

ภาคผนวก ข-17

แบบรายงานผลการตรวจวัดและวิเคราะห์สภาวะการทำงาน
เกี่ยวกับเสียง (รสส.3)

Summary Light & Noise monitoring result

MTL-WEST (A- Building)

Place : Staff area Floor1.5 Period : 2024F

Date : 03-13 Dec 2024

		Monitoring result			
Theme		Total	Comply with legal (Good)	Out of MTL std. (Potencial)	Out of legal (Not Good)
Light	Station Day	15	15	0	0
	Ratio	100%	100%	0%	0%
	Station Night	15	15	0	0
	Ratio	100%	100%	0%	0%

GM	Manager	EHS Leader	Checker by EHS
		 i.25004145	 12-12-24

Monitoring by Mr. Tanakorn, Mr. Phuripong, Mr. Weerachai EHS MT100

Remark :

Review monitoring lighting (Area & Spot) and addition working area

Day Shift **Place : Staff area Floor1.5**

03-13 Dec 2024

[illegible]

Light Measuring Result of MTL-WEST (A- Building)

Date : 2024F

Night Shift Place : Staff area Floor1.5

03-13 Dec 2024

[illegible]

Light Area 1.5 Floor



Summary Light & Noise monitoring result MTL-WEST (A- Building)

Place : Process 2

Period :

2024F

Date :

03-13 Dec 2024

Monitoring result Process 2					
Theme		Total	Comply with legal (Good)	Out of MTL std. (Potencial)	Out of legal (Not Good)
Light	Station Day	124	124	0	0
	Ratio	100%	100%	0%	0%
	Station Night	124	124	0	0
	Ratio	100%	100%	0%	0%
Noise	Amount Day	35	35	0	0
	Ratio	100%	100%	0%	0%

GM	Manager	EHS Leader	Checker by EHS
			

Monitoring by Mr. Tanakorn, Mr. Phuripong, Mr. Weerachai EHS MT100

Remark :

For Construction area, Lighting and Noise cannot be monitoring 13 points.
and New Lighting monitoring 37 points, New Noise monitoring 7 points

Light Measuring Result of MTL-WEST (A- Building)

Date : 03-13 Dec 2024

Day Shift Place : Process 2

No.	Area / Process	ช่วงเวลาการวัด	Law STD	MTL STD	MT100 STD	Measuring method	Measuring Result<Lux>					Judgment	Remark
			<Lux>	<Lux>	<Lux>		2023F1	2023F2	2024F1		2024F2		
1	Chip check process	10:00:00 AM	400	440		Area	420	441	441		450	Good	
2	MED Paste Process	10:10:00 AM	400	440		Area	504	512	512		629	Good	
3	Termination Dipping Process	10:15:00 AM	400	440		Area	516	679	679		786	Good	
4	Termination Firing Process	10:20:00 AM	400	440		Area	519	452	452		684	Good	
5	Termination Grinding Process	10:25:00 AM	400	440		Area	449	529	529		655	Good	
6	Termination Plating Process	10:30:00 AM	400	440		Area	0	639	639		573	Good	
7	Appearance Inspection Process	10:35:00 AM	400	440		Area	0	572	572		543	Good	
8	Electrical Inspection Process	10:38:00 AM	400	440		Area	697	557	557		700	Good	
9	Heat & Oven Treatment Process	10:42:00 AM	400	440		Area	571	570	570		638	Good	
10	Final Inspection Process	10:50:00 AM	400	440		Area	0	632	632		612	Good	
11	Staff Area (IMIP)	11:00:00 AM	400	440		Area	0	641	641		592	Good	
12	Staff Area (Plating)	11:03:00 AM	400	440		Area	0	615	615		592	Good	
13	DH Treatment room	10:23:00 AM	400	440		Area	430	890	890		827	Good	
14	Staff Area (GHG)	10:20:00 AM	400	440		Area	0	725	725		735	Good	
15	Chemimical Storage	9:35:00 AM	200	220		Area	0	390	325		316	Good	
16	Environmental test room (HAL Process)	9:30:00 AM	400	440		Area	0	865	725		723	Good	
17	Analysis Room	9:33:00 AM	400	440		Area	0	937	937		850	Good	
18	Sem room	9:40:00 AM	400	440		Area	0	634	634		579	Good	
19	Calibration room	9:25:00 AM	400	440		Area	654	1,399	1,300		1,248	Good	
20	Meeting room A1-3	7:25:00 PM	400	440		Area	4,308	1,113	1,113		961	Good	
21	Meeting room A1-4	7:35:00 PM	400	440		Area	4,003	1,136	1,136		1,185	Good	
22	IT Storage room	10:35:00 AM	200	220		Area	701	575	575		590	Good	
23	Data Center room	10:40:00 AM	400	440		Area	0	594	594		636	Good	
24	Storage room	10:20:00 AM	200	220		Area	1,847	925	925		1,214	Good	
25	Staff room	1:05:00 PM	400	440		Area	0	563	563		606	Good	
26	MD room	1:10:00 PM	400	440		Area	0	660	660		612	Good	
27	Relaxation Office Zone	1:15:00 PM	100	110		Area	943	475	475		332	Good	
28	Security control room	1:20:00 PM	400	440		Area	0	1,041	781		793	Good	
29	Meeting room A1-2	1:25:00 PM	400	440		Area	2,378	676	676		656	Good	
30	Office Meeting room A1-B	1:30:00 PM	400	440		Area	0	941	941		953	Good	
31	Office Meeting room A1-A	1:35:00 PM	400	440		Area	0	591	591		853	Good	
32	Training room1	1:40:00 PM	400	440		Area	0	1,154	1,154		1,204	Good	
33	Women Toilet near Staff room	1:45:00 PM	100	110		Area	0	290	290		358	Good	
34	Man Toilet near Staff room	1:50:00 PM	100	110		Area	0	357	357		583	Good	
35	Handicapped toilet near Staff room	1:55:00 PM	100	110		Area	0	587	587		939	Good	
36	Plating Solution Anlysis room	2:00:00 PM	400	440		Area	2,247	996	996		963	Good	
37	Man Toilet near Barrel Maintenance room	2:30:00 PM	100	110		Area	480	398	398		316	Good	
38	Women Toilet near Barrel Maintenance room	2:35:00 PM	100	110		Area	528	387	387		410	Good	
39	Barrel Maintenance room	2:40:00 PM	400	440		Area	1,080	747	747		658	Good	
40	Sample Chip Storage room	2:45:00 PM	400	440		Area	0	1,012	1,012		952	Good	
41	First Aid room	2:50:00 PM	400	440		Area	5,583	562	562		651	Good	
42	Paste room	2:55:00 PM	300	330		Area	795	391	391		417	Good	
43	Control panel Temp, Paste room	3:00:00 PM	300	330		Area	0	369	369		524	Good	
44	Material Receiving Staff room	3:30:00 PM	400	440		Area	746	876	876		812	Good	
45	Receiving area	3:35:00 PM	400	440		Area	490	616	616		474	Good	
46	Relaxation room	3:40:00 PM	100	110		Area	423	689	689		547	Good	
47	Napping room	3:45:00 PM	50	55		Area	0	127	127		223	Good	
48	Shipping room (Chemical storage) MT110	3:50:00 PM	200	220		Area	0	713	713		742	Good	
49	Man Toilet near Relaxation room	3:55:00 PM	100	110		Area	699	290	290		458	Good	
50	Women Toilet near Relaxation room	4:00:00 PM	100	110		Area	532	356	356		468	Good	
51	Warehouse Packing storage area 1	Construction Area											
52	Storage Area Process 1												
53	Warehouse Packing storage area 2												
54	Shiping area MTB20	8:00:00 AM	400	440		Area	0	581	581		581	Good	
55	Taping Inspection and Casing process	8:03:00 AM	400	440		Area	0	512	512		586	Good	
56	Taping Insepction Area	8:05:00 AM	400	440		Area	0	568	568		521	Good	
57	Taping Process	8:06:00 AM	400	440		Area	0	474	474		519	Good	
58	Check Chip Process	8:08:00 AM	400	440		Area	0	499	499		475	Good	
59	Meeting Area Taping Process	8:08:00 AM	400	440		Area	0	489	489		477	Good	

No.	Area / Process	ช่วงเวลาการวัด	Law STD <Lux>	MTL STD <Lux>	MT100 STD <Lux>	Measuring method	Measuring Result<Lux>					Judgment	Remark
							2023F1	2023F2	2024F1		2024F2		
60	Taping insection Area MT120	8:10:00 AM	400	440		Area	0	521	521		508	Good	
61	Maintenance Area MT140 Taping process	8:12:00 AM	300	330		Area	0	480	480		426	Good	
62	Sheet loading	8:13:00 AM	400	440		Area	0	0	0		773	Good	new monitoring
63	Material Storage (PD)	8:15:00 AM	300	330		Area	0	0	0		430	Good	new monitoring
64	Reflow	8:17:00 AM	400	440		Area	0	0	0		597	Good	new monitoring
65	Measurement room	8:18:00 AM	400	440		Area	0	0	0		911	Good	new monitoring
66	Environmental test room (PH202 Process)	8:18:00 AM	400	440		Area	0	0	0		862	Good	new monitoring
67	Stock Shipping	8:19:00 AM	400	440		Area	0	0	0		449	Good	new monitoring
68	Shipping Zone1	8:20:00 AM	200	220		Area	0	0	0		446	Good	new monitoring
69	Shipping Zone2	8:22:00 AM	200	220		Area	0	0	0		427	Good	new monitoring
70	Stock Shipping (In Process)	8:23:00 AM	400	440		Area	0	0	0		513	Good	new monitoring
71	Men Toilet Taping	8:25:00 AM	100	110		Area	0	0	0		411	Good	new monitoring
72	Women Toilet Taping	8:27:00 AM	100	110		Area	0	0	0		333	Good	new monitoring
73	NG chip	8:30:00 AM	400	440		Area	0	0	0		1,096	Good	new monitoring
74	Stair A-14 (บันได)	4:40:00 PM	10	11		Area	0	0	0		56	Good	new monitoring
75	Stair A-13 (บันได)	4:45:00 PM	10	11		Area	0	0	0		60	Good	new monitoring
76	Stair A-15 (บันได)	4:50:00 PM	10	11		Area	0	0	0		35	Good	new monitoring
77	Stair A-1 (บันได)	4:55:00 PM	10	11		Area	0	0	0		51	Good	new monitoring
78	Stair A-2 (บันได)	5:00:00 PM	10	11		Area	0	0	0		41	Good	new monitoring
79	Stair A-3 (บันได)	5:05:00 PM	10	11		Area	0	0	0		53	Good	new monitoring
80	Stair A-7 (บันได)	5:15:00 PM	10	11		Area	0	0	0		42	Good	new monitoring
81	Stair A-8 (บันได)	5:20:00 PM	10	11		Area	0	0	0		64	Good	new monitoring
82	Stair A-9 (บันได)	Construction Area											
83	Stair A-6 (บันได)												
84	Stair A-5 (บันได)												
85	Stair A-4 (บันได)	5:30:00 PM	10	11		Area	0	0	0		39	Good	new monitoring
86	Corridor พื้นที่รวม Enviro. Room - Elevator(ลิฟท์)	7:35:00 AM	100	110		Area	0	0	0		319	Good	new monitoring
87	Corridor พื้นที่รวม Elevator(ลิฟท์) - Training room	7:43:00 AM	100	110		Area	0	0	0		473	Good	new monitoring
88	Corridor ลิฟต์ (Stair A-15 - ประตูฉุกเฉินED1-2)	7:45:00 AM	100	110		Area	0	0	0		589	Good	new monitoring
89	Corridor ลิฟต์(ประตูฉุกเฉินED1-2 - ประตูฉุกเฉินED1-3)	7:47:00 AM	100	110		Area	0	0	0		537	Good	new monitoring
90	Corridor ลิฟต์(ประตูฉุกเฉินED1-3 - ประตูฉุกเฉินED1-4)	7:50:00 AM	100	110		Area	0	0	0		573	Good	new monitoring
91	Corridor ลิฟต์(ประตูฉุกเฉินED1-4 - ประตู Receiving room)	7:56:00 AM	100	110		Area	0	0	0		263	Good	new monitoring
92	Corridor ห้องนอน Relax room	8:00:00 AM	100	110		Area	0	0	0		200	Good	new monitoring
93	Corridor ห้องนอน Shipping room(Chemical storage) 110	8:10:00 AM	100	110		Area	0	0	0		125	Good	new monitoring
94	Corridorทางเดิน ทางเข้า-Taping	8:15:00 AM	100	110		Area	0	0	0		406	Good	new monitoring
95	Corridorพื้นที่นอน ห้องนอน NG Chip-Mechanical room6	8:20:00 AM	100	110		Area	0	0	0		433	Good	new monitoring
96	Corridor พื้นที่นอน Electrical room6 - ประตูฉุกเฉิน ED1-11	Construction Area											
97	Corridor พื้นที่นอน ประตูฉุกเฉิน ED1-11 - ประตูฉุกเฉิน ED1-12												
98	Corridor พื้นที่นอน ประตูฉุกเฉิน ED1-12 - Mechanical room4												
99	Corridor พื้นที่นอน Mechanical room4 - ประตูฉุกเฉิน ED1-13	8:50:00 AM	100	110		Area	0	0	0		457	Good	new monitoring
100	Corridor พื้นที่นอน ประตูฉุกเฉิน ED1-13 - Generator room1	8:55:00 AM	100	110		Area	0	0	0		513	Good	new monitoring
101	Buffer ED 1-2	5:00:00 PM	10	11		Area	0	0	0		40	Good	new monitoring
102	Buffer ED 1-3	Construction Area											
103	Buffer ED 1-4												
104	Buffer ED 1-5	5:20:00 PM	10	11		Area	0	0	0		38	Good	new monitoring
105	Buffer ED 1-10	4:40:00 PM	10	11		Area	0	0	0		43	Good	new monitoring
106	Buffer ED 1-11	Construction Area											
107	Buffer ED 1-12												
108	Buffer ED 1-13	4:50:00 PM	10	11		Area	0	0	0		39	Good	new monitoring

Light Measuring Result of MTL-WEST (A- Building)

Date : 03-13 Dec 2024

Night Shift Place : Process 2

No.	Area / Process	ช่วงเวลาตรวจวัด	Law STD	MTL. STD	MT100 STD	Measuring method	Measuring Result<Lux>					Judgment	Remark
			<Lux>	<Lux>	<Lux>		2023F1	2023F2	2024F1		2024F2		
1	Chip check process	8 00:00 PM	400	440		Area	420	441	441		461	Good	
2	ME Monitoring result Process 2	6 03:00 PM	400	440		Area	504	512	512		643	Good	
3	Termination Dipping Process	6 05:00 PM	400	440		Area	516	679	679		766	Good	
4	Termination Firing Process	6 07:00 PM	400	440		Area	519	452	452		685	Good	
5	Termination Grinding Process	6 07:00 PM	400	440		Area	449	529	529		663	Good	
6	Termination Plating Process	6 08:00 PM	400	440		Area	0	639	639		571	Good	
7	Appearance Inspection Process	6 10:00 PM	400	440		Area	0	572	572		567	Good	
8	Electrical Inspection Process	6 10:00 PM	400	440		Area	697	557	557		705	Good	
9	Heat & Oven Treatment Process	6 12:00 PM	400	440		Area	571	570	570		702	Good	
10	Final Inspection Process	6 14:00 PM	400	440		Area	0	632	632		683	Good	
11	Staff Area (IMIP)	6 15:00 PM	400	440		Area	0	641	641		564	Good	
12	Staff Area (Plating)	6 15:00 PM	400	440		Area	0	615	615		624	Good	
13	DH Treatment room	6 15:00 PM	400	440		Area	430	890	890		793	Good	
14	Staff Area (GHG)	6 16:00 PM	400	440		Area	0	725	725		714	Good	
15	Chemical Storage	6 17:00 PM	200	220		Area	0	390	325		303	Good	
16	Environmental test room (HAL Process)	6 20:00 PM	400	440		Area	0	865	725		688	Good	
17	Analysis Room	6 22:00 PM	400	440		Area	0	937	937		795	Good	
18	Sem room	6 20:00 PM	400	440		Area	0	634	634		568	Good	
19	Calibration room	6 23:00 PM	400	440		Area	654	1,399	1,300		1,183	Good	
20	Meeting room A1-3	6 24:00 PM	400	440		Area	4,308	1,113	1,113		839	Good	
21	Meeting room A1-4	6 24:00 PM	400	440		Area	4,003	1,136	1,136		1,150	Good	
22	IT Storage room	6 25:00 PM	200	220		Area	701	575	575		625	Good	
23	Data Center room	6 25:00 PM	400	440		Area	0	594	594		636	Good	
24	Storage room	6 26:00 PM	200	220		Area	1,847	925	925		1,206	Good	
25	Staff room	6 26:00 PM	400	440		Area	0	563	563		663	Good	
26	MD room	6 27:00 PM	400	440		Area	0	660	660		644	Good	
27	Relaxation Office Zone	6 27:00 PM	100	110		Area	943	475	475		349	Good	
28	Security control room	6 28:00 PM	400	440		Area	0	1,041	781		734	Good	
29	Meeting room A1-2	6 29:00 PM	400	440		Area	2,378	676	676		673	Good	
30	Office Meeting room A1-B	6 29:00 PM	400	440		Area	0	941	941		971	Good	
31	Office Meeting room A1-A	6 30:00 PM	400	440		Area	0	591	591		846	Good	
32	Training room1	6 30:00 PM	400	440		Area	0	1,154	1,154		1,210	Good	
33	Women Toilet near Staff room	6 31:00 PM	100	110		Area	0	290	290		351	Good	
34	Man Toilet near Staff room	6 31:00 PM	100	110		Area	0	357	357		574	Good	
35	Handicapped toilet near Staff room	6 32:00 PM	100	110		Area	0	587	587		909	Good	
36	Plating Solution Analysis room	6 35:00 PM	400	440		Area	2,247	996	996		923	Good	
37	Man Toilet near Barrel Maintenance room	6 37:00 PM	100	110		Area	480	398	398		305	Good	
38	Women Toilet near Barrel Maintenance room	6 37:00 PM	100	110		Area	528	387	387		421	Good	
39	Barrel Maintenance room	6 38:00 PM	400	440		Area	1,080	747	747		654	Good	
40	Sample Chip Storage room	6 40:00 PM	400	440		Area	0	1,012	1,012		957	Good	
41	First Aid room	6 41:00 PM	400	440		Area	5,583	562	562		679	Good	
42	Paste room	6 45:00 PM	300	330		Area	795	391	391		409	Good	
43	Control panel Temp. Paste room	6 46:00 PM	300	330		Area	0	369	369		524	Good	
44	Material Receiving Staff room	6 48:00 PM	400	440		Area	746	876	876		812	Good	
45	Receiving area	6 50:00 PM	400	440		Area	490	616	616		444	Good	
46	Relaxation room	6 52:00 PM	100	110		Area	423	689	689		318	Good	
47	Napping room	6 53:00 PM	50	55		Area	0	127	127		223	Good	
48	Shipping room (Chemical storage) MT110	6 50:00 PM	200	220		Area	0	713	713		765	Good	
49	Man Toilet near Relaxation room	6 54:00 PM	100	110		Area	699	290	290		463	Good	
50	Women Toilet near Relaxation room	6 55:00 PM	100	110		Area	532	356	356		493	Good	
51	Warehouse Packing storage area 1	Construction Area											
52	Storage Area Process 1												
53	Warehouse Packing storage area 2												
54	Shipping area MTB20	6 00:00 PM	400	440		Area	0	581	581		576	Good	
55	Taping Inspection and Casing process	6 02:00 PM	400	440		Area	0	512	512		585	Good	
56	Taping Inspection Area	6 03:00 PM	400	440		Area	0	568	568		508	Good	
57	Taping Process	6 04:00 PM	400	440		Area	0	474	474		531	Good	
58	Check Chip Process	6 05:00 PM	400	440		Area	0	499	499		492	Good	

Light Measuring Result of MTL-WEST (A- Building)

Date : 03-13 Dec 2024

Night Shift Place : Process 2

No.	Area / Process	ช่วงเวลาที่ตรวจวัด	Law STD	MTL STD	MT100 STD	Measuring method	Measuring Result<Lux>						Judgment	Remark
			<Lux>	<Lux>	<Lux>		2023F1	2023F2	2024F1			2024F2		
59	Meeting Area Taping Process	6:08:00 PM	400	440		Area	0	489	489			464	Good	
60	Taping insepction Area MT120	6:09:00 PM	400	440		Area	0	521	521			512	Good	
61	Mainlenace Area MT140 Taping process	6:10:00 PM	300	330		Area	0	480	480			423	Good	
62	Sheet loading	6:15:00 PM	300	330		Area	0	0	0			740	Good	new monitoring
63	Malerial Storage (PD)	6:17:00 PM	300	330		Area	0	0	0			427	Good	new monitoring
64	Reflow	6:30:00 PM	400	440		Area	0	0	0			613	Good	new monitoring
65	Measurement room	6:19:00 PM	400	440		Area	0	0	0			931	Good	new monitoring
66	Environmental test room (PH202 Process)	8:20:00 AM	400	440		Area	0	0	0			862	Good	new monitoring
67	Stock Shipping	6:22:00 PM	400	440		Area	0	0	0			464	Good	new monitoring
68	Shipping Zone1	6:24:00 PM	200	220		Area	0	0	0			455	Good	new monitoring
69	Shipping Zone2	6:26:00 PM	200	220		Area	0	0	0			456	Good	new monitoring
70	Stock Shipping (in Process)	6:30:00 PM	400	440		Area	0	0	0			521	Good	new monitoring
71	Men Toilet Taping	6:35:00 PM	100	110		Area	0	0	0			410	Good	new monitoring
72	Women Toilet Taping	6:36:00 PM	100	110		Area	0	0	0			332	Good	new monitoring
73	NG chip	6:38:00 PM	400	440		Area	0	0	0			1,085	Good	new monitoring
74	Stair A-14 (บันได)	6:05:00 PM	10	11		Area	0	0	0			56	Good	new monitoring
75	Stair A-13 (บันได)	6:10:00 PM	10	11		Area	0	0	0			60	Good	new monitoring
76	Stair A-15 (บันได)	6:15:00 PM	10	11		Area	0	0	0			35	Good	new monitoring
77	Stair A-1 (บันได)	6:52:00 PM	10	11		Area	0	0	0			51	Good	new monitoring
78	Stair A-2 (บันได)	6:05:00 PM	10	11		Area	0	0	0			41	Good	new monitoring
79	Stair A-3 (บันได)	6:30:00 PM	10	11		Area	0	0	0			53	Good	new monitoring
80	Stair A-7 (บันได)	6:45:00 PM	10	11		Area	0	0	0			42	Good	new monitoring
81	Stair A-8 (บันได)	6:50:00 PM	10	11		Area	0	0	0			64	Good	new monitoring
82	Stair A-9 (บันได)	Construction Area												
83	Stair A-6 (บันได)													
84	Stair A-5 (บันได)													
85	Stair A-4 (บันได)	6:55:00 PM	10	11		Area	0	0	0			39	Good	new monitoring
86	Comidor หักตะวันออก Envi. Room - Elevator(ลิฟท์)	6:05:00 PM	100	110		Area	0	0	0			319	Good	new monitoring
87	Comidor หักตะวันออก Elevator(ลิฟท์) - Training room	6:08:00 PM	100	110		Area	0	0	0			473	Good	new monitoring
88	Comidor หักใต้ (Stair A-15 - ประตูฉุกเฉินED1-2)	6:10:00 PM	100	110		Area	0	0	0			589	Good	new monitoring
89	Comidor หักใต้(ประตูฉุกเฉินED1-2 - ประตูฉุกเฉินED1-3)	6:13:00 PM	100	110		Area	0	0	0			537	Good	new monitoring
90	Comidor หักใต้(ประตูฉุกเฉินED1-3 - ประตูฉุกเฉินED1-4)	6:17:00 PM	100	110		Area	0	0	0			573	Good	new monitoring
91	Comidor หักใต้(ประตูฉุกเฉินED1-4 - ประตู Reciving room)	6:20:00 PM	100	110		Area	0	0	0			263	Good	new monitoring
92	Corridor หน้าห้อง Relax room	6:21:00 PM	100	110		Area	0	0	0			200	Good	new monitoring
93	Comidor หน้าห้อง Shipping room(Chemical storage) 110	6:22:00 PM	100	110		Area	0	0	0			125	Good	new monitoring
94	Comidorทางเดิน ประตูเข้า-Taping	6:24:00 PM	100	110		Area	0	0	0			406	Good	new monitoring
95	Comidorหักเหนือ หน้าห้อง NG Chip-Mechanical room6	6:28:00 PM	100	110		Area	0	0	0			433	Good	new monitoring
96	Comidor หักเหนือ Electrical room6 - ประตูฉุกเฉิน ED1-11	Construction Area												
97	Comidor หักเหนือ ประตูฉุกเฉิน ED1-11 - ประตูฉุกเฉิน ED1-12													
98	Comidor หักเหนือ ประตูฉุกเฉิน ED1-12 - Mechanical room4													
99	Comidor หักเหนือ Mechanical room4 - ประตูฉุกเฉิน ED1-13	6:40:00 PM	100	110		Area	0	0	0			457	Good	new monitoring
100	Corridor หักเหนือ ประตูฉุกเฉิน ED1-13 - Generator room1	6:45:00 PM	100	110		Area	0	0	0			513	Good	new monitoring
101	Buffer ED 1-2	6:15:00 PM	10	11		Area	0	0	0			40	Good	new monitoring
102	Buffer ED 1-3	Construction Area												
103	Buffer ED 1-4													
104	Buffer ED 1-5	5:20:00 PM	10	11		Area	0	0	0			38	Good	new monitoring
105	Buffer ED 1-10	4:40:00 PM	10	11		Area	0	0	0			43	Good	new monitoring
106	Buffer ED 1-11	Construction Area												
107	Buffer ED 1-12													
108	Buffer ED 1-13	4:50:00 PM	10	11		Area	0	0	0			39	Good	new monitoring

No.	Area / Process	Name operator	ช่วงเวลาทำการ	Law STD			MTL STD			Measuring method	ค่าที่วัดได้			Judgment			Remark	
				<Lux>			<Lux>				2024F1							
				พื้นที่ 1	พื้นที่ 2	พื้นที่ 3	พื้นที่ 1	พื้นที่ 2	พื้นที่ 3		พื้นที่ 1	พื้นที่ 2	พื้นที่ 3	พื้นที่ 1	พื้นที่ 2	พื้นที่ 3		
1	Unit App. checking G1-1 ห้องควบคุมโซน 1	38375	JITTRAPORN	10.00 AM	1,600	300	200	1,650	330	220	*Spot	14,840	527	479	Good	Good	Good	
2	Unit App. checking G1-2 ห้องควบคุมโซน 1	38375	JITTRAPORN	10.00 AM	1,600	300	200	1,650	330	220	*Spot	18,850	742	602	Good	Good	Good	
3	Incoming Inspection Process	38006	CHANAPHAT	10.00 AM	1,500	300	200	1,650	330	220	*Spot	3,200	1,178	890	Good	Good	Good	
4	ห้องควบคุมโซน MED-01	33960	SUPHUNSA	10.15 AM	1,500	300	200	1,650	330	220	*Spot	13,060	929	667	Good	Good	Good	
5	ห้องควบคุมโซน G1.5 Termination App. Checking	38375	JITTRAPORN	10.25 AM	1,500	300	200	1,650	330	220	*Spot	22,250	843	661	Good	Good	Good	
6	ห้องควบคุมโซน Sorting checker	35596	THANWARAT	10.38 AM	1,500	300	200	1,650	330	220	*Spot	19,700	805	793	Good	Good	Good	
7	ห้องควบคุมโซน G.2 โซน 1 App. Inspection Process	38375	JITTRAPORN	10.38 AM	1,500	300	200	1,650	330	220	*Spot	13,670	711	608	Good	Good	Good	
8	ห้องควบคุมโซน G.2 โซน 2 App. Inspection Process	38375	JITTRAPORN	10.38 AM	1,500	300	200	1,650	330	220	*Spot	16,380	706	503	Good	Good	Good	
9	ห้องควบคุมโซน Sorting checker 2	38375	JITTRAPORN	10.38 AM	1,500	300	200	1,650	330	220	*Spot	16,580	714	821	Good	Good	Good	
10	ห้องควบคุมโซน โซ่ blind test (Final inspection) MT120	38384	PHICHAMON	10.50 AM	1,500	300	200	1,650	330	220	*Spot	16,800	788	811	Good	Good	Good	
11	ห้องควบคุมโซน Taping 1	26943	JARIYA	01.25 PM	1,500	300	200	1,650	330	220	*Spot	12,760	584	568	Good	Good	Good	
12	ห้องควบคุมโซน Taping 2	26943	JARIYA	01.25 PM	1,500	300	200	1,650	330	220	*Spot	13,150	647	622	Good	Good	Good	
13	ห้องควบคุมโซน Taping incoming inspection	38006	CHANAPHAT	01.20 PM	1,500	300	200	1,650	330	220	*Spot	13,980	1,517	589	Good	Good	Good	
14	โซ่ Inspection Reel near Taping Process โซน 2	26943	JARIYA	11.15 AM	1,600	300	200	1,650	330	220	*Spot	2,885	842	516	Good	Good	Good	
15	ห้องควบคุมโซน Taping incoming inspection	38006	CHANAPHAT	01.20 PM	1,500	300	200	1,650	330	220	*Spot	17,280	443	567	Good	Good	Good	
16	ห้องควบคุมโซน Analysis room	38359	PANUWAT	06.40 PM	1,500	300	200	1,650	330	220	*Spot	14,140	869	1,008	Good	Good	Good	
17	ห้องควบคุมโซน SEM room	38054	NATTHAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	13,840	737	731	Good	Good	Good	
18	ห้องควบคุมโซน โซน 1 Experiment room	38054	NATTHAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	3,938	806	728	Good	Good	Good	
19	โซ่ Inspection Reel near Taping Process โซน 1	26943	JARIYA	11.15 AM	1,500	300	200	1,650	330	220	*Spot	2,737	712	473	Good	Good	Good	
20	ห้องควบคุมโซน โซน 3 Experiment room	38054	NATTHAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	3,585	757	888	Good	Good	Good	
21	Taping Inspection	91957	PHURIPONG	01.20 PM	1,500	300	200	1,660	330	220	*Spot	13,030	478	623	Good	Good	Good	
22	Reflow test	91957	PHURIPONG	09.50 AM	1,500	300	200	1,680	330	220	*Spot	17,630	855	741	Good	Good	Good	
23	ห้องควบคุมโซน Environmental test room	91548	TEERASAK	09.30 AM	1,500	300	200	1,660	330	220	*Spot	7,810	1,275	1,013	Good	Good	Good	
24	ห้องควบคุมโซน 3 Experiment	38054	NATTHAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	21,760	808	1,013	Good	Good	Good	
25	ห้องควบคุมโซน 4 Experiment	38054	NATTHAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	13,850	715	872	Good	Good	Good	
26	ห้องควบคุมโซน 5 Experiment	38054	NATTHAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	16,300	864	747	Good	Good	Good	
27	ห้องควบคุมโซน Sorting checker 1	38375	JITTRAPORN	10.38 AM	1,500	300	200	1,650	330	220	*Spot	13,170	774	767	Good	Good	Good	
28	ห้องควบคุมโซนโซน MED-02	33960	SUPHUNSA	10.15 AM	1,500	300	200	1,650	330	220	*Spot	16,180	739	885	Good	Good	Good	
29	ห้องควบคุมโซนโซน MED-03	33960	SUPHUNSA	10.15 AM	1,500	300	200	1,660	330	220	*Spot	13,520	792	1,083	Good	Good	Good	

Noise Measuring Result of MTL-WEST (A- Building)

Date : 03-13 Dec 2024

C = ระยะเวลาที่สัมผัสเสียง

Place : Process 2

T = ระยะเวลาที่อนุญาตให้สัมผัสระดับเสียงนี้ ๗

No.	Area / Process		Name Operator	Total/Agv. working time per day <hrs>	Law STD dB<A>	MTL STD dB<A>	Type of noise	Measuring Result								Judgment	Remark	Noise of position1			
								Dose : D%				TWA(8) : dB<A>						L1	C1	T1	
								2023F1	2023F2	2024F1	2024F2	2023F1	2023F2	2024F1	2024F2						
1	UNIT APPEAR	Monitoring result Process 2	38593	MISS JENJIRA PHUMTEAN	8.00	88	82.9		6.29	21.76	6.22	7.87	68.80	79.00	68.70	71.66	Good		69.7	10.50	133.4
2	Cu paste(1)		38357	MISS NUPHON UMMAIT	8.00	88	82.9	Once zone	6.89	24.66	7.48	8.17	70.70	79.90	71.30	72.76	Good		70.8	10.50	114.6
3	INCOMING INSPECTION		38006	MISS CHANAPHAT KANGDUANG	8.00	88	82.9	Once zone	5.01	11.50	4.80	6.87	68.40	74.40	68.10	72.36	Good		70.4	10.50	121.1
4	Termination Dipping (MED)		23799	MISS RUANGFA THAPAYORM	8.00	88	82.9	Once zone	10.88	17.19	12.50	20.77	74.00	77.30	75.00	78.86	Good		76.7	10.50	50.6
5	Termination Firing (GHG)		38391	MISS NUENGTHAI KALAK	8.00	88	82.9	Once zone	8.96	27.85	11.88	16.63	72.60	80.70	74.50	73.76	Good		71.8	10.50	99.7
6	DH Treatment (C 137		38391	MISS NUENGTHAI KALAK	8.00	88	82.9	Once zone	13.21	24.32	8.09	2.39	75.40	79.80	72.70	63.06	Good		61.1	10.50	439.6
7	Termination Appearance Checking (G1.5)		38593	MISS JENJIRA PHUMTEAN	8.00	88	82.9	Once zone	8.47	17.88	6.52	8.64	73.00	77.50	70.30	69.26	Good		67.3	10.50	186.1
8	Termination Grinding (MYML)		38391	MISS NUENGTHAI KALAK	8.00	88	82.9	Once zone	21.76	26.72	28.79	18.98	79.00	81.00	80.50	78.26	Good		76.3	10.50	53.4
9	Plating Pre-Treatment		38413	MR PEERAWIT CHAWAN	8.00	88	82.9	Once zone	16.49	12.16	14.78	3.98	77.00	74.80	76.20	66.76	Good		64.8	10.50	263.2
10	Appearance Inspection (IMIP)		38593	MISS JENJIRA PHUMTEAN	8.00	88	82.9	Once zone	5.08	14.86	6.34	7.87	68.50	76.10	70.10	71.86	Good		69.7	10.50	133.4
11	Electrical Inspection (AS)		17674	MISS MALLIKA JAIPINTA	8.00	88	82.9	Once zone	12.86	16.48	20.88	14.68	75.20	77.00	78.70	76.18	Good		74.2	10.50	71.5
12	Heat treatment		17674	MISS MALLIKA JAIPINTA	8.00	88	82.9	Once zone	2.47	26.43	4.24	6.13	63.30	80.40	67.20	68.86	Good		67.9	10.50	171.3
13	Sorting checker		35596	MISS THANWARAT PHAKHAWATHALUE	8.00	88	82.9	Once zone	2.92	21.17	8.09	5.88	64.50	78.80	72.70	68.58	Good		67.6	10.50	178.5
14	C SAM		38406	MISS CHANUTDA CHAISAN	9.00	88	82.9	Once zone	5.08	25.70	8.53	8.66	68.50	80.20	69.50	70.48	Good		68.5	10.50	157.6
15	G 2		38593	MISS JENJIRA PHUMTEAN	9.00	88	82.9	Once zone	3.88	12.88	6.00	8.43	66.50	75.20	69.70	72.16	Good		70.2	10.50	124.5
16	FINAL INSPECTION		38384	MISS PHICHAMON EMSOOK	8.00	88	82.9	Once zone	3.84	7.91	4.07	4.91	66.10	71.70	66.90	68.26	Good		66.3	10.50	213.8
17	TAPING		28943	MISS JARIYA HATTAKITKON	8.00	88	82.9	Once zone	19.48	20.03	1.17	1.58	78.20	78.40	57.90	58.96	Good		58.0	10.50	675.6
18	TAPING INCOMING INSPECTION		38006	MISS CHANAPHAT KANGDUANG	8.00	88	82.9	Once zone	4.74	14.80	18.43	1.68	68.00	76.60	77.80	60.06	Good		58.1	10.50	666.3
19	TAPING INSPECTION		38006	MISS CHANAPHAT KANGDUANG	8.00	88	82.9	Once zone	4.74	5.18	1.19	3.02	68.00	68.60	58.00	64.78	Good		62.8	10.50	347.3
20	TAPING INSPECTION AND CASING		38006	MISS CHANAPHAT KANGDUANG	8.00	88	82.9	Once zone	1.52	20.03	8.89	2.90	59.80	78.40	70.70	64.46	Good		62.5	10.50	362.0
21	Reflow		91548	MR TEERASAK PHOTHASIN	8.00	88	82.9	Once zone	0.00	0.00	8.89	8.87	0.00	0.00	70.70	70.38	Good		68.4	10.50	159.8
22	Plating Analysis room		09557	MR NIRUN KONBON	8.00	88	82.9	Once zone	0.00	0.00	10.15	3.07	0.00	0.00	73.50	64.86	Good		62.9	10.50	342.5
23	Barrel Maintenance room		09557	MR NIRUN KONBON	8.00	88	82.9	Once zone	0.00	0.00	3.96	3.99	0.00	0.00	66.70	66.76	Good		64.8	10.50	263.2
24	Material Storage		22042	MISS NUENGLUETHAI NANKAWONG	8.00	88	82.9	Once zone	0.00	0.00	4.94	3.02	0.00	0.00	68.30	64.76	Good		62.8	10.50	347.3
25	Sheet Loading		37950	MR JADSADA TANATA	8.00	88	82.9	Once zone	0.00	0.00	3.35	1.42	0.00	0.00	65.50	59.30	Good		64.30	4.00	282.1
26	Environmental room (HALProcess)		91548	MR TEERASAK PHOTHASIN	8.00	88	82.9	Once zone	0.00	0.00	11.19	4.84	0.00	0.00	74.20	68.16	Good		66.2	10.50	216.8
27	Environmental room (PH202 Process)		91548	MR TEERASAK PHOTHASIN	8.00	88	82.9	Once zone	0.00	0.00	18.48	4.86	0.00	0.00	78.20	67.86	Good		65.9	10.50	226.0
28	Analysis room		38399	MR PANUWAT SAMBUNCHUEN	8.00	88	82.9	Once zone	0.00	0.00	0.00	4.28	0.00	0.00	0.00	67.26	Good	New Monitoring	65.3	10.50	245.6
29	SEM room		38054	MISS NATTAPHON HUNCHAIYAPHUM	8.00	88	82.9	Once zone	0.00	0.00	0.00	3.99	0.00	0.00	0.00	68.76	Good	New Monitoring	64.8	10.50	263.2
30	Calibration room		91548	MR TEERASAK PHOTHASIN	8.00	88	82.9	Once zone	0.00	0.00	0.00	1.97	0.00	0.00	0.00	61.66	Good	New Monitoring	59.7	10.50	533.7
31	Measuring room		91548	MR TEERASAK PHOTHASIN	8.00	88	82.9	Once zone	0.00	0.00	9.04	1.49	0.00	0.00	71.82	59.66	Good		57.7	10.50	704.3
32	Shipping		91956	MR TANAKORN PIYASAK	8.00	88	82.9	Once zone	0.00	0.00	0.00	2.74	0.00	0.00	0.00	64.06	Good	New Monitoring	62.1	10.50	382.7
33	Data Center room		23662	MISS JINTARA SILWONG	9.00	86	82.1	Once zone	0.00	0.00	0.00	23.85	0.00	0.00	0.00	79.66	Good	New Monitoring	77.7	10.50	44.0
34	IT Storage room		23662	MISS JINTARA SILWONG	10.00	84	81.3	Once zone	0.00	0.00	0.00	2.28	0.00	0.00	0.00	62.76	Good	New Monitoring	60.8	10.50	458.3
35	Paste room		01529	MR WEERACHAI CHAYASIT	10.00	84	81.3	Once zone	0.00	0.00	0.00	18.27	0.00	0.00	0.00	76.90	Good	New Monitoring	81.9	4.00	24.6



Symbol	Lighting Area	Lighting spot	Noise

Summary Light & Noise monitoring result MTL-WEST (A- Building)

Place : Process 2

Period :

2024F

Date :

03-13 Dec 2024

Monitoring result Process 2					
Theme		Total	Comply with legal (Good)	Out of MTL std. (Potencial)	Out of legal (Not Good)
Light	Station Day	124	124	0	0
	Ratio	100%	100%	0%	0%
	Station Night	124	124	0	0
	Ratio	100%	100%	0%	0%
Noise	Amount Day	35	35	0	0
	Ratio	100%	100%	0%	0%

GM	Manager	EHS Leader	Checker by EHS
			

Monitoring by Mr. Tanakorn, Mr. Phuripong, Mr. Weerachai EHS MT100

Remark :

For Construction area, Lighting and Noise cannot be monitoring 13 points.
and New Lighting monitoring 37 points, New Noise monitoring 7 points

Light Measuring Result of MTL-WEST (A- Building)

Date : 03-13 Dec 2024

Day Shift Place : Process 2

No.	Area / Process	ช่วงเวลาการวัด	Law STD	MTL STD	MT100 STD	Measuring method	Measuring Result<Lux>					Judgment	Remark
			<Lux>	<Lux>	<Lux>		2023F1	2023F2	2024F1		2024F2		
1	Chip check process	10:00:00 AM	400	440		Area	420	441	441		450	Good	
2	MED Paste Process	10:10:00 AM	400	440		Area	504	512	512		629	Good	
3	Termination Dipping Process	10:15:00 AM	400	440		Area	516	679	679		786	Good	
4	Termination Firing Process	10:20:00 AM	400	440		Area	519	452	452		684	Good	
5	Termination Grinding Process	10:25:00 AM	400	440		Area	449	529	529		655	Good	
6	Termination Plating Process	10:30:00 AM	400	440		Area	0	639	639		573	Good	
7	Appearance Inspection Process	10:35:00 AM	400	440		Area	0	572	572		543	Good	
8	Electrical Inspection Process	10:38:00 AM	400	440		Area	697	557	557		700	Good	
9	Heat & Oven Treatment Process	10:42:00 AM	400	440		Area	571	570	570		638	Good	
10	Final Inspection Process	10:50:00 AM	400	440		Area	0	632	632		612	Good	
11	Staff Area (IMIP)	11:00:00 AM	400	440		Area	0	641	641		592	Good	
12	Staff Area (Plating)	11:03:00 AM	400	440		Area	0	615	615		592	Good	
13	DH Treatment room	10:23:00 AM	400	440		Area	430	890	890		827	Good	
14	Staff Area (GHG)	10:20:00 AM	400	440		Area	0	725	725		735	Good	
15	Chemimical Storage	9:35:00 AM	200	220		Area	0	390	325		316	Good	
16	Environmental test room (HAL Process)	9:30:00 AM	400	440		Area	0	865	725		723	Good	
17	Analysis Room	9:33:00 AM	400	440		Area	0	937	937		850	Good	
18	Sem room	9:40:00 AM	400	440		Area	0	634	634		579	Good	
19	Calibration room	9:25:00 AM	400	440		Area	654	1,399	1,300		1,248	Good	
20	Meeting room A1-3	7:25:00 PM	400	440		Area	4,308	1,113	1,113		961	Good	
21	Meeting room A1-4	7:35:00 PM	400	440		Area	4,003	1,136	1,136		1,185	Good	
22	IT Storage room	10:35:00 AM	200	220		Area	701	575	575		590	Good	
23	Data Center room	10:40:00 AM	400	440		Area	0	594	594		636	Good	
24	Storage room	10:20:00 AM	200	220		Area	1,847	925	925		1,214	Good	
25	Staff room	1:05:00 PM	400	440		Area	0	563	563		606	Good	
26	MD room	1:10:00 PM	400	440		Area	0	660	660		612	Good	
27	Relaxation Office Zone	1:15:00 PM	100	110		Area	943	475	475		332	Good	
28	Security control room	1:20:00 PM	400	440		Area	0	1,041	781		793	Good	
29	Meeting room A1-2	1:25:00 PM	400	440		Area	2,378	676	676		656	Good	
30	Office Meeting room A1-B	1:30:00 PM	400	440		Area	0	941	941		953	Good	
31	Office Meeting room A1-A	1:35:00 PM	400	440		Area	0	591	591		853	Good	
32	Training room1	1:40:00 PM	400	440		Area	0	1,154	1,154		1,204	Good	
33	Women Toilet near Staff room	1:45:00 PM	100	110		Area	0	290	290		358	Good	
34	Man Toilet near Staff room	1:50:00 PM	100	110		Area	0	357	357		583	Good	
35	Handicapped toilet near Staff room	1:55:00 PM	100	110		Area	0	587	587		939	Good	
36	Plating Solution Anlysis room	2:00:00 PM	400	440		Area	2,247	996	996		963	Good	
37	Man Toilet near Barrel Maintenance room	2:30:00 PM	100	110		Area	480	398	398		316	Good	
38	Women Toilet near Barrel Maintenance room	2:35:00 PM	100	110		Area	528	387	387		410	Good	
39	Barrel Maintenance room	2:40:00 PM	400	440		Area	1,080	747	747		658	Good	
40	Sample Chip Storage room	2:45:00 PM	400	440		Area	0	1,012	1,012		952	Good	
41	First Aid room	2:50:00 PM	400	440		Area	5,583	562	562		651	Good	
42	Paste room	2:55:00 PM	300	330		Area	795	391	391		417	Good	
43	Control panel Temp, Paste room	3:00:00 PM	300	330		Area	0	369	369		524	Good	
44	Material Receiving Staff room	3:30:00 PM	400	440		Area	746	876	876		812	Good	
45	Receiving area	3:35:00 PM	400	440		Area	490	616	616		474	Good	
46	Relaxation room	3:40:00 PM	100	110		Area	423	689	689		547	Good	
47	Napping room	3:45:00 PM	50	55		Area	0	127	127		223	Good	
48	Shipping room (Chemical storage) MT110	3:50:00 PM	200	220		Area	0	713	713		742	Good	
49	Man Toilet near Relaxation room	3:55:00 PM	100	110		Area	699	290	290		458	Good	
50	Women Toilet near Relaxation room	4:00:00 PM	100	110		Area	532	356	356		468	Good	
51	Warehouse Packing storage area 1	Construction Area											
52	Storage Area Process 1												
53	Warehouse Packing storage area 2												
54	Shiping area MTB20	8:00:00 AM	400	440		Area	0	581	581		581	Good	
55	Taping Inspection and Casing process	8:03:00 AM	400	440		Area	0	512	512		586	Good	
56	Taping Insepction Area	8:05:00 AM	400	440		Area	0	568	568		521	Good	
57	Taping Process	8:06:00 AM	400	440		Area	0	474	474		519	Good	
58	Check Chip Process	8:08:00 AM	400	440		Area	0	499	499		475	Good	
59	Meeting Area Taping Process	8:08:00 AM	400	440		Area	0	489	489		477	Good	

No.	Area / Process	ช่วงเวลาการวัด	Law STD <Lux>	MTL STD <Lux>	MT100 STD <Lux>	Measuring method	Measuring Result<Lux>					Judgment	Remark
							2023F1	2023F2	2024F1		2024F2		
60	Taping insection Area MT120	8:10:00 AM	400	440		Area	0	521	521		508	Good	
61	Maintenace Area MT140 Taping process	8:12:00 AM	300	330		Area	0	480	480		426	Good	
62	Sheet loading	8:13:00 AM	400	440		Area	0	0	0		773	Good	new monitoring
63	Material Storage (PD)	8:15:00 AM	300	330		Area	0	0	0		430	Good	new monitoring
64	Reflow	8:17:00 AM	400	440		Area	0	0	0		597	Good	new monitoring
65	Measurement room	8:18:00 AM	400	440		Area	0	0	0		911	Good	new monitoring
66	Environmental test room (PH202 Process)	8:18:00 AM	400	440		Area	0	0	0		862	Good	new monitoring
67	Stock Shipping	8:19:00 AM	400	440		Area	0	0	0		449	Good	new monitoring
68	Shipping Zone1	8:20:00 AM	200	220		Area	0	0	0		446	Good	new monitoring
69	Shipping Zone2	8:22:00 AM	200	220		Area	0	0	0		427	Good	new monitoring
70	Stock Shipping (In Process)	8:23:00 AM	400	440		Area	0	0	0		513	Good	new monitoring
71	Men Toilet Taping	8:25:00 AM	100	110		Area	0	0	0		411	Good	new monitoring
72	Women Toilet Taping	8:27:00 AM	100	110		Area	0	0	0		333	Good	new monitoring
73	NG chip	8:30:00 AM	400	440		Area	0	0	0		1,096	Good	new monitoring
74	Stair A-14 (บันได)	4:40:00 PM	10	11		Area	0	0	0		56	Good	new monitoring
75	Stair A-13 (บันได)	4:45:00 PM	10	11		Area	0	0	0		60	Good	new monitoring
76	Stair A-15 (บันได)	4:50:00 PM	10	11		Area	0	0	0		35	Good	new monitoring
77	Stair A-1 (บันได)	4:55:00 PM	10	11		Area	0	0	0		51	Good	new monitoring
78	Stair A-2 (บันได)	5:00:00 PM	10	11		Area	0	0	0		41	Good	new monitoring
79	Stair A-3 (บันได)	5:05:00 PM	10	11		Area	0	0	0		53	Good	new monitoring
80	Stair A-7 (บันได)	5:15:00 PM	10	11		Area	0	0	0		42	Good	new monitoring
81	Stair A-8 (บันได)	5:20:00 PM	10	11		Area	0	0	0		64	Good	new monitoring
82	Stair A-9 (บันได)	Construction Area											
83	Stair A-6 (บันได)												
84	Stair A-5 (บันได)												
85	Stair A-4 (บันได)	5:30:00 PM	10	11		Area	0	0	0		39	Good	new monitoring
86	Corridor พัดลมบน Env. Room - Elevator(ลิฟท์)	7:35:00 AM	100	110		Area	0	0	0		319	Good	new monitoring
87	Corridor พัดลมบน Elevator(ลิฟท์) - Training room	7:43:00 AM	100	110		Area	0	0	0		473	Good	new monitoring
88	Corridor พัดลม (Stair A-15 - ประตูฉุกเฉินED1-2)	7:45:00 AM	100	110		Area	0	0	0		589	Good	new monitoring
89	Corridor พัดลม(ประตูฉุกเฉินED1-2 - ประตูฉุกเฉินED1-3)	7:47:00 AM	100	110		Area	0	0	0		537	Good	new monitoring
90	Corridor พัดลม(ประตูฉุกเฉินED1-3 - ประตูฉุกเฉินED1-4)	7:50:00 AM	100	110		Area	0	0	0		573	Good	new monitoring
91	Corridor พัดลม(ประตูฉุกเฉินED1-4 - ประตู Receiving room)	7:56:00 AM	100	110		Area	0	0	0		263	Good	new monitoring
92	Corridor พัดลม Relax room	8:00:00 AM	100	110		Area	0	0	0		200	Good	new monitoring
93	Corridor พัดลม Shipping room(Chemical storage) 110	8:10:00 AM	100	110		Area	0	0	0		125	Good	new monitoring
94	Corridorทางเดิน แวลิ้ง-Taping	8:15:00 AM	100	110		Area	0	0	0		406	Good	new monitoring
95	Corridorพัดลมบน หน้าห้อง NG Chip-Mechanical room6	8:20:00 AM	100	110		Area	0	0	0		433	Good	new monitoring
96	Corridor พัดลม Electrical room6 - ประตูฉุกเฉิน ED1-11	Construction Area											
97	Corridor พัดลม ประตูฉุกเฉิน ED1-11 - ประตูฉุกเฉิน ED1-12												
98	Corridor พัดลม ประตูฉุกเฉิน ED1-12 - Mechanical room4												
99	Corridor พัดลม Mechanical room4 - ประตูฉุกเฉิน ED1-13	8:50:00 AM	100	110		Area	0	0	0		457	Good	new monitoring
100	Corridor พัดลม ประตูฉุกเฉิน ED1-13 - Generator room1	8:55:00 AM	100	110		Area	0	0	0		513	Good	new monitoring
101	Buffer ED 1-2	5:00:00 PM	10	11		Area	0	0	0		40	Good	new monitoring
102	Buffer ED 1-3	Construction Area											
103	Buffer ED 1-4												
104	Buffer ED 1-5	5:20:00 PM	10	11		Area	0	0	0		38	Good	new monitoring
105	Buffer ED 1-10	4:40:00 PM	10	11		Area	0	0	0		43	Good	new monitoring
106	Buffer ED 1-11	Construction Area											
107	Buffer ED 1-12												
108	Buffer ED 1-13	4:50:00 PM	10	11		Area	0	0	0		39	Good	new monitoring

Light Measuring Result of MTL-WEST (A- Building)

Date : 03-13 Dec 2024

Night Shift Place : Process 2

No.	Area / Process	ช่วงเวลาตรวจวัด	Law STD	MTL. STD	MT100 STD	Measuring method	Measuring Result<Lux>					Judgment	Remark
			<Lux>	<Lux>	<Lux>		2023F1	2023F2	2024F1			2024F2	
1	Chip check process	8 00:00 PM	400	440		Area	420	441	441			461	Good
2	ME Monitoring result Process 2	6 03:00 PM	400	440		Area	504	512	512			643	Good
3	Termination Dipping Process	6 05:00 PM	400	440		Area	516	679	679			766	Good
4	Termination Firing Process	6 07:00 PM	400	440		Area	519	452	452			685	Good
5	Termination Grinding Process	6 07:00 PM	400	440		Area	449	529	529			663	Good
6	Termination Plating Process	6 08:00 PM	400	440		Area	0	639	639			571	Good
7	Appearance Inspection Process	6 10:00 PM	400	440		Area	0	572	572			567	Good
8	Electrical Inspection Process	6 10:00 PM	400	440		Area	697	557	557			705	Good
9	Heat & Oven Treatment Process	6 12:00 PM	400	440		Area	571	570	570			702	Good
10	Final Inspection Process	6 14:00 PM	400	440		Area	0	632	632			683	Good
11	Staff Area (IMIP)	6 15:00 PM	400	440		Area	0	641	641			564	Good
12	Staff Area (Plating)	6 15:00 PM	400	440		Area	0	615	615			624	Good
13	DH Treatment room	6 15:00 PM	400	440		Area	430	890	890			793	Good
14	Staff Area (GHG)	6 16:00 PM	400	440		Area	0	725	725			714	Good
15	Chemical Storage	6 17:00 PM	200	220		Area	0	390	325			303	Good
16	Environmental test room (HAL Process)	6 20:00 PM	400	440		Area	0	865	725			688	Good
17	Analysis Room	6 22:00 PM	400	440		Area	0	937	937			795	Good
18	Sem room	6 20:00 PM	400	440		Area	0	634	634			568	Good
19	Calibration room	6 23:00 PM	400	440		Area	654	1,399	1,300			1,183	Good
20	Meeting room A1-3	6 24:00 PM	400	440		Area	4,308	1,113	1,113			839	Good
21	Meeting room A1-4	6 24:00 PM	400	440		Area	4,003	1,136	1,136			1,150	Good
22	IT Storage room	6 25:00 PM	200	220		Area	701	575	575			625	Good
23	Data Center room	6 25:00 PM	400	440		Area	0	594	594			636	Good
24	Storage room	6 26:00 PM	200	220		Area	1,847	925	925			1,206	Good
25	Staff room	6 26:00 PM	400	440		Area	0	563	563			663	Good
26	MD room	6 27:00 PM	400	440		Area	0	660	660			644	Good
27	Relaxation Office Zone	6 27:00 PM	100	110		Area	943	475	475			349	Good
28	Security control room	6 28:00 PM	400	440		Area	0	1,041	781			734	Good
29	Meeting room A1-2	6 29:00 PM	400	440		Area	2,378	676	676			673	Good
30	Office Meeting room A1-B	6 29:00 PM	400	440		Area	0	941	941			971	Good
31	Office Meeting room A1-A	6 30:00 PM	400	440		Area	0	591	591			846	Good
32	Training room1	6 30:00 PM	400	440		Area	0	1,154	1,154			1,210	Good
33	Women Toilet near Staff room	6 31:00 PM	100	110		Area	0	290	290			351	Good
34	Man Toilet near Staff room	6 31:00 PM	100	110		Area	0	357	357			574	Good
35	Handicapped toilet near Staff room	6 32:00 PM	100	110		Area	0	587	587			909	Good
36	Plating Solution Analysis room	6 35:00 PM	400	440		Area	2,247	996	996			923	Good
37	Man Toilet near Barrel Maintenance room	6 37:00 PM	100	110		Area	480	398	398			305	Good
38	Women Toilet near Barrel Maintenance room	6 37:00 PM	100	110		Area	528	387	387			421	Good
39	Barrel Maintenance room	6 38:00 PM	400	440		Area	1,080	747	747			654	Good
40	Sample Chip Storage room	6 40:00 PM	400	440		Area	0	1,012	1,012			957	Good
41	First Aid room	6 41:00 PM	400	440		Area	5,583	562	562			679	Good
42	Paste room	6 45:00 PM	300	330		Area	795	391	391			409	Good
43	Control panel Temp. Paste room	6 46:00 PM	300	330		Area	0	369	369			524	Good
44	Material Receiving Staff room	6 48:00 PM	400	440		Area	746	876	876			812	Good
45	Receiving area	6 50:00 PM	400	440		Area	490	616	616			444	Good
46	Relaxation room	6 52:00 PM	100	110		Area	423	689	689			318	Good
47	Napping room	6 53:00 PM	50	55		Area	0	127	127			223	Good
48	Shipping room (Chemical storage) MT110	6 50:00 PM	200	220		Area	0	713	713			765	Good
49	Man Toilet near Relaxation room	6 54:00 PM	100	110		Area	699	290	290			463	Good
50	Women Toilet near Relaxation room	6 55:00 PM	100	110		Area	532	356	356			493	Good
51	Warehouse Packing storage area 1	Construction Area											
52	Storage Area Process 1												
53	Warehouse Packing storage area 2												
54	Shipping area MTB20	6 00:00 PM	400	440		Area	0	581	581			576	Good
55	Taping Inspection and Casing process	6 02:00 PM	400	440		Area	0	512	512			585	Good
56	Taping Inspection Area	6 03:00 PM	400	440		Area	0	568	568			508	Good
57	Taping Process	6 04:00 PM	400	440		Area	0	474	474			531	Good
58	Check Chip Process	6 05:00 PM	400	440		Area	0	499	499			492	Good

Light Measuring Result of MTL-WEST (A- Building)

Date : 03-13 Dec 2024

Night Shift Place : Process 2

No.	Area / Process	ช่วงเวลาตรวจวัด	Law STD	MTL STD	MT100 STD	Measuring method	Measuring Result<Lux>					Judgment	Remark	
			<Lux>	<Lux>	<Lux>		2023F1	2023F2	2024F1					2024F2
59	Meeting Area Taping Process	6:08:00 PM	400	440		Area	0	489	489			464	Good	
60	Taping insection Area MT120	6:09:00 PM	400	440		Area	0	521	521			512	Good	
61	Mainlenace Area MT140 Taping process	6:10:00 PM	300	330		Area	0	480	480			423	Good	
62	Sheet loading	6:15:00 PM	300	330		Area	0	0	0			740	Good	new monitoring
63	Material Storage (PD)	6:17:00 PM	300	330		Area	0	0	0			427	Good	new monitoring
64	Reflow	6:30:00 PM	400	440		Area	0	0	0			613	Good	new monitoring
65	Measurement room	6:19:00 PM	400	440		Area	0	0	0			931	Good	new monitoring
66	Environmental test room (PH202 Process)	8:20:00 AM	400	440		Area	0	0	0			862	Good	new monitoring
67	Stock Shipping	6:22:00 PM	400	440		Area	0	0	0			464	Good	new monitoring
68	Shipping Zone1	6:24:00 PM	200	220		Area	0	0	0			455	Good	new monitoring
69	Shipping Zone2	6:26:00 PM	200	220		Area	0	0	0			456	Good	new monitoring
70	Stock Shipping (In Process)	6:30:00 PM	400	440		Area	0	0	0			521	Good	new monitoring
71	Men Toilet Taping	6:35:00 PM	100	110		Area	0	0	0			410	Good	new monitoring
72	Women Toilet Taping	6:36:00 PM	100	110		Area	0	0	0			332	Good	new monitoring
73	NG chip	6:38:00 PM	400	440		Area	0	0	0			1,085	Good	new monitoring
74	Stair A-14 (บันได)	6:05:00 PM	10	11		Area	0	0	0			56	Good	new monitoring
75	Stair A-13 (บันได)	6:10:00 PM	10	11		Area	0	0	0			60	Good	new monitoring
76	Stair A-15 (บันได)	6:15:00 PM	10	11		Area	0	0	0			35	Good	new monitoring
77	Stair A-1 (บันได)	6:52:00 PM	10	11		Area	0	0	0			51	Good	new monitoring
78	Stair A-2 (บันได)	6:05:00 PM	10	11		Area	0	0	0			41	Good	new monitoring
79	Stair A-3 (บันได)	6:30:00 PM	10	11		Area	0	0	0			53	Good	new monitoring
80	Stair A-7 (บันได)	6:45:00 PM	10	11		Area	0	0	0			42	Good	new monitoring
81	Stair A-8 (บันได)	6:50:00 PM	10	11		Area	0	0	0			64	Good	new monitoring
82	Stair A-9 (บันได)	Construction Area												
83	Stair A-6 (บันได)													
84	Stair A-5 (บันได)													
85	Stair A-4 (บันได)	6:55:00 PM	10	11		Area	0	0	0			39	Good	new monitoring
86	Coridor หักตะวันออก Envi. Room - Elevator(ลิฟท์)	6:05:00 PM	100	110		Area	0	0	0			319	Good	new monitoring
87	Coridor หักตะวันออก Elevator(ลิฟท์) - Training room	6:08:00 PM	100	110		Area	0	0	0			473	Good	new monitoring
88	Coridor หักใต้ (Stair A-15 - ประตูฉุกเฉินED1-2)	6:10:00 PM	100	110		Area	0	0	0			589	Good	new monitoring
89	Coridor หักใต้(ประตูฉุกเฉินED1-2 - ประตูฉุกเฉินED1-3)	6:13:00 PM	100	110		Area	0	0	0			537	Good	new monitoring
90	Coridor หักใต้(ประตูฉุกเฉินED1-3 - ประตูฉุกเฉินED1-4)	6:17:00 PM	100	110		Area	0	0	0			573	Good	new monitoring
91	Coridor หักใต้(ประตูฉุกเฉินED1-4 - ประตู Reciving room)	6:20:00 PM	100	110		Area	0	0	0			263	Good	new monitoring
92	Corridor หน้าห้อง Relax room	6:21:00 PM	100	110		Area	0	0	0			200	Good	new monitoring
93	Coridor หน้าห้อง Shipping room(Chemical storage) 110	6:22:00 PM	100	110		Area	0	0	0			125	Good	new monitoring
94	Coridorทางเดิน ประตูเข้า-Taping	6:24:00 PM	100	110		Area	0	0	0			406	Good	new monitoring
95	Coridorหักเหนือ หน้าห้อง NG Chip-Mechanical room6	6:28:00 PM	100	110		Area	0	0	0			433	Good	new monitoring
96	Coridor หักเหนือ Electrical room6 - ประตูฉุกเฉิน ED1-11	Construction Area												
97	Coridor หักเหนือ ประตูฉุกเฉิน ED1-11 - ประตูฉุกเฉิน ED1-12													
98	Coridor หักเหนือ ประตูฉุกเฉิน ED1-12 - Mechanical room4													
99	Coridor หักเหนือ Mechanical room4 - ประตูฉุกเฉิน ED1-13	6:40:00 PM	100	110		Area	0	0	0			457	Good	new monitoring
100	Coridor หักเหนือ ประตูฉุกเฉิน ED1-13 - Generator room1	6:45:00 PM	100	110		Area	0	0	0			513	Good	new monitoring
101	Buffer ED 1-2	6:15:00 PM	10	11		Area	0	0	0			40	Good	new monitoring
102	Buffer ED 1-3	Construction Area												
103	Buffer ED 1-4													
104	Buffer ED 1-5	5:20:00 PM	10	11		Area	0	0	0			38	Good	new monitoring
105	Buffer ED 1-10	4:40:00 PM	10	11		Area	0	0	0			43	Good	new monitoring
106	Buffer ED 1-11	Construction Area												
107	Buffer ED 1-12													
108	Buffer ED 1-13	4:50:00 PM	10	11		Area	0	0	0			39	Good	new monitoring

No.	Area / Process	Name operator	ช่วงเวลาทำการ	Law STD			MTL STD			Measuring method	ค่าที่วัดได้			Judgment			Remark
				<Lux>			<Lux>				2024F1						
				พื้นที่ 1	พื้นที่ 2	พื้นที่ 3	พื้นที่ 1	พื้นที่ 2	พื้นที่ 3		พื้นที่ 1	พื้นที่ 2	พื้นที่ 3				
1	Unit App. checking G1-1 ห้องควบคุมโซน 1	38375	JITTRAPORN	10.00 AM	1,600	300	200	1,650	330	220	*Spot	14,840	527	479	Good	Good	Good
2	Unit App. checking G1-2 ห้องควบคุมโซน 1	38375	JITTRAPORN	10.00 AM	1,600	300	200	1,650	330	220	*Spot	18,850	742	602	Good	Good	Good
3	Incoming Inspection Process	38006	CHANAPHAT	10.00 AM	1,500	300	200	1,650	330	220	*Spot	3,200	1,178	890	Good	Good	Good
4	ห้องควบคุมโซน MED-01	33960	SUPHUNSA	10.15 AM	1,500	300	200	1,650	330	220	*Spot	13,060	929	667	Good	Good	Good
5	ห้องควบคุมโซน G1.5 Termination App. Checking	38375	JITTRAPORN	10.25 AM	1,500	300	200	1,650	330	220	*Spot	22,250	843	661	Good	Good	Good
6	ห้องควบคุมโซน Sorting checker	35596	THANWARAT	10.38 AM	1,500	300	200	1,650	330	220	*Spot	19,700	805	793	Good	Good	Good
7	ห้องควบคุมโซน G.2 โซน 1 App. Inspection Process	38375	JITTRAPORN	10.38 AM	1,500	300	200	1,650	330	220	*Spot	13,670	711	608	Good	Good	Good
8	ห้องควบคุมโซน G.2 โซน 2 App. Inspection Process	38375	JITTRAPORN	10.38 AM	1,500	300	200	1,650	330	220	*Spot	16,380	706	503	Good	Good	Good
9	ห้องควบคุมโซน Sorting checker 2	38375	JITTRAPORN	10.38 AM	1,500	300	200	1,650	330	220	*Spot	16,580	714	821	Good	Good	Good
10	ห้องควบคุมโซน ใส blind test (Final inspection) MT120	38384	PHICHAMON	10.50 AM	1,500	300	200	1,650	330	220	*Spot	16,800	788	811	Good	Good	Good
11	ห้องควบคุมโซน Taping 1	26943	JARIYA	01.25 PM	1,500	300	200	1,650	330	220	*Spot	12,760	584	568	Good	Good	Good
12	ห้องควบคุมโซน Taping 2	26943	JARIYA	01.25 PM	1,500	300	200	1,650	330	220	*Spot	13,150	647	622	Good	Good	Good
13	ห้องควบคุมโซน Taping incoming inspection	38006	CHANAPHAT	01.20 PM	1,500	300	200	1,650	330	220	*Spot	13,980	1,517	589	Good	Good	Good
14	ใส Inspection Reel near Taping Process โซน 2	26943	JARIYA	11.15 AM	1,600	300	200	1,650	330	220	*Spot	2,885	842	516	Good	Good	Good
15	ห้องควบคุมโซน Taping incoming inspection	38006	CHANAPHAT	01.20 PM	1,500	300	200	1,650	330	220	*Spot	17,280	443	567	Good	Good	Good
16	ห้องควบคุมโซน Analysis room	38359	PANUWAT	06.40 PM	1,500	300	200	1,650	330	220	*Spot	14,140	869	1,008	Good	Good	Good
17	ห้องควบคุมโซน SEM room	38054	NATTAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	13,840	737	731	Good	Good	Good
18	ห้องควบคุมโซน โซน 1 Experiment room	38054	NATTAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	3,938	806	728	Good	Good	Good
19	ใส Inspection Reel near Taping Process โซน 1	26943	JARIYA	11.15 AM	1,500	300	200	1,650	330	220	*Spot	2,737	712	473	Good	Good	Good
20	ห้องควบคุมโซน โซน 3 Experiment room	38054	NATTAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	3,585	757	888	Good	Good	Good
21	Taping inspection	91957	PHURIPONG	01.20 PM	1,500	300	200	1,660	330	220	*Spot	13,030	478	623	Good	Good	Good
22	Reflow test	91957	PHURIPONG	09.50 AM	1,600	300	200	1,690	330	220	*Spot	17,630	855	741	Good	Good	Good
23	ห้องควบคุมโซน Environmental test room	91548	TEERASAK	09.30 AM	1,500	300	200	1,660	330	220	*Spot	7,810	1,275	1,013	Good	Good	Good
24	ห้องควบคุมโซน 3 Experiment	38054	NATTAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	21,760	808	1,013	Good	Good	Good
25	ห้องควบคุมโซน 4 Experiment	38054	NATTAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	13,850	715	872	Good	Good	Good
26	ห้องควบคุมโซน 5 Experiment	38054	NATTAPHON	09.33 AM	1,500	300	200	1,650	330	220	*Spot	16,300	864	747	Good	Good	Good
27	ห้องควบคุมโซน Sorting checker 1	38375	JITTRAPORN	10.38 AM	1,500	300	200	1,650	330	220	*Spot	13,170	774	767	Good	Good	Good
28	ห้องควบคุมโซน MED-02	33960	SUPHUNSA	10.15 AM	1,500	300	200	1,650	330	220	*Spot	16,180	739	985	Good	Good	Good
29	ห้องควบคุมโซน MED-03	33960	SUPHUNSA	10.15 AM	1,500	300	200	1,650	330	220	*Spot	13,520	792	1,083	Good	Good	Good

Noise Measuring Result of MTL-WEST (A- Building)

Date : 03-13 Dec 2024

C = ระยะเวลาที่สัมผัสเสียง

Place : Process 2

T = ระยะเวลาที่อนุญาตให้สัมผัสระดับเสียงนี้ ๗

No.	Area / Process		Name Operator	Total/Agv. working time per day <hrs>	Law STD dB<A>	MTL STD dB<A>	Type of noise	Measuring Result								Judgment	Remark	Noise of position1			
								Dose : D%				TWA(B) : dB<A>						L1	C1	T1	
								2023F1	2023F2	2024F1	2024F2	2023F1	2023F2	2024F1	2024F2						
1	UNIT APPEAR	Monitoring result Process 2	38593	MISS JENJIRA PHUMTEAN	8.00	88	82.9		6.29	21.78	6.22	7.87	68.80	79.00	68.70	71.66	Good		69.7	10.50	133.4
2	Cu paste(1)		38357	MISS NUPHON UMMAIT	8.00	88	82.9	Once zone	6.89	24.65	7.48	8.17	70.70	79.90	71.30	72.76	Good		70.8	10.50	114.6
3	INCOMING INSPECTION		38006	MISS CHANAPHAT KANGDUANG	8.00	88	82.9	Once zone	6.01	11.50	4.80	6.87	68.40	74.40	68.10	72.38	Good		70.4	10.50	121.1
4	Termination Dipping (MED)		23799	MISS RUANGFA THAPAYORM	8.00	88	82.9	Once zone	10.88	17.19	12.50	20.77	74.00	77.30	75.00	78.86	Good		76.7	10.50	50.6
5	Termination Firing (GHG)		38391	MISS NUENGTHAI KALAK	8.00	88	82.9	Once zone	8.96	27.85	11.88	16.63	72.60	80.70	74.50	73.76	Good		71.8	10.50	99.7
6	DH Treatment (C 137		38391	MISS NUENGTHAI KALAK	8.00	88	82.9	Once zone	13.21	24.32	8.09	2.39	75.40	79.80	72.70	63.06	Good		61.1	10.50	439.6
7	Termination Appearance Checking (G1.5)		38593	MISS JENJIRA PHUMTEAN	8.00	88	82.9	Once zone	8.47	17.88	6.52	8.64	73.00	77.50	70.30	69.26	Good		67.3	10.50	186.1
8	Termination Grinding (MYVL)		38391	MISS NUENGTHAI KALAK	8.00	88	82.9	Once zone	21.76	26.72	28.79	18.98	79.00	81.00	80.50	78.26	Good		76.3	10.50	53.4
9	Plating Pre-Treatment		38413	MR PEERAWIT CHAWAN	8.00	88	82.9	Once zone	16.49	12.16	14.78	3.98	77.00	74.80	76.20	66.78	Good		64.8	10.50	263.2
10	Appearance Inspection (IMIP)		38593	MISS JENJIRA PHUMTEAN	8.00	88	82.9	Once zone	5.08	14.86	6.34	7.87	68.50	76.10	70.10	71.86	Good		69.7	10.50	133.4
11	Electrical inspection (IAS)		17674	MISS MALLIKA JAIPINTA	8.00	88	82.9	Once zone	12.86	16.48	20.88	14.68	75.20	77.00	78.70	76.18	Good		74.2	10.50	71.5
12	Heat treatment		17674	MISS MALLIKA JAIPINTA	8.00	88	82.9	Once zone	2.47	26.43	4.24	6.13	63.30	80.40	67.20	68.86	Good		67.9	10.50	171.3
13	Sorting checker		35596	MISS THANWARAT PHAKHAWATHALUE	8.00	88	82.9	Once zone	2.92	21.17	8.09	5.88	64.50	78.80	72.70	68.58	Good		67.6	10.50	178.5
14	C SAM		38406	MISS CHANUTDA CHAISAN	9.00	88	82.9	Once zone	5.08	25.70	8.53	8.66	68.50	80.20	69.50	70.48	Good		68.5	10.50	157.6
15	G 2		38593	MISS JENJIRA PHUMTEAN	9.00	88	82.9	Once zone	3.88	12.88	6.00	8.43	66.50	75.20	69.70	72.16	Good		70.2	10.50	124.5
16	FINAL INSPECTION		38384	MISS PHICHAMON EMSOOK	8.00	88	82.9	Once zone	3.84	7.91	4.07	4.91	66.10	71.70	66.90	68.26	Good		66.3	10.50	213.8
17	TAPING		28943	MISS JARIYA HATTAKITKON	8.00	88	82.9	Once zone	19.49	20.03	1.17	1.58	78.20	78.40	57.90	58.96	Good		58.0	10.50	675.6
18	TAPING INCOMING INSPECTION		38006	MISS CHANAPHAT KANGDUANG	8.00	88	82.9	Once zone	4.74	18.60	18.43	1.68	68.00	76.60	77.80	60.06	Good		58.1	10.50	666.3
19	TAPING INSPECTION		38006	MISS CHANAPHAT KANGDUANG	8.00	88	82.9	Once zone	4.74	5.18	1.19	3.02	68.00	68.60	58.00	64.78	Good		62.8	10.50	347.3
20	TAPING INSPECTION AND CASING		38006	MISS CHANAPHAT KANGDUANG	8.00	88	82.9	Once zone	1.52	20.03	8.89	2.90	59.80	78.40	70.70	64.46	Good		62.5	10.50	362.0
21	Reflow		91548	MR TEERASAK PHOTHASIN	8.00	88	82.9	Once zone	0.00	0.00	8.89	8.87	0.00	0.00	70.70	70.38	Good		68.4	10.50	159.8
22	Plating Analysis room		09557	MR NIRUN KONBOY	8.00	88	82.9	Once zone	0.00	0.00	10.15	3.07	0.00	0.00	73.50	64.86	Good		62.9	10.50	342.5
23	Barrel Maintenance room		09557	MR NIRUN KONBOY	8.00	88	82.9	Once zone	0.00	0.00	3.96	3.99	0.00	0.00	66.70	66.76	Good		64.8	10.50	263.2
24	Material Storage		22042	MISS NUENGTHAI NANKAWONG	8.00	88	82.9	Once zone	0.00	0.00	4.94	3.02	0.00	0.00	68.30	64.76	Good		62.8	10.50	347.3
25	Sheet Loading		37950	MR JADSADA TANATA	8.00	88	82.9	Once zone	0.00	0.00	3.35	1.42	0.00	0.00	65.50	59.30	Good		64.30	4.00	282.1
26	Environmental room (HALProcess)		91548	MR TEERASAK PHOTHASIN	8.00	88	82.9	Once zone	0.00	0.00	11.19	4.84	0.00	0.00	74.20	68.16	Good		66.2	10.50	216.8
27	Environmental room (PH202 Process)		91548	MR TEERASAK PHOTHASIN	8.00	88	82.9	Once zone	0.00	0.00	19.48	4.66	0.00	0.00	78.20	67.86	Good		65.9	10.50	226.0
28	Analysis room		38399	MR PANUWAT SAMBUNCHUEN	8.00	88	82.9	Once zone	0.00	0.00	0.00	4.22	0.00	0.00	0.00	67.26	Good	New Monitoring	65.3	10.50	245.6
29	SEM room		38054	MISS NATTAPHON HUNCHAIYAPHUM	8.00	88	82.9	Once zone	0.00	0.00	0.00	3.99	0.00	0.00	0.00	68.76	Good	New Monitoring	64.8	10.50	263.2
30	Calibration room		91548	MR TEERASAK PHOTHASIN	8.00	88	82.9	Once zone	0.00	0.00	0.00	1.97	0.00	0.00	0.00	61.66	Good	New Monitoring	59.7	10.50	533.7
31	Measuring room		91548	MR TEERASAK PHOTHASIN	8.00	88	82.9	Once zone	0.00	0.00	8.04	1.49	0.00	0.00	71.82	59.66	Good		57.7	10.50	704.3
32	Shipping		91956	MR TANAKORN PIYASAK	8.00	88	82.9	Once zone	0.00	0.00	0.00	2.74	0.00	0.00	0.00	64.06	Good	New Monitoring	62.1	10.50	382.7
33	Data Center room		23662	MISS JINTARA SILWONG	9.00	86	82.1	Once zone	0.00	0.00	0.00	23.85	0.00	0.00	0.00	79.66	Good	New Monitoring	77.7	10.50	44.0
34	IT Storage room		23662	MISS JINTARA SILWONG	10.00	84	81.3	Once zone	0.00	0.00	0.00	2.29	0.00	0.00	0.00	62.76	Good	New Monitoring	60.8	10.50	458.3
35	Paste room		01529	MR WEERACHAI CHAYASIT	10.00	84	81.3	Once zone	0.00	0.00	0.00	18.27	0.00	0.00	0.00	76.90	Good	New Monitoring	81.9	4.00	24.6



	Lighting Area	Lighting spot	Noise
Symbol			

ภาคผนวก ข-18

ข้อมูลปริมาณน้ำเสียของโรงงานในพื้นที่โครงการ

ปริมาณน้ำเสียของโรงงานในพื้นที่นิคมอุตสาหกรรมเวสต์ (ลำพูน)

โรงงานมูราตะ

ปี 66	
เดือน	น้ำเสียเข้าระบบ (ลบ.ม)
มกราคม	-
กุมภาพันธ์	-
มีนาคม	-
เมษายน	-
พฤษภาคม	-
มิถุนายน	-
กรกฎาคม	-
สิงหาคม	4040
กันยายน	4920
ตุลาคม	3416
พฤศจิกายน	5056
ธันวาคม	5088
รวม	22520

ปี 67	หน่วย:ลบ.ม.
เดือน	น้ำเสียเข้าระบบ (ลบ.ม.)
มกราคม	6080
กุมภาพันธ์	5600
มีนาคม	8440
เมษายน	10224
พฤษภาคม	7320
มิถุนายน	5680
กรกฎาคม	7856
สิงหาคม	6440
กันยายน	5208
ตุลาคม	5864
พฤศจิกายน	7104
ธันวาคม	7224
รวม	83040

ภาคผนวก ข-19

ผลการตรวจวัดคุณภาพน้ำของโรงงานอุตสาหกรรม



Analysis / Test Report

TESTING
No.0009

Client : Murata Electronics (Thailand) Ltd.
95 Moo 13, National Highway 11, Tambon Makhuea Chae, Amphoe Mueang Lamphun,
Lamphun Thailand 51000

P/O :

Project Name :

Project Location :

Lot ID: 2475900

Date Received : Jul 20, 2024

Date Reported : Jul 27, 2024

Report Number : 3042711-1

Page 1 of 1

Sample Number	2475900-1
Sampled Date	Jul 19, 2024 1:50 PM
Sample Description	Wastewater
Location	Inspection pit
Date Analysis Commenced	Jul 20, 2024
Condition of Sample	Contained in four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Copper	mg/L	0.0003	0.0005	0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	<0.0005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Nickel	mg/L	0.0003	0.0005	0.001	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.18	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing						
BOD (5 days at 20 degree C)	mg/L	-	2.0	2.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Bangkok
COD	mg/L	-	25	<25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Bangkok
pH at 25 degree C *		-	-	8.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok
Total Dissolved Solids Dried at 103-105 degree C	mg/L	-	5	124	In-house method : STM 04-010 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok

Sampling By : Nattapong Sopa ทะเบียนเลขที่ ว-204-จ-0189

Remark :

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

Technical Management



Section Head
ทะเบียนเลขที่ ว-204-จ-0008

Approved by



Assistant General Manager
ทะเบียนเลขที่ ว-204-ค-0004

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



Analysis / Test Report

TESTING
No.0009

Client : Murata Electronics (Thailand) Ltd.
95 Moo 13, National Highway 11, Tambon Makhuea Chae, Amphoe Mueang Lamphun,
Lamphun Thailand 51000

Lot ID: 2475900

Date Received : Jul 20, 2024

Date Reported : Jul 27, 2024

Report Number : 3042711-2

P/O :

Project Name :

Project Location :

Page 1 of 1

Sample Number	2475900-1
Sampled Date	Jul 19, 2024 1:50 PM
Sample Description	Wastewater
Location	Inspection pit
Date Analysis Commenced	Jul 23, 2024
Condition of Sample	Contained in four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Iron	mg/L	0.003	0.005	0.08	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Sampling By : Nattapong Sopa

Remark :

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

Approved by



Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

20654-31/ EMAIL

S:\Reports_All_NoGL.rpt (9:28AM)



Analysis / Test Report

TESTING
No.0009

Client : Murata Electronics (Thailand) Ltd.
95 Moo 13, National Highway 11, Tambon Makhuea Chae, Amphoe Mueang Lamphun,
Lamphun Thailand 51000

P/O :

Project Name :

Project Location :

Lot ID: 2487603

Date Received : Aug 17, 2024

Date Reported : Aug 23, 2024

Report Number : 3069562-1

Page 1 of 1

Sample Number	2487603-1
Sampled Date	Aug 16, 2024 9:00 AM
Sample Description	Wastewater
Location	Inspection pit
Date Analysis Commenced	Aug 17, 2024
Condition of Sample	Contained in four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Copper	mg/L	0.0003	0.0005	0.04	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Nickel	mg/L	0.0003	0.0005	0.003	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.07	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Water Testing						
BOD (5 days at 20 degree C)	mg/L	-	2.0	<2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Bangkok
COD	mg/L	-	25	28	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Bangkok
pH at 25 degree C *		-	-	7.6	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok
Total Dissolved Solids Dried at 103-105 degree C	mg/L	-	5	284	In-house method : STM 04-010 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok

Sampling By : Tanakron Insuta ทะเบียนเลขที่ ว-204-จ-0090

Remark :

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

Technical Management



Manager

ทะเบียนเลขที่ ว-204-จ-0007

Approved by



Assistant General Manager

ทะเบียนเลขที่ ว-204-ค-0004

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



Analysis / Test Report

TESTING
No.0009

Client : Murata Electronics (Thailand) Ltd.
95 Moo 13, National Highway 11, Tambon Makhuea Chae, Amphoe Mueang Lamphun,
Lamphun Thailand 51000

Lot ID: 2487603

Date Received : Aug 17, 2024

Date Reported : Aug 23, 2024

Report Number : 3069562-2

P/O :

Project Name :

Project Location :

Page 1 of 1

Sample Number	2487603-1
Sampled Date	Aug 16, 2024 9:00 AM
Sample Description	Wastewater
Location	Inspection pit
Date Analysis Commenced	Aug 19, 2024
Condition of Sample	Contained in four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Iron	mg/L	0.003	0.005	0.04	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Sampling By : Tanakron Insuta

Remark :

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

Approved by

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

Manager

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

20654-31/ EMAIL

S:\Reports_All_NoGL.rpt (6:47PM)

ANALYSIS REPORT

Pages : 1 / 1
Report Date : 08/10/24
Report No. : LPN 0546/24

(Customer Information)

Customer Name : Murata Electronics (Thailand), Ltd.
Address : 95 Moo 13, Tambol Makhuea chae, Amphur Muang, Lamphun 51000

(Customer Information)

(Laboratory Information)

Sample Type : Wastewater
Sampling Point : Inspection pit (Outlet)
Received Date : 12/09/24
Analytical Date : 12/09/24 - 20/09/24
Sample Code : LPN-CW-0495/24

☐ Customer Information ☒ Laboratory Information

Sampling Method : Grab Sampling **Sampling Date (Sampling Time)** : 12/09/24 (2.30 PM)
Sampling By : Mr. Narin Thep Wong (Global Utilities Services Co., Ltd.) : Analyst No. ๓-079/5-๓-0003

Parameter	Unit	Analysis Method	Standard Limit(1)	Result
1 BOD; 5-Day Test	mg/L	5 Day BOD Test, Membrane Electrode Method [SMWW. Part 5210 B, 4500 - O (G)]	≤ 500	4
2 COD	mg/L	Closed Reflux, Colorimetric Method [SMWW. Part 5220 (D)]	≤ 750	18
3 Color at Original pH	ADMI	ADMI Weight-Ordinate Spectrometric Method [SMWW. Part 2120 (F)]	≤ 600	13
4 Color at pH 7.0	ADMI	ADMI Weight-Ordinate Spectrometric Method [SMWW. Part 2120 (F)]	≤ 600	13
5 pH at 25 °C	-	Electrometric Method [SMWW. Part 4500 - H ⁺ (B)]	5.5 - 9.0	7.8
6 Oil & Grease	mg/L	Liquid-Liquid, Partition - Gravimetric Method [SMWW. Part 5520 (B)]	≤ 10	< 1
7 Total Dissolved Solids	mg/L	Dried at 180 °C [SMWW. Part 2540 (C)]	≤ 3,000	134
8 Total Suspended Solids	mg/L	Dried at 103-105 °C [SMWW. Part 2540 (D)]	≤ 200	< 10
Sample Description : Color		Visual method	-	Gray
: Odor		Visual method	-	Slight
: Turbidity		Visual method	-	Little

Remark :

- Laboratory No. ๓-079/5
- SMWW : Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd edition, 2017
- (1) Notification of the Industrial Estate Authority of Thailand No. 29/B.E.2567 (2024) Re: General Rules for Wastewater Discharge into the Central Wastewater Treatment System in Industrial Estates

Check by



Position

Chemist

Analyst No.

๓-079/5-๓-0005

Date

08/10/24

Approved by



Position

Head of Laboratory

Analyst No.

๓-079/5-๓-0001

Date

08/10/24

- End of Report -

ANALYSIS REPORT

Pages : 1 / 1
Report Date : 08/10/24
Report No. : LPN 0546/24 (Add-1)

(Customer Information)

Customer Name : Murata Electronics (Thailand), Ltd.
Address : 95 Moo 13, Tambol Makhuea chae, Amphur Muang, Lamphun 51000

(Customer Information)

Sample Type : Wastewater
Sampling Point : Inspection pit (Outlet)

(Laboratory Information)

Received Date : 12/09/24
Analytical Date : 12/09/24 - 27/09/24
Sample Code : LPN-CW-0495/24

☐ Customer Information ☒ Laboratory Information

Sampling Method : Grab Sampling **Sampling Date (Sampling Time)** : 12/09/24 (2.30 PM)
Sampling By : Mr. Narin Thepwong (Global Utilities Services Co., Ltd.)

Parameter	Unit	Analysis Method	Standard Limit(1)	Result
1 Copper (Cu)	mg/L	Digestion, Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) Method [SMWW. Part 3125]	≤ 2	0.050
2 Lead (Pb)	mg/L	Digestion, Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) Method [SMWW. Part 3125]	≤ 0.2	< 0.001
3 Nickel (Ni)	mg/L	Digestion, Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) Method [SMWW. Part 3125]	≤ 1	0.017
4 Zinc (Zn)	mg/L	Digestion, Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) Method [SMWW. Part 3125]	≤ 5	0.227
5 Iron (Fe)	mg/L	Digestion, Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) Method [SMWW. Part 3125]	≤ 10	0.550
Sample Description : Color		Visual method	-	Gray
: Odor		Visual method	-	Slight
: Turbidity		Visual method	-	Little

Remark :

- SMWW : Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd edition, 2017
- This report analyze by GUSCO Ladkrabang's laboratory.

(1) Notification of the Industrial Estate Authority of Thailand No. 29/B.E.2567 (2024) Re: General Rules for Wastewater Discharge into the Central Wastewater Treatment System in Industrial Estates

Check by



Position : Chemist
Date : 08/10/24

Approved by



Position : Head of Laboratory
Date : 08/10/24

- End of Report -



Analysis / Test Report

TESTING
No.0009

Client : Murata Electronics (Thailand) Ltd.
95 Moo 13, National Highway 11, Tambon Makhuea Chae, Amphoe Mueang Lamphun,
Lamphun Thailand 51000

Lot ID: 24102615

Date Received : Oct 18, 2024

Date Reported : Oct 24, 2024

Report Number : 3133116-1

P/O :

Project Name :

Project Location :

Page 1 of 1

Sample Number	24102615-1
Sampled Date	Oct 17, 2024 10:50 AM
Sample Description	Wastewater
Location	Inspection pit
Date Analysis Commenced	Oct 19, 2024
Condition of Sample	Contained in four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Copper	mg/L	0.0003	0.0005	0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Nickel	mg/L	0.0003	0.0005	0.006	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.07	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Water Testing						
BOD (5 days at 20 degree C)	mg/L	-	2.0	<2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Bangkok
COD	mg/L	-	25	<25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Bangkok
pH at 25 degree C		-	-	7.7	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Bangkok
Total Dissolved solids Dried at 180 degree C	mg/L	-	5	340	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	6	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Bangkok

Sampling By : Phanudeth Petchaut ทะเบียนเลขที่ ว-204-จ-0169

Remark :

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

Technical Management



Manager

ทะเบียนเลขที่ ว-204-จ-0007

Approved by



Assistant General Manager

ทะเบียนเลขที่ ว-204-ค-0004

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



Analysis / Test Report

TESTING
No.0009

Client : Murata Electronics (Thailand) Ltd.
95 Moo 13, National Highway 11, Tambon Makhuea Chae, Amphoe Mueang Lamphun,
Lamphun Thailand 51000

Lot ID: 24102615

Date Received : Oct 18, 2024

Date Reported : Oct 24, 2024

Report Number : 3133116-2

P/O :

Project Name :

Project Location :

Page 1 of 1

Sample Number	24102615-1
Sampled Date	Oct 17, 2024 10:50 AM
Sample Description	Wastewater
Location	Inspection pit
Date Analysis Commenced	Oct 19, 2024
Condition of Sample	Contained in four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Iron	mg/L	0.003	0.005	0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Sampling By : Phanudeth Petchaut

Remark :

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

Approved by



Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

20654-31/ EMAIL

S:\Reports\MixRef_All_NoGL.rpt (4:23PM)



Analysis / Test Report

TESTING
No.0009

Client : Murata Electronics (Thailand) Ltd.
95 Moo 13, National Highway 11, Tambon Makhuea Chae, Amphoe Mueang Lamphun,
Lamphun Thailand 51000

Lot ID: 24129454

Date Received : Nov 15, 2024

Date Reported : Nov 21, 2024

Report Number : 3164317-1

P/O :

Project Name :

Project Location :

Page 1 of 2

Sample Number	24129454-1
Sampled Date	Nov 14, 2024 10:00 AM
Sample Description	Wastewater
Location	Inspection pit
Date Analysis Commenced	Nov 16, 2024
Condition of Sample	Contained in four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Copper	mg/L	0.0003	0.0005	0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Iron	mg/L	0.003	0.005	0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Lead	mg/L	0.0003	0.0005	<0.0005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Nickel	mg/L	0.0003	0.0005	0.002	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.11	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Water Testing						
BOD (5 days at 20 degree C)	mg/L	-	2.0	<2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Bangkok
COD	mg/L	-	25	<25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Bangkok
pH at 25 degree C		-	-	8.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Bangkok
Total Dissolved solids Dried at 180 degree C	mg/L	-	5	476	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Bangkok

Sampling By : Natthakit Sapankaew ทะเบียนเลขที่ ว-204-จ-0163

Remark :

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

Technical Management



Manager

ทะเบียนเลขที่ ว-204-จ-0007

Approved by



Assistant General Manager

ทะเบียนเลขที่ ว-204-ค-0004

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



Analysis / Test Report

TESTING
No.0009

Client : Murata Electronics (Thailand) Ltd.

95 Moo 13, National Highway 11, Tambon Makhuea Chae, Amphoe Mueang Lamphun,
Lamphun Thailand 51000

P/O :

Project Name :

Project Location :

Lot ID: 24129454

Date Received : Nov 15, 2024

Date Reported : Nov 21, 2024

Report Number : 3164317-1

Page 2 of 2

- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management



Manager

ทะเบียนเลขที่ ว-204-จ-0007

Approved by



Assistant General Manager

ทะเบียนเลขที่ ว-204-ค-0004

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

ภาคผนวก ข-20

การตรวจสอบและบำรุงรักษาระบบบำบัดน้ำเสียส่วนกลาง

แบบบันทึกการทำงานของเครื่องจักรและระบบไฟฟ้าในระบบน้ำเสียของระบบบำบัดน้ำเสีย

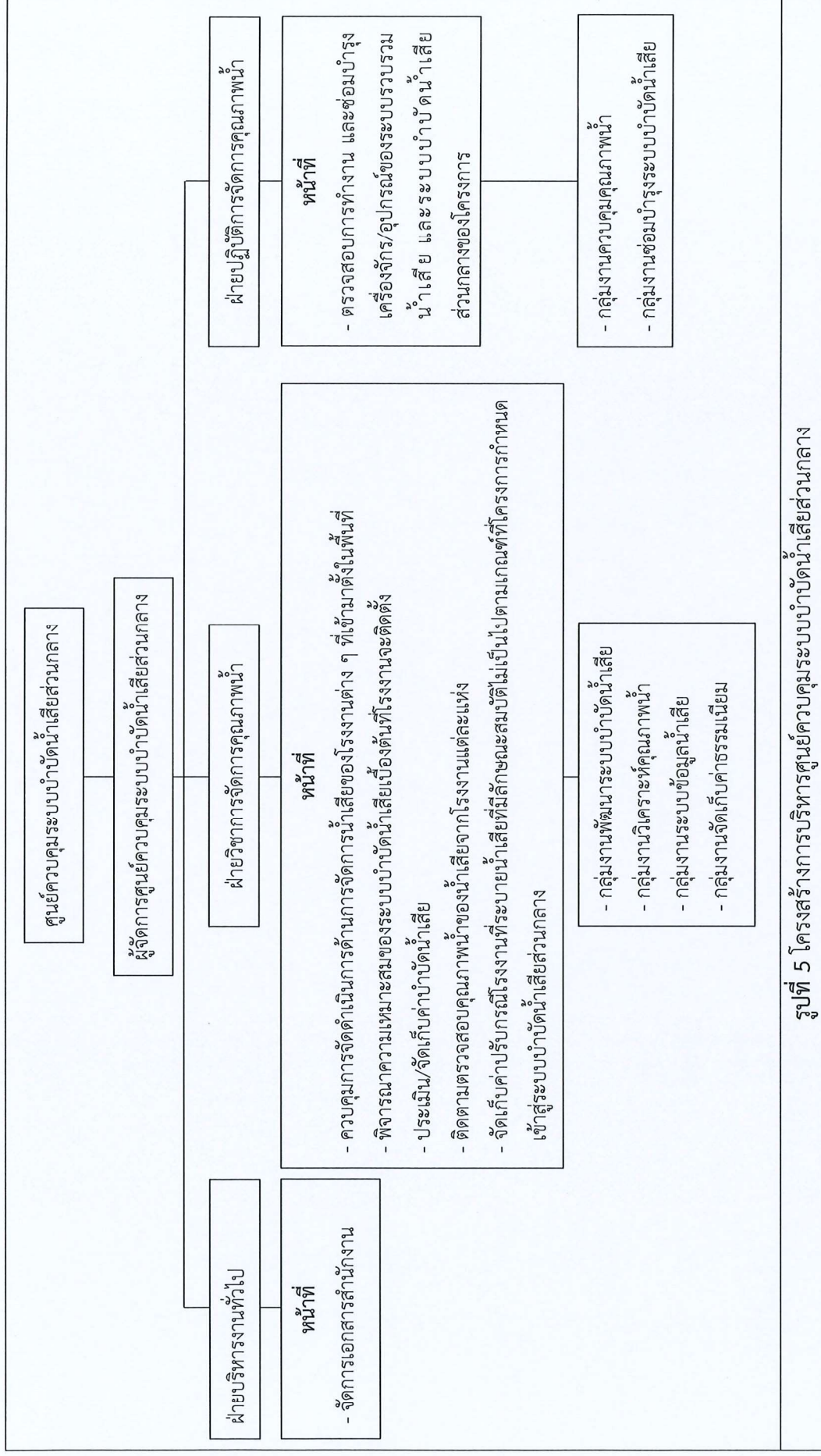
วันที่	เวลา	เครื่องสูบน้ำเสียเข้าระบบบำบัดน้ำเสีย				เครื่องสูบน้ำเสียบ่อ EQ Tank			เครื่องเติมอากาศระบบบำบัดน้ำเสีย				ผู้บันทึก	หมายเหตุ
		Pump 1	Pump 2	Pump 3	Control Panel	Pump 1	Pump 2	Control Panel	Aerator1	Aerator2	Aerator3	Control Panel		
	13.00	/	/	/	/	/	/	/	/	/	/	/		
	17.00	/	/	/	/	/	/	/	/	/	/	/		
18/11/67	10.00	/	/	/	/	/	/	/	/	/	/	/		
	13.00	/	/	/	/	/	/	/	/	/	/	/		
	17.00	/	/	/	/	/	/	/	/	/	/	/		
16/11/67	10.00	/	/	/	/	/	/	/	/	/	/	/		
	13.00	/	/	/	/	/	/	/	/	/	/	/		
	17.00	/	/	/	/	/	/	/	/	/	/	/		
18/11/67	10.00	/	/	/	/	/	/	/	/	/	/	/		
	13.00	/	/	/	/	/	/	/	/	/	/	/		
	17.00	/	/	/	/	/	/	/	/	/	/	/		
19/11/67	10.00	/	/	/	/	/	/	/	/	/	/	/		
	13.00	/	/	/	/	/	/	/	/	/	/	/		
	17.00	/	/	/	/	/	/	/	/	/	/	/		
20/11/67	10.00	/	/	/	/	/	/	/	/	/	/	/		
	13.00	/	/	/	/	/	/	/	/	/	/	/		
	17.00	/	/	/	/	/	/	/	/	/	/	/		
21/11/67	10.00	/	/	/	/	/	/	/	/	/	/	/		
	13.00	/	/	/	/	/	/	/	/	/	/	/		
	17.00	/	/	/	/	/	/	/	/	/	/	/		
22/11/67	10.00	/	/	/	/	/	/	/	/	/	/	/		
	13.00	/	/	/	/	/	/	/	/	/	/	/		
	17.00	/	/	/	/	/	/	/	/	/	/	/		

หมายเหตุ : / = ใช้งานปกติ, X = ผิดปกติ

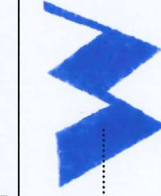
: ความถี่ในการปฏิบัติงาน 3 ครั้งต่อวัน

ภาคผนวก ข-21

ผังโครงสร้างการบริหารศูนย์ควบคุม
ระบบบำบัดน้ำเสียส่วนกลาง



รูปที่ 5 โครงสร้างการบริหารศูนย์ควบคุมระบบบำบัดน้ำเสียส่วนกลาง



กรรมการผู้มีอำนาจลงนาม

บริษัท เวิลด์ อินดัสเทรียล เอสเตท จำกัด

หน้า 122/135

มิถุนายน 2567



ผู้จัดทำรายงานการประเมินผลกระทบสิ่งแวดล้อมบุคคลธรรมดา

บริษัท โฟร์เทียร์ คอนซัลแตนต์ จำกัด