb-26	Day time	1	416	360	50	100	Pass
		269077 (2)-38	16-Feb-26	Day time	2	304				
		269077 (2)-39	16-Feb-26	Night time	1	701	539	50	100	Pass
		269077 (2)-40	16-Feb-26	Night time	2	377				

Measurement by : Anawat Kongpik

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Supot S
Supot Salamtah
Section Head

Approved by

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Assistant Manager

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location: GTS4

Lot ID: 269077 (3)
Date Received : Feb 18, 2026
Date Reported : Feb 19, 2026
Report Number: 269077 (3)-1 C1

Page 1 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
1	Spot : CCR : Control Building : 3rd Floor : Control GTS3 No.1	269077 (3)-1	16-Feb-26	Day time	1	450	-	400-500	-	Pass
		269077 (3)-2	16-Feb-26	Night time	1	420	-	400-500	-	Pass
2	Spot : CCR : Control Building : 3rd Floor : Control GTS3 No.2	269077 (3)-3	16-Feb-26	Day time	1	401	-	400-500	-	Pass
		269077 (3)-4	16-Feb-26	Night time	1	405	-	400-500	-	Pass
3	Spot : CCR : Control Building : 3rd Floor : Control GTS4 No.1	269077 (3)-5	16-Feb-26	Day time	1	603	-	400-500	-	Pass
		269077 (3)-6	16-Feb-26	Night time	1	548	-	400-500	-	Pass
4	Spot : CCR : Control Building : 3rd Floor : Control GTS4 No.2	269077 (3)-7	16-Feb-26	Day time	1	423	-	400-500	-	Pass
		269077 (3)-8	16-Feb-26	Night time	1	442	-	400-500	-	Pass
5	Spot : CCR : Control Building : 3rd Floor : DCS	269077 (3)-9	16-Feb-26	Day time	1	649	-	400-500	-	Pass
		269077 (3)-10	16-Feb-26	Night time	1	638	-	400-500	-	Pass
6	Spot : CCR : Control Building : 3rd Floor : เครื่องถ่ายเอกสาร	269077 (3)-11	16-Feb-26	Day time	1	360	-	300-400	-	Pass
		269077 (3)-12	16-Feb-26	Night time	1	350	-	300-400	-	Pass
7	Spot : CCR : Control Building : 3rd Floor : เครื่องส่งแฟกซ์และเครื่องปริ้นเอกสาร	269077 (3)-13	16-Feb-26	Day time	1	566	-	300-400	-	Pass
		269077 (3)-14	16-Feb-26	Night time	1	574	-	300-400	-	Pass
8	Spot : CCR : Control Building : 3rd Floor : โต๊ะ Daytime Operation	269077 (3)-15	16-Feb-26	Day time	1	651	-	400-500	-	Pass
9	Spot : CCR : Control Building : 3rd Floor : โต๊ะ Operation Manager	269077 (3)-16	16-Feb-26	Day time	1	448	-	400-500	-	Pass
10	Spot : CCR : Control Building : 3rd Floor : โต๊ะ Permit	269077 (3)-17	16-Feb-26	Day time	1	552	-	400-500	-	Pass
		269077 (3)-18	16-Feb-26	Night time	1	603	-	400-500	-	Pass
11	Spot : CCR : Control Building : 3rd Floor : โต๊ะ Shift Leader Daytime	269077 (3)-19	16-Feb-26	Day time	1	500	-	400-500	-	Pass
		269077 (3)-20	16-Feb-26	Night time	1	497	-	400-500	-	Pass
12	Spot : CCR : Control Building : 3rd Floor : โต๊ะ Shift Leader GTS3	269077 (3)-21	16-Feb-26	Day time	1	413	-	400-500	-	Pass
		269077 (3)-22	16-Feb-26	Night time	1	416	-	400-500	-	Pass
13	Spot : CCR : Control Building : 3rd Floor : โต๊ะ Shift Leader GTS4	269077 (3)-23	16-Feb-26	Day time	1	416	-	400-500	-	Pass
		269077 (3)-24	16-Feb-26	Night time	1	412	-	400-500	-	Pass

Technical Management

Supot S
Supot Salameh
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location: GTS4

Lot ID: 269077 (3)
Date Received : Feb 18, 2026
Date Reported : Feb 19, 2026
Report Number: 269077 (3)-1 C1

Page 2 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
14	Area : CCR : Control Building : 3rd Floor : ทางเดิน	269077 (3)-25	16-Feb-26	Day time	1	603	557	50	100	Pass
		269077 (3)-26	16-Feb-26	Day time	2	731				
		269077 (3)-27	16-Feb-26	Day time	3	538				
		269077 (3)-28	16-Feb-26	Day time	4	380				
		269077 (3)-29	16-Feb-26	Day time	5	531				
		269077 (3)-30	16-Feb-26	Night time	1	739	755	50	100	Pass
		269077 (3)-31	16-Feb-26	Night time	2	755				
		269077 (3)-32	16-Feb-26	Night time	3	791				
		269077 (3)-33	16-Feb-26	Night time	4	767				
		269077 (3)-34	16-Feb-26	Night time	5	725				
15	Area : CCR : Control Building : 3rd Floor : ทางเดินบันได	269077 (3)-35	16-Feb-26	Day time	1	988	706	50	100	Pass
		269077 (3)-36	16-Feb-26	Day time	2	425				
		269077 (3)-37	16-Feb-26	Night time	1	214	212	50	100	Pass
		269077 (3)-38	16-Feb-26	Night time	2	210				

Measurement by : Anawat Kongpik

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Supot S
Supot Salameh
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (4)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (4)-1 C1

Page 1 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
1	Area : Electrical Building : 2nd Floor : Battery Room	269077 (4)-1	16-Feb-26	Day time	1	404	306	100	200	Pass
		269077 (4)-2	16-Feb-26	Day time	2	208				
		269077 (4)-3	16-Feb-26	Night time	1	423	362	100	200	Pass
		269077 (4)-4	16-Feb-26	Night time	2	301				
2	Area : Electrical Building : 2nd Floor : Electrical Room	269077 (4)-5	16-Feb-26	Day time	1	1,504	965	100	200	Pass
		269077 (4)-6	16-Feb-26	Day time	2	301				
		269077 (4)-7	16-Feb-26	Day time	3	841				
		269077 (4)-8	16-Feb-26	Day time	4	840				
		269077 (4)-9	16-Feb-26	Day time	5	751				
		269077 (4)-10	16-Feb-26	Day time	6	1,064				
		269077 (4)-11	16-Feb-26	Day time	7	1,875				
		269077 (4)-12	16-Feb-26	Day time	8	1,827				
		269077 (4)-13	16-Feb-26	Day time	9	385				
		269077 (4)-14	16-Feb-26	Day time	10	532				
		269077 (4)-15	16-Feb-26	Day time	11	858				
		269077 (4)-16	16-Feb-26	Day time	12	806				
		269077 (4)-17	16-Feb-26	Day time	13	1,169				
		269077 (4)-18	16-Feb-26	Day time	14	727				
		269077 (4)-19	16-Feb-26	Day time	15	887				
		269077 (4)-20	16-Feb-26	Day time	16	1,004				
		269077 (4)-21	16-Feb-26	Day time	17	996				
		269077 (4)-22	16-Feb-26	Day time	18	1,228				
		269077 (4)-23	16-Feb-26	Night time	1	1,482	893	100	200	Pass
		269077 (4)-24	16-Feb-26	Night time	2	324				
		269077 (4)-25	16-Feb-26	Night time	3	838				
		269077 (4)-26	16-Feb-26	Night time	4	831				
		269077 (4)-27	16-Feb-26	Night time	5	721				
		269077 (4)-28	16-Feb-26	Night time	6	949				
		269077 (4)-29	16-Feb-26	Night time	7	1,901				
		269077 (4)-30	16-Feb-26	Night time	8	1,708				
		269077 (4)-31	16-Feb-26	Night time	9	392				
		269077 (4)-32	16-Feb-26	Night time	10	542				
		269077 (4)-33	16-Feb-26	Night time	11	841				
		269077 (4)-34	16-Feb-26	Night time	12	782				
		269077 (4)-35	16-Feb-26	Night time	13	999				
		269077 (4)-36	16-Feb-26	Night time	14	815				
		269077 (4)-37	16-Feb-26	Night time	15	814				
		269077 (4)-38	16-Feb-26	Night time	16	996				

Technical Management

Supot S
Supot Salamteh
Section Head

Approved by

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Wichan Choonharat
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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (4)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (4)-1 C1

Page 2 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
2	Area : Electrical Building : 2nd Floor : Electrical Room	269077 (4)-39	16-Feb-26	Night time	17	685				
		269077 (4)-40	16-Feb-26	Night time	18	998				
3	Area : Electrical Building : 1st Floor : ทางเดินบันได	269077 (4)-41	16-Feb-26	Day time	1	734	1178	25	50	Pass
		269077 (4)-42	16-Feb-26	Day time	2	1,623				
		269077 (4)-43	16-Feb-26	Night time	1	377	260	25	50	Pass
		269077 (4)-44	16-Feb-26	Night time	2	144				
4	Area : Electrical Building : 2nd Floor : ทางเดินบันได	269077 (4)-45	16-Feb-26	Day time	1	112	156	50	100	Pass
		269077 (4)-46	16-Feb-26	Day time	2	201				
		269077 (4)-47	16-Feb-26	Night time	1	110	161	50	100	Pass
		269077 (4)-48	16-Feb-26	Night time	2	212				

Measurement by : Anawat Kongpik

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

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225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (5)

Date Received : Feb 18, 2026

Date Reported : Feb 20, 2026

Report Number: 269077 (5)-1 C1

Page 1 of 1

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
1	Spot : Electrical Building : 3rd Floor : Switchgear	269077 (5)-1	16-Feb-26	Day time	1	422	-	300-400	-	Pass
		269077 (5)-2	16-Feb-26	Night time	1	545	-	300-400	-	Pass
2	Area : Electrical Building : 3rd Floor : ห้องเดินบันได	269077 (5)-3	16-Feb-26	Day time	1	156	141	50	100	Pass
		269077 (5)-4	16-Feb-26	Day time	2	126				
		269077 (5)-5	16-Feb-26	Night time	1	141	136	50	100	Pass
		269077 (5)-6	16-Feb-26	Night time	2	130				

Measurement by : Anawat Kongpik

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

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Wichan Choonharat
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P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (6)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (6)-1 C1

Page 1 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
1	Area : Switchyard Control Building Plan : GTS3 : Battery Room	269077 (6)-1	16-Feb-26	Day time	1	464	458	100	200	Pass
		269077 (6)-2	16-Feb-26	Day time	2	452				
		269077 (6)-3	16-Feb-26	Night time	1	460	456	100	200	Pass
		269077 (6)-4	16-Feb-26	Night time	2	451				
2	Area : Switchyard Control Building Plan : GTS3 : Substation GTS3	269077 (6)-5	16-Feb-26	Day time	1	663	974	100	200	Pass
		269077 (6)-6	16-Feb-26	Day time	2	501				
		269077 (6)-7	16-Feb-26	Day time	3	763				
		269077 (6)-8	16-Feb-26	Day time	4	1,971				
		269077 (6)-9	16-Feb-26	Night time	1	764	676	100	200	Pass
		269077 (6)-10	16-Feb-26	Night time	2	514				
		269077 (6)-11	16-Feb-26	Night time	3	673				
		269077 (6)-12	16-Feb-26	Night time	4	754				
		269077 (6)-13	16-Feb-26	Day time	1	302	-	300-400	-	Pass
		269077 (6)-14	16-Feb-26	Night time	1	350	-	300-400	-	Pass
		269077 (6)-15	16-Feb-26	Day time	1	1,149	847	100	200	Pass
		269077 (6)-16	16-Feb-26	Day time	2	832				
4	Area : Switchyard Control Building Plan : GTS3 : Switchyard Control Room	269077 (6)-17	16-Feb-26	Day time	3	689				
		269077 (6)-18	16-Feb-26	Day time	4	717				
		269077 (6)-19	16-Feb-26	Night time	1	604	708	100	200	Pass
		269077 (6)-20	16-Feb-26	Night time	2	808				
		269077 (6)-21	16-Feb-26	Night time	3	788				
		269077 (6)-22	16-Feb-26	Night time	4	634				
		269077 (6)-23	16-Feb-26	Day time	1	453	451	100	200	Pass
		269077 (6)-24	16-Feb-26	Day time	2	449				
		269077 (6)-25	16-Feb-26	Night time	1	450	444	100	200	Pass
		269077 (6)-26	16-Feb-26	Night time	2	438				
6	Area : Switchyard Control Building Plan : GTS4 : Substation GTS4	269077 (6)-27	16-Feb-26	Day time	1	993	802	100	200	Pass
		269077 (6)-28	16-Feb-26	Day time	2	812				
		269077 (6)-29	16-Feb-26	Day time	3	651				
		269077 (6)-30	16-Feb-26	Day time	4	754				
		269077 (6)-31	16-Feb-26	Night time	1	645	784	100	200	Pass
		269077 (6)-32	16-Feb-26	Night time	2	834				
		269077 (6)-33	16-Feb-26	Night time	3	784				
		269077 (6)-34	16-Feb-26	Night time	4	873				

Technical Management

Supot S
Supot Salamteh
Section Head

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Wichan Choonharat
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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (6)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (6)-1 C1

Page 2 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
7	Spot : Switchyard Control Building Plan : GTS4 : Switchgear	269077 (6)-35	16-Feb-26	Day time	1	371	-	300-400	-	Pass
		269077 (6)-36	16-Feb-26	Night time	1	420	-	300-400	-	Pass
8	Area : Switchyard Control Building Plan : GTS4 : Switchyard Control Room	269077 (6)-37	16-Feb-26	Day time	1	954		100	200	Pass
		269077 (6)-38	16-Feb-26	Day time	2	907				
		269077 (6)-39	16-Feb-26	Day time	3	743				
		269077 (6)-40	16-Feb-26	Day time	4	951				
		269077 (6)-41	16-Feb-26	Night time	1	955	694	100	200	Pass
		269077 (6)-42	16-Feb-26	Night time	2	885				
		269077 (6)-43	16-Feb-26	Night time	3	532				
		269077 (6)-44	16-Feb-26	Night time	4	402				

Measurement by : Anawat Kongplik

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Supt S
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Client : Gulf TS4 Co., Ltd.
225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (7)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (7)-1 C1

Page 1 of 1

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
1	Spot : Water Treatment Control Building : Fire Pump	269077 (7)-1	16-Feb-26	Day time	1	709	-	300-400	-	Pass
		269077 (7)-2	16-Feb-26	Night time	1	432	-	300-400	-	Pass
2	Spot : Water Treatment Control Building : Laboratory 1 (Fume Hood)	269077 (7)-3	16-Feb-26	Day time	1	420	-	400-500	-	Pass
		269077 (7)-4	16-Feb-26	Night time	1	455	-	400-500	-	Pass
3	Spot : Water Treatment Control Building : Laboratory 2 (Water Table)	269077 (7)-5	16-Feb-26	Day time	1	616	-	400-500	-	Pass
		269077 (7)-6	16-Feb-26	Night time	1	470	-	400-500	-	Pass
4	Spot : Water Treatment Control Building : Office Laboratory	269077 (7)-7	16-Feb-26	Day time	1	535	-	400-500	-	Pass
		269077 (7)-8	16-Feb-26	Night time	1	531	-	400-500	-	Pass
5	Spot : Water Treatment Control Building : Water Treatment	269077 (7)-9	16-Feb-26	Day time	1	912	-	300-400	-	Pass
		269077 (7)-10	16-Feb-26	Night time	1	945	-	300-400	-	Pass

Measurement by : Anawat Kongplik

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

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P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (8)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (8)-1 C1

Page 1 of 2

GTS4										
Layer out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
1	Spot : Workshop and Warehouse : 2nd Floor : ห้องสำนักงาน	269077 (8)-1	16-Feb-26	Day time	1	331	-	300-400	-	Pass
4	Spot : Workshop and Warehouse : 2nd Floor : ห้อง ME 1	269077 (8)-2	16-Feb-26	Day time	1	410	-	400-500	-	Pass
5	Spot : Workshop and Warehouse : 2nd Floor : ห้อง ME 2	269077 (8)-3	16-Feb-26	Day time	1	475	-	400-500	-	Pass
6	Spot : Workshop and Warehouse : 2nd Floor : ห้อง ME 3	269077 (8)-4	16-Feb-26	Day time	1	471	-	400-500	-	Pass
7	Spot : Workshop and Warehouse : 2nd Floor : ห้อง ME 4	269077 (8)-5	16-Feb-26	Day time	1	477	-	400-500	-	Pass
8	Spot : Workshop and Warehouse : 2nd Floor : ห้อง MI 1	269077 (8)-6	16-Feb-26	Day time	1	416	-	400-500	-	Pass
9	Spot : Workshop and Warehouse : 2nd Floor : ห้อง MI 2	269077 (8)-7	16-Feb-26	Day time	1	419	-	400-500	-	Pass
10	Spot : Workshop and Warehouse : 2nd Floor : ห้อง MI 3	269077 (8)-8	16-Feb-26	Day time	1	418	-	400-500	-	Pass
11	Spot : Workshop and Warehouse : 2nd Floor : ห้อง MI 4	269077 (8)-9	16-Feb-26	Day time	1	426	-	400-500	-	Pass
12	Spot : Workshop and Warehouse : 2nd Floor : ห้อง MM 1	269077 (8)-10	16-Feb-26	Day time	1	410	-	400-500	-	Pass
13	Spot : Workshop and Warehouse : 2nd Floor : ห้อง MM 2	269077 (8)-11	16-Feb-26	Day time	1	432	-	400-500	-	Pass
14	Spot : Workshop and Warehouse : 2nd Floor : ห้อง MM 3	269077 (8)-12	16-Feb-26	Day time	1	412	-	400-500	-	Pass
15	Spot : Workshop and Warehouse : 2nd Floor : ห้อง MM 4	269077 (8)-13	16-Feb-26	Day time	1	425	-	400-500	-	Pass
16	Spot : Workshop and Warehouse : 2nd Floor : ห้อง MM Manager	269077 (8)-14	16-Feb-26	Day time	1	684	-	400-500	-	Pass
17	Area : Workshop and Warehouse : 2nd Floor : ทางเดิน ชั้น 2	269077 (8)-15	16-Feb-26	Day time	1	1,606	998	50	100	Pass
		269077 (8)-16	16-Feb-26	Day time	2	1,003				
		269077 (8)-17	16-Feb-26	Day time	3	386				
18	Area : Workshop and Warehouse : 2nd Floor : ทางลงบันได ชั้น 2	269077 (8)-18	16-Feb-26	Day time	1	129	133	50	100	Pass
		269077 (8)-19	16-Feb-26	Day time	2	137				

Technical Management

Sgt S
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225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (8)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (8)-1 C1

Page 2 of 2

GTS4										
Layer out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
19	Area : Workshop and Warehouse : 2nd Floor : บันได ชั้น 2	269077 (8)-20	16-Feb-26	Day time	1	182	168	50	100	Pass
		269077 (8)-21	16-Feb-26	Day time	2	154				
20	Area : Workshop and Warehouse : 2nd Floor : ห้องเก็บเอกสาร	269077 (8)-22	16-Feb-26	Day time	1	230	240	100	200	Pass
		269077 (8)-23	16-Feb-26	Day time	2	251				
21	Area : Workshop and Warehouse : 2nd Floor : ห้องประชุม	269077 (8)-24	16-Feb-26	Day time	1	697	693	50	100	Pass
		269077 (8)-25	16-Feb-26	Day time	2	689				
22	Area : Workshop and Warehouse : 2nd Floor : ห้องประชุม	269077 (8)-26	16-Feb-26	Day time	1	718	1035	150	300	Pass
		269077 (8)-27	16-Feb-26	Day time	2	790				
		269077 (8)-28	16-Feb-26	Day time	3	704				
		269077 (8)-29	16-Feb-26	Day time	4	813				
		269077 (8)-30	16-Feb-26	Day time	5	1,617				
		269077 (8)-31	16-Feb-26	Day time	6	1,570				
23	Area : Workshop and Warehouse : 2nd Floor : ห้องพักนอน W/H	269077 (8)-32	16-Feb-26	Day time	1	685	708	25	50	Pass
		269077 (8)-33	16-Feb-26	Day time	2	730				
24	Area : Workshop and Warehouse : 2nd Floor : Store	269077 (8)-34	16-Feb-26	Day time	1	215	760	100	200	Pass
		269077 (8)-35	16-Feb-26	Day time	2	522				
		269077 (8)-36	16-Feb-26	Day time	3	505				
		269077 (8)-37	16-Feb-26	Day time	4	521				
		269077 (8)-38	16-Feb-26	Day time	5	1,144				
		269077 (8)-39	16-Feb-26	Day time	6	1,102				
		269077 (8)-40	16-Feb-26	Day time	7	657				
		269077 (8)-41	16-Feb-26	Day time	8	576				
		269077 (8)-42	16-Feb-26	Day time	9	829				
		269077 (8)-43	16-Feb-26	Day time	10	886				
		269077 (8)-44	16-Feb-26	Day time	11	440				
		269077 (8)-45	16-Feb-26	Day time	12	740				
		269077 (8)-46	16-Feb-26	Day time	13	1,028				
		269077 (8)-47	16-Feb-26	Day time	14	993				
		269077 (8)-48	16-Feb-26	Day time	15	1,012				
		269077 (8)-49	16-Feb-26	Day time	16	996				

Measurement by : Anawat Kongpik

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Sgt S
Supot Salamteh
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS4 Co., Ltd.

225 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (9)

Date Received : Feb 18, 2026

Date Reported : Feb 19, 2026

Report Number: 269077 (9)-1 C1

Page 1 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
1	Area : Workshop and Warehouse : Ground Floor : Store ชั้น 1	269077 (9)-1	16-Feb-26	Day time	1	480	849	100	200	Pass
		269077 (9)-2	16-Feb-26	Day time	2	490				
		269077 (9)-3	16-Feb-26	Day time	3	899				
		269077 (9)-4	16-Feb-26	Day time	4	800				
		269077 (9)-5	16-Feb-26	Day time	5	1,138				
		269077 (9)-6	16-Feb-26	Day time	6	857				
		269077 (9)-7	16-Feb-26	Day time	7	861				
		269077 (9)-8	16-Feb-26	Day time	8	645				
		269077 (9)-9	16-Feb-26	Day time	9	872				
		269077 (9)-10	16-Feb-26	Day time	10	911				
		269077 (9)-11	16-Feb-26	Day time	11	841				
		269077 (9)-12	16-Feb-26	Day time	12	1,057				
		269077 (9)-13	16-Feb-26	Day time	13	1,088				
		269077 (9)-14	16-Feb-26	Day time	14	939				
		269077 (9)-15	16-Feb-26	Day time	15	850				
		269077 (9)-16	16-Feb-26	Day time	16	851				
2	Area : Workshop and Warehouse : Ground Floor : ทางเข้า W/H	269077 (9)-17	16-Feb-26	Day time	1	1,422	1312	50	100	Pass
		269077 (9)-18	16-Feb-26	Day time	2	1,203				
3	Area : Workshop and Warehouse : Ground Floor : ทางเดิน W/H ไทย	269077 (9)-19	16-Feb-26	Day time	1	541	555	50	100	Pass
		269077 (9)-20	16-Feb-26	Day time	2	569				
4	Area : Workshop and Warehouse : Ground Floor : ทางเดิน ชั้น 1	269077 (9)-21	16-Feb-26	Day time	1	602	778	50	100	Pass
		269077 (9)-22	16-Feb-26	Day time	2	836				
		269077 (9)-23	16-Feb-26	Day time	3	908				
		269077 (9)-24	16-Feb-26	Day time	4	1,151				
		269077 (9)-25	16-Feb-26	Day time	5	802				
		269077 (9)-26	16-Feb-26	Day time	6	369				
5	Area : Workshop and Warehouse : Ground Floor : ห้อง Tool Room (AC 1-3)	269077 (9)-27	16-Feb-26	Day time	1	578	650	100	200	Pass
		269077 (9)-28	16-Feb-26	Day time	2	631				
		269077 (9)-29	16-Feb-26	Day time	3	742				
6	Spot : Workshop and Warehouse : Ground Floor : ห้อง W/H Office 1 TS4	269077 (9)-30	16-Feb-26	Day time	1	430	-	400-500	-	Pass
7	Spot : Workshop and Warehouse : Ground Floor : ห้อง W/H Office 2 TS3	269077 (9)-31	16-Feb-26	Day time	1	445	-	400-500	-	Pass

Technical Management

Supot S
Supot Salamtah
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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P/O :

Project Name : Monitoring EIA

Project Location: GTS4

Lot ID: 269077 (9)

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Page 2 of 2

GTS4										
Lay out No.	Location	Reference Number	Date	Time	No.	Illuminance (Lux)		Guideline Limit		Comment
						Spot	Average	Spot/Min	Average	
8	Spot : Workshop and Warehouse : Ground Floor : ห้อง Calibration ห้องปฏิบัติงาน การเครื่องมือวัด	269077 (9)-32	16-Feb-26	Day time	1	684	-	400-500	-	Pass
9	Area : Workshop and Warehouse : Ground Floor : ห้องปฏิบัติงานเครื่องกล- ไฟฟ้า	269077 (9)-33	16-Feb-26	Day time	1	994	963	150	300	Pass
		269077 (9)-34	16-Feb-26	Day time	2	987				
		269077 (9)-35	16-Feb-26	Day time	3	889				
		269077 (9)-36	16-Feb-26	Day time	4	984				
		269077 (9)-37	16-Feb-26	Day time	5	1,024				
		269077 (9)-38	16-Feb-26	Day time	6	945				
		269077 (9)-39	16-Feb-26	Day time	7	888				
		269077 (9)-40	16-Feb-26	Day time	8	1,023				
		269077 (9)-41	16-Feb-26	Day time	9	933				

Measurement by : Anawat Kongpik

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

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LIGHT INTENSITY MEASUREMENT REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd.	REFERENCE NO.	: 226051-Light-2605-0061
MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Digital Light Meter
MEASUREMENT DATE	: 29/05/2026	MODEL	: 407026
MEASUREMENT LOCATION	: Tasit 4 Power Plant Area	SERIAL NO.	: A 051050
SITE OPERATOR	: Mr. Phongsiri Chakkaeo		

LOCATION	TIME	LIGHT INTENSITY (LUX)			
		AVERAGE VALUE	STANDARD*	MINIMUM VALUE	STANDARD*
<u>Administration Building : 1st Floor</u>					
ทางเดิน	11.20	511	≥ 100	110	≥ 50
ห้องเก็บเอกสาร	11.23	671	≥ 200	620	≥ 100
ห้องประชุมใหญ่	11.19	381	≥ 300	356	≥ 150
ห้องรับแขก	11.29	413	≥ 100	326	≥ 50
ห้องประชุมเล็ก	11.27	419	≥ 300	365	≥ 150
<u>CCR : Control Building : 1st Floor</u>					
Switchgear Room	10.18	618	≥ 200	376	≥ 100
ทางเดินบันได	10.21	291	≥ 100	283	≥ 50
<u>CCR : Control Building : 3rd Floor</u>					
ทางเดิน	10.22	808	≥ 100	728	≥ 50
ทางเดินบันได	10.22	725	≥ 100	615	≥ 50

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Sununta Sirawuttinanon)

Technical Management Team

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The standards of light intensity in general area and process area (Table 1).



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MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Digital Light Meter
MEASUREMENT DATE	: 29/05/2026	MODEL	: 407026
MEASUREMENT LOCATION	: Tasit 4 Power Plant Area	SERIAL NO.	: A 051050
SITE OPERATOR	: Mr. Phongsiri Chakkaeo		

LOCATION	TIME	LIGHT INTENSITY (LUX)			
		AVERAGE VALUE	STANDARD*	MINIMUM VALUE	STANDARD*
Electrical Building : ชั้น 2					
Battery Room	10.43	518	≥ 200	423	≥ 100
Electrical Room	10.41	1,037	≥ 200	610	≥ 100
ทางเดินบันได : ชั้น 1	10.44	497	≥ 100	409	≥ 50
ทางเดินบันได : ชั้น 2	10.43	504	≥ 100	447	≥ 50
Electrical Building : ชั้น 3					
ทางเดินบันได : ชั้น 3	10.45	175	≥ 100	120	≥ 50
Switchyard Control Building Plan					
GTS3 : Battery Room	10.36	339	≥ 200	312	≥ 100
GTS3 : Substation GTS3	10.00	752	≥ 200	552	≥ 100
GTS3 : Switchyard Control Room	10.06	759	≥ 200	550	≥ 100
GTS4 : Battery Room	10.04	328	≥ 200	320	≥ 100
GTS4 : Substation GTS4	10.03	678	≥ 200	643	≥ 100
GTS4 : Switchyard Control Room	10.02	723	≥ 200	628	≥ 100

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The standards of light intensity in general area and process area (Table 1).



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MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Digital Light Meter
MEASUREMENT DATE	: 29/05/2026	MODEL	: 407026
MEASUREMENT LOCATION	: Tasit 4 Power Plant Area	SERIAL NO.	: A 051050
SITE OPERATOR	: Mr. Phongsiri Chakkaeo		

LOCATION	TIME	LIGHT INTENSITY (LUX)			
		AVERAGE VALUE	STANDARD*	MINIMUM VALUE	STANDARD*
<u>Workshop and Warehouse : 2nd Floor</u>					
ทางเดิน ชั้น 2	10.59	1,452	≥ 100	1,171	≥ 50
ห้องเก็บเอกสาร	10.58	235	≥ 200	229	≥ 100
ห้องน้ำชาย	11.08	535	≥ 100	470	≥ 50
ห้องประชุม	11.07	466	≥ 300	331	≥ 150
ห้องพักผ่อน W/H	10.09	745	≥ 50	712	≥ 25
Store	11.12	756	≥ 200	284	≥ 100
<u>Workshop and Warehouse : Ground Floor</u>					
Store ชั้น 1	11.14	737	≥ 200	475	≥ 100
ทางเข้า W/H	10.52	1,263	≥ 100	1,120	≥ 50
ทางเข้า W/H ใหญ่	11.11	1,307	≥ 100	1,298	≥ 50
ทางเดิน ชั้น 1	10.52	745	≥ 100	306	≥ 50
ห้อง Tool Room (AC 1-3)	11.16	592	≥ 200	528	≥ 100
ห้องปฏิบัติงานเครื่องกล-ไฟฟ้า	10.53	797	≥ 300	471	≥ 150

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The standards of light intensity in general area and process area (Table 1).



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MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Digital Light Meter
MEASUREMENT DATE	: 29/05/2026	MODEL	: 407026
MEASUREMENT LOCATION	: Tasit 4 Power Plant Area	SERIAL NO.	: A 051050
SITE OPERATOR	: Mr. Phongsiri Chakkaeo		

LOCATION	TIME	LIGHT INTENSITY (LUX)			
		AVERAGE VALUE	STANDARD*	MINIMUM VALUE	STANDARD*
<u>CCR : Control Building : 1st Floor</u>					
Switchgear Room	19.32	543	≥ 200	324	≥ 100
ทางเดินบันได	19.31	551	≥ 100	438	≥ 50
<u>CCR : Control Building : 3rd Floor</u>					
ทางเดิน	19.36	739	≥ 100	654	≥ 50
ทางเดินบันได	19.30	762	≥ 100	747	≥ 50
<u>Electrical Building : ชั้น 2</u>					
Battery Room	19.49	225	≥ 200	214	≥ 100
Electrical Room	19.48	592	≥ 200	416	≥ 100
ทางเดินบันได : ชั้น 1	19.47	226	≥ 100	124	≥ 50
ทางเดินบันได : ชั้น 2	19.50	209	≥ 100	204	≥ 50
<u>Electrical Building : ชั้น 3</u>					
ทางเดินบันได : ชั้น 3	19.00	301	≥ 100	295	≥ 50

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The standards of light intensity in general area and process area (Table 1).



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LIGHT INTENSITY MEASUREMENT REPORT

CLIENT NAME : Gulf TS4 Co., Ltd. REFERENCE NO. : 226051-Light-2605-0061
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : Digital Light Meter
MEASUREMENT DATE : 29/05/2026 MODEL : 407026
MEASUREMENT LOCATION : Tasit 4 Power Plant Area SERIAL NO. : A 051050
SITE OPERATOR : Mr. Phongsiri Chakkaeo

LOCATION	TIME	LIGHT INTENSITY (LUX)			
		AVERAGE VALUE	STANDARD*	MINIMUM VALUE	STANDARD*
Switchyard Control Building Plan					
GTS3 : Battery Room	19.29	331	≥ 200	284	≥ 100
GTS3 : Substation GTS3	19.29	637	≥ 200	466	≥ 100
GTS3 : Switchyard Control Room	19.28	652	≥ 200	516	≥ 100
GTS4 : Battery Room	19.27	345	≥ 200	302	≥ 100
GTS4 : Substation GTS4	19.27	639	≥ 200	482	≥ 100
GTS4 : Switchyard Control Room	19.26	676	≥ 200	508	≥ 100

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MEASUREMENT DATE : 29/05/2026 MODEL : 407026
MEASUREMENT LOCATION : Tasit 4 Power Plant Area SERIAL NO. : A 051050
SITE OPERATOR : Mr. Phongsiri Chakkaeo

LOCATION	TIME	LIGHT INTENSITY (LUX)	
		RESULTS	STANDARD*
Administration Building : 1 st Floor			
เครื่องถ่ายเอกสาร	11.23	473	300-400
โต๊ะ Admin. 1	11.26	422	400-500
โต๊ะ Admin. 2	11.26	425	400-500
โต๊ะ Operation Manager	11.25	557	400-500
โต๊ะ EHS	11.21	734	400-500
โต๊ะ EHS Manager	11.21	742	400-500
โต๊ะ Admin. Manager	11.25	588	400-500
โต๊ะ Plant Manager	11.22	427	400-500
โต๊ะ IT	11.23	417	400-500
โต๊ะ จัดซื้อ 1	11.27	511	400-500
โต๊ะ จัดซื้อ 2	11.26	460	400-500

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The standards of light intensity for employee in working area, using specific sighting for working (Table 2).



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MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : Digital Light Meter
MEASUREMENT DATE : 29/05/2026 MODEL : 407026
MEASUREMENT LOCATION : Tasit 4 Power Plant Area SERIAL NO. : A 051050
SITE OPERATOR : Mr. Phongsiri Chakkaeo

LOCATION	TIME	LIGHT INTENSITY (LUX)	
		RESULTS	STANDARD*
CCR : Control Building : 3 rd Floor			
Control GTS3 No.1	10.30	463	400-500
Control GTS3 No.2	10.30	419	400-500
Control GTS4 No.1	10.27	416	400-500
Control GTS4 No.2	10.29	410	400-500
DCS	10.31	426	400-500
เครื่องถ่ายเอกสาร	10.25	372	300-400
เครื่องส่งแฟกซ์และเครื่องปริ้น	10.25	442	300-400
โต๊ะ Daytime Operation	10.20	665	400-500
โต๊ะ Operation Manager	10.23	550	400-500
โต๊ะ Permit	10.26	461	400-500
โต๊ะ Shift Leader Daytime	10.29	413	400-500
โต๊ะ Shift Leader GTS3	10.29	407	400-500
โต๊ะ Shift Leader GTS4	10.29	450	400-500

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Sununta Sirawuttinanon)

Technical Management Team

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3. * Notification of the Department of Labour Protection and Welfare, B.E.2561 (2018) :

The standards of light intensity for employee in working area, using specific sighting for working (Table 2).



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SECOT CO., LTD.

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LIGHT INTENSITY MEASUREMENT REPORT

CLIENT NAME : Gulf TS4 Co., Ltd. REFERENCE NO. : 226051-Light-2605-0061
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : Digital Light Meter
MEASUREMENT DATE : 29/05/2026 MODEL : 407026
MEASUREMENT LOCATION : Tasit 4 Power Plant Area SERIAL NO. : A 051050
SITE OPERATOR : Mr. Phongsiri Chakkaeo

LOCATION	TIME	LIGHT INTENSITY (LUX)	
		RESULTS	STANDARD*
<u>Electrical Building : ชั้น 3</u>			
Switchgear	10.46	466	300-400
<u>Switchyard Control Building Plan</u>			
GTS3 : Switchgear	10.05	402	300-400
GTS4 : Switchgear	10.05	438	300-400
<u>Water Treatment Control Building</u>			
Laboratory 1 (Fume Hood)	13.39	513	400-500
Laboratory 2 (Water Table)	09.54	557	400-500
Office Laboratory	09.55	483	400-500
Water Treatment	09.56	917	300-400
<u>Workshop and Warehouse : 2nd Floor</u>			
เครื่องถ่ายเอกสาร	11.04	356	300-400
โต๊ะ ME 1	11.02	457	400-500

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LIGHT INTENSITY MEASUREMENT REPORT

CLIENT NAME : Gulf TS4 Co., Ltd. REFERENCE NO. : 226051-Light-2605-0061
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : Digital Light Meter
MEASUREMENT DATE : 29/05/2026 MODEL : 407026
MEASUREMENT LOCATION : Tasit 4 Power Plant Area SERIAL NO. : A 051050
SITE OPERATOR : Mr. Phongsiri Chakkaeo

LOCATION	TIME	LIGHT INTENSITY (LUX)	
		RESULTS	STANDARD*
Workshop and Warehouse : 2nd Floor (ต่อ)			
โต๊ะ ME 2	11.02	412	400-500
โต๊ะ ME 3	11.02	463	400-500
โต๊ะ ME 4	11.02	434	400-500
โต๊ะ MI 1	11.04	463	400-500
โต๊ะ MI 2	11.04	443	400-500
โต๊ะ MI 3	11.03	413	400-500
โต๊ะ MI 4	11.03	419	400-500
โต๊ะ MM 1	11.00	522	400-500
โต๊ะ MM 2	11.00	429	400-500
โต๊ะ MM 3	11.00	447	400-500
โต๊ะ MM 4	11.01	486	400-500
โต๊ะ MM Manager	11.01	657	400-500

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LIGHT INTENSITY MEASUREMENT REPORT

CLIENT NAME : Gulf TS4 Co., Ltd. REFERENCE NO. : 226051-Light-2605-0061
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : Digital Light Meter
MEASUREMENT DATE : 29/05/2026 MODEL : 407026
MEASUREMENT LOCATION : Tasit 4 Power Plant Area SERIAL NO. : A 051050
SITE OPERATOR : Mr. Phongsiri Chakkaeo

LOCATION	TIME	LIGHT INTENSITY (LUX)	
		RESULTS	STANDARD*
<u>Workshop and Warehouse : Ground Floor</u>			
ห้อง W/H Office 1 TS4	10.55	424	400-500
ห้อง W/H Office 2 TS3	10.54	412	400-500
โต๊ะ Calibration ห้องปฏิบัติการ	10.51	623	400-500
เครื่องมือวัด			

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LIGHT INTENSITY MEASUREMENT REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd.	REFERENCE NO.	: 226051-Light-2605-0061
MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Digital Light Meter
MEASUREMENT DATE	: 29/05/2026	MODEL	: 407026
MEASUREMENT LOCATION	: Tasit 4 Power Plant Area	SERIAL NO.	: A 051050
SITE OPERATOR	: Mr. Phongsiri Chakkaeo		

LOCATION	TIME	LIGHT INTENSITY (LUX)	
		RESULTS	STANDARD*
<u>CCR : Control Building : 3rd Floor</u>			
Control GTS3 No.1	19.41	439	400-500
Control GTS3 No.2	19.42	450	400-500
Control GTS4 No.1	19.38	447	400-500
Control GTS4 No.2	19.39	545	400-500
DCS	19.38	405	400-500
เครื่องถ่ายเอกสาร	19.37	322	300-400
เครื่องส่งแฟกซ์และเครื่องปริ้น	19.37	506	300-400
โต๊ะ Permit	19.37	506	400-500
โต๊ะ Shift Leader Daytime	19.40	444	400-500
โต๊ะ Shift Leader GTS3	19.40	407	400-500
โต๊ะ Shift Leader GTS4	19.40	454	400-500
<u>Electrical Building : ชั้น 3</u>			
Switchgear	19.01	458	300-400

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LIGHT INTENSITY MEASUREMENT REPORT

CLIENT NAME	: Gulf TS4 Co., Ltd.	REFERENCE NO.	: 226051-Light-2605-0061
MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Digital Light Meter
MEASUREMENT DATE	: 29/05/2026	MODEL	: 407026
MEASUREMENT LOCATION	: Tasit 4 Power Plant Area	SERIAL NO.	: A 051050
SITE OPERATOR	: Mr. Phongsiri Chakkaeo		

LOCATION	TIME	LIGHT INTENSITY (LUX)	
		RESULTS	STANDARD*
Switchyard Control Building Plan			
GTS3 : Switchgear	19.28	312	300-400
GTS4 : Switchgear	19.28	324	300-400
Water Treatment Control Building			
Fire Pump พื้นที่ 1	19.22	301	300-400
Laboratory 1 (Fume Hood)	19.23	504	400-500
Laboratory 2 (Water Table)	19.23	665	400-500
Office Laboratory	19.23	433	400-500
Water Treatment	19.24	883	300-400

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ภาคผนวก จ

ใบแสดงการตรวจเทียบเครื่องมือ

Sheet No. : CAL-M5009/01/26



CONTROL UNIT CALIBRATION

(Metric units, mm)

Date 6 Jan 26

Barometric press, Pb

Initial	Final	Average
758	758	758

 mmHg

Dry Gas Meter Data

Console No. M50-09

Metering System ID

DGM Number 333249

DGM Model ES-110

Calibrated by : Montri P.

Reference Dry Gas Meter Data

Serial No. 358794

Model S110

Correction factor (Yr) 1.0058

Last Calibration Date 10 Oct 25

Orifice manometer setting, ΔH mm H2O	Ref. DGM Volume V _r Liters	DGM Volume V _m Liters	Temperature (°C)				Time ⊙ min	DGM Correction factor (Y)	ΔH@ mm
			Ref DGM T _r	Dry Gas Meter					
				Inlet T _i	Outlet T _o	Avg T _m			
12.5	100.0	101.1	25	25	24	24.5	8.57	0.9922	41.8519
25.0	100.0	101.0	25	25	24	24.5	6.18	0.9922	43.6080
50.0	100.1	101.0	25	25	24	24.5	4.23	0.9902	40.7988
76.0	100.2	100.9	25	25	24	24.5	3.43	0.9904	40.7091
100.0	100.1	99.5	25	25	24	24.5	3.43	1.0002	41.9025
150.0	100.1	99.5	25	25	24	24.5	2.52	0.9956	43.2569

Average

0.9935	42.0212
--------	---------

Approved by :

Sheet No. : CAL-PI-PV15-01/2026



PITOT TUBE CALIBRATION REPORT

Calibration Location: SECOT

Calibration Duct No.: CD-0123

Calibration Standard Pitot tube data

Pitot No. : Std-02

Type S Pitot No. : PV15-01

Calibration Date : 08-01-2026

Coefficient (Cp) : 0.99

Calibrated by : Mr. Montri P.

A Side Calibration

Run No.	ΔPstd (mm H ₂ O)	ΔPs (mm H ₂ O)	Cp(s)	Deviation, δ Cp(s) - Cp(A)
1	15.0	21.0	0.8367	0.0033
2	15.0	21.0	0.8367	0.0033
3	15.0	21.5	0.8269	-0.0065

C_{P(A)} avg 0.8334

B Side Calibration

Run No.	ΔPstd (mm H ₂ O)	ΔPs (mm H ₂ O)	Cp(s)	Deviation, δ Cp(s) - Cp(B)
1	15.0	21.0	0.8367	0.0000
2	15.0	21.0	0.8367	0.0000
3	15.0	21.0	0.8367	0.0000

C_{P(B)} avg 0.8367

| CP(A) - CP(B) | = 0.0033

C_{P(Avg)} = 0.8351

Approved by :

*** δ must be ≤ 0.01 for the test to be acceptable ***
*** | Cp(A) - Cp(B) | must also be < 0.01 if average of Cp(A) and Cp(B) is to be used ***

Sheet No. : BH-007-1/2026(P)



High Volume TSP&PM10 Calibration Data Sheet

Date: 9 Jan 26

Temp (°C): 30

Barometric pressure (mm Hg): 759

Reference Standard Calibration

Equipment: Orifice

Model No: TE-5025A

Serial No: 4218

Manufacturer: Tisch

Calibrated by Surachat I.

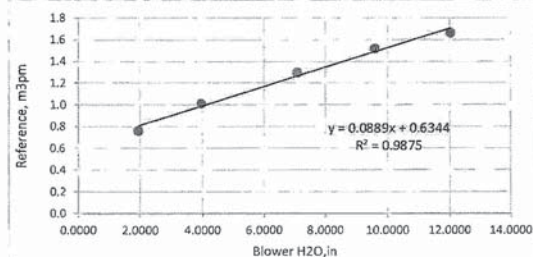
Unit Under Test

Equipment: High Volume Air Sampler

Model No: MNT-BLS

Serial No: BH-007

Test No.	Orifice (in)	Qstd (m3/min)	Reading (in)	Reading(Corrected) (in)
1	12.3100	1.6592	12.13	12.0216
2	10.2600	1.5173	9.68	9.5935
3	7.4400	1.2963	7.14	7.0762
4	4.4800	1.0125	3.98	3.9444
5	2.4900	0.7622	1.96	1.9425



Approved by :

[Signature]

Sheet No. : BH-018-1/2026(P)



High Volume TSP&PM10 Calibration Data Sheet

Date: 9 Jan 26

Temp (°C): 30

Barometric pressure (mm Hg): 759

Reference Standard Calibration

Equipment: Orifice

Model No: TE-5025A

Serial No: 4218

Manufacturer: Tisch

Calibrated by Surachat I.

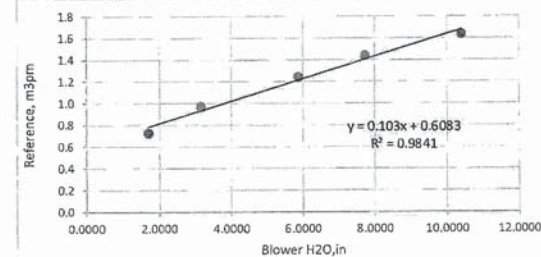
Unit Under Test

Equipment: High Volume Air Sampler

Model No: MNT-BLS

Serial No: BH-018

Test No.	Orifice (in)	Qstd (m3/min)	Reading (in)	Reading(Corrected) (in)
1	11.9500	1.6351	10.49	10.3962
2	9.2100	1.4390	7.79	7.7204
3	6.8000	1.2406	5.92	5.8671
4	4.0900	0.9687	3.18	3.1516
5	2.2600	0.7275	1.71	1.6947



Approved by :

[Signature]

Sheet No. : BH-005-1/2026(P)



High Volume TSP&PM10 Calibration Data Sheet

Date: 9 Jan 26

Temp (°C): 30

Barometric pressure (mm Hg): 759

Reference Standard Calibration

Equipment: Orifice

Model No: TE-5025A

Serial No: 4218

Manufacturer: Tisch

Calibrated by: Surachat I.

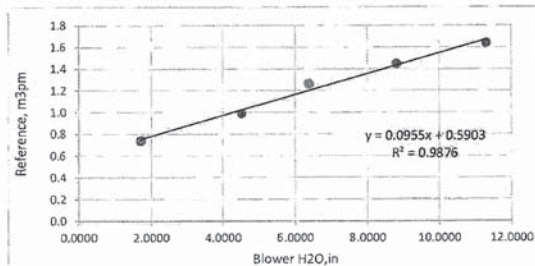
Unit Under Test

Equipment: High Volume Air Sampler

Model No: MNT-BLS

Serial No: BH-005

Test No.	Orifice (in)	Qstd (m3/min)	Reading (in)	Reading(Corrected) (in)
1	11.9800	1.6372	11.4	11.2981
2	9.3000	1.4459	8.89	8.8105
3	7.0300	1.2609	6.43	6.3725
4	4.2600	0.9880	4.55	4.5093
5	2.3500	0.7413	1.73	1.7145



Approved by:

[Signature]

Sheet No. : BH-003-1/2026(P)



High Volume TSP&PM10 Calibration Data Sheet

Date: 9 Jan 26

Temp (°C): 30

Barometric pressure (mm Hg): 759

Reference Standard Calibration

Equipment: Orifice

Model No: TE-5025A

Serial No: 4218

Manufacturer: Tisch

Calibrated by: Surachat I.

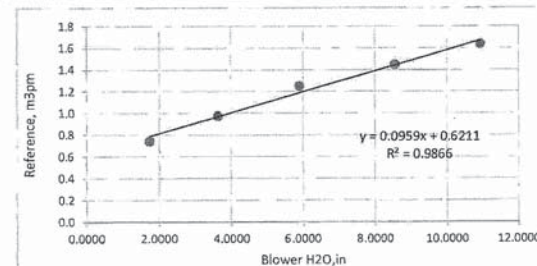
Unit Under Test

Equipment: High Volume Air Sampler

Model No: MNT-BLS

Serial No: BH-003

Test No.	Orifice (in)	Qstd (m3/min)	Reading (in)	Reading(Corrected) (in)
1	11.9500	1.6351	11.03	10.9314
2	9.3000	1.4459	8.62	8.5430
3	6.8900	1.2486	5.95	5.8968
4	4.1500	0.9755	3.65	3.6174
5	2.3800	0.7458	1.75	1.7344



Approved by:

[Signature]

Sheet No. : BH-009-1/2026(P)



High Volume TSP&PM10 Calibration Data Sheet

Date: 9 Jan 26

Temp (°C): 30

Barometric pressure (mm Hg): 759

Reference Standard Calibration

Equipment: Orifice

Model No: TE-5025A

Serial No: 4218

Manufacturer: Tisch

Unit Under Test

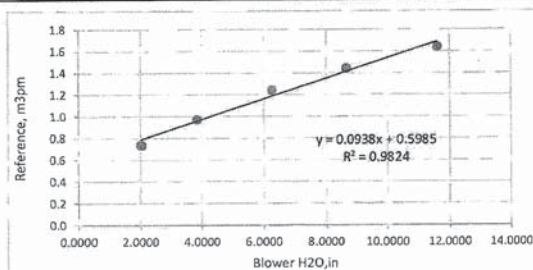
Equipment: High Volume Air Sampler

Model No: MNT-BLS

Serial No: BH-009

Calibrated by Surachat I.

Test No.	Orifice (in)	Qstd (m3/min)	Reading (in)	Reading(Corrected) (in)
1	12.0100	1.6392	11.71	11.6053
2	9.2400	1.4413	8.74	8.6619
3	6.8000	1.2406	6.31	6.2536
4	4.1200	0.9721	3.87	3.8354
5	2.3200	0.7367	2.04	2.0218



Approved by :

Sheet No. : BH-024-1/2026(P)



High Volume TSP&PM10 Calibration Data Sheet

Date: 9 Jan 26

Temp (°C): 30

Barometric pressure (mm Hg): 759

Reference Standard Calibration

Equipment: Orifice

Model No: TE-5025A

Serial No: 4218

Manufacturer: Tisch

Unit Under Test

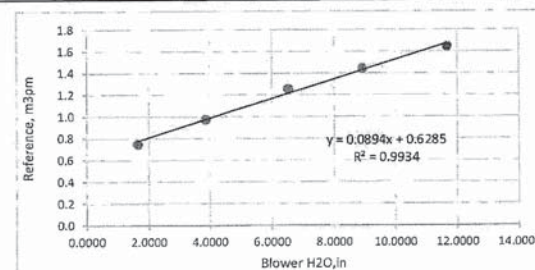
Equipment: High Volume Air Sampler

Model No: MNT-BLS

Serial No: BH-024

Calibrated by Surachat I.

Test No.	Orifice (in)	Qstd (m3/min)	Reading (in)	Reading(Corrected) (in)
1	12.0600	1.6425	11.78	11.6747
2	9.2400	1.4413	9.01	8.9295
3	6.9200	1.2513	6.58	6.5212
4	4.1500	0.9755	3.89	3.8552
5	2.4000	0.7488	1.65	1.6353



Approved by :

Sheet No. : BH-010-1/2026(P)



High Volume TSP&PM10 Calibration Data Sheet

Date: 9 Jan 26

Temp (°C): 30

Barometric pressure (mm Hg): 759

Reference Standard Calibration

Equipment: Orifice

Model No: TE-5025A

Serial No: 4218

Manufacturer: Tisch

Calibrated by: Surachat I.

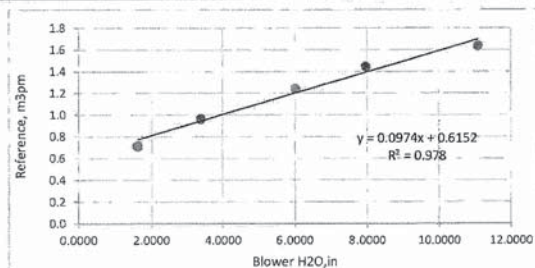
Unit Under Test

Equipment: High Volume Air Sampler

Model No: MNT-BLS

Serial No: BH-010

Test No.	Orifice (in)	Qstd (m3/min)	Reading (in)	Reading(Corrected) (in)
1	11.9500	1.6351	11.18	11.0801
2	9.2700	1.4436	8.02	7.9483
3	6.8000	1.2406	6.06	6.0058
4	4.0600	0.9652	3.4	3.3696
5	2.1800	0.7151	1.63	1.6154



Approved by :

[Signature]

Sheet No. : BH-025-1/2026(P)



High Volume TSP&PM10 Calibration Data Sheet

Date: 9 Jan 26

Temp (°C): 30

Barometric pressure (mm Hg): 759

Reference Standard Calibration

Equipment: Orifice

Model No: TE-5025A

Serial No: 4218

Manufacturer: Tisch

Calibrated by: Surachat I.

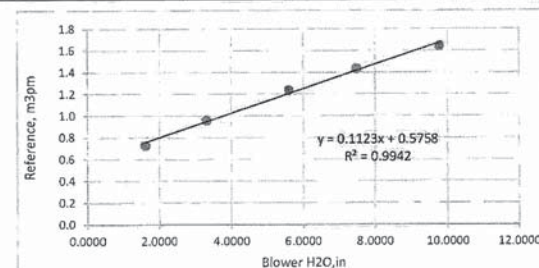
Unit Under Test

Equipment: High Volume Air Sampler

Model No: MNT-BLS

Serial No: BH-025

Test No.	Orifice (in)	Qstd (m3/min)	Reading (in)	Reading(Corrected) (in)
1	12.0600	1.6425	9.85	9.7620
2	9.1300	1.4329	7.55	7.4825
3	6.7200	1.2335	5.64	5.5896
4	4.0100	0.9594	3.34	3.3101
5	2.2600	0.7275	1.63	1.6154



Approved by :

[Signature]

SHEET No.: 906_0126



SO2 Analyzer Performance Test

Date : 10 Jan 26

Temp: (°C) 25

Barometric Pressure: Pb (mmHg) 760

Analyzer Type :	SO2
Brand :	API
Model :	100A
S/N :	906

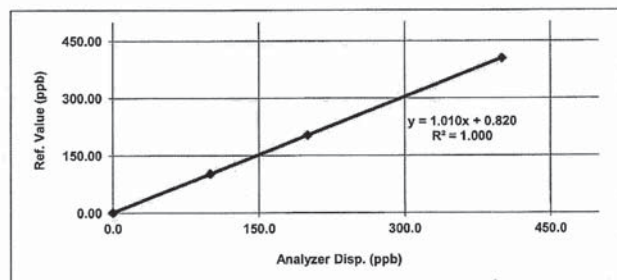
Dilutor :	Teledyne T700 1367
Zero Air :	M701 S/N 1044
STD GAS :	EB0102326
Calibrated by :	Mr. Wittaya K.

Single Point Calibration

Supply Gas	Ref Value	Analyzer Disp.	Zero-Span Error %	Slope - Offset
Zero	0.00	0.50	-	-
Span	450.00	455.30	-	1.010

MultiPoint Calibration

Ref Value	Analyzer Disp.	Output Difference		
		Diff	Percent Diff	Percent Diff abs.
0.0	0.50	0.50	-	-
100.0	102.10	2.10	2.10	2.10
200.0	203.10	3.10	1.55	1.55
400.0	404.70	4.70	1.18	1.18
			Average Diff (%)	1.61



Approved by:

SHEET No.: 120_0126



SO2 Analyzer Performance Test

Date : 10 Jan 26

Temp: (°C) 25

Barometric Pressure: Pb (mmHg) 760

Analyzer Type :	SO2
Brand :	Teledyne
Model :	T100
S/N :	120

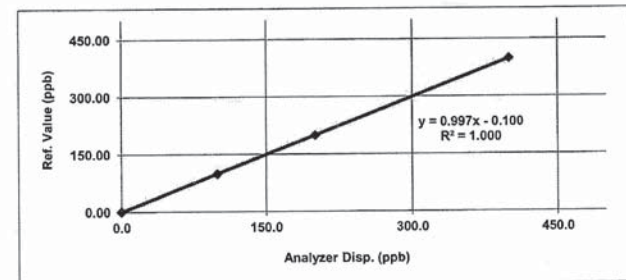
Dilutor :	Teledyne T700 1367
Zero Air :	M701 S/N 1044
STD GAS :	EB0102326
Calibrated by :	Mr. Wittaya K.

Single Point Calibration

Supply Gas	Ref Value	Analyzer Disp.	Zero-Span Error %	Slope - Offset
Zero	0.00	0.50	-	-
Span	450.00	447.70	-	0.997

MultiPoint Calibration

Ref Value	Analyzer Disp.	Output Difference		
		Diff	Percent Diff	Percent Diff abs.
0.0	0.50	0.50	-	-
100.0	99.00	-1.00	-1.00	1.00
200.0	199.10	-0.90	-0.45	0.45
400.0	399.10	-0.90	-0.22	0.22
			Average Diff (%)	0.56



Approved by:



SO2 Analyzer Performance Test

Date : 10 Jan 26

Temp: (°C) 25

Barometric Pressure: Pb (mmHg) 760

Analyzer Type :	SO2
Brand :	Thermo
Model :	43C
S/N :	0607415773

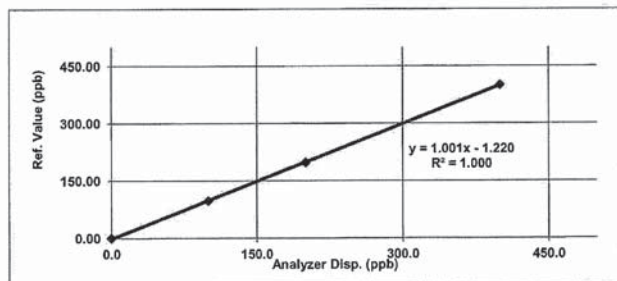
Dilutor :	Teledyne T700 1367
Zero Air :	M701 S/N 1044
STD GAS :	EB0102326
Calibrated by :	Mr. Wittaya K.

Single Point Calibration

Supply Gas	Ref Value	Analyzer Disp.	Zero-Span Error %	Slope - Offset
Zero	0.00	0.20	-	-
Span	450.00	449.00	-	1.001

MultiPoint Calibration

Ref Value	Analyzer Disp.	Output Difference		
		Diff	Percent Diff	Percent Diff abs.
0.0	0.20	0.20	-	-
100.0	97.80	-2.20	-2.20	2.20
200.0	197.70	-2.30	-1.15	1.15
400.0	400.00	0.00	0.00	0.00
Average Diff (%)				1.12



Approved by :



SO2 Analyzer Performance Test

Date : 10 Jan 26

Temp: (°C) 25

Barometric Pressure: Pb (mmHg) 760

Analyzer Type :	SO2
Brand :	API
Model :	100A
S/N :	342

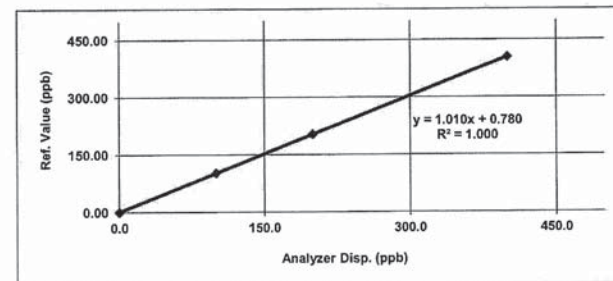
Dilutor :	Teledyne T700 1367
Zero Air :	M701 S/N 1044
STD GAS :	EB0102326
Calibrated by :	Mr. Wittaya K.

Single Point Calibration

Supply Gas	Ref Value	Analyzer Disp.	Zero-Span Error %	Slope - Offset
Zero	0.00	0.30	-	-
Span	450.00	455.00	-	1.010

MultiPoint Calibration

Ref Value	Analyzer Disp.	Output Difference		
		Diff	Percent Diff	Percent Diff abs.
0.0	0.30	0.30	-	-
100.0	102.10	2.10	2.10	2.10
200.0	203.30	3.30	1.65	1.65
400.0	404.50	4.50	1.13	1.13
Average Diff (%)				1.63



Approved by :

SHEET No.: 144_0126



NOX-NO Analyzer Performance Test

Date : 8 Jan 26

Temp: (°C) 25

Barometric Pressure: Pb (mmHg) 760

Analyzer Type :	Nox
Brand :	API
Model :	200AU
S/N :	144

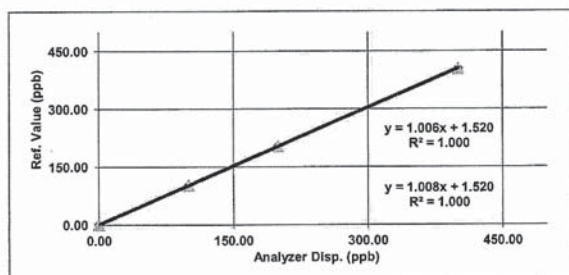
Dilutor :	Teledyne T700 1367
Zero Air :	M701 S/N 1044
STD GAS :	EB0102326
Calibrated by :	Mr. Wittaya K.

NOX-NO Single Point Calibration

Supply Gas	Ref Value	NOX Analyzer Disp.	NO Analyzer Disp.	Slope - Offset
Zero	0.0	0.8	0.9	1.006
Span	450.0	456.5	454.60	1.006

NOX-NO MultiPoint Calibration

Ref Value	NOX Analyzer Disp.	NO Analyzer Disp.	Output Difference	
			NOx Percent Diff abs.	NO Percent Diff abs.
0.00	0.80	0.90	-	-
100.00	102.50	102.40	2.5	2.4
200.00	204.40	203.70	2.2	1.8
400.00	404.20	403.60	1.1	0.9
Average Diff (%)			1.9	1.7



Approved by

SECOT CO., LTD.
239 Rimklongprapa Rd. Bangsue, Bangkok, 10800, THAILAND
Tel: (662) 9593600 Fax: (662) 9593535
E-Mail: envserv@secot.co.th

SHEET No.: 074_0126



NOX-NO Analyzer Performance Test

Date : 8 Jan 26

Temp: (°C) 25

Barometric Pressure: Pb (mmHg) 760

Analyzer Type :	Nox
Brand :	API
Model :	200A
S/N :	074

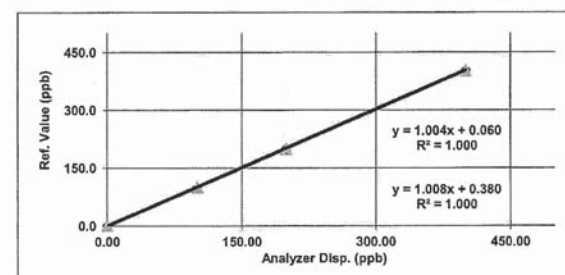
Dilutor :	Teledyne T700 1367
Zero Air :	M701 S/N 1044
STD GAS :	EB0102326
Calibrated by :	Mr. Wittaya K.

NOX-NO Single Point Calibration

Supply Gas	Ref Value	NOX Analyzer Disp.	NO Analyzer Disp.	Slope - Offset
Zero	0.0	1.1	1.0	1.004
Span	450.0	453.0	450.00	1.004

NOX-NO MultiPoint Calibration

Ref Value	NOX Analyzer Disp.	NO Analyzer Disp.	Output Difference	
			NOx Percent Diff abs.	NO Percent Diff abs.
0.00	1.1	1.0	-	-
100.00	100.10	100.0	0.1	0.0
200.00	202.00	199.6	1.0	0.2
400.00	403.60	402.3	0.9	0.6
Average Diff (%)			0.7	0.3



Approved by

SECOT CO., LTD.
239 Rimklongprapa Rd. Bangsue, Bangkok, 10800, THAILAND
Tel: (662) 9593600 Fax: (662) 9593535
E-Mail: envserv@secot.co.th



NOX-NO Analyzer Performance Test

Date : 8 Jan 26

Temp: (°C) 25

Barometric Pressure: Pb (mmHg) 760

Analyzer Type :	Nox
Brand :	RP
Model :	8400N
S/N :	096

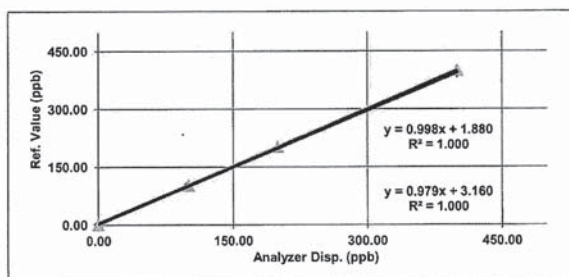
Dilutor :	Teledyne T700 1367
Zero Air :	M701 S/N 1044
STD GAS :	EB0102326
Calibrated by :	Mr. Wittaya K.

NOX-NO Single Point Calibration

Supply Gas	Ref Value	NOX Analyzer Disp.	NO Analyzer Disp.	Slope - Offset
Zero	0.0	1.0	0.9	0.998
Span	450.0	449.8	448.60	0.998

NOX-NO MultiPoint Calibration

Ref Value	NOX Analyzer Disp.	NO Analyzer Disp.	Output Difference	
			NOx Percent Diff abs.	NO Percent Diff abs.
0.00	1.00	0.90	-	-
100.00	103.30	102.30	3.3	2.3
200.00	200.00	202.60	0.0	1.3
400.00	393.80	400.50	1.6	0.1
Average Diff (%)			1.6	1.2



Approved by :

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239 Plankongrapa Rd. Bangsue, Bangkok, 10800, THAILAND
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E-Mail: envserv@secot.co.th



Airgas Specialty Gases
Airgas USA, LLC
600 Union Landing Road
Cinnaminson, NJ 08077-0000
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E04N189E15AC084 Reference Number: 82-401409170-1
Cylinder Number: EB0102326 Cylinder Volume: 144.4 CF
Laboratory: 124 - Riverton (SAP) - NJ Cylinder Pressure: 2015 PSIG
PGVP Number: B52019 Valve Outlet: 660
Gas Code: CO,NO,NOX,SO2,BALN Certification Date: Feb 05, 2019

Expiration Date: Feb 05, 2027

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	50.00 PPM	51.01 PPM	G1	+/- 0.9% NIST Traceable	01/28/2019, 02/05/2019
NITRIC OXIDE	50.00 PPM	50.86 PPM	G1	+/- 0.9% NIST Traceable	01/28/2019, 02/05/2019
SULFUR DIOXIDE	50.00 PPM	50.87 PPM	G1	+/- 1.0% NIST Traceable	01/28/2019, 02/05/2019
CARBON MONOXIDE	0.5000 %	0.5050 %	G1	+/- 0.7% NIST Traceable	01/31/2019
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13080208	CC401947	4950 PPM CARBON MONOXIDE/NITROGEN	+/- 0.4%	Feb 15, 2019
PRM	12367	APEX1099237	9.82 PPM NITROGEN DIOXIDE/AIR	+/- 2.0%	Jun 02, 2017
NTRM	12010724	KAL004497	50.03 PPM NITRIC OXIDE/NITROGEN	+/- 0.8%	Mar 12, 2024
GMIS	1114201601	CC506710	4.971 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Nov 14, 2019
NTRM	14010327	KAL004376	49.08 PPM SULFUR DIOXIDE/NITROGEN	+/- 1.0%	Apr 17, 2024

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Siemens Ultramat 6 J3-599 COHIGH	NDIR	Jan 18, 2019
Nicolet 6700 APW1100391 NO	FTIR	Jan 10, 2019
Nicolet 6700 APW1100391 NO2	FTIR	Jan 10, 2019
Nicolet 6700 APW1100391 SO2	FTIR	Jan 10, 2019

Triad Data Available Upon Request

PERMANENT NOTES: PRODUCED IN ACCORDANCE WITH ISO17025 REQUIREMENTS

NOTES:

Gross Weight: 27806.3 grams

Net Weight: 4733.2 grams

This calibration std. has been certified in accordance with the May 2012 EPA Traceability Protocol Document EPA-600/R-12/531. All testing processes and measurements conform to the requirements of ISO/IEC 17025 and to Airgas ISO 9001:2008 and relate only to items identified on this certificate. This certificate is certified to be NIST Traceable with total uncertainty as detailed under Analytical Uncertainty. This document shall not be reproduced in full without written approval of the issuer.



TESTING CERT No. 3082.05

Approved for Release

Sheet No. : CR-515-2026-146



SOUND LEVEL METER CALIBRATION

Calibration Location: SECOT

Calibration Date: May 26, 26

ACOUSTIC CALIBRATOR

Brand	Model	Serial No.	Frequency (Hz)	Ref.Calibrated (dB)	Eff.Calibrated (dB)
Cirrus	CR:515	97097	1000.00	94.0	93.7

No.	Brand	Model	Serial No.	Reading (dB)	dB Adjust
20	Cirrus	CR162B	G301014	93.7	0.0
27	Cirrus	CR162C	G301029	93.7	0.0
48	Cirrus	CR162B	G302237	93.7	0.0

Calibrated by :

Approved by :

Preeda L.

CR-515-2026-146/Cal24/06/2026

SECOT CO., LTD.
239 Rimklongprapa Rd. Bangsue, Bangkok, 10800, THAILAND
Tel: (662)959-3600 Fax: (662) 959-3535
E-Mail: envserv@secot.co.th

Sheet No. : CR-515-2026-134



SOUND LEVEL METER CALIBRATION

Calibration Location: SECOT

Calibration Date: May 29, 26

ACOUSTIC CALIBRATOR

Brand	Model	Serial No.	Frequency (Hz)	Ref.Calibrated (dB)	Eff.Calibrated (dB)
Cirrus	CR:515	97097	1000.00	94.0	93.8

No.	Brand	Model	Serial No.	Reading (dB)	dB Adjust
2	SCARLET	ST-21D	820723	93.8	0.0
5	SCARLET	ST-21D	820726	94.0	-0.2
10	SCARLET	ST-21D	820731	94.0	-0.2
11	SCARLET	ST-21D	821078	94.0	-0.2
12	SCARLET	ST-21D	821079	93.8	0.0
13	SCARLET	ST-21D	821080	94.0	-0.2

Calibrated by :

Approved by :

Suk Suthamman

CR-515-2026-134/Cal08/06/2026

SECOT CO., LTD.
239 Rimklongprapa Rd. Bangsue, Bangkok, 10800, THAILAND
Tel: (662)959-3600 Fax: (662) 959-3535
E-Mail: envserv@secot.co.th



ELECTRICAL AND ELECTRONICS INSTITUTE
FOUNDATION FOR INDUSTRIAL DEVELOPMENT

975 Moo 4, Bangpoo Industrial Estate, Soi 8, Sukhumvit Road km 37,

Phraek Sa, Mueang Samut Prakan, Samut Prakan 10280

Tel: +66 2709 4860 Fax: +66 2324 0917



Certificate No.: CP20250278EA
Operation No.: CP2025100271

Certificate of Calibration

Equipment: Sound Calibrator

Manufacturer: Cirrus Research Plc

Model/Type: CR:515

Serial No.: 97097

ID No.: -

Customer: SECOT Co.,Ltd.

Address: 239 Rimklongprapa Rd., Bangsue,
Bangkok 10800 Thailand

Received Date: 9 October 2025

Calibrated Date: 14 October 2025

Issued Date: 16 October 2025

Calibrated by: Ms. Juntapom Kunhakom

Approved by:

(Mr. Sittichai Swaksuriyawong)

Group Manager

This report was prepared electronically using applicable electronic signature. Printing or copy of file are considered as a copy of the document.

The reported uncertainty of measurement was based on standard uncertainty multiplied by a coverage factor (k) providing a level of confidence of approximately 95%. This certificate may not be reproduced other than in full except with the prior written approval of the Electrical and Electronics Institute, Foundation for Industrial Development.



ELECTRICAL AND ELECTRONICS INSTITUTE
FOUNDATION FOR INDUSTRIAL DEVELOPMENT

Certificate No.: CP20250278EA

Calibration Report

Equipment: Sound Calibrator
Manufacturer: Cirrus Research Plc
Model/Type: CR:515
Serial No.: 97097
ID No.: -
Ambient Temperature: (23 ± 2) °C
Relative Humidity: (50 ± 15) %
Pressure: (101.3 ± 1.5) kPa

Method of Calibration :-

IEC 60942:2017

Condition of this result of calibration

1. Reference standards instrument :-

Instrument	Model	Serial No.	Cert. No.	Due Date
1) Standard microphone	4180	2661000	AA-1011-25	24 June 2026
2) Waveform Generator	33511B	MY52302264	CK20250036EA	29 June 2026
3) Audio Analyzing DMM	2015-P	000136E	CK20250002EA CB20250007EA	25 December 2025 6 January 2026
4) Pressure humidity and Temperature Transmitter	PTU301	F0640003	CL1-P250034 CD20250096EA	10 April 2026 29 March 2026

2. This result of calibration was found accurate as shown on date and place of calibration only.

3. This certification is traceable to the international system of unit maintained at :-

Reference standards instrument for Acoustic function

- National Institute of Metrology (Thailand); ILAC Policy, Item 2 (1) No.ILAC-P10:07/2020.

Reference standards instrument for Electrical function

- Electrical and Electronics Institute; NSC Accredited Calibration No.0119

- IRPC Metrology Center, IRPC Public Co., Ltd.; NSC Accredited Calibration No.0204.

Result of Calibration:-

1. Function : Sound pressure level

Normal	Specified Sound	Measured value	Deviated value ^[1]	Acceptance limit ^[3]
Frequency (Hz)	Pressure level (dB)	(dB)	(dB)	(dB)
1000	94	94.07	0.07	±0.25

2. Function : Frequency

Normal Sound	Specified Frequency	Measured value	Deviated value ^[2]	Acceptance limit ^[3]
Pressure level (dB)	(Hz)	(Hz)	(%)	(%)
94	1000	1000.31	0.03	±0.70



ELECTRICAL AND ELECTRONICS INSTITUTE
FOUNDATION FOR INDUSTRIAL DEVELOPMENT

Certificate No.: CP20250278EA

Calibration Report

3. Function : Total distortion + noise

Normal Sound Pressure level (dB)	Normal Frequency (Hz)	Measured value ^[4] (%)	Acceptance limit ^[5] (%)
94	1000	0.47	2.50

Uncertainty of measurement

Function	Uncertainty	Maximum-permitted uncertainty of measurement
Sound pressure level	0.10 dB	0.15 dB
Frequency	0.10 %	0.20 %
Total distortion + noise	0.40 %	0.50 %

Note: [1] The deviated value is the absolute value of the difference between the measured value and the corresponding specified sound pressure level.
[2] The deviated value is the absolute value of the difference in percent between the measured value and the corresponding specified frequency.
[3] The acceptance limit is for the deviated value.
[4] The measured value is the total distortion + noise, measured over the frequency range from 20 Hz to 20 kHz.
[5] The acceptance limit is for the Measured value.

Remarks: 1. Acceptance limit was IEC 60942:2017 Class 1.
2. Maximum-permitted uncertainty of measurement was IEC 60942:2017 Class 1.
3. The coverage factor $k = 2.00$

-- End of Report --



TECHNOLOGY PROMOTION ASSOCIATION (THAILAND-JAPAN)
CORPORATE SERVICES 3: EQUIPMENT CALIBRATION AND TESTING SERVICES
534/4 PATTANAKARN ROAD SOI 18, SUANLUANG, SUANLUANG BANGKOK 10250
TEL.0-2717-3000-29 FAX.0-2719-9484



Certificate of Calibration

Cert.No.: 25CH1009
Page.: 1 of 3

Equipment : pH Meter
Manufacturer : Mettler Toledo
Model : Seven2Go
Serial No. : B924795409
ID No. : ID.12
Condition As-Received: Used Item
Received Date : 26 August 2025
Calibration Date : 27 August 2025
Reference : 2508-0784DN-3
Submitted by : Secot Co.,Ltd.
239 Rimklongprapa Road,
Bangsue, Bangkok 10800
Ambient Temperature : (25 ± 2.5) °C
Relative Humidity : (50 ± 15) %
Calibration Procedure : In - house method :
- CP-CH5 by direct measurement with DC voltage
standard and direct measurement with
certified reference material (CRM)
- CP-CH8 by comparison with temperature standard

Calibrated by : Walalak Sirithuan

Approved by :

Saithip
Approved Signatory

() Chakrit Waewwanjua
() Ponpan Paipim
(✓) Saithip Meangmai

Issue Date : 28 August 2025

The Uncertainties are for a confidence probability of approximately 95%

This certificate may not be reproduced other than in full, except with the prior written
Approval of the head of Corporate Services 3 : Equipment Calibration and Testing Services.



Cert.No.: 25CH1009
Page.: 2 of 3

Condition of this calibration result

1. Reference Standard Instrument

Instrument	Serial No.	ID No.	Cert. No.	Due Date
1) Document Process Calibrator	58440003	130RC120	24E3731	25 Nov 2025
2) Ref. Standard Thermometer	4982054	110RC044	25I708	03 July 2026

- This measurement result is traceable to SI through Technology Promotion Association (Thailand - Japan)

2. Certified Reference Materials : The measurement results are traceable to SI through CPA chem Ltd.,
ANSI-ASQ National Accreditation Board, Accredited No. AR-1835

Buffer Solution	Manufacturer	Lot No.	Exp. date
pH 4.007	CPA chem	1114384	12 June 2027
pH 6.987	CPA chem	1034204	27 Sep 2025
pH 10.010	CPA chem	1114385	08 June 2026

3. This certificate is valid only to the item calibrated on date and place of calibration.

Calibration Results

Function : mV Measurement

Performing standard curve by Document Process Calibrator at pH (4,7,10)

Unit Under Calibration	Nominal Value	Standard Voltage Input	Actual Reading		Uncertainty of Measurement ($\pm$ mV)	Coverage factor <i>k</i>
	pH	mV	mV	pH		
pH Meter S/N.: B924795409	4.00	177.48	177	4.00	0.58	2.00
	7.00	0.00	0	7.00	0.58	2.00
	10.00	-177.48	-177	10.00	0.58	2.00



Cert.No.: 25CH1009
Page.: 3 of 3

Calibration Results

Function : pH Measurement

Performing three buffers standard curve by using buffer nominal pH (4,7,10)

Unit Under Calibration	Standard pH Buffer Solution	Actual pH Reading	Actual mV Reading (mV)	Uncertainty of pH Measurement ($\pm$)	Coverage factor <i>k</i>
pH Electrode S/N.: 4320459	4.007	4.02	182	0.0071	2.00
	6.987	7.00	6	0.0095	2.00
	10.010	10.01	-167	0.0092	2.00

Function : Temperature Measurement

(*) Without adjustment

This equipment was connected with Temperature Probe;

- Model : InLab Expert Go
- Serial No. : 4320459
Dimension of probe
- Length : 120 mm.
- Diameter : 12 mm.
- Immersion Depth : 100 mm.

Calibration Point (°C)	Standard Temperature (°C)	UUC* Reading (°C)	Error (°C)	Uncertainty of measurement ($\pm$ °C)	Coverage factor <i>k</i>
25.0	24.999	25.1	0.101	0.13	2.00
30.0	30.001	30.2	0.199	0.13	2.00
35.0	35.001	35.2	0.199	0.13	2.00

Remark - UUC* = Unit Under Calibration

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor *k*, providing a level of confidence of approximately 95 %.

-o0o-



ศูนย์บริการห้องปฏิบัติการอุตสาหกรรมอาหาร
Foundation for Industrial Development National Food Institute
Food Industrial Laboratory Service Center



Calibration Certificate

Certificate No.: 2503897-002-01
Client name: SECOT CO., LTD.
Address: 239 Rimklongprapa Road,
Bangsue, Bangsue, Bangkok 10800

Page 1 of 3

Equipment: Water Bath
Manufacturer: MEMMERT
Model: WB 29
Serial No.: I698.0051
ID No.: N/A
Order No.: 2503897
Operation No.: 2503897-002
Date of Receipt: 14 July 2025
Date of Calibration: 14 July 2025

Calibrated by Mr.Yothin Charoensuk
Scientist

Approved by 
(Mr.Pheraphat Tuanjit)
Manager, Division of Calibration Laboratory
Responsible for the Technical Management Team

Date of Issue: 17 July 2025

The uncertainties are for a confidence probability of approximately 95 %.

This Certificate is issued in accordance with the conditions of accreditation granted by the Thai Laboratory Accreditation scheme which has assessed the measurement capability of the laboratory and its traceability to recognized national standards and to the units of measurement realized at the corresponding national standards laboratory. This certificate may not be reproduced other than in full except with the prior written approval of the National Food Institute.

F-CS-009 Revision: 01 Date: 20-04-65

2008 35 หมู่ 3 ถนนสุขุมวิท แขวงคลองเตย เขตวัฒนา กรุงเทพมหานคร 10700
2008 Soi 35, Arun Amarin Road, Bang Yi Khan Subdistrict, Bang Phai District, Bangkok 10700, Thailand
Tel: +66(0) 2422 8688 Fax: +66(0) 2422 8545



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ศูนย์บริการห้องปฏิบัติการอุตสาหกรรมอาหาร
Foundation for Industrial Development National Food Institute
Food Industrial Laboratory Service Center



Calibration Report

Certificate No.: 2503897-002-01
Equipment: Water Bath
Model: WB 29 Serial No.: I698.0051
Resolution: 0.1 °C ID No.: N/A
Manufacturer: MEMMERT
Date of Calibration: 14 July 2025

Page 2 of 3

Location: Laboratory, SECOT CO., LTD.
Environment Condition: Ambient Temperature (31 ± 1) °C
Relative Humidity (61 ± 1) %
Line Voltage (228 ± 3) Volt

Condition of this results of Calibration:

- This instrument was calibrated by insert 5 standard thermometer into its liquid bath and calibration according to W-TE-011 based on ASTM E715-80 (Re-approved-2016): Standard Specification for Gravity-Convection and Forced-Circulation Water Baths.
- The temperature scale used is ITS - 90.
- All data show below were final values and the initial data may be obtained upon request.

2. Reference Standard Instrument :

Instrument	Model	Serial No./ID No.	Certificate No.	Due Date	Through
Digital Thermometer with sensor	34972A	MY57003188	2503175-002	2-Jun-26	NATIONAL FOOD INSTITUTE
	RTD	RTD#301-305 / CH#301-305			

- This certificate is traceable to International System of Units (SI Units).
- This certificate was certified only for the instrument we calibrated.
- This result of calibration was found accurate as shown on date and place of calibration only.
- Condition of Calibrated item : Good

UUC Description:

Time of Record 1 Hour 9 Minute At 95.0 °C

7. Result of Calibration : ☒ Without adjustment
☐ After adjustment

F-CS-012 Revision: 01 Date: 20-04-65

2008 35 หมู่ 3 ถนนสุขุมวิท แขวงคลองเตย เขตวัฒนา กรุงเทพมหานคร 10700
2008 Soi 35, Arun Amarin Road, Bang Yi Khan Subdistrict, Bang Phai District, Bangkok 10700, Thailand
Tel: +66(0) 2422 8688 Fax: +66(0) 2422 8545



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Calibration Report

Certificate No.: 2503897-002-01
Equipment: Water Bath
Model: WB 29 Serial No.: I698.0051
Resolution: 0.1 °C ID No.: N/A
Manufacturer: MEMMERT
Date of Calibration: 14 July 2025

Page 3 of 3

Calibration point: 95.0 °C

Calibration result:

Calibration Condition	Temperature (°C)	Relative Humidity (%)	Line Voltage (Volt)
Min	29.6	62	225.0
Max	32.3	60	230.0

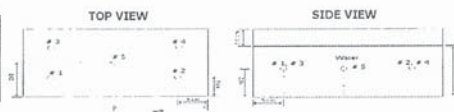


Table 1 : Reporting of Temperature

Calibration Point (°C)	Measured Temperature (°C) @ Sensor No. (Sensor No.5 is REF)					Uncertainty ± (°C)
	# 1	# 2	# 3	# 4	# 5	
95.0	95.15	95.11	95.14	94.96	94.99	0.36

Table 2 : Reporting of Characterization Result

UUC* Setting (°C)	UUC* Reading (°C)			Stability ± (°C)	Uniformity (°C)	Overall Variation (°C)
	MIN	MAX	Average			
95.0	94.9	95.2	95.0	0.21	0.16	0.58

Note The quoted uncertainty include " Stability " and " Loading effect (20% of Temp Uniformity) "

UUC* = Unit Under Calibration

Stability = One-half of the greatest maximum difference of measured temperatures at any one sensors, for at least half an hour after reaching steady state.

Uniformity = The maximum difference of measured temperatures at any sensors and the measured temperature at the reference location which are observed at the same time.

Overall Variation = The difference of the maximum and minimum measured temperatures throughout observation time.

The report uncertainty of measurement was based on standard uncertainty multiplied by coverage factor k= 2, providing a level of confidence of approximately 95 %.

----- End -----

F-CS-012 Revision: 01 Date: 20-04-65



CALIBRATION CERTIFICATE

Certificate No.S2604485S

page 1 of 2

Customer : SECOT CO., LTD.
239 Rimklongprapa Rd.,
Bangsue, Bangkok 10800

Equipment : Non-automatic weighing instrument (Electronic instrument)

Manufacturer : Mettler Toledo

Order No. : 69S1571-1

Model : AG245

Ambient temperature : (27.4 ± 5.0) °C

Accuracy class : -

Relative humidity : (46.0 ± 10.0) %

Capacity : 41 g / 210 g

Received date : 20-Apr-2026

Resolution : 0.00001 g / 0.0001 g

Date of calibration : 20-Apr-2026

Serial No. : 1117293916

Date of issue : 23-Apr-2026

ID No. : -

Condition of the balance : Good working conditions

Place of calibration : BAL

Calibration method

This instrument was calibrated according to the EURAMET Calibration Guide No. 18.

Condition of reference standard weight

Instrument	Nominal value	Serial No.	Certificate No.	Due-date	Density (kg/m ³)
1 Standard weight set	1 mg to 2 kg	15885+15849	M2510001S	7-Oct-2026	7950

Traceability of the reference standard weight

The measurement results are traceable to the International System of Units (SI) through Mass Calibration Laboratory Thai Calibration Services Co., Ltd., NSC-ONSC accredited no. Calibration 0189.

Calibrated By : Chartchai Rattanaapichartwong
Technician

Approved Signatory :
Somwang Wongduang

This calibration certificate may not be reproduced other than in full,
except with the prior written approval of the head of TCS calibration laboratory.



THAI CALIBRATION SERVICES CO., LTD.

19/8 Moo 9 Soi Raikhing 30, Phutthamonthon 5 Rd., Raikhing,

Samphran, Nakhonpathom 73210 Tel. 0-3439-7682-5, 08-6341-8613

www.thaical.com E-mail : sales@thaicalibration.com, lab@thaicalibration.com



CALIBRATION CERTIFICATE

Certificate No.S2604485S

page 2 of 2

The repeatability of indication

Nominal Value (g)	Standard Deviation of reading (g)	Maximum difference between successive reading (g)	n
40	0.000005	0.00001	5
200	0.00004	0.0001	5

The effect of eccentric application of a load on the indication (test load : 100 g)

Position	Balance Reading (g)
Point 1	99.9999
Point 2	99.9997
Point 3	99.9999
Point 4	99.9998
Point 5	99.9998
Eccentric Value	0.0002



The error of indication

Nominal Value (g)	Value of Reference Standard Weight (g)	Balance Reading (g)	Correction (g)	Uncertainty ($\pm$) (g)	k
Unload	0.00000	0.00000	0.00000	0.000016	2.52
0.5	0.49999	0.50001	-0.00002	0.000023	2.04
1	1.00000	1.00000	0.00000	0.000026	2.00
10	9.99997	10.00000	-0.00003	0.000046	2.00
20	19.99996	20.00001	-0.00005	0.000062	2.00
40	40.00000	39.99999	+0.00001	0.00013	2.00
60	60.0000	60.0000	0.0000	0.00018	2.05
80	79.9999	79.9999	0.0000	0.00022	2.00
100	99.9999	99.9999	0.0000	0.00020	2.03
120	119.9999	119.9999	0.0000	0.00025	2.00
140	139.9999	139.9999	0.0000	0.00030	2.00
160	159.9999	159.9999	0.0000	0.00031	2.00
180	179.9999	180.0000	-0.0001	0.00037	2.00
200	200.0000	200.0000	0.0000	0.00033	2.00

Remark : Adjustment, External weight nominal value 200 g, Standard weight of Lab

Uncertainty of measurement

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor (k), which for a normal distribution corresponds to a coverage probability of approximately 95% (confidence level).

This report will certify of the calibrated equipment only.

--End--



Calibration Certificate

Certificate No.: 2603199-001-01

Page : 1 of 3

Equipment: CHAMBER (Hot Air Oven)

Manufacturer: memmert

Model: UF 55

Serial No.: B213.0295

ID No.: N/A

Order No.: 2603199

Operation No.: 2603199-001

Date of Receipt: 22 May 2026

Date of Calibration: 22 May 2026

Customer Name: SECOT CO., LTD.

Address: 239 Rimklongprapa Road,
Bangsue, Bangsue, Bangkok 10800

Metrological traceability:

1. Calibration Method:

- This instrument was calibrated by inserting 9 standard thermometers into its chamber, in accordance with W-TE-014, based on TLAS G-20-1/02-08 (E): Guidelines for Calibration and Checks of Temperature Controlled Enclosures.
- The temperature scale used in this laboratory is the International Temperature Scale of 1990 (ITS-90).
- All data shown below are final values, and the initial data may be obtained upon request.

2. Reference Standard Instrument:

Instrument	Model/Type	Serial No./ID No.	Certificate No.	Due Date	Through
Digital Thermometer with sensor	34972A RTD	MY57003188 CH#301-309/ RTD#301-309	2503175-002-01	2 June 2026	NATIONAL FOOD INSTITUTE

3. This certificate is traceable to the International System of Units (SI).

4. This certificate is valid only for the instrument that was calibrated.

5. The result of this calibration was found to be accurate only on the date and at the place of calibration shown.

Calibrated by Mr.Yothin Charoensuk
Scientist

Date of Issue: 26 May 2026

Approved by

(Mr.Pheraphat Tuanjit)

Manager, Division of Calibration Laboratory
Responsible for the Technical Management Team

This Certificate is issued in accordance with the conditions of accreditation granted by the Thai Laboratory Accreditation scheme which has assessed the measurement capability of the laboratory and its traceability to recognized national standards and to the units of measurement realized at the corresponding national standards laboratory. This certificate may not be reproduced other than in full except with the prior written approval of the National Food Institute.

Calibration Certificate

Certificate No.: 2603199-001-01

Page : 2 of 3

Calibration Condition:

Equipment: CHAMBER (Hot Air Oven) Place of Calibration: Laboratory
 UUC* Resolution: 0.1 °C SECOT CO., LTD.
 Condition of the item: Normal & Good Environment Conditions: Ambient Temperature (32.1 ± 1) °C
 Without adjustment / As Found Relative Humidity (60.8 ± 3) %
 - Time of record 1 hour 9 minute / point Line Voltage (228 ± 3) V.

Calibration Results:

Table 1 : Reporting of Temperature

Calibration Point (°C)	Measured Temperature (°C) @ Sensor No. (Sensor No.9 is REF)									Measurement Uncertainty (±°C)
	Std.#1	Std.#2	Std.#3	Std.#4	Std.#5	Std.#6	Std.#7	Std.#8	Std.#9	
80.0	80.09	79.90	80.19	80.25	80.15	79.93	79.97	79.85	80.06	0.46
104.0	104.07	103.77	104.09	104.09	104.06	103.81	103.75	103.76	104.02	0.53
110.0	110.12	109.72	110.00	110.01	110.01	109.78	109.66	109.81	109.96	0.73

Table 2 : Reporting of Characterization Results

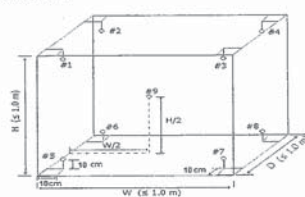
UUC* Setting (°C)	UUC* Reading (°C)			Stability ± (°C)	Uniformity (°C)	Overall Variation (°C)
	Max	Min	Average			
80.0	80.0	80.0	80.0	0.082	0.21	0.52
104.0	104.0	104.0	104.0	0.12	0.27	0.55
110.0	110.0	110.0	110.0	0.17	0.30	0.65

Note

- UUC* : Unit Under Calibration
- The quoted uncertainty includes contributions from 'Stability' and 'Loading Effect (20% of Temperature Uniformity).
- Stability = One-half of the greatest maximum difference of measured temperatures at any one sensors, for at least half an hour after reaching steady state.
- Uniformity = The maximum difference of measured temperatures at any sensors and the measured temperature at the reference location which are observed at the same time.
- Overall Variation = The difference of The maximum and minimum measured temperatures throughout observation time.

For more information, details of the sensor installation should be reported.

Fresh air Damper	- Open	- Position
	X Close	100% Fan speed
	- Not Available	
Dimension of inside chamber and sensor installation location (cm)		
W x H x D	40 x 40 x 33	
a x b x c	10 x 10 x 10	



Calibration Certificate

Certificate No.: 2603199-001-01

Page : 3 of 3

Calibration Condition:

Equipment: CHAMBER (Hot Air Oven) Place of Calibration: Laboratory
 UUC* Resolution: 0.1 °C SECOT CO., LTD.
 Condition of the item: Normal & Good Environment Conditions: Ambient Temperature (32.5 ± 1) °C
 Without adjustment / As Found Relative Humidity (60.8 ± 3) %
 - Time of record 1 hour 9 minute / point Line Voltage (228 ± 3) V.

Calibration Results:

Table 1 : Reporting of Temperature

Calibration Point (°C)	Measured Temperature (°C) @ Sensor No. (Sensor No.9 is REF)									Measurement Uncertainty (±°C)
	Std.#1	Std.#2	Std.#3	Std.#4	Std.#5	Std.#6	Std.#7	Std.#8	Std.#9	
180.0	180.18	179.82	179.99	180.00	180.24	179.89	180.04	180.55	180.07	0.90

Table 2 : Reporting of Characterization Results

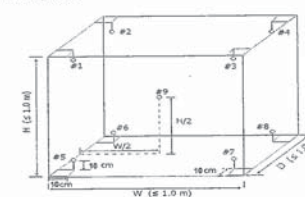
UUC* Setting (°C)	UUC* Reading (°C)			Stability ± (°C)	Uniformity (°C)	Overall Variation (°C)
	Max	Min	Average			
180.0	180.0	180.0	180.0	0.13	0.48	0.91

Note

- UUC* : Unit Under Calibration
- The quoted uncertainty includes contributions from 'Stability' and 'Loading Effect (20% of Temperature Uniformity).
- Stability = One-half of the greatest maximum difference of measured temperatures at any one sensors, for at least half an hour after reaching steady state.
- Uniformity = The maximum difference of measured temperatures at any sensors and the measured temperature at the reference location which are observed at the same time.
- Overall Variation = The difference of The maximum and minimum measured temperatures throughout observation time.

For more information, details of the sensor installation should be reported.

Fresh air Damper	- Open	- Position
	X Close	100% Fan speed
	- Not Available	
Dimension of inside chamber and sensor installation location (cm)		
W x H x D	40 x 40 x 33	
a x b x c	10 x 10 x 10	



The report uncertainty of measurement was based on standard uncertainty multiplied by coverage factor k = 2, providing a level of confidence of approximately 95 %.

----- End of Report -----



มูลนิธิพัฒนาอุตสาหกรรม
National Food Institute
Foundation for Industrial Development National Food Institute
Food Industrial Laboratory Service Center



Calibration Certificate

Certificate No.: 2503897-001-01
Client name: SECOT CO., LTD.
Address: 239 Rimklongprapa Road,
Bangsue, Bangsue, Bangkok 10800

Page 1 of 3

Equipment: CHAMBER (Incubator)
Manufacturer: MEMMERT
Model: ICP 400
Serial No.: K406.0004
ID No.: N/A
Order No.: 2503897
Operation No.: 2503897-001
Date of Receipt: 14 July 2025
Date of Calibration: 14 July 2025

Calibrated by Mr.Yothin Charoensuk
Scientist

Approved by 
(Mr.Pheraphat Tuanjit)
Manager, Division of Calibration Laboratory
Responsible for the Technical Management Team

Date of Issue: 17 July 2025

The uncertainties are for a confidence probability of approximately 95 %.

This Certificate is issued in accordance with the conditions of accreditation granted by the Thai Laboratory Accreditation scheme which has assessed the measurement capability of the laboratory and its traceability to recognized national standards and to the units of measurement realized at the corresponding national standards laboratory. This certificate may not be reproduced other than in full except with the prior written approval of the National Food Institute.

F-CS-009 Revision: 01 Date: 20-04-65

2008 บอจนาฏสุนทร 25 นพจนาฏสุนทร บอจนาฏสุนทร บอจนาฏสุนทร 10700
2008 Soi 35, Anin Aree Road, Bang Yi Khan, Sakhon, Bang Phai District, Bangkok 10700, Thailand
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มูลนิธิพัฒนาอุตสาหกรรม
National Food Institute
Foundation for Industrial Development National Food Institute
Food Industrial Laboratory Service Center



Calibration Report

Certificate No.: 2503897-001-01
Equipment: CHAMBER (Incubator)
Model: ICP 400 Serial No.: K406.0004
Resolution: 0.1 °C ID No.: N/A
Manufacturer: MEMMERT
Date of Calibration: 14 July 2025

Page 2 of 3

Location: Laboratory, SECOT CO., LTD.
Environment Condition: Ambient Temperature (30.8 ± 1) °C
Relative Humidity (60.9 ± 1) %
Line Voltage (222.5 ± 3) Volt

Condition of this results of Calibration:

- This instrument was calibrated by insert 9 standard thermometer into its chamber and calibration according to W-TE-014 Based on TLAS G-20-1/02-08 (E): Guidelines for Calibration and Checks of Temperature Controlled Enclosures.
- The temperature scale used was based on ITS - 90.
- All data show below were final values and the initial data may be obtained upon request.
- Reference Standard Instrument :

Instrument	Model	Serial No./ID No.	Certificate No.	Due Date	Through
Digital Thermometer with sensor	34972A	MYS7003188	2503175-002	2 June 2026	NATIONAL FOOD INSTITUTE
	RTD	CH#201-209/ RTD#201-209			

- This certificate is traceable to International System of Units (SI Units).
- This certificate was certified only for the instrument we calibrated.
- This result of calibration was found accurate as shown on date and place of calibration only.
- Condition of Calibrated item : Good

UUC Description :

Time of Record 1 Hour 9 Minute At 20.0 °C
Fresh air Damper - Open Position -
X Close Fan 10%
- Not Available

- Result of Calibration : ☒ Without adjustment ☐ After adjustment

F-CS-012 Revision: 01 Date: 20-04-65

2008 บอจนาฏสุนทร 25 นพจนาฏสุนทร บอจนาฏสุนทร บอจนาฏสุนทร 10700
2008 Soi 35, Anin Aree Road, Bang Yi Khan, Sakhon, Bang Phai District, Bangkok 10700, Thailand
Tel: +66(0) 2462 8583 Fax: +66(0) 2462 8545



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Calibration Report

Certificate No.: 2503897-001-01
Equipment: CHAMBER (Incubator)
Model: ICP 400 Serial No.: K406.0004
Resolution: 0.1 °C ID No.: N/A
Manufacturer: MEMMERT

Date of Calibration: 14 July 2025

Page 3 of 3

Calibration point: 20.0 °C

Calibration result:

Calibration Condition	Temperature (°C)	Relative Humidity (%)	Line Voltage (Volt)
MIN	29.6	60.3	220.0
MAX	32.3	61.5	225.0

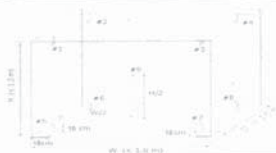


Table 1 : Reporting of Temperature

Calibration point (°C)	Measured Temperature (°C) @ Sensor No. (Sensor No.9 is REF)									Uncertainty ± (°C)
	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	
20.0	20.00	20.16	20.08	20.11	20.28	20.12	20.03	20.05	20.14	0.28

Table 2 : Reporting of Characterization Result

UUC* Setting (°C)	UUC* Reading (°C)			Stability ± (°C)	Uniformity (°C)	Overall Variation (°C)
	MIN	MAX	Average			
20.0	20.0	20.0	20.0	0.14	0.15	0.53

Note The quoted uncertainty include " Stability " and " Loading effect (20% of Temp Uniformity) "

UUC* = Unit Under Calibration

Stability = One-half of the greatest maximum difference of measured temperatures at any one sensors, for at least half an hour after reaching steady state.

Uniformity = The maximum difference of measured temperatures at any sensors and the measured temperature at the reference location which are observed at the same time.

Overall Variation = The difference of the maximum and minimum measured temperatures throughout observation time.

The report uncertainty of measurement was based on standard uncertainty multiplied by coverage factor k= 2, providing a level of confidence of approximately 95 %.

----- End -----

F-CS-012 Revision: 01 Date: 20-04-65



Calibration Certificate

Certificate No.: 2603199-002-01

Page : 1 of 2

Equipment: CHAMBER (Hot Air Oven)
Manufacturer: memmert
Model: UM 400
Serial No.: B499.1400
ID No.: N/A
Order No.: 2603199
Operation No.: 2603199-002
Date of Receipt: 22 May 2026
Date of Calibration: 22 May 2026

Customer Name: SECOT CO., LTD.
Address: 239 Rimklongprapa Road,
Bangsue, Bangsue, Bangkok 10800

Metrological traceability:

1. Calibration Method:

- This instrument was calibrated by inserting 9 standard thermometers into its chamber, in accordance with W-TE-014, based on TLAS G-20-1/02-08 (E): Guidelines for Calibration and Checks of Temperature Controlled Enclosures.
- The temperature scale used in this laboratory is the International Temperature Scale of 1990 (ITS-90).
- All data shown below are final values, and the initial data may be obtained upon request.

2. Reference Standard Instrument:

Instrument	Model/Type	Serial No./ID No.	Certificate No.	Due Date	Through
Digital Thermometer with sensor	34972A RTD	MY57003168 CHW201-209/ RTD#201-209	2503175-002-01	2 June 2026	NATIONAL FOOD INSTITUTE

3. This certificate is traceable to the International System of Units (SI).

4. This certificate is valid only for the instrument that was calibrated.

5. The result of this calibration was found to be accurate only on the date and at the place of calibration shown.

Calibrated by Mr.Yothin Charoensuk
Scientist

Approved by

(Mr.Pheraphat Tuanjit)

Manager, Division of Calibration Laboratory

Responsible for the Technical Management Team

Date of Issue: 26 May 2026

This Certificate is issued in accordance with the conditions of accreditation granted by the Thai Laboratory Accreditation scheme which has assessed the measurement capability of the laboratory and its traceability to recognized national standards and to the units of measurement realized at the corresponding national standards laboratory. This certificate may not be reproduced other than in full except with the prior written approval of the National Food Institute.

F-CS-009 Revision: 03 Date: 30-03-69



Foundation for Industrial Development
National Food Institute

2008 Sol Arun Amarin 56, Arun Amarin Road, Bang Yi Khan, Bang Phat, Bangkok 10700, Thailand.
Tel: +66(0) 2422 8698 Fax: +66(0) 2422 8948 Website: www.nfi.or.th Email: cal@nfi.or.th



Calibration Certificate

Certificate No.: 2603199-002-01

Page : 2 of 2

Calibration Condition:

Equipment: CHAMBER (Hot Air Oven) Place of Calibration: Laboratory
UUC* Resolution: 0.1 °C SECOT CO., LTD.
Condition of the item: Normal & Good Environment Conditions: Ambient Temperature (30.7 ± 1) °C
Without adjustment / As Found Relative Humidity (60.8 ± 3) %
- Time of record 1 hour 9 minute / point Line Voltage (228 ± 3) V.

Calibration Results:

Table1 : Reporting of Temperature

Calibration Point (°C)	Measured Temperature (°C) @ Sensor No. (Sensor No.9 is REF)									Measurement Uncertainty (±°C)
	Std.#1	Std.#2	Std.#3	Std.#4	Std.#5	Std.#6	Std.#7	Std.#8	Std.#9	
150.0	150.19	151.05	150.28	150.07	149.51	149.82	150.69	149.04	150.15	0.73

Table 2 : Reporting of Characterization Results

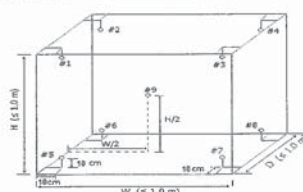
UUC* Setting (°C)	UUC* Reading (°C)			Stability ± (°C)	Uniformity (°C)	Overall Variation (°C)
	Max	Min	Average			
150.0	150.1	150.0	150.0	0.36	1.1	2.5

Note

- UUC* : Unit Under Calibration
- The quoted uncertainty includes contributions from 'Stability' and 'Loading Effect (20% of Temperature Uniformity).
- Stability = One-half of the greatest maximum difference of measured temperatures at any one sensors, for at least half an hour after reaching steady state.
- Uniformity = The maximum difference of measured temperatures at any sensors and the measured temperature at the reference location which are observed at the same time.
- Overall Variation = The difference of The maximum and minimum measured temperatures throughout observation time.

For more information, details of the sensor installation should be reported.

Fresh air Damper	- Open	- Position
	X Close	70% Fan speed
	- Not Available	
Dimension of inside chamber and sensor installation location (cm)		
W x H x D	40 x 40 x 33	
a x b x c	10 x 10 x 10	



The report uncertainty of measurement was based on standard uncertainty multiplied by coverage factor $k=2$, providing a level of confidence of approximately 95 %.

----- End of Report -----



Request Service No.090/69

Page 1 of 3

Calibration Certificate

Nomenclature : Brand : Sartorius Type : Top-Loading Electronic Balance

Model : BSA224S-CW Serial No. : 32191636

Submitted by : Laboratory of SECOT CO., LTD.

Location of Calibration : BAL Room , 6th Floor, Secot Co., Ltd.

Calibration range : 0 – 200 g Scale division : 0.0001 g (220 g)

Calibration date : May 21,2026

Reference Standard M2602136S, M2502078S, M2602137S, M2502079S

Traceable to : Thai Calibration Services CO., LTD.

Ambient Condition : Temperature 24.40-24.90 °C

Humidity 47.2-48.5 % RH

Calibrated By : *Khemchuda Insorn* Approved By : *Narisara Poowasanpetch*

(Miss Khemchuda Insorn)

(Miss Narisa Poowasanpetch)

Testing Officer

Chief of Technical Management

Date : 22/05/2026

Date : 22/05/2026

Issued Date : May 22,2026

Measurement Report

Request Service No.090/69

Page 2 of 3

Description : Brand : Sartorius Type : Top-Loading Electronic Balance

Model : BSA224S-CW Serial No. : 32191636

Calibration range : 0 – 200 g Scale division : 0.0001 g (220 g)

Calibration date : May 21,2026

Ambient Condition : Temperature 24.40-24.90 °C Relative humidity 47.2-48.5 % RH

Measurement data :

1. Repeatability of Reading :

Load (g)	Standard Deviation of Reading (g)	Maximum Difference between Successive Reading (g)
50	0.00005	0.0002
100	0.00005	0.0002
150	0.00005	0.0001
200	0.00004	0.0001

2. Off-Center Loading :

A Mass of 50.0000 g was placed and moved to various position on the pan.

Unit : g

Center	Front	Left	Back	Right	Center	Maximum Difference
49.99992	49.99992	49.99992	49.99990	49.99990	49.99992	0.00002

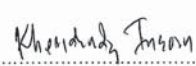
Issued Date : May 22,2026

Request Service No. 090/69

Page 3 of 3

3. Departure from Nominal Value :

Reading (g)	Correction (g)	Uncertainty (+/- g)
0	0.00000	± 0.00007
1	+ 0.00003	± 0.00007
5	+ 0.00005	± 0.00008
10	+ 0.00006	± 0.00008
20	+ 0.00007	± 0.00008
40	+ 0.00006	± 0.00010
60	+ 0.00005	± 0.00011
80	+ 0.00008	± 0.00013
100	+ 0.00004	± 0.00016
120	+ 0.00003	± 0.00018
140	+ 0.00008	± 0.00020
160	+ 0.00005	± 0.00022
180	+ 0.00002	± 0.00024
200	+ 0.00003	± 0.00027

Calibrated by :  Approved By : 

(Miss Khemchuda Insorn)

(Miss Narisa Poowasanpetch)

Testing Officer

Chief of Technical Management

Date : 22/05/2026

Date : 22/05/2026

Issued Date : May 22,2026

Agilent CrossLab Start Up Services

Agilent 5100 5110 ICP-OES Preventive Maintenance

Agilent Preventive Maintenance provides factory recommended service for your analytical instruments to assure reliable operation and the accuracy of your results

Delivered by highly trained and certified service engineers using genuine Agilent parts and supplies, Agilent Preventive Maintenance provides what you need to reduce unplanned downtime and keep your systems operating at their peak performance.

This checklist is used as a guide for completing the preventive maintenance tasks. A signed copy of this checklist is provided for your records.

Introduction

Customer Information

- Customers should provide all necessary operating supplies upon request of the engineer.
- A customer representative should be available to the engineer while performing the preventive maintenance procedures. Customers are responsible for regular maintenance and are encouraged to observe the service representative.
- Any parts not included in the Parts Lists section of this document are not part of the recommended Preventive Maintenance service nor are they included in the price of this service.
- If a system requires the use of extra or special procedures and/or parts for the maintenance service, then these must be ordered separately and charged as a repair, which may incur additional costs.
- For customers using HF applications, the instrument should be returned to its standard sample introduction system.

Important Customer Web Links

- To access **Agilent University**, visit <http://www.agilent.com/crosslab/university/> to learn about training options, which include online, classroom and onsite delivery. A training specialist can work directly with you to help determine your best options.
- To access the **Agilent Resource Center** web page, visit <https://www.agilent.com/en-us/agilentresources>. The following information topics are available:
 - Sample Prep and Containment
 - Chemical Standards
 - Analysis
 - Service and Support
 - Application Workflows
- The **Agilent Community** is an excellent place to get answers, collaborate with others about applications and Agilent products, and find in-depth documents and videos relevant to Agilent technologies. Visit <https://community.agilent.com/welcome>
- Videos about specific preparation requirements for your instrument can be found by searching the **Agilent YouTube** channel at <https://www.youtube.com/user/agilent>
- **Need to place a service call?** Flexible Repair Options | Agilent

Service Engineer's Responsibilities

- Contact the customer and ensure that all necessary supplies are available before the preventive maintenance visit.
- Only select those pages that relate to the system or module being serviced.
- Complete empty fields with the relevant information.
- Complete the relevant checkboxes in the checklist using either a "X" or tick mark "✓".
- Check "**Service not applicable**" check boxes to indicate services/tasks not delivered, as appropriate.
- Complete the Preventive Maintenance services in the most logical order relevant to the individual system service in the order of the tasks listed.
- Complete the **Service Review** section together with the customer.
- Complete the fields for page numbers at the foot of each selected page
- Add relevant page numbers to selected pages and complete the total number of pages field in the Service Completion section
- **Ask the customer to sign the Service Verification section including the customer's and your signature.**

Instrument Maintenance

System Information

- ☒ Check this box if an instrument configuration report is attached instead of completing the table.

Instrument System Name and ID	ICP-OES 5110 / MY16230003
Instrument System Site and Location	SEGOT CO. LTD.

List System Component Product Numbers	List the Serial Numbers of each Component
1. 68015A	MY16230003
2. 68410A	AV16181341
3. 68481-80000	3B1641345
4.	
5.	
6.	
7.	
8.	
9.	

ICP-OES Configuration Table	Circle the type or write in the type if other
Nebulizer Type	<u>SeaSpray</u> OneNeb Conikal Other
Spray Chamber	Cyclonic Single Pass <u>Cyclonic Double Pass</u> Other
Torch	Radial <u>Dual View</u> Other
Torch Type	<u>One Piece</u> Semi Demountable Fully Demountable Other
Injector Diameter	2.4mm <u>1.8mm</u> 1.4mm 0.8mm Other
Injector Material	<u>Quartz</u> Ceramic Other

Preparation

- ☒ Discuss any specific issues with the customer before starting.
- ☒ Review the instrument logbook for recorded problems and comments.
- ☒ Save instrument control settings before starting the procedure.
- ☒ Perform a general inspection of the system for cleanliness.
- ☒ Check for proper installation of parts, assemblies, sensors etc.
- ☒ Check system for required installation of components and implementation of Service Notes
- ☒ Check for required firmware/software updates and verify with customers if they would like them installed.
- ☐ For HF application systems, if standard sample introduction system was not installed, ask the customer to install it.
- ☒ Ask the customer to remove any samples from the ICP-OES sample introduction area, auto sampler or around the ICP-OES.

Preventive Maintenance Procedures

Record Pre-PM instrument performance

- ☒ Run Instrument Performance test.
- ☒ Record results in Instrument Performance Test Results Table – Pre-PM.

Clean and inspect ICP-OES system

- ☒ Look for any obvious external damage or problems.
- ☒ Inspect water cooling hoses, gas lines and power cord for excessive wear or damage.
- ☒ Perform a general internal inspection of the system for excessive dust accumulation, clean if necessary.
- ☒ Inspect sample introduction components and record any required maintenance in the Service Engineer Comments and notify the customer as the required actions required.
- ☒ Record the instrument operating conditions in the ICP-OES Status Results Table.
- ☒ Replace the polychromator purge filter.
- ☒ Replace the radial pre-optics window
- ☒ Replace the axial pre-optics window for SVDV and VDV instruments.
- ☒ Check exhaust flow for the correct positive extraction at the exhaust duct to insure they meet minimum specifications.
- ☒ Replace air inlet dust filter.
- ☒ Replace high capacity air inlet dust filter element if installed.
- ☒ Remove and clean instrument water inlet filter.

Agilent Water Recirculator

- ☒ **Service not applicable** Cooling water customer had problem After test
- ☐ Drain cooling fluid and remove any particles from the chiller reservoir
- ☐ Remove, clean and reinstall water inlet metal mesh filter if present.
- ☐ Re fill with Agilent Cool Clear cooling fluid.
- ☐ Clean the cooling system Air filter and the condenser.

SPS 3 Auto Sampler

- ☒ **Service not applicable**
- ☐ Power cycle the autosampler and verify successful initialization.
- ☐ Inspect X and Z axis belts for wear. Replace is necessary.
- ☐ Clean X and Z axis slide shafts.
- ☐ Using customer's racks and the Agilent software move the sample probe to the 4 outermost corners and rinse port, ensure that the probe is approximately centered in the vial.

SPS 4 Auto sampler

- ☐ **Service not applicable**
- ☒ Clean the spill tray, rack location mat, end frames and chassis with a damp soft cloth and diluted mild detergent.
- ☒ Clean the auto sampler cover panels, if cover kit is installed, with domestic window cleaner.
- ☒ Check the X-axis and Z-axis drive belts for cracks, splits, damaged teeth, excessive fraying, color changes or degradation from fumes.
- ☒ Check the X-axis, Theta-axis and Z-axis FFC cables for cracks, incorrect positioning, damaged edges or damaged connectors.
- ☒ Pump Tubing Replacement. Replace peristaltic pump tubing. Replace all tubing that goes from the rinse station to the pump and from the pump to the waste/rinse bottles
- ☒ Test using customer's tray and move the sample probe to the sample vial 1, wash vial and rinse port and ensure that the probe is centered in the vial. If not use calibration wizard and calibrate the position.

AVS 4, 6, 7 Advanced Valve System

- ☒ **Service not applicable**
- ☐ Replace valve rotor seal
- ☐ Check fittings for signs of leaks
- ☐ Check tubing including autosampler tubing for kinks or excessive wear
- ☐ Check high flow pump for signs of leaks

ADS 2 Advanced Dilution System (5110 only)

- ☒ SERVICE NOT APPLICABLE
- ☐ LOOK FOR ANY OBVIOUS EXTERNAL DAMAGE OR PROBLEMS.
- ☐ REPLACE VALVE ROTOR SEAL ON VALVES A AND B.
- ☐ REPLACE BOTH SYRINGES.
- ☐ REPLACE ACID VAPOR FILTER (WASTE VESSEL)
- ☐ REPLACE VENTING VALVE (DILUENT CARRIER BOTTLE)
- ☐ CHECK FITTINGS FOR SIGNS OF LEAKS.
- ☐ CHECK TUBING INCLUDING AUTOSAMPLER TUBING FOR KINKS OR EXCESSIVE WEAR.

ICP-OES adjustment

- ☒ Check position of Zn peak, adjust if required.
- ☒ Check Argon Ratio, adjust to specified value if required.
- ☒ Perform Detector Calibration.
- ☒ Perform Instrument Calibration.

Record Post-PM instrument performance

- ☒ Run Instrument Performance test.
- ☒ Record results in Instrument Performance Test Results Table - Post PM.
- ☒ For systems using ICP Expert version 7.3 and above, run the following Instrument tests
 - ☒ Subsystem Communications Test
 - ☒ Air Flow
 - ☒ Water Flow
 - ☒ Gas Flows
 - ☒ RF Generator
 - ☒ Camera Test
 - ☒ Optics Test
 - ☐ Nebulizer Test
- ☒ Record the result in the Instrument Test Results Table

Restore Instrument

- ☐ For HF applications, ask the customer to reinstall their sample introduction system.
- ☒ Leave system in an idle state: on and purging.
- ☒ Guidance: If the PM service is performed prior to a qualification service, then use the qualification procedure as a guide for final instrument set up and checkout.

Service Review

- ☒ Attach available reports/printouts of all tests to this documentation.
- ☒ Record the Preventive Maintenance service activity in the customer's records/logbook.
- ☒ Record the PM event in the Smart Alerts logbook, if applicable.
- ☒ Update/reset instrument maintenance counters as appropriate.
- ☒ Affix the PM sticker to the system or instrument logbook based on the customer's request.
- ☒ Complete the Service Engineer Comments section if there are additional comments.
- ☒ Review this service, parts replaced, and test results obtained with the customer.
- ☒ If the instrument firmware was updated, record the details of the change in the Service Engineer's Comments box. Systems in a compliant environment may need additional documentation.
- ☒ Complete the Signature Page with both Service Engineer and Customer signatures.

Test Results

Instrument Performance Test Results Table

Note: These measurements do not form part of any specification and are for reference only.

	Pre PM Sensitivity Check		Post PM Sensitivity Check	
	Radial	Axial *	Radial	Axial*
Zn 213.857 nm SRBR	4009.3	8855.1	3897.7	9259.9
Mn 257.610 nm SRBR	9247.9	29340.6	9728.5	29370.2
Al 396.152 nm SBR	6.5	20.9	7.5	24.4
K 766.491 nm SBR	2.1	52.7	1033.6	2689.4

* Axial result is not applicable for G8016AA, G8012AA Radial View instruments.

Instrument Test Results Table

Note: The Instrument Test results are for systems using ICP Expert version 7.3 and above only.

Instrument Test	Result
Subsystem Communications Test	Pass
Air Flow	Pass
Water Flow	Pass
Gas Flows	Pass
RF Generator	Pass
Camera Test	Pass
Optics Test	Pass
Nebulizer test	Pass

ICP-OES Status Results Table

Note: These measurements do not form part of any specification and are for reference only.

Measurement	Standby Mode		Plasma On	
Mains Voltage	226.512	VAC	222.151	VAC
Mains Current	0.101	A	0.270	A
Instrument Temperature	23.2	°C	24.1	°C
RF Air Flow (sensor speed)	14.0	Hz	18.0	Hz
Plasma Exhaust Temperature	No measurement		59.8	°C
Water Flow Oscillator	No measurement		1.40	L/min
Water Flow Detector	1.11	L/min	1.11	L/min
Water Inlet Temperature	19.5	°C	20.4	°C
Polychromator Temperature	35.0	°C	35.3	°C
CCD Temperature	-40.0	°C	-39.9	°C
Thermal Stabilizer	35.0	°C	35.0	°C
Argon Supply Pressure	538.86	kPa	467.14	kPa
Purge Gas Supply Pressure*1	537.32	kPa	526.28	kPa
Option Gas Supply Pressure*1	-	kPa	-	kPa
Nebulizer Flow	No measurement		0.80	L/min
Nebulizer Back Pressure	No measurement		361.64	kPa
Plasma Gas Flow	No measurement		15.02	L/min
Auxiliary Gas Flow	No measurement		1.20	L/min
RF Power	No measurement		1202.0	W
RF Supply Current	No measurement		8673	A
RF Supply Voltage	No measurement		184.793	V

*1 If option installed

Consumed PM Parts

Part Description	Part Number	Product or Model# where used	Quantity consumed
Axial Pre-Optic Window	G8010-68014	G8010A, G8011A, G8014A/G8015A	1
Radial Pre-Optic Window	G8010-68015	All	1
Agilent Cool Clear Coolant Fluid	5799-0037	Agilent Water Recirculator	-
Purge Gas Filter	G8010-60136	All	-
Air inlet filter	G8000-68002	All	1
High Capacity Air Filter	G8010-60189	Optional	1
Rotor seal for 6-7 port valve for AVS6/7	G8494-60002	G8494A/G8495, ADS 2	-
Rotor seal for 4 port valve for AVS4	G8493-60002	G8493A	-
Rinse solution to rinse station 2.5mm id x 1m	G8410-80123	SPS 4	-
Barb connector 2.5mm-1.5mm ID	G8410-80124	SPS 4	-
PVC waste tubing, 8mm od x 5mm id, 2m	G8410-80122	SPS 4	-
Syringe, 5mL	5299-0037	ADS 2	-
Syringe, 10mL	5299-0038	ADS 2	-
Acid vapor filter	5043-1193	ADS 2	-
Venting valve	5043-1190	ADS 2	-
Additional Parts may be required from engineer's stock:			
X axis drive belt	5410047500	SPS 3	-
Z axis drive belt	5410047400	SPS 3	-
Peristaltic pump tubing, PVC SolvaFlex, 3 bridged,	3710049000	SPS 4	-

Consumed Parts Reference
(Purchased by customer, not included as part of PM)☒ Section Not Applicable.

Part Description	Part Number	Product or Model# where used	Quantity consumed
------------------	-------------	------------------------------	-------------------

Part Description	Part Number	Product or Model# where used	Quantity consumed
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Signature Page

Service Engineer Comments (optional)

If there are any specific points you wish to note as part of performing the installation or other items of interest for the customer, please write in this box.

Cooling water leak recommend change cooling water because cooling water leak doing flow drop

Service Verification

Service Request Number:

6008554478

Service Engineer Name:

Sarinya Chiothet

Date Service Completed:

27 Apr 2026

Customer Name:

Araya Tipparuk

Agilent 5100, 5110 Preventive Maintenance Checklist



Service Engineer Signature:

Sarinya C.

Total number of pages in this document:

15

Customer Signature:

N R



PinAAcle 900T Preventive Maintenance Report

Company Name: Secot.co.th
Instrument Location: Instrument Room
239 Rimkhlong Prapa Rd, Bang Sue, Bangkok 10800
Instrument Serial No.: PTDS23051001
Date: 22 APR 2026

PinAAcle 900T Preventive Maintenance (PM)

Company Name:		Secot.co.th	
Address		239 Rimkhlong Prapa Rd, Bang Sue, Bangkok 10800	
(Instrument Location):			
Serial Number:	PTDS23051001	PM Number:	1/1
Customer Name (if applicable):	K.Araya	Telephone Number:	0-2959-3600
Customer Support Engineer Name:	Prasit	Service Order Number:	WO-11866808
Date PM Performed: (DD-MMM-YYYY)	22 APR 2026	Next PM Due Date: (DD-MMM-YYYY)	22 APR 2027
Standard Labor Hours to Complete PM :		5 hours	

Part Number	Release	Publication Date	
09370143 Rev.9	A	January 2018	

Scope

The purpose of this PM is to ensure the continued functionality of the PinAAcle 900T by inspecting and replacing any worn or damaged parts. This service should only be performed by a trained representative of PerkinElmer.

The customer should save their method before the PM begins.

General Instructions:

The customer must provide the engineer operational data to demonstrate recent instrument performance prior to starting the PM. Always check with the customer before making any changes that may affect the customer's analysis or calibration, including a current back-up of system software and/or data files. The completed document should be signed by an authorized PerkinElmer and customer representative and left with the customer. Update the PM sticker and instrument logbook as required.

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Component List

Component / Specific Model	Serial #	Configuration Notes
PinAAcle900T	PTDS23051001	Syngistix V. 5.1.0

Parts Lists

Parts Included with the PM

Part Number (if applicable)	Description	Quantity
80501696	Fan Filters	N/A
83002013	THGA Contact Cylinders	N/A
83141064	Glycerol for THGA Cooling	N/A
N3160156	O-Ring Kits for Sampling Introduction (Stainless Steels Nebulizer)	N/A
N3160157	O-Ring Kits for Sampling Introduction (Plastic Nebulizer)	N/A
N9301714	Replacement Acetylene Filter Cartridge	N/A
TH001022	Replacement Air Filter Cartridge	N/A

Additional Reagents and Standards Required for PM

Part Number (if applicable)	Description	Quality	Batch/Lot #	Expired Date (MM/YY)
N9300183	1000 mg/L Copper Standard	AR	27-156CUY1	SEP-2026
N9300244	GFAAS Mixed Standard	AR		

Additional Reagents and Standards Required for PM (Customer Support Solution)

Part Number (if applicable)	Description	Quantity	Batch/Lot #	Expiration Date (MM/YY)
N/A	DI Water	250 ml.	AR	AR
N/A	0.5% HNO ₃	250 ml.	AR	AR

Additional Tools Required for PM

Part Number (if applicable)	Description	Quantity	Serial #
N1013000	0.2A Neutral density filter	1	MG0-704
N1013002	1.0A Neutral density filter	1	MG2-891
B3100652 Or N9307029	Electronic Flow Meter	1	MY2231FC07
B0505495	Test Jig	1	N/A
03030997	System 2 EDL Driver	1	030309-97E
N3050605	As System 2 EDL	1	17986
N3050121	Cu Lumina HCL	1	000003793D12
N3050109	Ba Lumina HCL	1	041123-010120
N3050139	K Lumina HCL	1	0000037B8E1D
N3050152	Ni Lumina HCL	1	N/A
N3050119	Cr Lumina HCL	1	010324-0300050

Procedure Checklist

Use (✓) to check off those steps in the checklist that have been completed.

1. General:

- ☒ Review the instrument performance with the customer and document any recent problems.
- ☒ Inspect the customer log book and make any appropriate PM entries.
- ☒ Perform general inspection of system for cleanliness.

2. PC Instrument Software:

- ☒ Instrument Software user files/databases archived, packed, and/or deleted as needed.

3. Mechanical:

- ☒ Inspect and clean all fans and filters. Replace filters if necessary
- ☒ Inspect all gas and water lines for leaks and/or wear. Replace if needed. Thoroughly inspect all quick connects. Replace the Y connector, P/N 09921079, if needed.
- ☒ Clean exterior of the instrument.

3.1 Flame Technique

- ☒ Inspect the burner head, burner chamber, and nebulizer. Clean if needed as stated in the Hardware Guide.
- ☒ Check burner head dimensions with the feeler gauge as stated in the Hardware Guide in the Maintenance chapter section on cleaning the burner head and checking sloth width. Replace if out of specification
- ☒ Check the condition of the end cap, burner head, and nebulizer O-rings. Replace if necessary.
- ☒ Check the drain system for signs of wear. Replace worn or damaged parts.
- ☒ Visually check for proper flame conditions when igniting the Air-C2H2 and N2O-C2H2 flames (if applicable).

3.2 THGA Technique

- ☒ Inspect the pole pieces and clean where the pole pieces contact the furnace. Replace the pole piece p-rings as needed, P/N's B0501018 & B0501250. Grease the O-rings as needed with Apiezon L grease, P/N 09905148
- ☒ Inspect the four insulation pads on the front contact housing of the THGA in furnace. If the pads are missing replace the THGA furnace or replace the insulator pads on the furnace.
- ☒ Inspect the graphite tube and clean the contact cylinders. Replace if necessary.
- ☒ Check internal and external gas flows with the Electronic Gas Flow Meter and the Gas Flow Test Probe as described in the Service Manual. Correct if necessary.
- ☒ Check furnace open/close function.
- ☒ Verify the operation of the GFTV Camera for proper operation and viewing alignment in the furnace camera Tube View window. Align if needed.
- ☒ Check the operation of the Halogen Light ASSY for the GFTV Camera. Replace if needed.
- ☒ Check the water level/quality in the recirculation (if applicable). Add distilled water if necessary.
- ☒ Check the cooling system fluid flow rate with the FCS In-Line Flow Meter for proper levels if needed. Refer to SDB# COSY008.STN

- ☒ Perform Cooling System maintenance if needed per SDB# COSY005.STN.
- ☒ Check auto sampler operation.
- ☒ Perform an auto sampler check valve test as described in the Service Manual.
- ☒ Lubricate the spindles of the auto sampler pumps and all moving parts of the tray mechanics as described in the Service Manual.
- ☒ Inspect the auto sampler sampling capillary as described in the Service Manual. Replace if necessary.

4. Electrical:

- ☒ Inspect PC boards. Clean if necessary.
- ☒ Carefully check all internal and external cable connections.
- ☒ Check instrument firmware revisions upgrade to current levels (if necessary)
- ☒ Run Diagnostics Test within the Advanced function of the Spectrometer page. Check the results in the service log folder in the Spectrometer BM Log Viewer.

5. Optics:

- ☒ Inspect and clean the sample compartment windows, if needed.
- ☒ Inspect and clean the furnace windows, if needed.
- ☒ Inspect and clean the GFTV camera lens, if needed.
- ☒ Inspect optics. Clean or replace if necessary,

6. Gasses:

- ☒ Verify that the Gasses supplied to the instrument are within the pressure and purity specifications found in the PinAAcle 900 Series Pre-installation Checklist SDB.
- ☒ Verify that the air filter element is dry. Replace if necessary.

7. Flame Interlock Check:

Description: Check to ensure that all safety interlocks are closed.

Parameter	Specification	Test Results	Pass/Fail
Flame Sensor	Air/C ₂ H ₂ Flame correctly shuts down	Active	☒ Passed
Drain Sensor	Air/C ₂ H ₂ Flame correctly shuts down	Active	☒ Passed
Nebulizer Sensor	Air/C ₂ H ₂ Flame correctly shuts down	Active	☒ Passed
C ₂ H ₂ Pressure Sensor	Air/C ₂ H ₂ Flame correctly shuts down	Active	☒ Passed
Air Pressure Sensor	Air/C ₂ H ₂ Flame correctly shuts down	Active	☒ Passed
Burner Head Sensor	Choosing Nitrous Oxide as the oxidant should trigger an interlock shuts down	Active	☒ Passed

8. After PM Performance tests [Flame]:

8.1 Detector Linearity with Barium

Description: Ensures that the detector is linear in the Visible Range.

Parameter	Specification	Certificate Value at 553.6 nm (Abs.)	Test Results	Pass/Fail
1.0 A ND Filter	± 5% from Cert.	0.9874	0.9798	Passed ☒
0.2 A ND Filter	± 5% from Cert.	0.1886	0.1893	Passed ☒

8.2 Baseline Noise at 1.0 Absorbance with Barium

Description: Ensures that a high absorbance will not produce excessive noise.

Parameter	Specification	Results	Pass/Fail
Standard Deviation	≤ 0.010	0.0013	Passed ☒

8.3 AA Baseline Noise with Copper

Description: Check baseline noise.

Parameter	Specification	Results	Pass/Fail
Standard Deviation	≤ 0.001	0.0001	Passed ☒

8.4 D₂ Background Compensation with Copper

Description: Verifies the instruments ability to compensate for Background absorption.

Parameter	Specification	Results	Pass/Fail
Standard Deviation	≤ 0.010	0.0046	Passed

8.5 AA-BG Baseline Noise with Copper

Description: Ensures that background correction does not produce excessive noise.

Parameter	Specification	Results	Pass/Fail
Standard Deviation	≤ 0.005	0.0003	Passed

8.6 AA-BG Baseline Noise with Arsenic

Description: Ensures that background correction does not produce excessive noise at a low wavelength.

Parameter	Specification	Results	Pass/Fail
Standard Deviation	≤ 0.005	0.0004	Passed

8.7 Flame Sensitivity

Description: Instrument Sensitivity checked against Copper standard.

Standard Copper Sensitivity	Specification	Results (Abs.)	Pass/Fail
5 mg/L Sensitivity SS Neb (if applicable)	> 0.250 Abs.	N/A	Not Applicable
2 mg/L Sensitivity HS Neb (if applicable)	> 0.250 Abs.	0.3028	Passed ☐

9. After PM Performance tests [THGA]:

9.1 Furnace Gas Flows

Description: Ensures the flow rates are within specification.

Parameter	Specification	Test Results	Pass/Fail
Internal Flow Rate	250 mL/min $\pm$ 25 mL/min	252	Passed ☐
External Flow Rate	100 mL/min $\pm$ 10 mL/min	97	Passed ☐

9.2 Chromium Baseline Noise

Description: Signal to noise check.

Parameter	Specification	Results	Pass/Fail
Baseline Noise	≤ 0.005 Abs.	0.0019	Passed ☐
Standard Deviation	≤ 0.005	0.0001	Passed ☐

9.3 Chromium Characteristic Mass and Precision

Description: Calculate the characteristic mass using the characteristic mass tool and precision from the integrated absorbance values.

Parameter	Specification	Results	Pass/Fail
Cr m_0 Results	≤ 7.0 pg/0.0044 A-s	6.2	Passed ☐
Precision	≤ 2.0 %	1.29	Passed ☐

9.4 Copper Characteristic Mass and Zeeman Ratio

Description: Calculate the characteristic mass using the characteristic mass tool and check the Zeeman Ratio.

Parameter	Specification	Results	Pass/Fail
Cu m_0 Result	≤ 16.5 pg/0.0044 A-s	8.3	Passed
Zeeman Ratio	0.52 ± 0.04	0.53	Passed

10. Review:

- ☒ Review with the customer PM work performed.
- ☒ Review with the customer routine maintenance procedures.
- ☒ Discuss recommended customer supplied materials to have on hand.
- ☒ Attach PM sticker.

Additional Comments

Additional Comments Regarding the PM

$$\begin{aligned}\text{Zeeman Ratio} &= \frac{\text{Atomic Signal (Peak area)}}{\text{Atomic Signal (Peak area)} + \text{Background Signal (Peak area)}} \\ &= \frac{0.2696}{0.2696 + 0.2346} \\ &= 0.5347\end{aligned}$$

Review

The preventive maintenance checks and if applicable performance tests for PinAAcle 900T have been completed.

This PinAAcle 900T Passes ☒ Fails ☐ the preventive maintenance.

Review of Preventive Maintenance:

Authorized PerkinElmer Representative:

Prasit

Date:
22 APR 2026
(DD-MMM-YYYY)

Authorized Customer Representative:

Date:
22 APR 2026
(DD-MMM-YYYY)

Additional Comments

Additional Comments Regarding the PM

$$\begin{aligned}\text{Zeeman Ratio} &= \frac{\text{Atomic Signal (Peak area)}}{\text{Atomic Signal (Peak area)} + \text{Background Signal (Peak area)}} \\ &= \frac{0.2696}{0.2696 + 0.2346} \\ &= 0.5347\end{aligned}$$

Review

The preventive maintenance checks and if applicable performance tests for PinAAcle 900T have been completed.

This PinAAcle 900T Passes ☒ Fails ☐ the preventive maintenance.

Review of Preventive Maintenance:

Authorized PerkinElmer Representative:

Prasit

Date:
22 APR 2026
(DD-MMM-YYYY)

Authorized Customer Representative:

6201

Date:
22 APR 2026
(DD-MMM-YYYY)

ENVIR SERVICE CO., LTD. (HEAD OFFICE)

42 Ramintra 14, Yeak 9 Tha Raeng, Bang Khen, Bangkok 10230 Thailand
 Tax ID: 0105555170865 Tel: 02-943-5814-5
 Tel: 02-943-8201 Email: pasagorn@envirservice.co.th



Certificate No. EN202502005

CALIBRATION CERTIFICATE

Instrument Description : WET BULE GLOBE TEMPERATURE (WBG) METER
 Manufacture : Beijing JANTYTECH Technology Co., Ltd.
 Instrument Model : JT2011-E2A
 Serial No. : 3522210174
 Customer Name : SECOT CO., LTD.
 Address : 239 Thanon Rim Khlong Prapa, Bang Sue, Bangkok 10800

Measurement standard used in the Calibration

Reference Standard: Standard Calibration Device, Manufacture: JANTYTECH, Model WBG (2011-E2A), SN: 241011001 Calibration Date: 2025 Oct. 27, Calibration Certificate No.: JTCD202510005

The verification result in the certificate can be traceable to international system of unit (SI) / social public measurement standards.

CALIBRATION RESULTS**Testing Result:**

UUC Sensor	Standard Temperature (°C)	UUC Reading (°C)	Correction (°C)	Uncertainty (±°C)
WET	25.0	24.9	0.1	0.2
	30.0	29.9	0.1	0.2
	35.0	35.1	-0.1	0.2
	40.0	40.1	-0.1	0.2
	45.0	45.2	-0.2	0.2
DRY	25.0	25.1	-0.1	0.2
	30.0	30.1	-0.1	0.2
	35.0	34.8	0.2	0.2
	40.0	40.1	-0.1	0.2
	45.0	44.9	0.1	0.2
GLOBE	25.0	24.9	0.1	0.2
	30.0	29.9	0.1	0.2
	35.0	34.8	0.2	0.2
	40.0	40.1	-0.1	0.2
	45.0	45.2	-0.2	0.2

Environment Condition: Temperature (25 ± 2) °C Relative Humidity (50 ± 15) %RH

- The report applies to the item and shall not be reproduced except in full, without written approval by Calibration Laboratory, Envir Service Co., Ltd.
- This result of this report only to the item calibrated.

Date of Calibration : 2026-01-14
 Valid to : 2027-01-13

Calibrated By :
 Kittisak Jansangwattana
 (Technician)

Approved By :
 Pasagorn Samol
 (Technician Manager)

- End of Calibrated -

ENVIR SERVICE CO., LTD. (HEAD OFFICE)

42 Ramintra 14, Yeak 9 Tha Raeng, Bang Khen, Bangkok 10230 Thailand
 Tax ID: 0105555170865 Tel: 02-943-5814-5
 Tel: 02-943-8201 Email: pasagorn@envirservice.co.th



Certificate No. EN202502007

CALIBRATION CERTIFICATE

Instrument Description : WET BULE GLOBE TEMPERATURE (WBG) METER
 Manufacture : Beijing JANTYTECH Technology Co., Ltd.
 Instrument Model : JT2011-E2A
 Serial No. : 3522210176
 Customer Name : SECOT CO., LTD.
 Address : 239 Thanon Rim Khlong Prapa, Bang Sue, Bangkok 10800

Measurement standard used in the Calibration

Reference Standard: Standard Calibration Device, Manufacture: JANTYTECH, Model WBG (2011-E2A), SN: 241011001 Calibration Date: 2025 Oct. 27, Calibration Certificate No.: JTCD202510005

The verification result in the certificate can be traceable to international system of unit (SI) / social public measurement standards.

CALIBRATION RESULTS**Testing Result:**

UUC Sensor	Standard Temperature (°C)	UUC Reading (°C)	Correction (°C)	Uncertainty (±°C)
WET	25.0	25.1	-0.1	0.2
	30.0	29.8	0.2	0.2
	35.0	34.9	0.1	0.2
	40.0	40.1	-0.1	0.2
	45.0	44.8	0.2	0.2
DRY	25.0	24.8	0.2	0.2
	30.0	29.8	0.2	0.2
	35.0	34.9	0.1	0.2
	40.0	40.2	-0.2	0.2
	45.0	45.1	-0.1	0.2
GLOBE	25.0	24.9	0.1	0.2
	30.0	29.9	0.1	0.2
	35.0	34.8	0.2	0.2
	40.0	40.2	-0.2	0.2
	45.0	45.1	-0.1	0.2

Environment Condition: Temperature (25 ± 2) °C Relative Humidity (50 ± 15) %RH

- The report applies to the item and shall not be reproduced except in full, without written approval by Calibration Laboratory, Envir Service Co., Ltd.
- This result of this report only to the item calibrated.

Date of Calibration : 2026-01-14
 Valid to : 2027-01-13

Calibrated By :
 Kittisak Jansangwattana
 (Technician)

Approved By :
 Pasagorn Samol
 (Technician Manager)

- End of Calibrated -

ENVIR SERVICE CO., LTD. (HEAD OFFICE)

42 Ramintra 14, Yeak 9 Tha Raeng, Bang Khen, Bangkok 10230 Thailand
 Tax ID: 0105555170865 Tel: 02-943-5814-5
 Tel: 02-943-8201 Email: pasagorn@envirservice.co.th



Certificate No. EN202502009

CALIBRATION CERTIFICATE

Instrument Description : WET BULE GLOBE TEMPERATURE (WBGT) METER
 Manufacture : Beijing JANTYTECH Technology Co., Ltd.
 Instrument Model : JT2011-E2A
 Serial No. : 3522210179
 Customer Name : SECOT CO., LTD.
 Address : 239 Thanon Rim Khlong Prapa, Bang Sue, Bangkok 10800

Measurement standard used in the Calibration

Reference Standard: Standard Calibration Device, Manufacture: JANTYTECH, Model WBGT (2011-E2A), SN: 241011001 Calibration Date: 2025 Oct. 27, Calibration Certificate No.: JTCD202510005

The verification result in the certificate can be traceable to international system of unit (SI) / social public measurement standards.

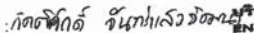
CALIBRATION RESULTS**Testing Result:**

UUC Sensor	Standard Temperature (°C)	UUC Reading (°C)	Correction (°C)	Uncertainty (±°C)
WET	25.0	25.2	-0.2	0.2
	30.0	30.1	-0.1	0.2
	35.0	34.9	0.1	0.2
	40.0	40.2	-0.2	0.2
	45.0	44.8	0.2	0.2
DRY	25.0	24.9	0.1	0.2
	30.0	30.1	-0.1	0.2
	35.0	34.9	0.1	0.2
	40.0	39.8	0.2	0.2
	45.0	45.1	-0.1	0.2
GLOBE	25.0	24.8	0.2	0.2
	30.0	29.9	0.1	0.2
	35.0	34.9	0.1	0.2
	40.0	40.1	-0.1	0.2
	45.0	45.2	-0.2	0.2

Environment Condition: Temperature (25 ± 2) °C Relative Humidity (50 ± 15) %RH

- The report applies to the item and shall not be reproduced except in full, without written approval by Calibration Laboratory, Envir Service Co., Ltd.
- This result of this report only to the item calibrated.

Date of Calibration : 2026-01-14
 Valid to : 2027-01-13

Calibrated By : 
 Kittisak Jansangwattana
 (Technician)



Pasagorn Samol
 (Technician Manager)

- End of Calibrated -

ENVIR SERVICE CO., LTD. (HEAD OFFICE)

42 Ramintra 14, Yeak 9 Tha Raeng, Bang Khen, Bangkok 10230 Thailand
 Tax ID: 0105555170865 Tel: 02-943-5814-5
 Tel: 02-943-8201 Email: pasagorn@envirservice.co.th



Certificate No. EN202502011

CALIBRATION CERTIFICATE

Instrument Description : WET BULE GLOBE TEMPERATURE (WBGT) METER
 Manufacture : Beijing JANTYTECH Technology Co., Ltd.
 Instrument Model : JT2011-E2A
 Serial No. : 3522210181
 Customer Name : SECOT CO., LTD.
 Address : 239 Thanon Rim Khlong Prapa, Bang Sue, Bangkok 10800

Measurement standard used in the Calibration

Reference Standard: Standard Calibration Device, Manufacture: JANTYTECH, Model WBGT (2011-E2A), SN: 241011001 Calibration Date: 2025 Oct. 27, Calibration Certificate No.: JTCD202510005

The verification result in the certificate can be traceable to international system of unit (SI) / social public measurement standards.

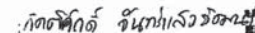
CALIBRATION RESULTS**Testing Result:**

UUC Sensor	Standard Temperature (°C)	UUC Reading (°C)	Correction (°C)	Uncertainty (±°C)
WET	25.0	25.1	-0.1	0.2
	30.0	29.9	0.1	0.2
	35.0	35.2	-0.2	0.2
	40.0	40.1	-0.1	0.2
	45.0	44.8	0.2	0.2
DRY	25.0	24.9	0.1	0.2
	30.0	29.9	0.1	0.2
	35.0	34.8	0.2	0.2
	40.0	40.2	-0.2	0.2
	45.0	44.9	0.1	0.2
GLOBE	25.0	25.2	-0.2	0.2
	30.0	30.1	-0.1	0.2
	35.0	34.8	0.2	0.2
	40.0	39.8	0.2	0.2
	45.0	44.9	0.1	0.2

Environment Condition: Temperature (25 ± 2) °C Relative Humidity (50 ± 15) %RH

- The report applies to the item and shall not be reproduced except in full, without written approval by Calibration Laboratory, Envir Service Co., Ltd.
- This result of this report only to the item calibrated.

Date of Calibration : 2026-01-14
 Valid to : 2027-01-13

Calibrated By : 
 Kittisak Jansangwattana
 (Technician)



Pasagorn Samol
 (Technician Manager)

- End of Calibrated -

**INTERNATIONAL TESTING SERVICE CO., LTD**1213/388 Ladprao 94 Ladprao Rd. Wangtonglang Bangkok 10310
Tel 0-2559-2095 Fax 0-2559-2096E-mail : sale@itest-lab.com web site : www.itest-lab.comNSC-TISI-TIS 17025
CALIBRATION 129

CALIBRATION CERTIFICATE

Issued date: 27 January 2026

Client Name : **SECOT CO., LTD.**

Address : 239 Rimklongprapa Rd., Bangsue, Bangkok 10800 Thailand.

Request No: **C-2601 - 020**Laboratory No.: **CAL- 020**

Date of Request: 23 January 2026.

Date of Calibration: 26 January 2026.

1. Unit Under Calibration (UUC) :

Nomenclature : Digital Light Meter

Serial No.: A 051050

Maker : EXTECH

Model : 407026

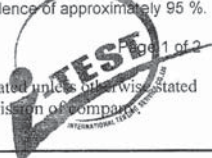
2. Place of Calibration: Photometry Standard Laboratory, INTERNATIONAL TESTING SERVICE CO., LTD.**3. Range of Calibration:** 1 Range**4. Condition of Laboratory:** Ambient temperature: $(25 \pm 2) ^\circ\text{C}$ and relative humidity $(60 \pm 20) \%$.**5. Reference Standard:** Standard Tungsten Halogen Lamp has a value of approximately 2,856 K, Serial No.: 504010, which was calibrated on 28 March 2025, can be traceable to International System of Unit (SI) through National Institute of Metrology (Thailand), Certificate No.: TP-1005-25.**6. Support Equipment:**

1. Photometric bench, 6.3 meter long.
2. DC. power supply, Serial No.: EJ 19A 009, Model: GPR-25H 300, Maker: GW INSTEK.
3. Digital Multimeter, Model: 34401A, S/N: MY44011212 and MY44011215.
4. Foot Candle / Lux Meter, Model: 407026, S/N: Q 558437, Maker: EXTECH.

7. Calibration Procedure:

The measurement was done in accordance with WI-CP-01. The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor $k = 2$, providing a level of confidence of approximately 95 %.

The Results shown in this certification report refer only to the equipment(s) calibrated unless otherwise stated
This Calibration Certificate cannot be reproduced, except in full, without permission of company.

**INTERNATIONAL TESTING SERVICE CO., LTD**1213/388 Ladprao 94 Ladprao Rd. Wangtonglang Bangkok 10310
Tel 0-2559-2095 Fax 0-2559-2096E-mail : sale@itest-lab.com web site : www.itest-lab.comNSC-TISI-TIS 17025
CALIBRATION 129Request No: **C-2601 - 020**

Serial No.: A 051050

Laboratory No.: **CAL - 020****Results :**

UUC Range	Standard (lx)	UUC Reading (lx)		Correction (lx)	Uncertainty of Measurement ($\pm$ lx)
		Before adjust	After adjust		
2000	0	0	0	0	0.60
	100	88	97	+3	2.0 % of Reading
	501	435	496	+5	
	1001	874	999	+2	
	1503	1324	1511	-8	
	1904	1686	1923	-19	

- Note : 1. The results relate only to the items calibrated.
2. The UUC was calibrated at 0 lux is not NSC-ONSC Accredited.
3. Zero adjust before used.

Calibration result approved by

(Mr. Yuttana Tholueng)Approved on behalf of
International Testing Service Co., Ltd
(Mr. Pichit Vivat-Anant)
Managing Director

Page 2 of 2

The Results shown in this certification report refer only to the equipment(s) calibrated unless otherwise stated
This Calibration Certificate cannot be reproduced, except in full, without permission of company.

ภาคผนวก ฉ

หนังสืออนุญาตขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
จากกรมโรงงานอุตสาหกรรม



ที่ อก ๐๓๑๐(๑)/ ๔๐๕๖

กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ เขตราชเทวี
กรุงเทพมหานคร ๑๐๔๐๐

๑๙ มิถุนายน ๒๕๖๙

เรื่อง ต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

เรียน กรรมการผู้จัดการ บริษัท ซิคอท จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน

ลงวันที่ ๒ เมษายน ๒๕๖๙

สิ่งที่ส่งมาด้วย ๑. รายชื่อผู้ควบคุมดูแลห้องปฏิบัติการวิเคราะห์ จำนวน ๑ แผ่น

๒. รายชื่อเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๑ แผ่น

๓. ขอบข่ายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๓๑ แผ่น

ตามคำขอที่อ้างถึง บริษัท ซิคอท จำกัด ขอต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ว-๒๓๙ สถานที่ตั้งเลขที่ ๒๓๙ ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร ต่อกรมโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้บริษัท ซิคอท จำกัด ต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน โดยมีองค์ประกอบดังนี้

ก. ผู้ควบคุมห้องปฏิบัติการวิเคราะห์เอกชน จำนวน ๙ ราย ตามสิ่งที่ส่งมาด้วย ๑

ข. เจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน จำนวน ๔๐ ราย ตามสิ่งที่ส่งมาด้วย ๒

ค. ขอบข่ายชนิดสารมลพิษที่ได้รับขึ้นทะเบียนให้วิเคราะห์ในน้ำ/น้ำเสีย น้ำใต้ดิน อากาศเสีย สิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว และดิน ตามสิ่งที่ส่งมาด้วย ๓

หนังสือฉบับนี้จะหมดอายุในวันที่ ๒ พฤษภาคม ๒๕๗๓ หากประสงค์จะต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน ให้ยื่นคำขอต่ออายุพร้อมเอกสารประกอบคำขอต่อกรมโรงงานอุตสาหกรรมภายใน ๖๐ วัน ก่อนวันสิ้นอายุของหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายศิริ จันทรเกิด)

นักวิทยาศาสตร์เชี่ยวชาญ วิชาการการแทน
ผู้อำนวยการกองวิจัยและเตือนภัยมลพิษโรงงาน
ปฏิบัติการแทนอธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษโรงงาน

กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ

โทร. ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๐๓-๕

โทรสาร ๐ ๒๔๓๐ ๖๓๑๒ ต่อ ๒๑๔๙

ไปรษณีย์อิเล็กทรอนิกส์ saraban@div.mail.go.th



“อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว”



เอกสารแนบท้ายหนังสือรับต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

บริษัท ซิคอท จำกัด

เลขทะเบียน ว-๒๓๙

ที่ อก ๐๓๑๐(๑)/ ๔๐๕๖

ลงวันที่ ๑๙ มิถุนายน ๒๕๖๙

ก. ผู้ควบคุมดูแลห้องปฏิบัติการวิเคราะห์ จำนวน ๙ ราย

๑) นายขรรชัย เกรียงไกรอุดม

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๒

๒) นางสาวฤดี เกรียงไกรอุดม

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๓

๓) นางสาวเชมชุตตา อินทร์ศร

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๕

๔) นางสาวปรีดา สมใจ

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๖

๕) นางสาวอรุณญา มาตา

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๗

๖) นางสาวลดาวัลย์ วงศ์เจริญ

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๘

๗) นางสาวณัฏฐา เกตวันดี

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๙

๘) นางสาวนริสา ภูวสรเพ็ชญ์

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๑๐

๙) นางสาวศิริวรรณ ฉิมสง่า

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๑๑

ก. มี

เอกสารแนบท้ายหนังสือรับต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

บริษัท ซีคอฟ จำกัด

เลขทะเบียน ว-๒๓๓๙

ที่ อก ๐๓๑๐(๑)/๔๐๕๖

ลงวันที่ ๑๙ มิถุนายน ๒๕๖๔

ข. เจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๔๐ ราย

- ๑) นางสาวสุตาพร สุนทร
- ๒) นางสาวสุธาทิพย์ เทียนเตี้ย
- ๓) นางสาวสุนันทา ศิริพัฒน์นันท์
- ๔) นายบวร ดิษฐ์ยะ
- ๕) นางสาวเกศรินทร์ วรเดชวิทยา
- ๖) นายอนิวัฒน์ พิมพ์นา
- ๗) นายชิตพล สมประสงค์
- ๘) นางสาวศศิธร พรหมประเสริฐ
- ๙) นายศิวะนนท์ กุลวงษ์
- ๑๐) นางสาวอลิษา คณิธรานนท์
- ๑๑) นางสาวสิริวรรณ แก้วชิงดวง
- ๑๒) นางสาวปัทมวรรณ สุวรรณวิโรจน์
- ๑๓) นางสาวกนิษฐา เจริญเชื้อ
- ๑๔) นายชอง เสงฆ์วัลกุล
- ๑๕) นางสาวพรนภา บุตรธรรม
- ๑๖) นางสาวธารินี อาจปลิว
- ๑๗) นางสาวจุฑาทิรัตน์ แจ่มเรือน
- ๑๘) นางสาวจณิสตา กุ้ยอ่อน
- ๑๙) นายกิตติพงศ์ ณะเกิงสุข
- ๒๐) นายจิรวัฒน์ โคตรคำหาญ
- ๒๑) นายชนะพล อัครผล
- ๒๒) นางสาวทิพย์สุดา วรรณการ
- ๒๓) นายสิทธิชัย สว่างวงศ์ไชย
- ๒๔) นายพิษณุ สีนามเพ็ง
- ๒๕) นายธนาวดี ด่วนแสง
- ๒๖) นายรอมฎอน เหล็กหมาด
- ๒๗) นางสาววิระยา ปิงนิมบุรณ์
- ๒๘) นางสาวสุภาพร สุวรรณมณี
- ๒๙) นางสาวณัฐธิดา วิสัยทอง
- ๓๐) นางสาวนิศาภัรณ์ พิมพ์จินดา
- ๓๑) นายพงศ์ศิริ จักรแก้ว
- ๓๒) นายอรรถชัย นวนนัม
- ๓๓) นางสาวรัตนติยากร ชื่นชม
- ๓๔) นางสาวชนิตา หล้าสาย
- ๓๕) นางสาวดวงกมล ทองศิริ
- ๓๖) นายอภิวัฒน์ เมฆสุวรรณ
- ๓๗) นางสาวบุญนุช รุ่งแรก
- ๓๘) นางสาวปวีศา มากกักติ
- ๓๙) นางสาว เจตนา กำรัมย์
- ๔๐) นายณัฐชัย ไชยโคตร

- ทะเบียนเลขที่
- ว-๒๓๓๙-จ-๐๐๐๑
- ว-๒๓๓๙-จ-๐๐๐๒
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- ว-๒๓๓๙-จ-๐๐๐๕
- ว-๒๓๓๙-จ-๐๐๐๖
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เอกสารแนบท้ายหนังสือรับต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

บริษัท ซีคอฟ จำกัด

เลขทะเบียน ว-๒๓๓๙

ที่ อก ๐๓๑๐(๑)/๔๐๕๖

ลงวันที่ ๑๙ มิถุนายน ๒๕๖๔

ขอขยายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๓๖๔ รายการ

นำ/นำเลย จำนวน 45 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
2	Arsenic	1) Digestion, Hydride Generation Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
3	Barium	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
4	α-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
5	β-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
6	γ-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
7	δ-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
8	Biochemical Oxygen Demand	1) 5-Day BOD Test, Azide Modification Method ⁽⁴⁾ 2) 5-Day BOD Test, Membrane-Electrode Method ⁽⁴⁾
9	Cadmium	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ⁽⁴⁾ 3) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾

อนุมัติ

อนุมัติ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
10	Chemical Oxygen Demand	1) Open Reflux, Titrimetric method ^[4] 2) Closed Reflux, Colorimetric method ^[4] 3) Closed Reflux, Titrimetric Method ^[4]
11	Chlordane	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
12	Chromium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]
13	Color	ADMI Weighted-Ordinate Spectrophotometric Method ^[4]
14	Copper	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]
15	Cyanide	Total Cyanide after Distillation, Colorimetric Method ^[4]
16	4,4'-DDD	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
17	4,4'-DDE	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
18	4,4'-DDT	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
19	Dieldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
20	Endosulfan I	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4]

2) Liquid-Liquid...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
21	Endosulfan II	2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4] 1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
22	Endosulfan Sulfate	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
23	Endrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
24	Endrin Aldehyde	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
25	Formaldehyde	Distillation, Colorimetric Method ^[2]
26	Free Chlorine	1) Iodometric Method ^[4] 2) DPD Colorimetric Method ^[4]
27	Heptachlor	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
28	Heptachlor epoxide	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
29	Hexavalent Chromium	1) Colorimetric Method ^[4] 2) Extraction, Air-Acetylene Flame Method ^[4]
30	Lead	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]

31 Manganese...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
31	Manganese	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]
32	Mercury	Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[4]
33	Methoxychlor	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
34	Nickel	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]
35	Oil & Grease	1) Liquid-Liquid, Partition-Gravimetric Method ^[4] 2) Soxhlet Extraction Method ^[4]
36	pH	Electrometric Method ^[4]
37	Phenols	1) Distillation, Chloroform Extraction Method ^[4] 2) Distillation, Direct Photometric Method ^[4]
38	Selenium	1) Digestion, Hydride Generation Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Inductively Coupled Plasma Method ^[4]
39	Sulfide	1) Iodometric Method ^[4] 2) Methylene Blue Method ^[4]
40	Temperature	Laboratory and Field Methods ^[4]
41	Total Dissolved Solids	Dried at 180 °C ^[4]
42	Total Kjeldahl Nitrogen	1) Macro-Kjeldahl Method ^[4] 2) Semi-Micro-Kjeldahl Method ^[4]
43	Total Suspended Solids	Dried from 103 to 105 °C ^[4]
44	Trivalent Chromium	Calculation ^[4]
45	Zinc	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]

น้ำใต้ดิน...

น้ำใต้ดิน จำนวน 129 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Acenaphthene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
2	Acetone	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
3	Aldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
4	Aluminum	Digestion, Inductively Coupled Plasma Method ^[4]
5	Anthracene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
6	Antimony	Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
7	Arsenic	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Inductively Coupled Plasma Method ^[4]
8	Atrazine	Liquid-Liquid Extraction, Gas Chromatographic Method ^[4]
9	Barium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
10	Benzo(a)anthracene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
11	Benzene	Purge and Trap Gas Chromatographic/Mass spectrometric Method ^[4]
12	Benzo(b)fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
13	Benzo(k)fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
14	Benzoic acid	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
15	Benzo(a)pyrene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
16	Benzo(ghi)perylene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]

น้ำใต้ดิน

17 Beryllium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
17	Beryllium	Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
18	Bis(2-chloroethyl)ether	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
19	Bis(2-ethylhexyl)phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
20	Bromodichloromethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
21	Bromoform	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
22	Butanol	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
23	Butyl benzyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
24	Cadmium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
25	Carbazole	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
26	Carbon disulfide	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
27	Carbon tetrachloride	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
28	Chlordane	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
29	p-Chloroaniline	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
30	Chlorobenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
31	Chlorodibromomethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]

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32 Chloroform...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
32	Chloroform	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
33	2-Chlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
34	Chromium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
35	Chromium (III)	Calculation ^[4]
36	Chromium (VI)	1) Colorimetric Method ^[4] 2) Extraction, Air-Acetylene Flame Method ^[4]
37	Chrysene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
38	Copper	Digestion, Inductively Coupled Plasma Method ^[4]
39	Cyanide	1) Distillation, Titrimetric Method ^[4] 2) Distillation, Colorimetric Method ^[4]
40	2,4-D	Liquid-Liquid Extraction, Gas Chromatographic Method ^[4]
41	DDD	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
42	DDE	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
43	DDT	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
44	Dibenz(a,h)anthracene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
45	Di-n-butyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
46	1,2-Dichlorobenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]

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47 1,3-Dichlorobenzene...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
47	1,3-Dichlorobenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
48	1,4-Dichlorobenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
49	3,3'-Dichlorobenzidine	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
50	1,1-Dichloroethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
51	1,2-Dichloroethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
52	1,1-Dichloroethylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
53	cis-1,2-Dichloroethylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
54	trans-1,2-Dichloroethylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
55	2,4-Dichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
56	1,2-Dichloropropane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
57	1,3-Dichloropropane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
58	1,3-Dichloropropene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
59	Dieldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
60	Diethyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
61	2,4-Dimethylphenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
62	2,4-Dinitrophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
63	2,4-Dinitrotoluene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
64	2,6-Dinitrotoluene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
65	Di-n-Octyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
66	Endosulfan	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
67	Endrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
68	Ethylbenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
69	Fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
70	Fluorene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
71	Heptachlor	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
72	Heptachlor epoxide	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
73	Hexachlorobenzene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
74	Hexachloro-1,3-butadiene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
75	n-Hexane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
76	α -HCH	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
77	β -HCH	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
78	γ -HCH	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
79	Hexachlorocyclopentadiene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
80	Hexachloroethane	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
81	Indeno(1,2,3-cd)pyrene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
82	Iron	Digestion, Inductively Coupled Plasma Method ^[4]
83	Isophorone	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
84	Lead	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
85	Manganese	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
86	Mercury	Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[4]
87	Methanol	Purge and Trap Gas Chromatographic/Mass spectrometric Method ^[4]
88	Methoxychlor	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]

89 Methyl bromide...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
89	Methyl bromide	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
90	Methylene chloride	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
91	2-Methylphenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
92	2-Methylnaphthalene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
93	Methyl tert-butyl ether	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
94	Molybdenum	Digestion, Inductively Coupled Plasma Method ^[4]
95	Naphthalene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
96	Nickel	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
97	Nitrobenzene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
98	N-Nitrosodiphenylamine	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
99	N-Nitrosodi-n-propylamine	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
100	PCBs	Liquid-Liquid Extraction, Gas Chromatographic Method ^[4]
101	Pentachlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
102	pH	Electrometric method ^[4]
103	Phenanthrene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
104	Phenol	1) Distillation, Chloroform Extraction Method ^[4] 2) Distillation, Direct Photometric Method ^[4] 3) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
105	Pyrene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]

106 Selenium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
106	Selenium	1) Digestion, Hydride Generation Atomic Absorption Spectrometric Method ^[4]
107	Silver	2) Digestion, Inductively Coupled Plasma Method ^[4] 1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4]
108	Styrene	2) Digestion, Inductively Coupled Plasma Method ^[4] Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
109	1,1,2,2-Tetrachloroethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
110	Tetrachloroethylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
111	Toluene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
112	TPH (C ₅ -C ₈)	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[12,26]
113	TPH (C ₈ -C ₁₆)	1) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[9,21] 2) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass spectrometric Method ^[9,27]
114	TPH (C ₁₆ -C ₃₅)	1) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[9,21] 2) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass spectrometric Method ^[9,27]
115	1,2,4-Trichlorobenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
116	1,1,1-Trichloroethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
117	1,1,2-Trichloroethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
118	Trichloroethylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
119	2,4,5-Trichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
120	2,4,6-Trichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]

จนนี้

121 1,3,5-Trimethylbenzene...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
121	1,3,5-Trimethylbenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
122	Vanadium	Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
123	Vinyl acetate	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
124	Vinyl chloride	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
125	m-Xylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
126	o-Xylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
127	p-Xylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
128	Xylene (Total)	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
129	Zinc	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]

อากาศเสีย (ปล่องระบาย) จำนวน 27 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Antimony	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
2	Arsenic	1) Isokinetic Sampling, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
3	Beryllium	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]

จนนี้

4 Cadmium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
4	Cadmium	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
5	Carbon monoxide	Instrumental Analyzer Method ^[5]
6	Chlorine	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
7	Chromium	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
8	Cobalt	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
9	Copper	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
10	Cresol	Adsorption Sampling, Gas Chromatographic Method ^[5]
11	Dioxin/Furans	Isokinetic Sampling ^[5]
12	Hydrogen chloride	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
13	Hydrogen Fluoride	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
14	Hydrogen Sulfide	Absorption Sampling, Iodometric Method ^[5]
15	Lead	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
16	Manganese	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
17	Mercury	Isokinetic Sampling, Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[5]
18	Nickel	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5]

2) Isokinetic...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
19	Opacity	2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
20	Oxides of Nitrogen	Ringelmann's Method ^[11] 1) Absorption Sampling, Phenoldisulfonic acid Method ^[5] 2) Absorption Sampling, Ion Chromatographic Method ^[5] 3) Instrumental Analyzer Method ^[5]
21	Selenium	1) Isokinetic Sampling, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
22	Sulfur dioxide	1) Isokinetic Sampling, Barium-Thorin Titrimetric Method ^[5] 2) Absorption Sampling, Barium-Thorin Titrimetric Method ^[5] 3) Instrumental Analyzer Method ^[5]
23	Sulfuric acid	Isokinetic Sampling, Barium-Thorin Titrimetric Method ^[5]
24	Tin	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
25	Total Suspended Particulate	1) Isokinetic Sampling, Gravimetric Method ^[5] 2) Paired Train, Isokinetic Sampling, Gravimetric Method ^[5]
26	Vanadium	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
27	Xylene	1) Adsorption Sampling, Gas Chromatographic Method ^[5] 2) Adsorption Sampling, Gas Chromatographic/Mass Spectrometric Method ^[5]

สิ่งปลูกปลูกหรือวัสดุที่ไม่ใช่แล้ว จำนวน 34 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aldrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,6,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,6,9,27]

3) Soxhlet...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
2	Antimony	3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27] 1) Waste Extraction, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[3,6,16] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,16] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
3	Arsenic	1) Waste Extraction, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[3,6,16] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,16] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
4	Barium	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[3,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
5	Beryllium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
6	Cadmium	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[3,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
7	Chlordane	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,22]

2) Waste Extraction...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
8	Chromium	2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,9,27] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27] 1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[3,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
9	Chromium (III)	Calculation ^[3,6,7,8,14,15,17]
10	Chromium (VI)	1) Waste Extraction, Colorimetric Method ^[3,17] 2) Alkaline Digestion, Colorimetric Method ^[8,17]
11	Cobalt	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
12	Copper	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[3,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
13	2,4-D	1) Waste Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,25] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[25]
14	DDD	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,9,27] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22]

4) Soxhlet Extraction...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
15	DDE	4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27] 1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,9,27] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
16	DDT	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,9,27] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
17	Dieldrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,9,27] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
18	Endrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,9,27] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
19	Heptachlor	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,9,27] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22]

3) Soxhlet Extraction...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
20	Lead	3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27] 1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[3,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
21	Lindane	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,9,27] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
22	Mercury	1) Waste Extraction, Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[3,18] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[19] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
23	Methoxychlor	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,9,27] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
24	Molybdenum	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]

25 Nickel...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
25	Nickel	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[3,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
26	PCBs	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,23] 2) Soxhlet Extraction, Gas Chromatographic Method ^[10,23]
27	Pentachlorophenol	1) Waste Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,25] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[25]
28	pH	Electrometric Method ^[31,32]
29	Selenium	1) Waste Extraction, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[3,6,20] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,20] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
30	Silver	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
31	Thallium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
32	Trichloroethylene	1) Waste Extraction, Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[3,12,26] 2) Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[12,26]
33	Vanadium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]

34 Zinc...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
34	Zinc	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[3,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]

ดิน จำนวน 129 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Acenaphthene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
2	Acetone	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
3	Aldrin	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
4	Aluminum	Digestion, Inductively Coupled Plasma Method ^[7,14]
5	Anthracene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
6	Antimony	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,16] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
7	Arsenic	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,16] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
8	Atrazine	Ultrasonic Extraction, Gas Chromatographic Method ^[11,26]
9	Barium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
10	Benzo(a)anthracene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
11	Benzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]

12 Benzo(b)fluoranthene...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
12	Benzo(b)fluoranthene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
13	Benzo(k)fluoranthene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
14	Benzoic acid	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
15	Benzo(a)pyrene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
16	Benzo(ghi)perylene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
17	Beryllium	Digestion, Inductively Coupled Plasma Method ^[7,14]
18	Bis(2-chloroethyl)ether	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
19	Bis(2-ethylhexyl)phthalate	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
20	Bromodichloromethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
21	Bromoform	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
22	Butanol	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
23	Butyl benzyl phthalate	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
24	Cadmium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
25	Carbazole	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
26	Carbon disulfide	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
27	Carbon tetrachloride	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
28	Chlordane	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
29	p-Chloroaniline	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
30	Chlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
31	Chlorodibromomethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
32	Chloroform	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
33	2-Chlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
34	Chromium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
35	Chromium (III)	Calculation ^[7,8,14,15,17]
36	Chromium (VI)	Alkaline Digestion, Colorimetric Method ^[8,17]
37	Chrysene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
38	Copper	Digestion, Inductively Coupled Plasma Method ^[7,14]
39	Cyanide	1) Extraction, Distillation, Titrimetric Method ^[28,29,30] 2) Extraction, Distillation, Colorimetric Method ^[28,29,30]
40	2,4-D	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[25]
41	DDD	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
42	DDE	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
43	DDT	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
44	Dibenz(a,h)anthracene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
45	Di-n-butyl phthalate	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
46	1,2-Dichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
47	1,3-Dichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
48	1,4-Dichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
49	3,3'-Dichlorobenzidine	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
50	1,1-Dichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
51	1,2-Dichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
52	1,1-Dichloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
53	cis-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
54	trans-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
55	2,4-Dichlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
56	1,2-Dichloropropane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
57	1,3-Dichloropropane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
58	1,3-Dichloropropene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
59	Dieldrin	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
60	Diethyl phthalate	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
61	2,4-Dimethylphenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
62	2,4-Dinitrophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
63	2,4-Dinitrotoluene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
64	2,6-Dinitrotoluene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
65	Di-n-Octyl phthalate	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
66	Endosulfan	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
67	Endrin	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
68	Ethylbenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
69	Fluoranthene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
70	Fluorene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
71	Heptachlor	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
72	Heptachlor epoxide	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
73	Hexachlorobenzene	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
74	Hexachloro-1,3-butadiene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
75	n-Hexane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
76	α -HCH	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
77	β -HCH	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
78	γ -HCH	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
79	Hexachlorocyclopentadiene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
80	Hexachloroethane	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
81	Indeno(1,2,3-cd)pyrene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
82	Iron	Digestion, Inductively Coupled Plasma Method ^[7,14]
83	Isophorone	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
84	Lead	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
85	Manganese	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
86	Mercury	1) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[19] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
87	Methanol	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,21] 2) Equilibrium Headspace, Gas Chromatographic Method ^[11,21]

88 Methoxychlor...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
88	Methoxychlor	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
89	Methyl bromide	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
90	Methylene chloride	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
91	Molybdenum	Digestion, Inductively Coupled Plasma Method ^[2,3]
92	2-Methylphenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
93	2-Methylnaphthalene	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
94	Methyl tert-butyl ether	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
95	Naphthalene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
96	Nickel	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
97	Nitrobenzene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
98	N-Nitrosodiphenylamine	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
99	N-Nitrosodi-n-propylamine	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
100	PCBs	Soxhlet Extraction, Gas Chromatographic Method ^[10,23]
101	Pentachlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[24]
102	pH	Electrometric Method ^[4]
103	Phenanthrene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
104	Phenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
105	Pyrene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]

106 Selenium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
106	Selenium	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,20]
		2) Digestion, Inductively Coupled Plasma Method ^[7,14]
107	Silver	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15]
		2) Digestion, Inductively Coupled Plasma Method ^[7,14]
108	Styrene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
109	1,1,2,2-Tetrachloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
110	Tetrachloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
111	Toluene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
112	TPH (C ₅ -C ₈)	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
113	TPH (C ₈ -C ₁₆)	1) Soxhlet Extraction, Gas Chromatographic Method ^[10,21]
		2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
114	TPH (C ₁₆ -C ₃₅)	1) Soxhlet Extraction, Gas Chromatographic Method ^[10,21]
		2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
115	1,2,4-Trichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
116	1,1,1-Trichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
117	1,1,2-Trichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
118	Trichloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
119	2,4,5-Trichlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
120	2,4,6-Trichlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]

121 1,3,5-Trimethylbenzene...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
121	1,3,5-Trimethylbenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
122	Vanadium	Digestion, Inductively Coupled Plasma Method ^[7,14]
123	Vinyl acetate	Purge and Trap, Gas Chromatographic/Mass spectrometric Method ^[13,26]
124	Vinyl chloride	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
125	m-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
126	o-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
127	p-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
128	Xylene (Total)	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
129	Zinc	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15]
		2) Digestion, Inductively Coupled Plasma Method ^[7,14]

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ภาคผนวก ข

ใบรับรองความสามารถห้องปฏิบัติการและขอบข่ายการรับรอง
ห้องปฏิบัติการทดสอบ ตามมาตรฐาน ISO/IEC 17025
จากสำนักงานมาตรฐานอุตสาหกรรม (สมอ.)



แบบ กมช./สมอ.๒
Form NSC/TISI 2

ใบรับรองเลขที่ 24-LB0026
(Certificate No.)

ใบรับรองระบบงาน (Certificate of Accreditation)

อาศัยอำนาจตามความในพระราชบัญญัติการมาตรฐานแห่งชาติ พ.ศ. ๒๕๕๑
(By Virtue of National Standardization Act B.E. 2551 (2008))

เลขาธิการสำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม
(Secretary-General, Thai Industrial Standards Institute)

ออกใบรับรองฉบับนี้ให้
(Issues this certificate to)

บริษัท ซีคอต จำกัด ฝ่ายห้องปฏิบัติการทดสอบด้านสิ่งแวดล้อม
(Secot Company Limited, Environmental Laboratory Division)

ตั้งอยู่เลขที่
(Address)

๒๓๙ ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร
(239 Rimklongsrapa Road, Bangsue, Bangsue, Bangkok)

ได้รับการรับรองความสามารถ
(Certificate of competence)

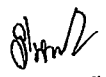
ตามมาตรฐานเลขที่ มอก. ๑๗๐๒๕ - ๒๕๖๑
(Standard No. TIS 17025-2561 (2018) (ISO/IEC 17025: 2017))

ข้อกำหนดทั่วไปว่าด้วยความสามารถของ ห้องปฏิบัติการทดสอบและห้องปฏิบัติการสอบเทียบ
(General requirements for the competence of testing and calibration laboratories)

หมายเลขการรับรองที่ ทดสอบ ๐๓๙๔
(Accreditation No. Testing 0394)

โดยมีรายละเอียดสาขาและขอบข่ายที่ได้ใบรับรอง แสดงไว้ใน QR CODE และ www.tisi.go.th
(Details of the scheme and scope of the certificate are shown in QR CODE and www.tisi.go.th)

ออกให้ ณ วันที่ ๖ ธันวาคม พ.ศ. ๒๕๖๖
(Issue date : 6 December B.E. 2566 (2023))


(นายวีระศักดิ์ เพ็งหล่ง)

ผู้อำนวยการสำนักงานคณะกรรมการการมาตรฐานแห่งชาติ
ปฏิบัติราชการแทน
เลขาธิการสำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม



กระทรวงอุตสาหกรรม สำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม
(Ministry of Industry Thailand, Thai Industrial Standards Institute)



รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ
(Scope of Accreditation for Testing)
ใบรับรองเลขที่ 24-LB0026
(Certification No. 24-LB0026)



ชื่อห้องปฏิบัติการ
(Laboratory Name)

หมายเลขการรับรองที่
(Accreditation No.)

ฉบับที่ 03
(Issue No. 03)

สถานภาพห้องปฏิบัติการ
(Laboratory status)

บริษัท ซีคอต จำกัด ฝ่ายห้องปฏิบัติการทดสอบด้านสิ่งแวดล้อม
(Secot Company Limited, Environmental Laboratory Division)

ทดสอบ 0394
(Testing 0394)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
(Valid from 15 September B.E. 2568 (2025))

☒ถาวร
(Permanent)

☐นอกสถานที่
(Site)

☐ชั่วคราว
(Temporary)

ถึงวันที่ 8 กันยายน พ.ศ. 2571
(Until 8 September B.E. 2571 (2028))

☐เคลื่อนที่
(Mobile)

☐หลายสถานที่
(Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาสังแวดล้อม (Environmental field) 1. น้ำและน้ำเสีย (Water and wastewater)	- Heavy metals • Arsenic (As) 0.000 5 mg/L to 0.090 0 mg/L • Arsenic (As) 0.05 mg/L to 4.50 mg/L • Barium (Ba) 0.02 mg/L to 4.50 mg/L • Cadmium (Cd) 0.01 mg/L to 4.50 mg/L • Chromium (Cr) 0.01 mg/L to 4.50 mg/L	- Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24 th edition, 2023, Part 3030 F and Part 3114 C - Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24 th edition, 2023, Part 3030 E and Part 3120 B

กระทรวงอุตสาหกรรมสำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม
(Ministry of Industry, Thai Industrial Standards Institute)

หน้าที่ 1/7

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ
(Scope of Accreditation for Testing)
ใบรับรองเลขที่ 24-LB0026
(Certification No. 24-LB0026)



ฉบับที่ 03
(Issue No. 03)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
(Valid from 15 September B.E.2568 (2025))

ถึงวันที่ 8 กันยายน พ.ศ. 2571
(Until 8 September B.E.2571 (2028))

สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ ถาวร
(Permanent)

☐ นอกสถานที่
(Site)

☐ชั่วคราว
(Temporary)

☐ เคลื่อนที่
(Mobile)

☐ หลายสถานที่
(Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาส่งแวดล้อม (Environmental field) 1. น้ำและน้ำเสีย (ต่อ) (Water and wastewater) (cont.)	- Heavy metals - Copper (Cu) 0.02 mg/L to 4.50 mg/L - Iron (Fe) 0.05 mg/L to 9.00 mg/L - Lead (Pb) 0.03 mg/L to 4.50 mg/L - Manganese (Mn) 0.01 mg/L to 9.00 mg/L - Nickel (Ni) 0.01 mg/L to 4.50 mg/L - Zinc (Zn) 0.02 mg/L to 9.00 mg/L - Chemical oxygen demand (COD) 10.00 mg/L to 9 000 mg/L	- Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th edition, 2023, Part 3030 E and Part 3120 B - Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th edition, 2023, Part 5220 D

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ
(Scope of Accreditation for Testing)
ใบรับรองเลขที่ 24-LB0026
(Certification No. 24-LB0026)



ฉบับที่ 03
(Issue No. 03)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
(Valid from 15 September B.E.2568 (2025))

ถึงวันที่ 8 กันยายน พ.ศ. 2571
(Until 8 September B.E.2571 (2028))

สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ ถาวร
(Permanent)

☐ นอกสถานที่
(Site)

☐ชั่วคราว
(Temporary)

☐ เคลื่อนที่
(Mobile)

☐ หลายสถานที่
(Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาส่งแวดล้อม (Environmental field) 2. บริเวณทำงาน (Workplace)	- Total dust 0.10 mg/filter to 2.00 mg/filter - Respirable dust 0.10 mg/filter to 2.00 mg/filter - Benzene 0.70 µg/tube to 420 µg/tube - Toluene 0.70 µg/tube to 420 µg/tube - Total xylenes 1.40 µg/tube to 840 µg/tube - m, p-Xylene 0.70 µg/tube to 420 µg/tube	- NIOSH Manual of Analytical Methods (NMAM), Method 0500, 4th edition, 15th August 1994 (Exclude Sampling) - NIOSH Manual of Analytical Methods (NMAM), Method 0600, 4th edition, 15th January 1998 (Exclude Sampling) - NIOSH Manual of Analytical Methods (NMAM), Method 1501, 4th edition, 15th March 2003 (Exclude Sampling)

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ
(Scope of Accreditation for Testing)
ใบรับรองเลขที่ 24-LB0026
(Certification No. 24-LB0026)



ฉบับที่ 03
(Issue No. 03)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
(Valid from 15 September B.E.2568 (2025))

ถึงวันที่ 8 กันยายน พ.ศ. 2571
(Until 8 September B.E.2571 (2028))

สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ถาวร (Permanent) ☐นอกสถานที่ (Site) ☐ชั่วคราว (Temporary)

☐เคลื่อนที่ (Mobile) ☐หลายสถานที่ (Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาส่งแวดล้อม (Environmental field) 2. บริเวณทำงาน (ต่อ) (Workplace) (Cont.) 3. ปล่องระบายอากาศ (Stack)	- o-Xylene 0.70 µg/tube to 420 µg/tube - Sulfur dioxide 1.00 mg/L to 16 000 mg/L - Hydrogen fluoride 5 µg/sample to 400 µg/sample - Hydrogen chloride 5 µg/sample to 400 µg/sample	- NIOSH Manual of Analytical Methods (NMAM), Method 1501, 4th edition, 15th March 2003 (Exclude Sampling) - US.EPA, Code of Federal Regulations, 40 CFR 60 appendix A, Method 6, July 2024 (Exclude Sampling) - WI-7.2-1-22 based on US.EPA, Code of Federal Regulations, 40 CFR 60 appendix A, Method 26, 26A, 2024

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ
(Scope of Accreditation for Testing)
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สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ถาวร (Permanent) ☒นอกสถานที่ (Site) ☐ชั่วคราว (Temporary)

☐เคลื่อนที่ (Mobile) ☐หลายสถานที่ (Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาส่งแวดล้อม (Environmental field) 4. บรรยากาศทั่วไป (Ambient air)	- Volatile organic compounds (VOCs) - Chloroethene 0.05 µg/m³ to 51.00 µg/m³ (0.02 ppbv to 20.00 ppbv) 1,3-butadiene 0.04 µg/m³ to 44.00 µg/m³ (0.02 ppbv to 20.00 ppbv) - Bromomethane 0.08 µg/m³ to 77.00 µg/m³ (0.02 ppbv to 20.00 ppbv) - Acrolein 0.05 µg/m³ to 45.00 µg/m³ (0.02 ppbv to 20.00 ppbv) - Acrylonitrile 0.04 µg/m³ to 43.00 µg/m³ (0.02 ppbv to 20.00 ppbv) - Dichloromethane 0.14 µg/m³ to 69.00 µg/m³ 0.04 ppbv to 20.00 ppbv	- WI-7.2-1-24 based on US EPA, Compendium Method TO-15, EPA/625/R-96/010b, Second edition, January 1999

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ
(Scope of Accreditation for Testing)
ใบรับรองเลขที่ 24-LB0026
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ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
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สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ ถาวร
(Permanent)

☒ นอกสถานที่
(Site)

☐ชั่วคราว
(Temporary)

☐เคลื่อนที่
(Mobile)

☐หลายสถานที่
(Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาส่งแวดล้อม (Environmental field) 4. บรรยากาศทั่วไป (ต่อ) (Ambient air) (cont.)	- Volatile organic compounds (VOCs) - Carbon disulfide 0.06 $\mu\text{g}/\text{m}^3$ to 62.00 $\mu\text{g}/\text{m}^3$ (0.02 ppbv to 20.00 ppbv) - Trichloromethane 0.20 $\mu\text{g}/\text{m}^3$ to 97.00 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv) 1,2-dichloroethane 0.08 $\mu\text{g}/\text{m}^3$ to 80.00 $\mu\text{g}/\text{m}^3$ (0.02 ppbv to 20.00 ppbv) - Benzene 0.06 $\mu\text{g}/\text{m}^3$ to 63.00 $\mu\text{g}/\text{m}^3$ (0.02 ppbv to 20.00 ppbv) - Carbon tetrachloride 0.25 $\mu\text{g}/\text{m}^3$ to 125 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv) - Trichloroethylene 0.21 $\mu\text{g}/\text{m}^3$ to 107 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv)	- WI-7.2-1-24 based on US EPA, Compendium Method TO-15, EPA/625/R-96/010b, Second edition, January 1999

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ
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สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ ถาวร
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☒ นอกสถานที่
(Site)

☐ชั่วคราว
(Temporary)

☐เคลื่อนที่
(Mobile)

☐หลายสถานที่
(Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาส่งแวดล้อม (environmental field) 4. บรรยากาศทั่วไป (ต่อ) (Ambient air) (Cont.)	- Volatile organic compounds (VOCs) 1,2-dichloropropane 0.18 $\mu\text{g}/\text{m}^3$ to 92.00 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv) - Tetrachloroethylene 0.27 $\mu\text{g}/\text{m}^3$ to 135 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv) 1,2-dibromoethane 0.31 $\mu\text{g}/\text{m}^3$ to 153 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv) 1,1,2,2-tetrachloroethane 0.69 $\mu\text{g}/\text{m}^3$ to 137 $\mu\text{g}/\text{m}^3$ (0.10 ppbv to 20.00 ppbv) - Benzyl chloride 0.52 $\mu\text{g}/\text{m}^3$ to 103 $\mu\text{g}/\text{m}^3$ (0.10 ppbv to 20.00 ppbv) 1,4-dichlorobenzene 0.24 $\mu\text{g}/\text{m}^3$ to 120 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv)	- WI-7.2-1-24 based on US EPA, Compendium Method TO-15, EPA/625/R-96/010b, Second edition, January 1999

ภาคผนวก ซ

ใบอนุญาตเป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์
สภาวะการทำงาน จากกรมสวัสดิการและคุ้มครองแรงงาน



แบบ กภ.บุญ
นิติบุคคล

กรมสวัสดิการและคุ้มครองแรงงาน

ใบอนุญาต

เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับเสียง

ใบอนุญาตเลขที่ ๑๔๑๓-๐๓-๒๕๖๕-๐๐๔๘

อนุญาตให้...บริษัท ชีคอต จำกัด

เลขทะเบียนนิติบุคคล ๐๑๐๕๕๓๖๐๐๙๗๖

ตั้งอยู่เลขที่ ๒๓๙ ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร

เป็นนิติบุคคลผู้ให้บริการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน ตามกฎกระทรวงกำหนดมาตรฐานในการบริหาร จัดการ และดำเนินการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงานเกี่ยวกับความร้อน แสงสว่าง และเสียง พ.ศ. ๒๕๕๙ ในการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับเสียง ประกอบกับกฎกระทรวงการขึ้นทะเบียนและการอนุญาตให้บริการเพื่อส่งเสริมความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๖๔ แห่งพระราชบัญญัติความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๕๔ โดยมีบุคลากร จำนวน ๗ ราย และรายการเครื่องมือตรวจวัด จำนวน ๖๕ เครื่อง ดังรายละเอียดแนบท้ายใบอนุญาตนี้

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘

(นายศักดิ์ศิลป์ ตูลาธร)

ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

เลขทะเบียนควบคุม

๓-๑๑-๐๔๐๓-๐๕๓-๐๒-๖๘

(ลงนาม)

(นายทะเบียน)

(นางสาวสุวดี ทวีสุข)

ตำแหน่ง ผู้อำนวยการกองความปลอดภัยแรงงาน

รายชื่อบุคลากรแนบท้ายใบอนุญาต
 เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับเสียง
 ของบริษัท ซีคोट จำกัด
 ใบอนุญาตเลขที่ ๐๔๐๓-๐๓-๒๕๖๕-๐๐๔๘

๑. นางสาวสุนันtha ศิริวัฒนานนท์
๒. นางสาวกนิษฐา เจริญเชื้อ
๓. นางสาวอลิษา คนิวรานนท์
๔. นางสาวชนิตา หล้าสาย
๕. นางสาวศลิษา อินริย์
๖. นางสาววิระยา ปัจฉิมบุรณ์
๗. นายพงศ์ศิริ จักรแก้ว

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘



(นายศักดิ์ศิลป์ ตูลาธร)
 ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
 อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

รายการเครื่องมือตรวจวัดแนบท้ายใบอนุญาต
 เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับเสียง
 ของบริษัท ซีคोट จำกัด
 ใบอนุญาตเลขที่ ๐๔๐๓-๐๓-๒๕๖๕-๐๐๔๘

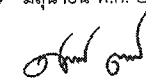
ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
๑	เครื่องวัดเสียง และเครื่องวัดเสียง กระทบหรือเสียงกระแทก	ยี่ห้อ	Cirrus	๑๐
		รุ่น	CR162B	
		Serial No.	G302737	
			G302738	
			G302740	
			G302742	
			G302743	
			G301014	๓
			G302333	
			G302330	
			G302237	
			G300709	
		มาตรฐาน	IEC 61672-1	๒
		ยี่ห้อ	Cirrus	
		รุ่น	CR162C	
		Serial No.	G300832	
			G300838	๑๕
			G300841	
		มาตรฐาน	IEC 61672-1	
		ยี่ห้อ	Cirrus	
		รุ่น	CR171B	
		Serial No.	G303411	
			G303415	
		มาตรฐาน	IEC 61672-1	
		ยี่ห้อ	SCARLET TECH	
		รุ่น	ST-21D	
		Serial No.	820722	
			820723	
			820724	
			820725	
			820726	
			820727	

ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
			820728 820729 820730 820731 821078 821079 821080 821081 821082	
		มาตรฐาน	IEC 61672	
๒	เครื่องวัดปริมาณเสียงสะสม	ยี่ห้อ	Cirrus	๒๐
		รุ่น	CR:110A	
		Serial No.	CB1023 CB1025 CB1026 CB1040 CB1041 CB1042 CB1043 CB1047 CB1048 CB1049 CB1050 CB1052 CB1053 CB1054 CB1055 CB1056 CB1101 CB1102 CB1103 CB1104	
		มาตรฐาน	IEC 61252	
		ยี่ห้อ	Pulsar	๑๐
		รุ่น	Model 22R	

ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
		Serial No.	PB614 PB617 PB618 PB621 PB632 PB636 PB637 PB638 PB643 PB644	
		มาตรฐาน	IEC 61252	
๓	อุปกรณ์ตรวจสอบความถูกต้อง	ยี่ห้อ	Cirrus	๒
		รุ่น	CR:515	
		Serial No.	94296 97097	
		มาตรฐาน	IEC 60942	
๔	อุปกรณ์ตรวจสอบความถูกต้อง (เสียงสะสม)	ยี่ห้อ	Cirrus	๒
		รุ่น	RC:110A	
		Serial No.	95167 95168	
		มาตรฐาน	IEC 60942	
		ยี่ห้อ	Pulsar	๑
		รุ่น	Model 22R	
		Serial No.	79781	
		มาตรฐาน	IEC 60942	

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘



(นายศักดิ์ศิลป์ ดุลาธร)
ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน



แบบ กภ.บุญ
นิติบุคคล

กรมสวัสดิการและคุ้มครองแรงงาน

ใบอนุญาต

เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับความร้อน

ใบอนุญาตเลขที่ ๑๔๑๑-๐๓-๒๕๖๕-๐๐๔๘

อนุญาตให้ บริษัท ซีค่อท. จำกัด

เลขทะเบียนนิติบุคคล ๐๑๑๕๕๓๖๐๐๑๙๗๖

ตั้งอยู่เลขที่ ๒๓๙ ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร

เป็นนิติบุคคลผู้ให้บริการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน ตามกฎกระทรวง กำหนดมาตรฐานในการบริหาร จัดการ และดำเนินการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงานเกี่ยวกับความร้อน แสงสว่าง และเสียง พ.ศ. ๒๕๕๙ ในการตรวจวัดและวิเคราะห์สภาวะการทำงาน เกี่ยวกับระดับความร้อน ประกอบกับกฎกระทรวงการขึ้นทะเบียนและการอนุญาตให้บริการเพื่อส่งเสริมความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๖๔ แห่งพระราชบัญญัติความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๕๔ โดยมีบุคลากร จำนวน ๗ ราย และรายการเครื่องมือตรวจวัด จำนวน ๑๕ เครื่อง ดังรายละเอียดแนบท้ายใบอนุญาตนี้

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘

(นายศักดิ์ศิลป์ ตูลาธร)

ผู้ตรวจราชการกรม ปฏิบัติราชการแทน

อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

เลขทะเบียนควบคุม

ค-๑๑-๐๔๐๑-๐๕๑-๐๒-๖๘

(ลงนาม).....(นายทะเบียน)

(นางสาวสุวดี ทวีสุข)

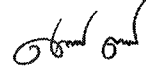
ตำแหน่ง ผู้อำนวยการกองความปลอดภัยแรงงาน

รายชื่อบุคลากรแนบท้ายใบอนุญาต
 เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับความร้อน
 ของบริษัท ซีคอต จำกัด
 ใบอนุญาตเลขที่ ๐๔๐๑-๐๓-๒๕๖๕-๐๐๔๘

- | | |
|------------------|---------------|
| ๑. นางสาวสุนันทา | ศิริวัฒนานนท์ |
| ๒. นางสาวกนิษฐา | เจริญเชื้อ |
| ๓. นางสาวอลิษา | คนิธรานนท์ |
| ๔. นางสาวชนิตา | หล้าสาย |
| ๕. นางสาวศลิษา | อินริย์ |
| ๖. นางสาววิระยา | ปัจฉิมบุญ |
| ๗. นายพงศ์ศิริ | จักรแก้ว |

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘



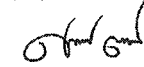
(นายศักดิ์ศิลป์ ตูลาธร)
 ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
 อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

รายการเครื่องมือตรวจวัดแนบท้ายใบอนุญาต
 เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับความร้อน
 ของบริษัท ซีคอต จำกัด
 ใบอนุญาตเลขที่ ๐๔๐๑-๐๓-๒๕๖๕-๐๐๔๘

ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
		ยี่ห้อ	JANTYTECH	
๑	อุปกรณ์ตรวจวัดระดับความร้อนชนิดอิเล็กทรอนิกส์ที่สามารถอ่านค่าและคำนวณค่าอุณหภูมิแวดล้อมทั่วโลก (WBGT)	รุ่น	JT2011-E2A	๑๕
		Serial No	3522210172	
			3522210173	
			3522210174	
			3522210175	
			3522210176	
			3522210177	
			3522210178	
			3522210179	
			3522210180	
			3522210181	
			3522211233	
			3522211234	
			3522211235	
			3522211236	
			3522211237	
	มาตรฐาน	ISO 7243		

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘



(นายศักดิ์ศิลป์ ตูลาธร)
 ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
 อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน



แบบ กภ.บุญ
นิติบุคคล

กรมสวัสดิการและคุ้มครองแรงงาน

ใบอนุญาต

เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับแสงสว่าง

ใบอนุญาตเลขที่ ๐๔๐๒-๐๓-๒๕๖๕-๐๐๔๙

อนุญาตให้ บริษัท ซีคอน จำกัด

เลขทะเบียนนิติบุคคล ๐๑๐๕๕๓๖๐๐๐๕๗๖

ตั้งอยู่เลขที่ ๒๓๙ ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร

เป็นนิติบุคคลผู้ให้บริการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน ตามกฎกระทรวง
กำหนดมาตรฐานในการบริหาร จัดการ และดำเนินการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อม
ในการทำงานเกี่ยวกับความร้อน แสงสว่าง และเสียง พ.ศ. ๒๕๕๙ ในการตรวจวัดและวิเคราะห์สภาวะการทำงาน
เกี่ยวกับระดับแสงสว่าง ประกอบกับกฎกระทรวงการขึ้นทะเบียนและการอนุญาตให้บริการเพื่อส่งเสริม
ความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๖๔ แห่งพระราชบัญญัติความปลอดภัย
อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๕๔ โดยมีบุคลากร จำนวน ๗ ราย และรายการเครื่องมือตรวจวัด
จำนวน ๔ เครื่อง ดังรายละเอียดแนบท้ายใบอนุญาตนี้

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘

(นายศักดิ์ศิลป์ ตุลาธร)

ผู้ตรวจราชการกรม ปฏิบัติราชการแทน

อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

เลขทะเบียนควบคุม

๓-๑๑-๐๔๐๒-๐๕๓-๐๒-๖๘

(ลงนาม).....(นายทะเบียน)

(นางสาวสุวิทย์ ทวีสุข)

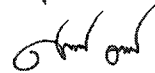
ตำแหน่ง ผู้อำนวยการกองความปลอดภัยแรงงาน

รายชื่อบุคลากรแนบท้ายใบอนุญาต
เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับแสงสว่าง
ของบริษัท ซีคอท จำกัด
ใบอนุญาตเลขที่ ๐๔๐๒-๐๓-๒๕๖๕-๐๐๔๔

- | | |
|------------------|---------------|
| ๑. นางสาวสุนันทา | ศิริวัฒนานนท์ |
| ๒. นางสาวกนิษฐา | เจริญเชื้อ |
| ๓. นางสาวอลิษา | คณิธรานนท์ |
| ๔. นางสาวชนิดา | หล้าสาย |
| ๕. นางสาวศลิษา | อินริย์ |
| ๖. นางสาววิระยา | ปัจฉิมบุรณ์ |
| ๗. นายพงศ์ศิริ | จักรแก้ว |

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘



(นายศักดิ์ศิลป์ ตูลารธร)

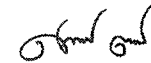
ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

รายการเครื่องมือตรวจวัดแนบท้ายใบอนุญาต
เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับแสงสว่าง
ของบริษัท ซีคอท จำกัด
ใบอนุญาตเลขที่ ๐๔๐๒-๐๓-๒๕๖๕-๐๐๔๔

ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
		ยี่ห้อ	EXTECH	
๑	เครื่องวัดแสง	รุ่น	407026	๕
		Serial No.	A 051050	
			A 051053	
			A 056654	
			A 041100	
		มาตรฐาน	CIE 10527	

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘



(นายศักดิ์ศิลป์ ตูลารธร)

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