
	☐ ☒ ☐ ☐
	99
	40
	300 8 2400
	1 3 40



	1 2GB16297-19962 3GB12348-20083

2-1

			mg/	/	t/a	
	1		285	4.8	136.8	576h/72d
			310	3.2	99.2	384h/48d
			350	2.0	70	240h/30d
			230	10.0	230	1200h/150d
			380	3.2	121.6	384h/48d

			3000t/a	3000t/a	
		24666.8m ²			
		9907m ²	1	1	
		225m ²			/
		3 “ + + ” 3 “ ” 1 “ ”	2 3 +	3 2 +	
		1			
		150t/d + + +MBR			
		100m ²			
		150m ²			

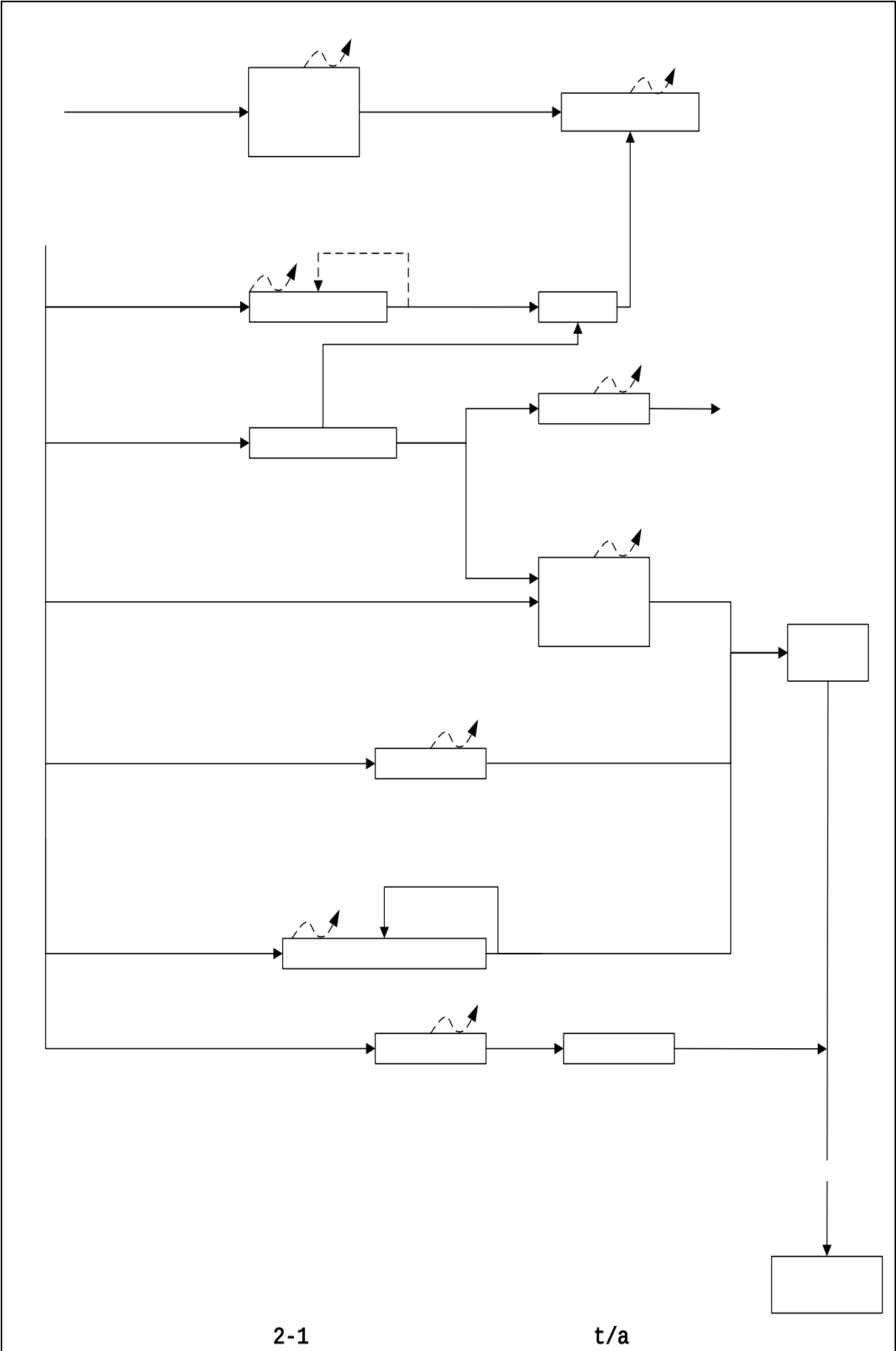
2-3

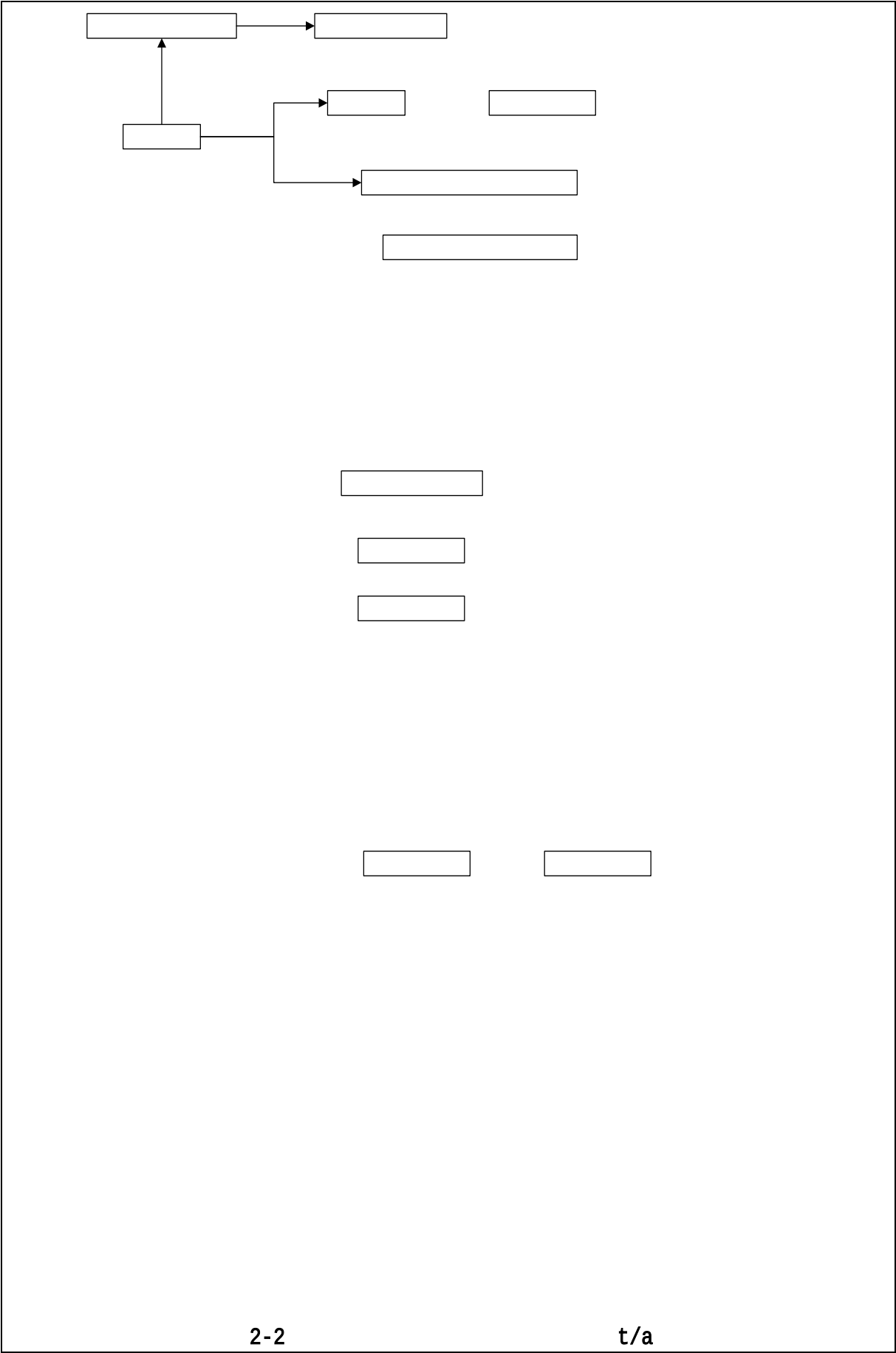
	1		GMP		2	2
	2		GMP		2	2
	3		GMP		1	1
	4		LHSZ800B		1	1
	5		FG200B			

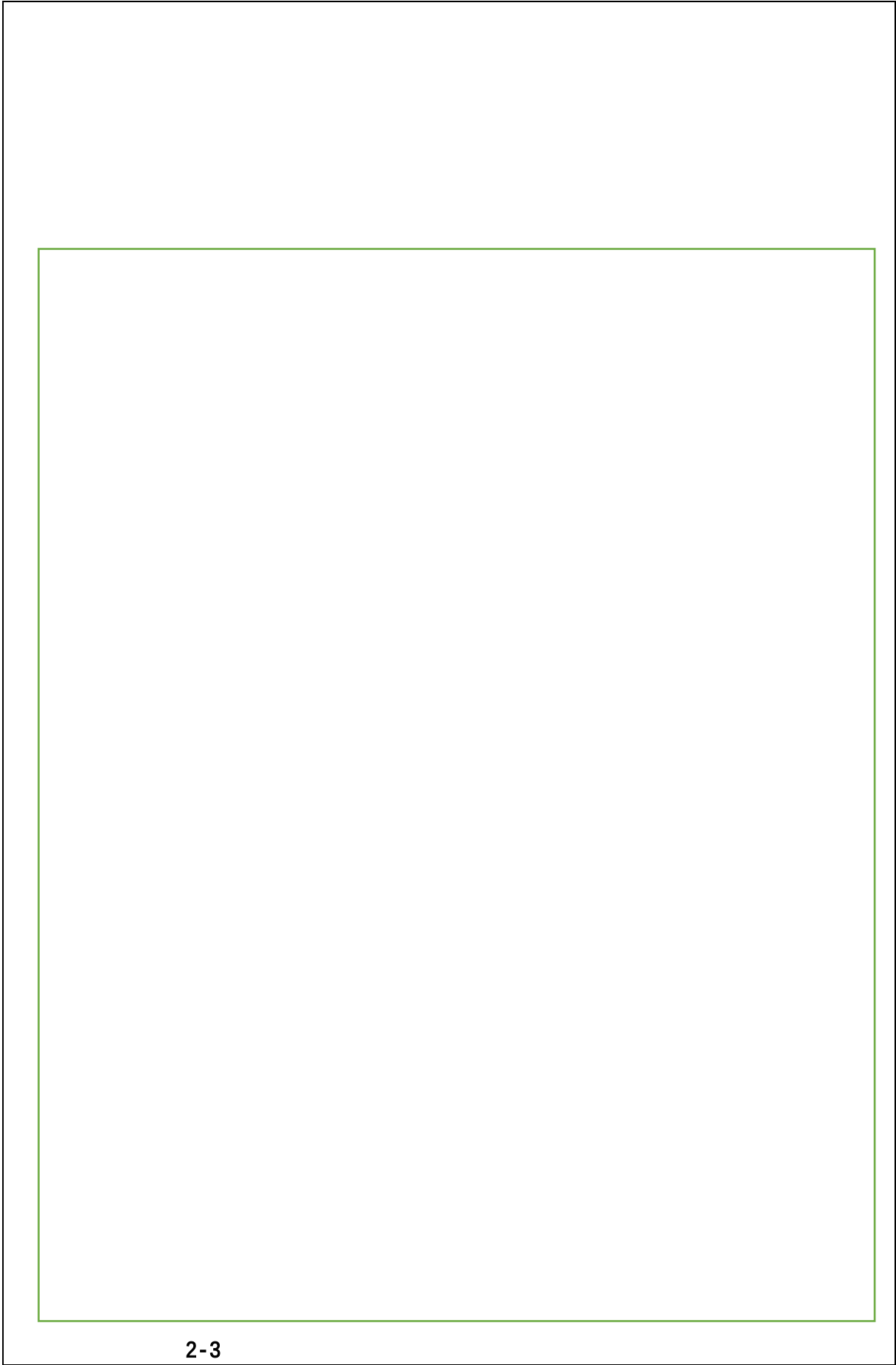
	32		300t/h		2	2
	33		/		3	3

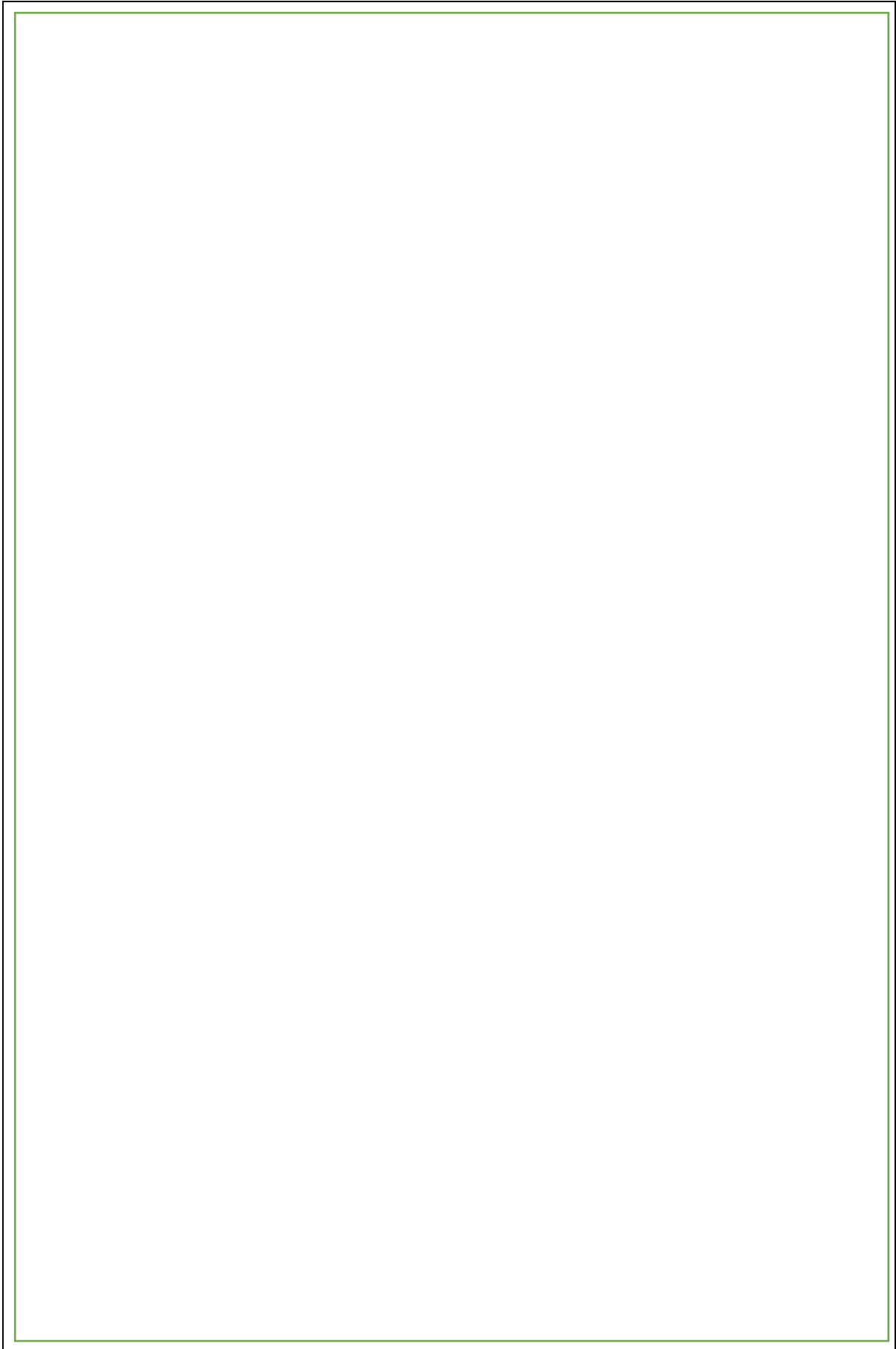
2-4					
2-4					
		/	kg	kg	kg
		/	48000	667	652
		/	33600	467	456
		/	48000	667	652
		/	7200	100	97.8
			90000	1250	122.5
		/	28800	600	594
		/	41600	867	858
		/	22400	467	462
		/	6400	133	132
			112000	2333	2310
		/	6400	133	129
		/	96000	2000	1940
		/	16000	333	323
		/	3200	67	65
			82000	1708	1657
		/	4000	133	128
		/	40000	1333	1280
		/	20000	667	640
			2000	66.7	64
			47000	1567	1504
			10800	66.7	66

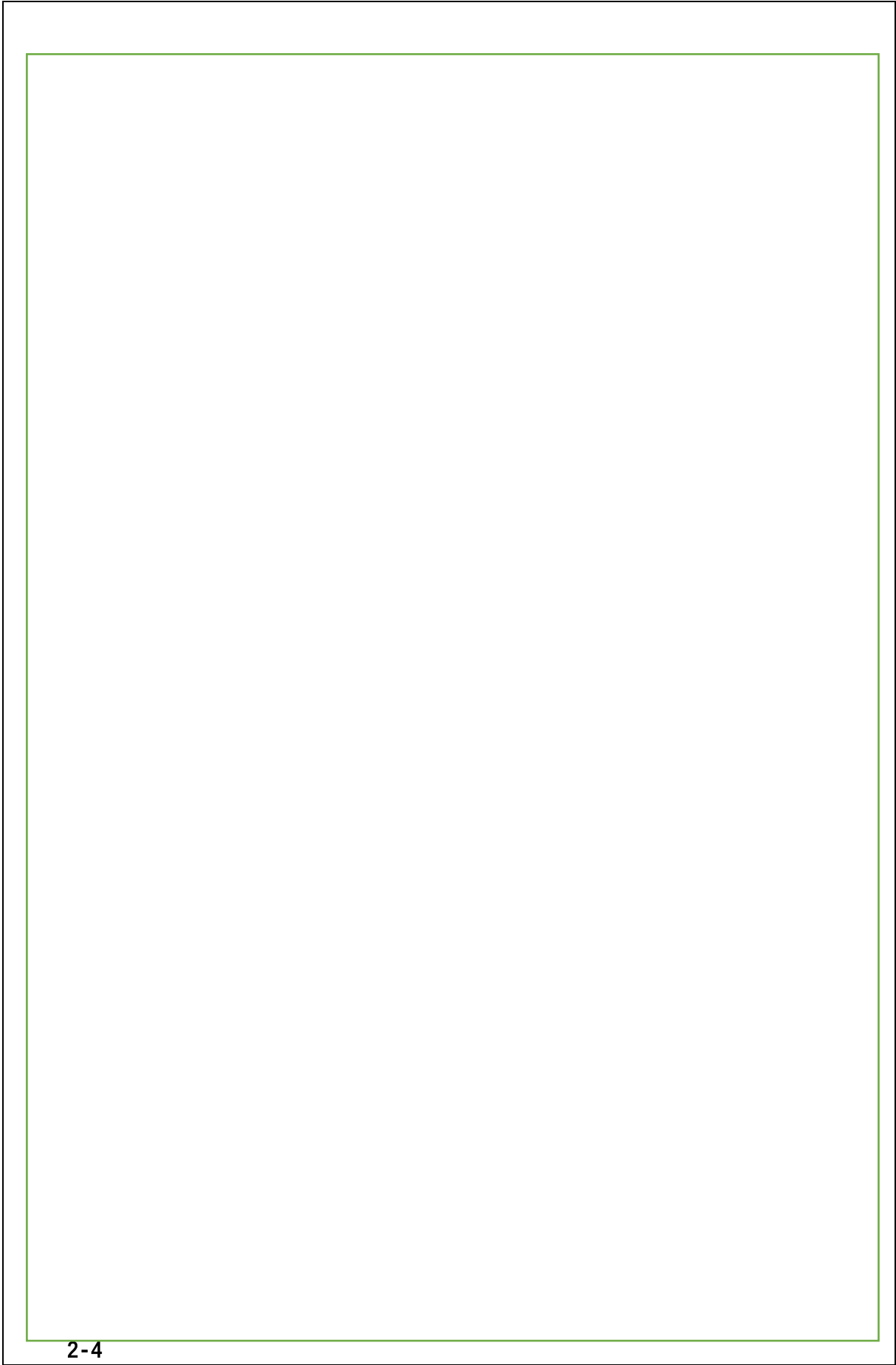
		/	21600	133	132
		/	108000	667	660
	100	/	108000	667	660
		/	5000	30.8	30.6
			63000	389	385
		/	270000	3000	2940
90		/	48000	533	523
		/	30000	333	327
		/	30000	333	327
		/			

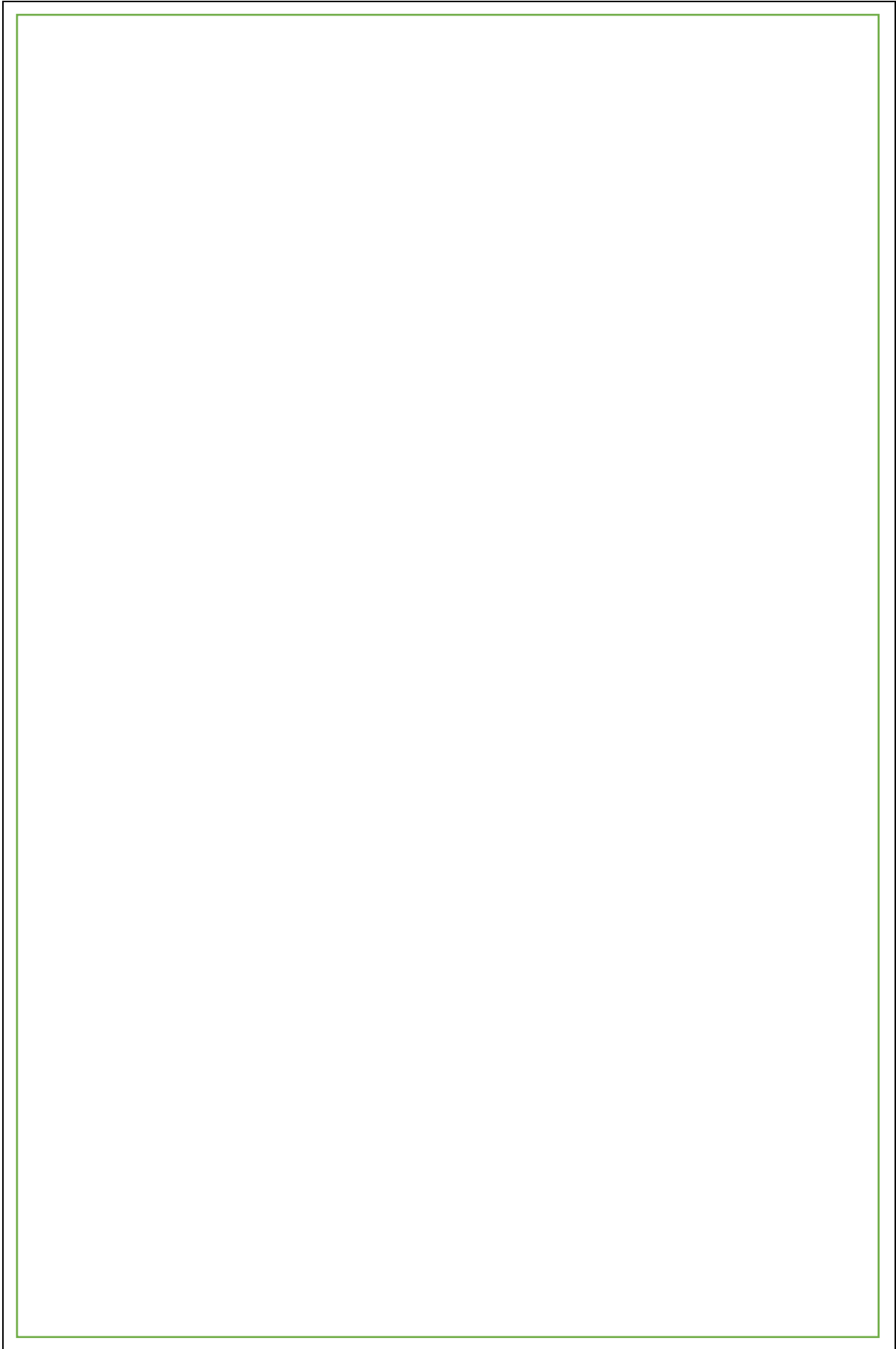


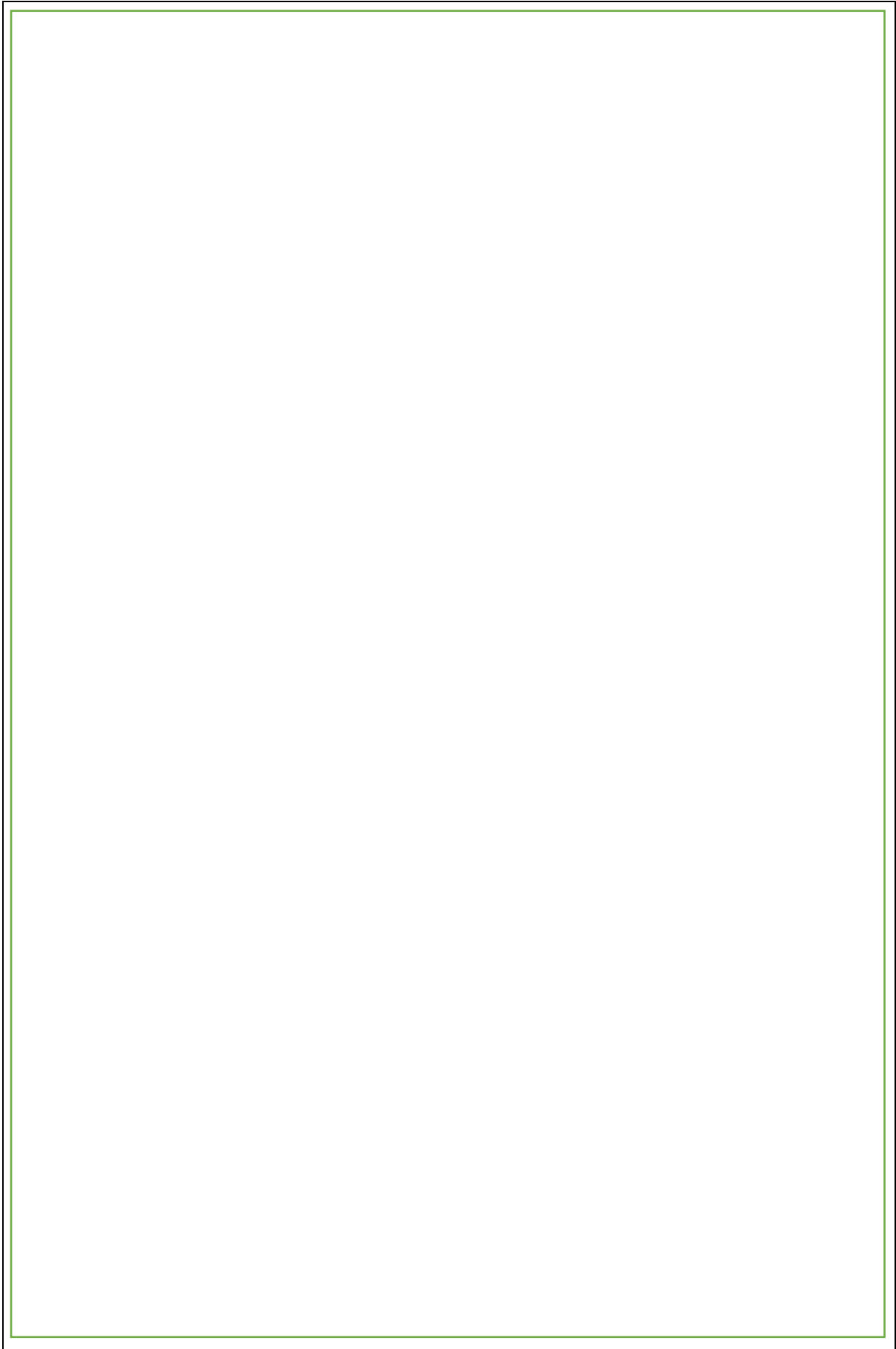


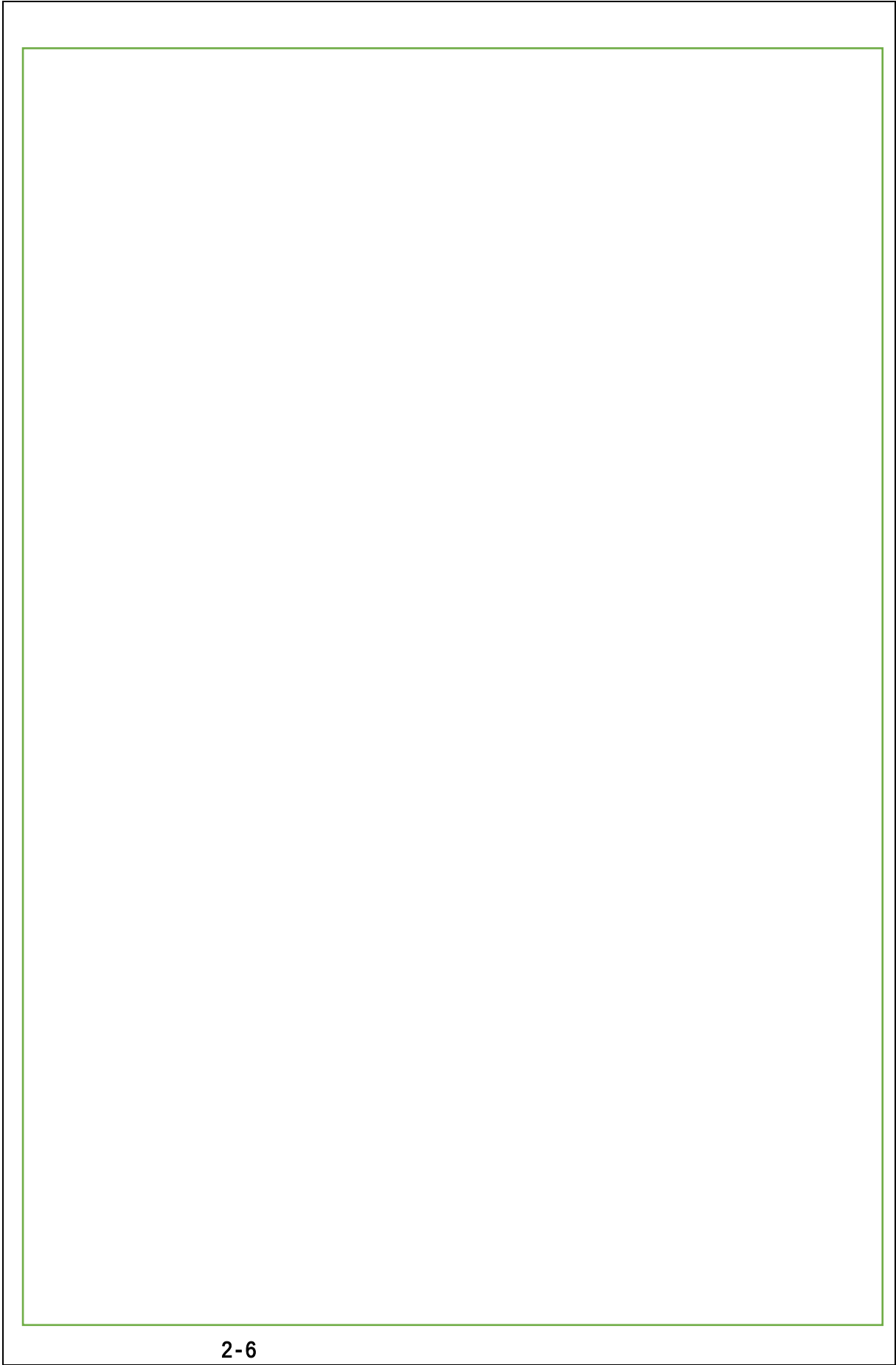


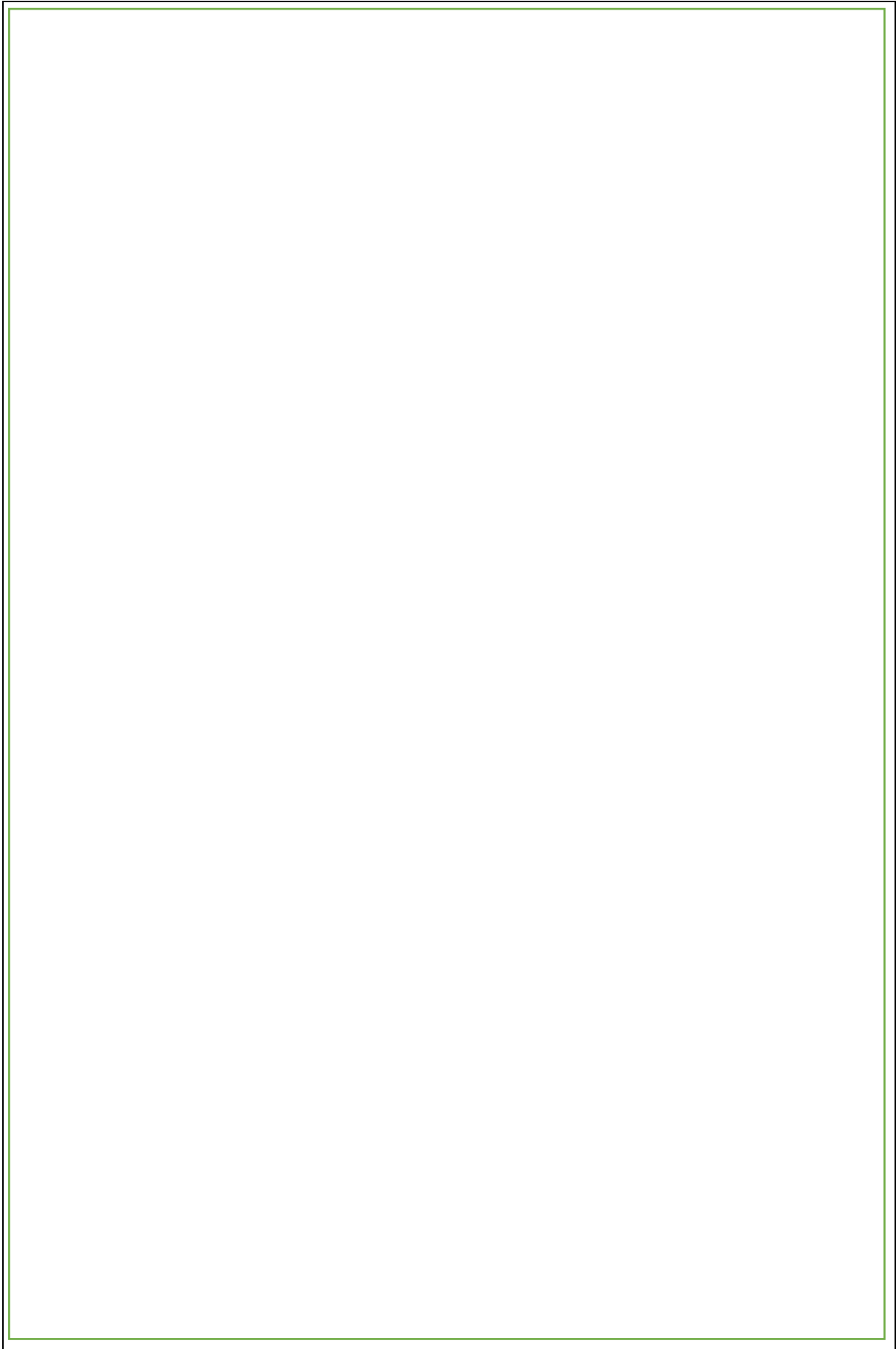


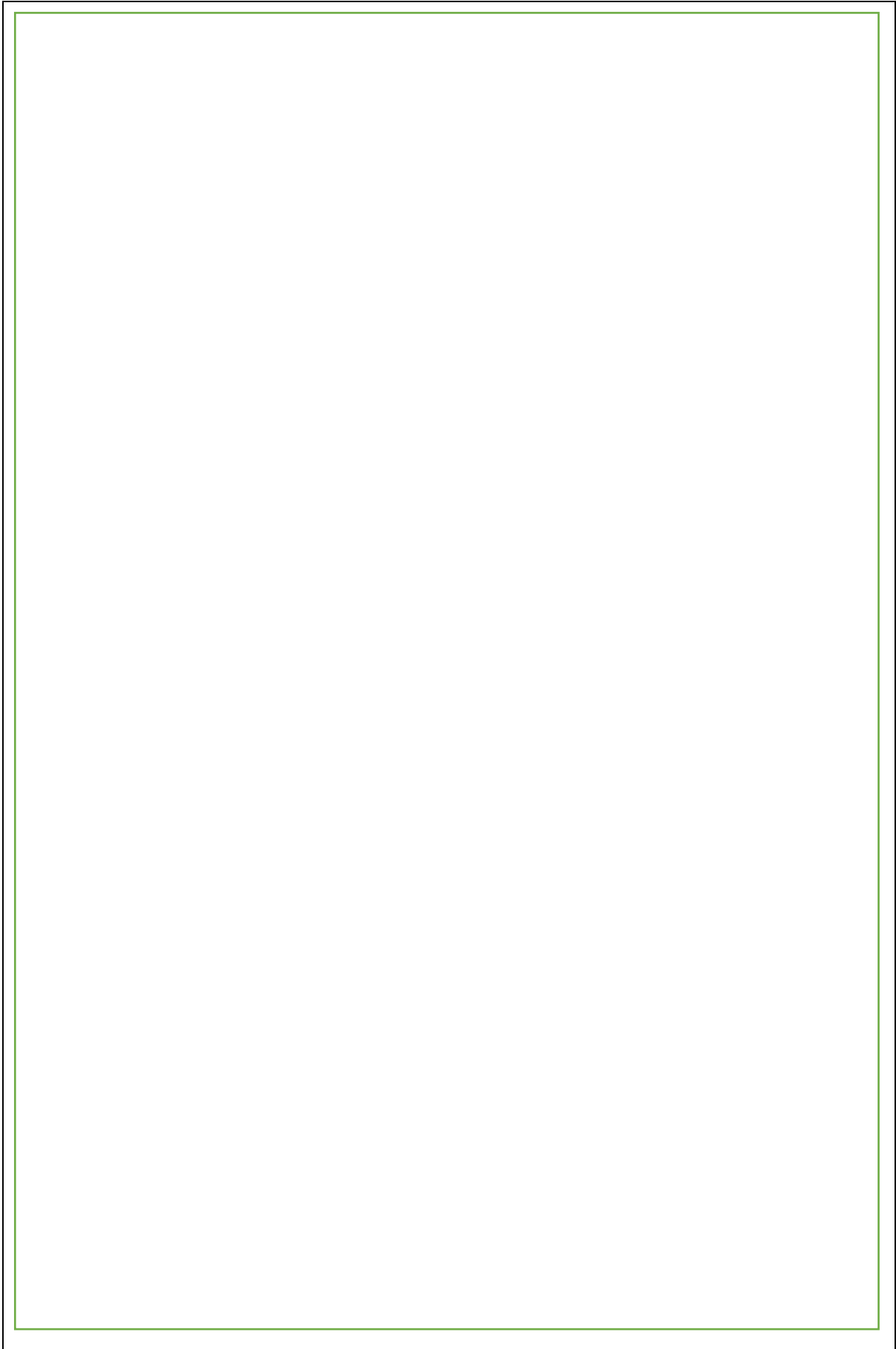


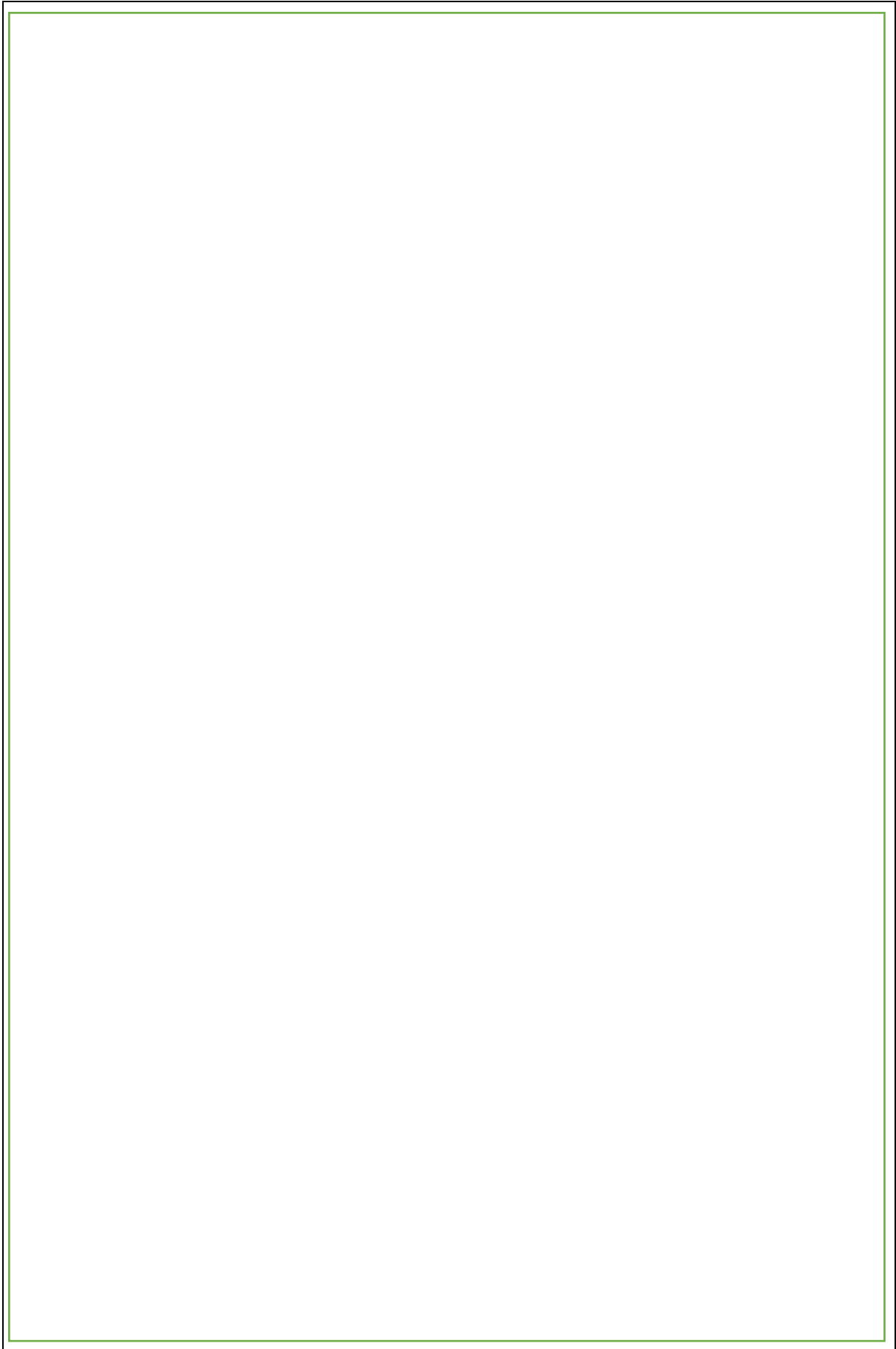












[2018]6 2.

[2015]256

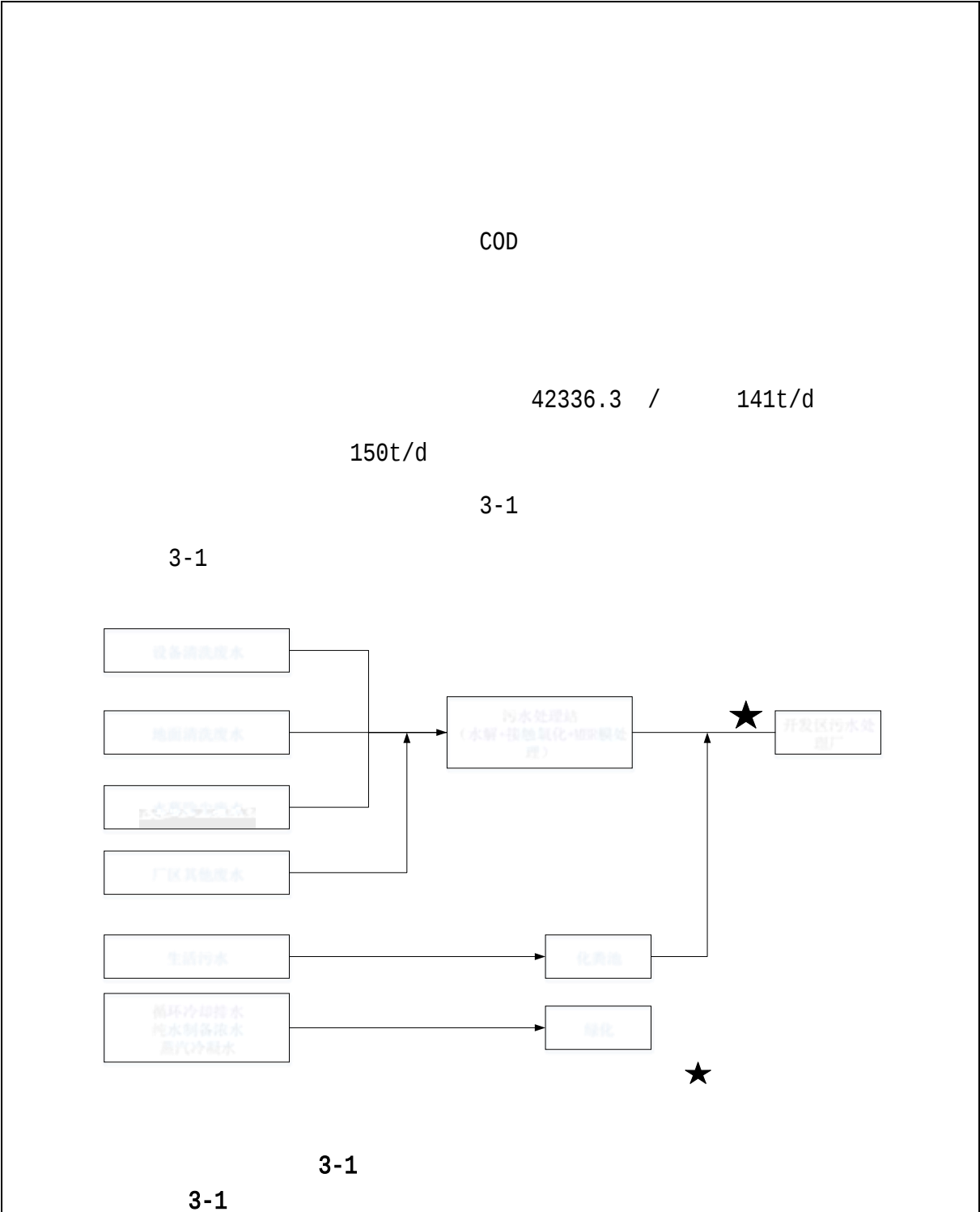
2-5

2-6

2-5

	[2018]6		
1	50% 30%		
2			
3			
4			
5			
6	10%		
7			
8			
9			

2-6			
	[2015]256		
1			
2	30%		
3	30%		
4	30%		
5			
6			
7			
8			
9			
10			



					t/a			
			COD SS		3600			

					800			
					96			
			COD SS		720			

1 15

FQ-05

1 15

FQ-08

2

1

+

2 15

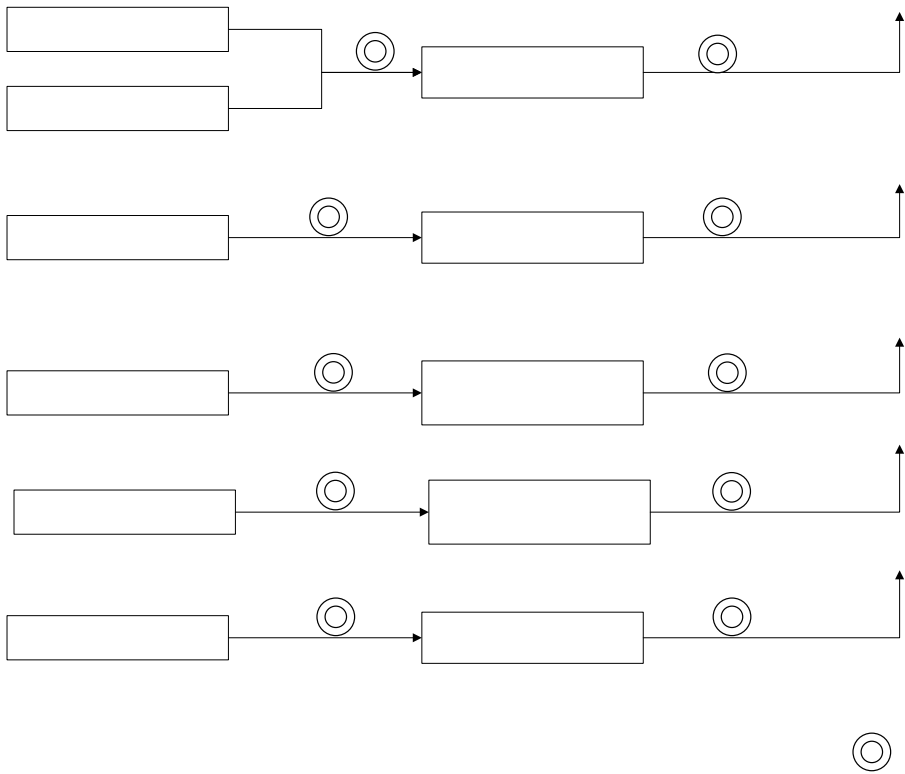
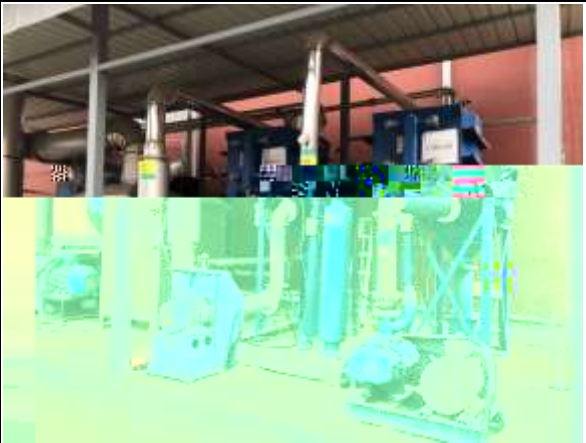
FQ-06 FQ-07

1 15

FQ-04

3-2

3-2



3-2

3-2

				60min/d	+15	+15	
				50min/d	+15	+15	

	1			60min/d	+ +15	+ +15	
	2			60min/d	+ +15	+ +15	

	/		HW49 900-041-49	0.04	0.03		
			HW02 272-005-02	1.06694	0.95		
			/	0.3	5		

/

					15	20
			150m ²	150m ²		
		/	100m ²	100m ²		
		/	/	/		
		/				
		DN150			85	95
					650	695

1

2

1 : 100%
99% + 99.5%
GB16297-1996 15m

2 :
5576t/a

3 :
20-25dB A
3

4
3

:

2

99

40

6321

650

" "

:

1

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2

;

+

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;

(GB16297-1996)

2

3

(GB12348-2008)

3

4

;

;

/

(GB18597-2001)

5

|| ||

5

4-1

1	;	
2	; ; + ; (GB16297-1996) 2	; ; ; + ; (GB16297-1996) 2
3	(GB12348-2008) 3	(GB12348-2008) 3
4	; / ;	; / ;

	(GB18597-2001)	
5		
6	): $\leq 5576 \quad 30315$ $COD \leq 1.586 \quad 8.936 \quad NH_3-N \leq 0.032(0.392)$ $COD \leq 0.558 \quad 3.028 \quad NH_3-N \leq 0.032(0.392)$: $\leq 0.00506 \quad 0.00706$	$5216 \quad /$ $COD_{Cr} 0.871 \quad / \quad SS 0.183 \quad /$ $0.029 \quad / \quad 0.0028 \quad /$ $42336.3 \quad /$ $COD_{Cr} 7.070 \quad / \quad SS 1.482 \quad /$ $0.238 \quad / \quad 0.023 \quad /$ $0.0047 \quad /$



5-1

PH

PH

/

10%										
5-2										
					%		%			
pH	11	/	11	/	0	/	± 0.1	/		/
CODcr	11	2	2	2	3.57 3.82	0 3.45	20	10		
SS	11	/	/	/	/	/	/	/	/	/
	8	2	2	2	1.09 2.40	0.96 1.81	20	10		
	8	2	2	2	0.88 1.10	0.97 1.03	20	10		
	8	2	2	/	1.10 3.51	/	20	/		/
5-3										
					%		%			
pH	11	/	/	/	/		/		/	
CODcr	11	2	/	/	/		/		/	
SS	1	/	/	/	/		/		/	
	8	2	2	2	95.8 102.8		90 105			
	8	2	2	2	105.5 106.8		90 110			
	8	2	/	/	/		/		/	
5-4										
				mg/L		mg/L				
pH	/			/		/		/		
CODcr	(GSB 07- 3161-2017 200197)			169 ± 9		172 164				
	(GSB 07- 3161-2017			50.7 ± 3.0		51.8 49.2				

	2001108)			
SS	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/

GB/T16157-1996

HJ/T373-2007

GB16297

HJ/T397-2007

HJ/T55-2000

C

5-5										
					%		%			
					/	/	/	/	/	

6-123-1

6-1

		/	/			
	S1		+ + +MBR	pH COD SS NH3-N TP		4 / 2
	S2	/	/	pH COD SS	/	1 / 2
	S3					

6-223-2

6-2

		/	/			
	Q1					3 /
(FQ-04)	Q2					

Q32

(FQ-05)

6-4				
	mg/L, pH			
pH	6-9			
	500			
	400			
	35			
	3.0			
GB16297-1996 2				
GB16297-1996 7.2				
h-				
h ₁ , h ₂ -	1	2		
Q=Q ₁ +Q ₂				
Q-				
Q ₁ , Q ₂	1	2		
GB16297-1996 7.1				
200m 5m				

50%

15m,

200m

5m

50%

6-5

6-5

2019 3 21 2019 3 22

75% “ ”

7-1 7-2

7-1

			/	/	/	%
2019 3 21	1		4.8	0.0667	0.0652	97.8
	2		6.0	0.0667	0.0654	98.0
2019 3 21	1		4.8	0.0667	0.0652	97.8
	2		6.0	0.0667	0.0654	98.0

7-2

			%	kPa	m/s	
2019 3 21		/	/	/	2.4	
2019 3 22		/	/	/	2.1	

7-3

7-3

			(mg/L)		
2019 3 21	S1	pH	7.32 7.41	6 9	
		COD _{Cr}	149	500	
			5.61	35	
			0.54	3.0	
			35	400	
			2.10	/	/
	S2	pH	7.51	/	/
		COD _{Cr}	12	/	/
			9	/	/
	S3	pH	7.60	/	/
		COD _{Cr}	16	/	/
			6	/	/
2019 3 22	S1	pH	7.35 7.43	6 9	
		COD _{Cr}	167	500	
			4.40	35	
			0.47	3.0	
			35	400	
			45.9	/	/
	S2	pH	7.47	/	/
		COD _{Cr}	14	/	/
			8	/	/

2019 3 21

2019 3 22

FQ-04 Q2

FQ-

+ FQ-07 Q8 FQ-08

Q10

16297-1996 2

16297-1996 2

92.6% 96.0%

95.9% 98.3% 1

+ 93.7% 96.0% 2 +

92.4% 95.0%

93.8% 97.0%

7-4

7-5

7-6

2

3-2

7-1 7-2

7-4

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Q1

Q4	3	22	mg/m ³						
			kg/h	8.97×10^{-3}	9.54×10^{-3}	1.09×10^{-2}	9.54×10^{-3}	/	/

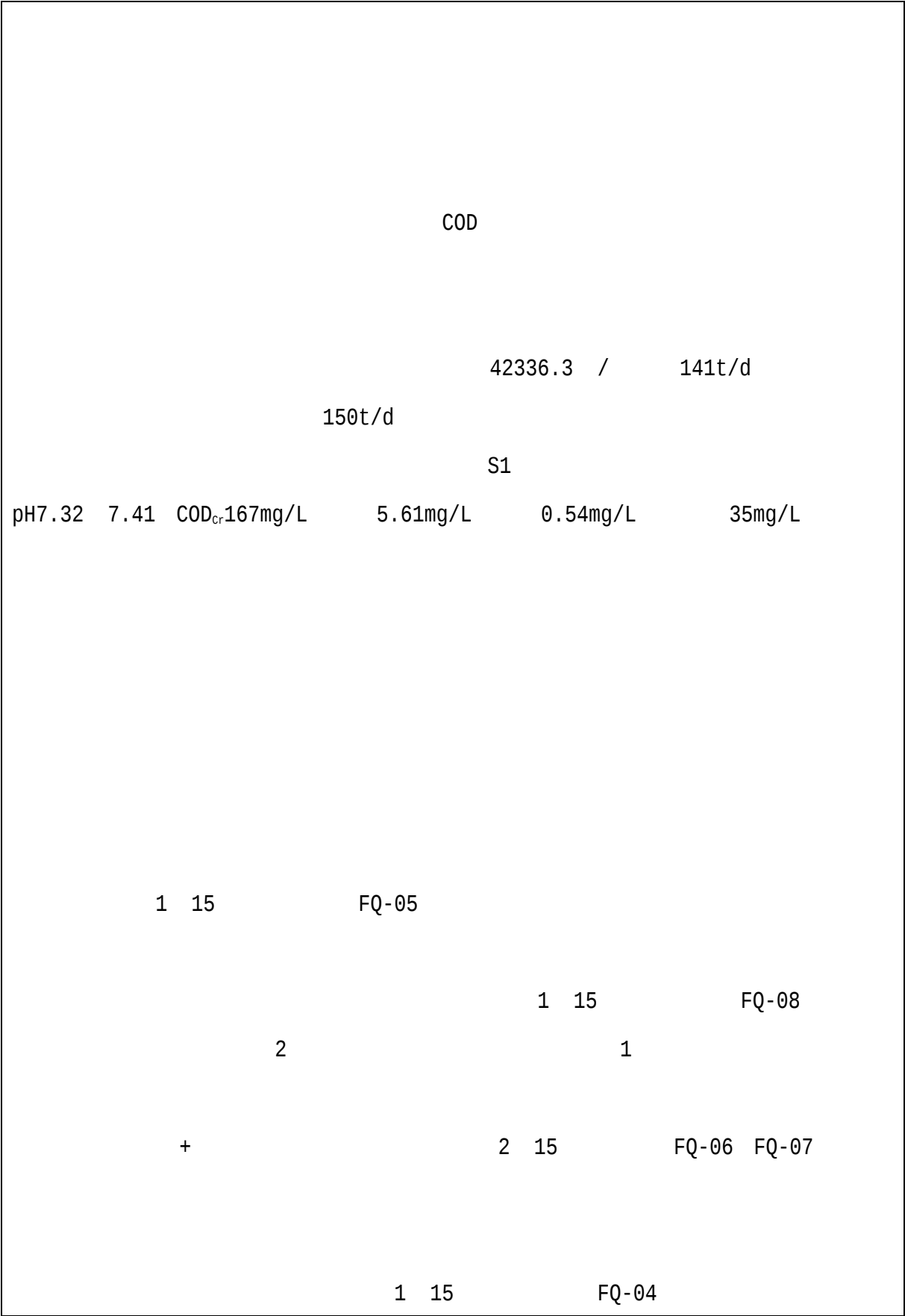
FQ-07	+		kg/h					
		2019 3 22	mg/m ³	1.5	1.4	1.1	1.5	120
			kg/h	3.57×10^{-3}	3.43×10^{-3}	2.65×10^{-3}	3.57×10^{-3}	1.75
Q9		2019 3 21	mg/m ³	13.0	16.0	17.0	17.0	/
			kg/h	6.50×10^{-2}	7.84×10^{-2}	8.42×10^{-2}	8.42×10^{-2}	/
		2019 3 22	mg/m ³	13.6	14.4	16.8	16.8	/
			kg/h	6.97×10^{-2}	7.27×10^{-2}	8.57×10^{-2}	8.57×10^{-2}	/
Q10		2019 3 21	mg/m ³	1.1	1.1	1.1	1.1	120
			kg/h	2.88×10^{-3}	2.95×10^{-3}	2.88×10^{-3}	2.95×10^{-3}	1.75
	FQ-08	2019 3 22	mg/m ³	1.6	1.4	1.3	1.6	120
			kg/h	4.29×10^{-3}	3.71×10^{-3}	2.57×10^{-3}	4.29×10^{-3}	1.75
7-5 kg/h								
			2019 3 21			2019 3 22		
	Q1		6.04×10^{-3}	5.06×10^{-3}	5.08×10^{-3}	8.43×10^{-3}	8.05×10^{-3}	7.26×10^{-3}
	Q2		3.06×10^{-4}	3.24×10^{-4}	3.06×10^{-4}	3.38×10^{-4}	4.32×10^{-4}	5.38×10^{-4}
	FQ-04							
	%		94.9	93.6	94.0	96.0	94.6	92.6
	Q3		1.35×10^{-2}	1.18×10^{-2}	1.19×10^{-2}	8.97×10^{-3}	9.54×10^{-3}	1.09×10^{-2}
	Q4		2.34×10^{-4}	2.26×10^{-4}	2.46×10^{-4}	3.67×10^{-4}	2.52×10^{-4}	3.25×10^{-4}

	FQ-05						
	%	98.3	98.1	97.9	95.9	97.4	97.0
Q5	1						
	+	0.134	0.112	0.141	0.140	0.126	0.142
Q6	1						
	+						

2019 3 21 2019 3 22

“

”



FQ-04 Q2

FQ-05 Q4

1

+

FQ-06 Q6

2

+

FQ-07 Q8

FQ-08 Q10

16297-1996 2

16297-1996 2

92.6% 96.0%

95.9% 98.3% 1

+

93.7% 96.0%

2

+

92.4% 95.0%

93.8% 97.0%

59.3dB(A)

GB12348-2008 3

/

/

1

2

0.0047 /

“ ”

“ ”

1

2

“ ”

()

():

()

									/		99		
	()	[C2720]							/		118 ° 88'65" 32 ° 14'05"		
		40							40				
									[2017]99				
		2017 11							2018 12 1		/		
											/		
	()	42151				()			650	(%)	1.54		
	()	45720				()			695	(%)	1.52		
	()	/	()	/	()	/	()		/	()	/	()	/
		/							/		/		
									/		2019 5 21		
()		(1)	(2)	(3)	(4)	(5)	(6)	(7)	“ ” (8)	(9)	(10)	(11)	(12)
		/	0.5216	0.5576	/	/	0.5216	0.5576	/	4.23363	3.0315	/	+0.5216
		/	167	500	/	/	0.871	1.586	/	7.070	8.936	/	+0.871
		/	5.61	35	/	/	0.029	0.032	/	0.238	0.392	/	+0.029
		/	35	400	/	/	0.183	0.525	/	1.482	6.675	/	+0.183
		/	0.54	3.0	/	/	0.0028	0.003	/	0.023	0.063	/	+0.0028
		/	/	120	/	/	0.00407	0.00506	/	/	/	/	+0.00407
		/	/	/	/	/	/	/	/	/	/	/	/
		/											
		/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	

— — — — —