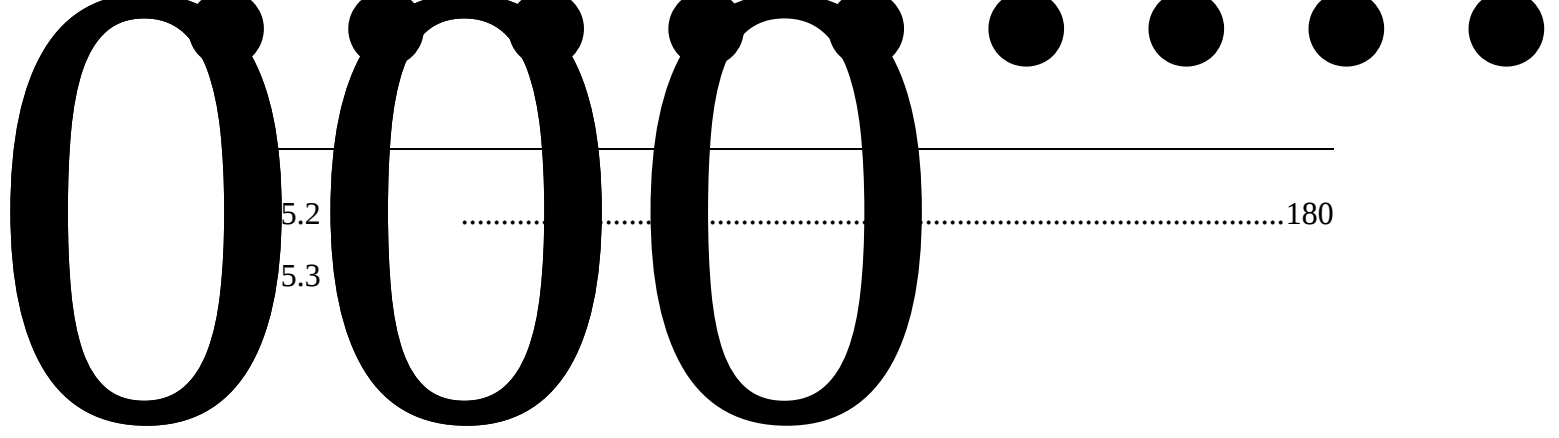

	.....	1
	.....	3
	.....	4
	.....	4
	.....	5
1.1	.....	6
1.2	.....	9
1.3	.....	10
1.4	.....	17
1.5	.....	17
1.6	.....	19
1.7	.....	30
1.8	.....	31
2.1	.....	32
2.2	.....	37
2.3	.....	40
2.4	.....	56
3.1	.....	81
3.2	.....	87
3.3	.....	88
4.1	.....	107
4.2	.....	110
5.1	.....	173



10.3	.....	247
10.4	.....	250
10.5	.....	252
10.6	.....	257
10.7	.....	258
11.1	.....	262
11.2	.....	262
11.3	.....	263
11.4	.....	264
11.5	.....	264
11.6	.....	267
11.7	.....	267
11.8	.....	0m"

3-4

4-1

4-2

4-3

4-4

4-5

4-6

4-7

4-8

5

6

7

8

9

1

2

3 -

- 4

2020-530125-77-03-007893

10

2014 72

11

12

13

2021 16

14

2022 1

15

2021 9

16

17

18

19

20

3

ită ñ'@ñ0 Q“2r“ Êtä 2

5 ← đ q

5300t/d

600t/d

3%-5%

2021

HW18

GB16889—2008 6.3

“

”

@

3

GB 16889—2008

CS

CS

CS

CS

30%

3ug/l

3

2020

2014 2724

448.48 m³
67.34 m³ 3
50.81 m³ 3
330.33 m³ 19.5 156.47 m³
10

2021

3 2021 4 12

2021 9

1830m 1890m

1960m 1840m

	1950m	1840m		1840		1830m	1#
				2# 3#		4000m ³	2022
10				2022	12		
				2021			
16			“		”	“ 106	
				”			
	2022	5				“	
				”			
	2022	5	6				
							2022
5	11						
	2022	5	6				
						2022	5 11
	2022	7	15				

0

2022 7 21

2022 7 21 ~2022 8 3

10 2022 7 21 ~2022 8 3

2022 7 22 7 25

10

1

“ ”

2019

20 “

”

2

7

1

2

3

4

5

“

”

6

1
2
3
4
5
6

6

5 1 1
2018 12 29
2018 1 1
2018 10 26
2018 12 29
2020 9 1

7
8
9
10
11

201
2019 1 1
2012 7 1
2018 10 26
2018 10 26
< >

682 2017 10 1

12

4 2009

1 1

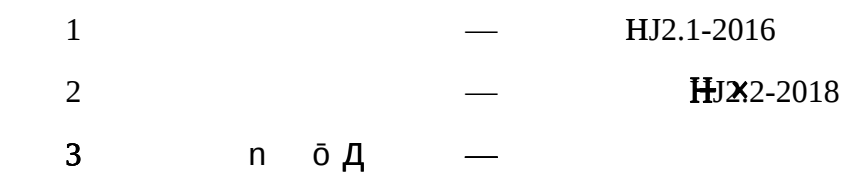
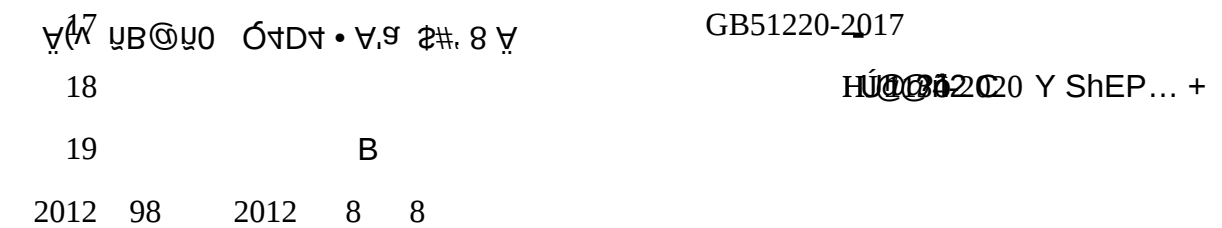
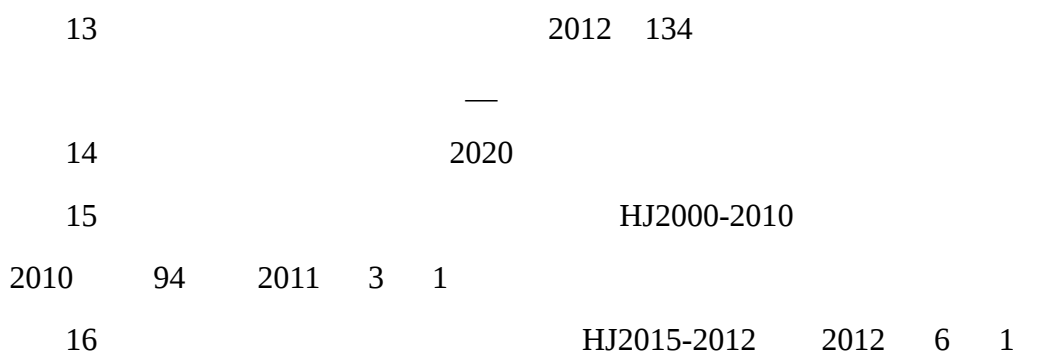
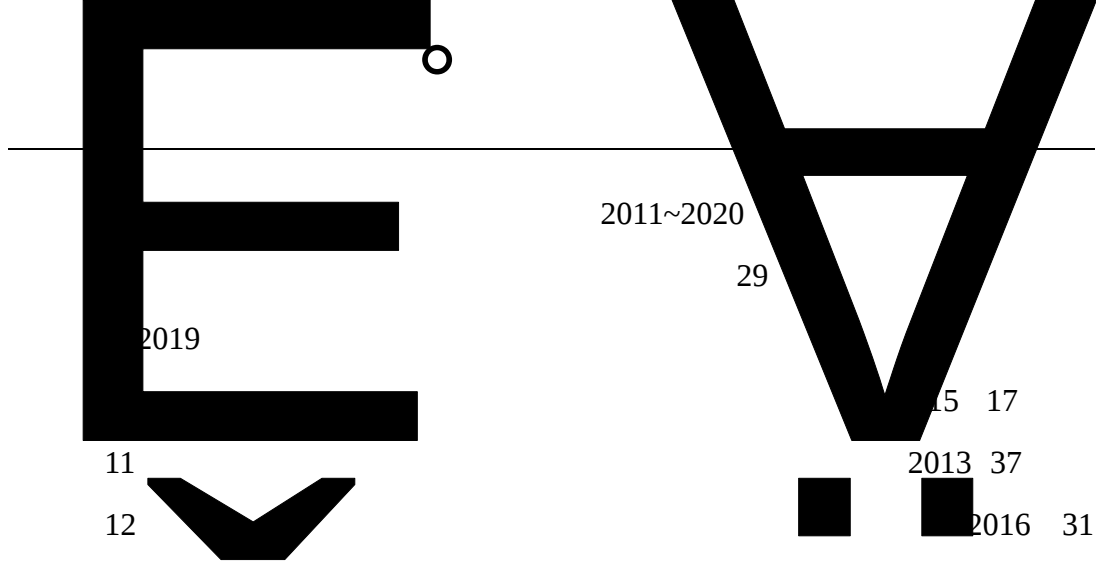
1

2021 ∫ 1

16

2

2019 8



134

12				GB18597-2001
13				HJ884-2018
14				HJ819-2017
15				—
HJ1106-2020				
16				HJ564-2010
17				GB16889-2008
18				CJJ112-2007
19				CJJ17-2004
20				GB/T18772-2008
21				GB/T50434-2018
1		105		
2			<	>
	2016	3		
3			2014	
4				
2020			2020	6
5			2006	5
6			2015	9
7				
2018	32			
8			<	>
	2017	8		
9				
			2018	16
10				2016 3
11				2017 8
12			2019	1 1
13				

2018 12 29

1

2

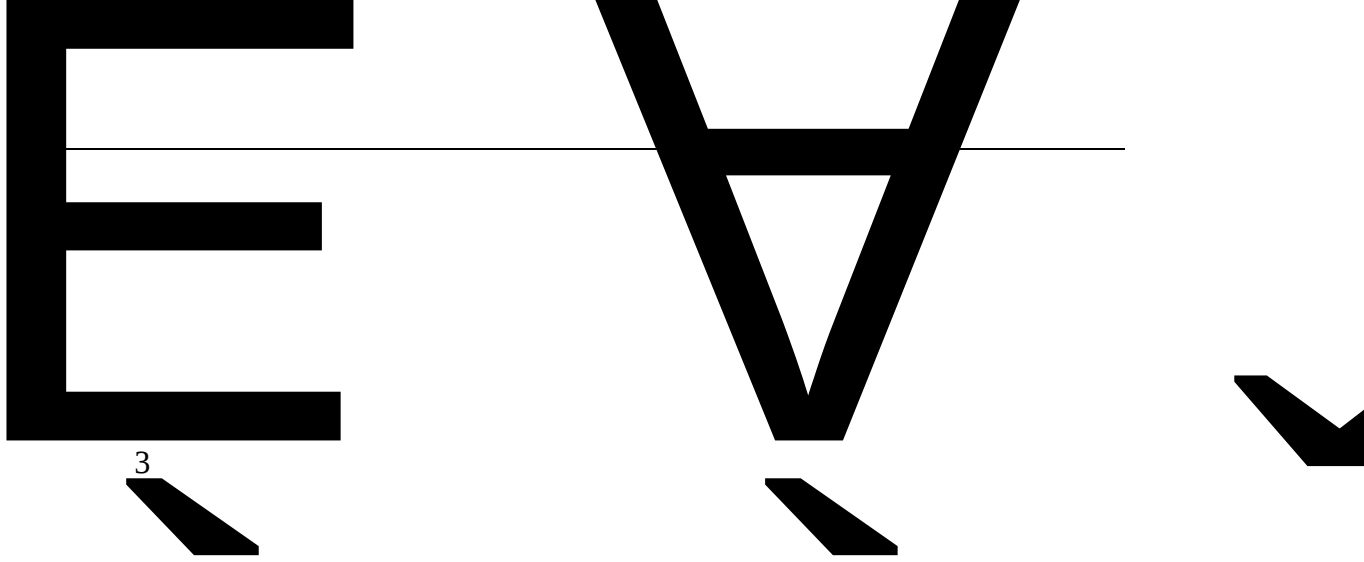
3

4

2022 5 6

2020 4

2021 1



3

1

GB3095-2012

2

-
2014

III



3

GB3096-2008

2

4

1

2018 29 H₂S NH₃

HJ2.2	2018	D	D.1	1.3-1
-------	------	---	-----	-------

SO ₂		20	60	GB3095-2012 201829
	24	50	150	
	1	150	500	
NO ₂		40	40	
	24	80	80	
	1	200	200	
NO _x		50	50	
	24	100	100	
	1	250	250	
TSP		80	200	
	24	120	300	
PM ₁₀		40	70	
	24	50	150	
PM _{2.5}		15	35	
	24	35	75	
CO	24	4	4000	
	1	10	10000	
O ₃	8	100	160	
	1	160	200	
NH ₃	1	200		
H ₂ S	1	10		

2014

III

GB3838-2002 III

1.3-2

2

8

Mo	≤0.1		≤1.0	≤0.2
	≤0.05		≤0.2	≤0.05

3

GB/T14848 2017

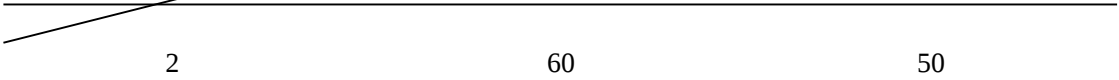
1.3-3

	6.5 8.5	≤0.5	≤20	≤0.002	≤450	≤700
	≤100	≤250	≤1000	≤3.0		
	≤3.0	≤1.0	≤250	≤1.0	≤0.05	
		≤0.05	≤0.01	≤0.001	≤0.01	
	≤0.005	≤0.3	≤0.1	—	≤0.3	

4

GB3096-2008 2

1.3-4



	38	82	1,4-	20	200
	900	2000		28	280
	2.8	36		1290	1290
	0.9	10		1200	1200
	37	120	+	570	570
1,1-	9	100		640	640
1,2-	5	21		76	760
1,1-	66	200		260	663
-1,2-	596	2000	2-	2256	4500
-1,2-	54	163	[a]	15	151
	616	2000	[a]	1.5	15
1,2-	5	47	[b]	15	151

λ

2

04

%

GB16297-1996

1.3-8

		1.0

GB14554-93 1

(GB16889-2008)

a 2m 0.1%

b

5%

(GB16297-1996 2

1.3-9

NH₃ 1.0 mg/m³ GB16297-1996
1.5 mg/m³ GB14554-93

1.3-10

mg/m ³	2.0
%	60

2

GB/T18920-2020

+ MBR “ +MVR
+NF +RO ”

GB/T18920-2020

GB16889-2008

2

1.3-11

∫ p

1 [T\$N "b 1C9, 212\$9 1C`

3ugTEQ/kg

		-1	-1	0	0	-1	0	0
		0	0	-2	0	-1	-1	-1
		0	0	-1	0	-2	-1	-1
		0	0	0	-2	0	0	0
		-2	-1	0	0	-1	0	0
		0	0	-2	0	-1	0	-1
		0	-1	0	0	-1	-1	-1
		0	0	0	-2	0	0	0
+3		-3		+2		-2		
+1		-1		0				

1.5-2

SO ₂	NO ₂	CO	O ₃	PM ₁₀	PM _{2.5}	NH ₃	H ₂ S	/
pH	COD				BOD ₅			/
								/
pH	K ⁺	+Na ⁺	Ca ²⁺	Mg ²⁺	CO ₃ ²⁻	HCO ₃ ³⁻		
Cl ⁻	SO ₄ ²⁻						COD	BOD ₅
								/
							Cl ⁻	

	LAeq		LAeq	/
	/		/	
pH		1,1-	1,2-	
	1,1-	-1,2-		
-1,2-		1,2-		
1,1,1,2-	1,1,2,2-			
1,1,1-	1,1 2-			
1,2,3-				
1,2-	1,4-			
	+			

- 0% 0%

$P_{\max} \geq 10\%$
 $1\% \leq P_{\max}$

6% d 6%

		1h		1.6-5
NH ₃	200	1.5049	0.75	/
H				



“ ”

“U ”

” “151 ”

-

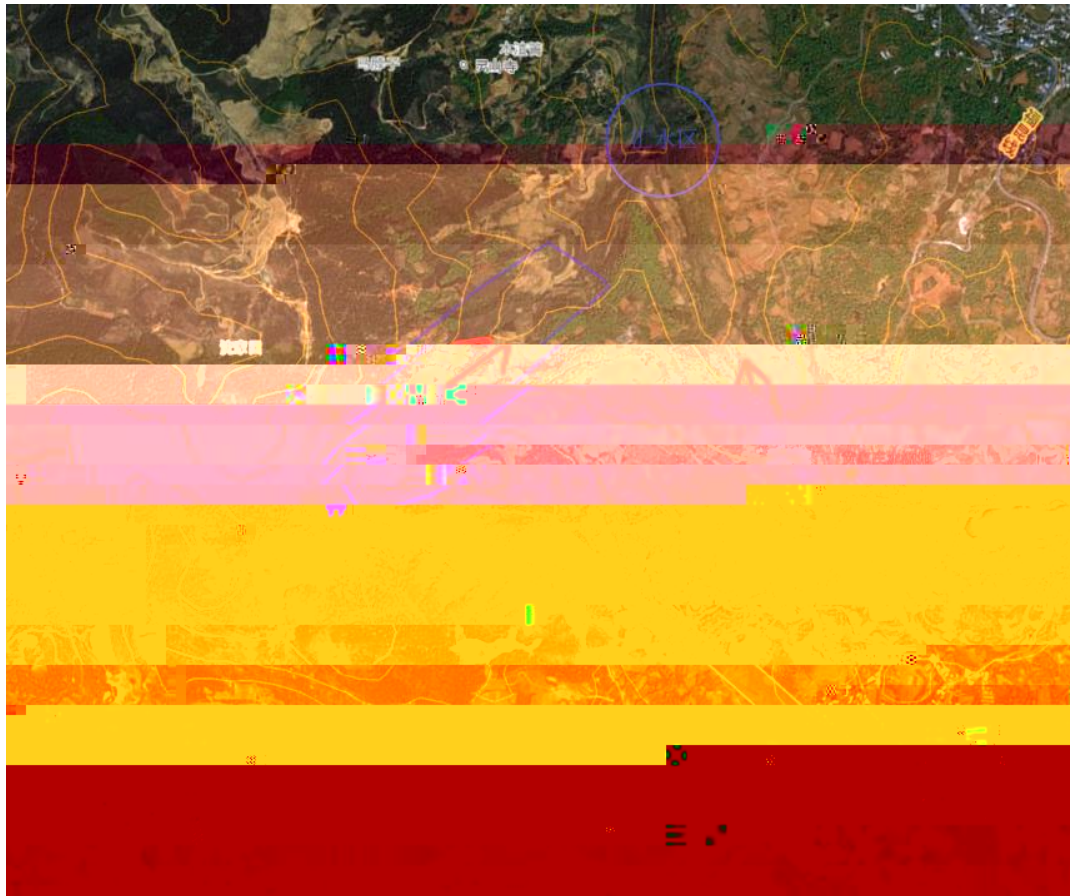
HJ610-2016 1.6-7 1.6-8

	*
“ ”	



1.6-1





HJ 610-2016

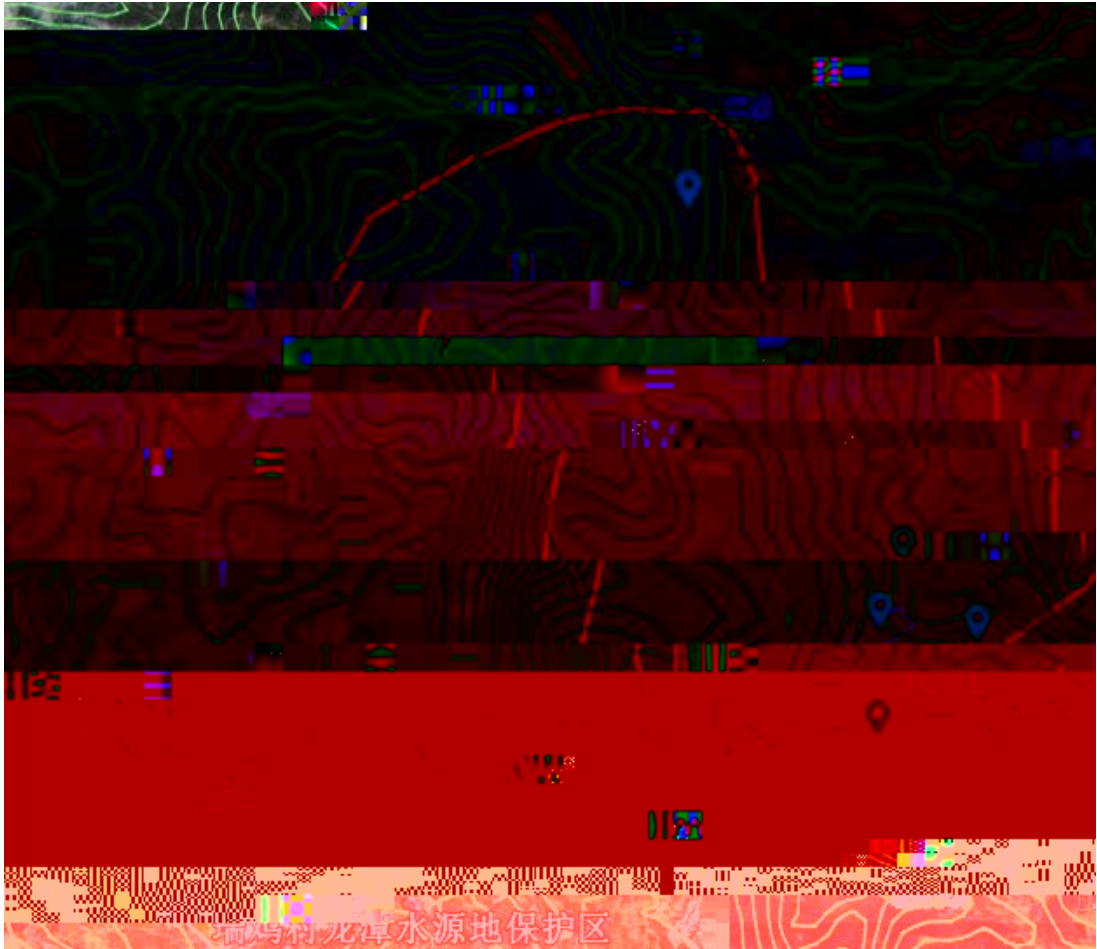
“V”

2.3km

3.2km

7.3km²

6-20km²



1

10.2022 0 6.1

m "

10.516hm²

18.05hm²

20km²

m "

2

—

2

HJ964-2018

1km

1

HJ169-2018

				a
a	A			

1 Q

B

Q

Q

$$Q=\frac{q_1}{Q_1}+\frac{q_2}{Q_2}+...\frac{q_n}{Q_n}$$

q₁ q₂ ... q_n—— t

Q₁ Q₂ ... Q_n—— t Q 1

Q≥1 Q 1 1≤Q 10 2 10≤Q 100

3 Q≥100

$$Q=400.05458\geq100$$

2

P3

1.6-12

				a
a				

3

5km

1.6-13

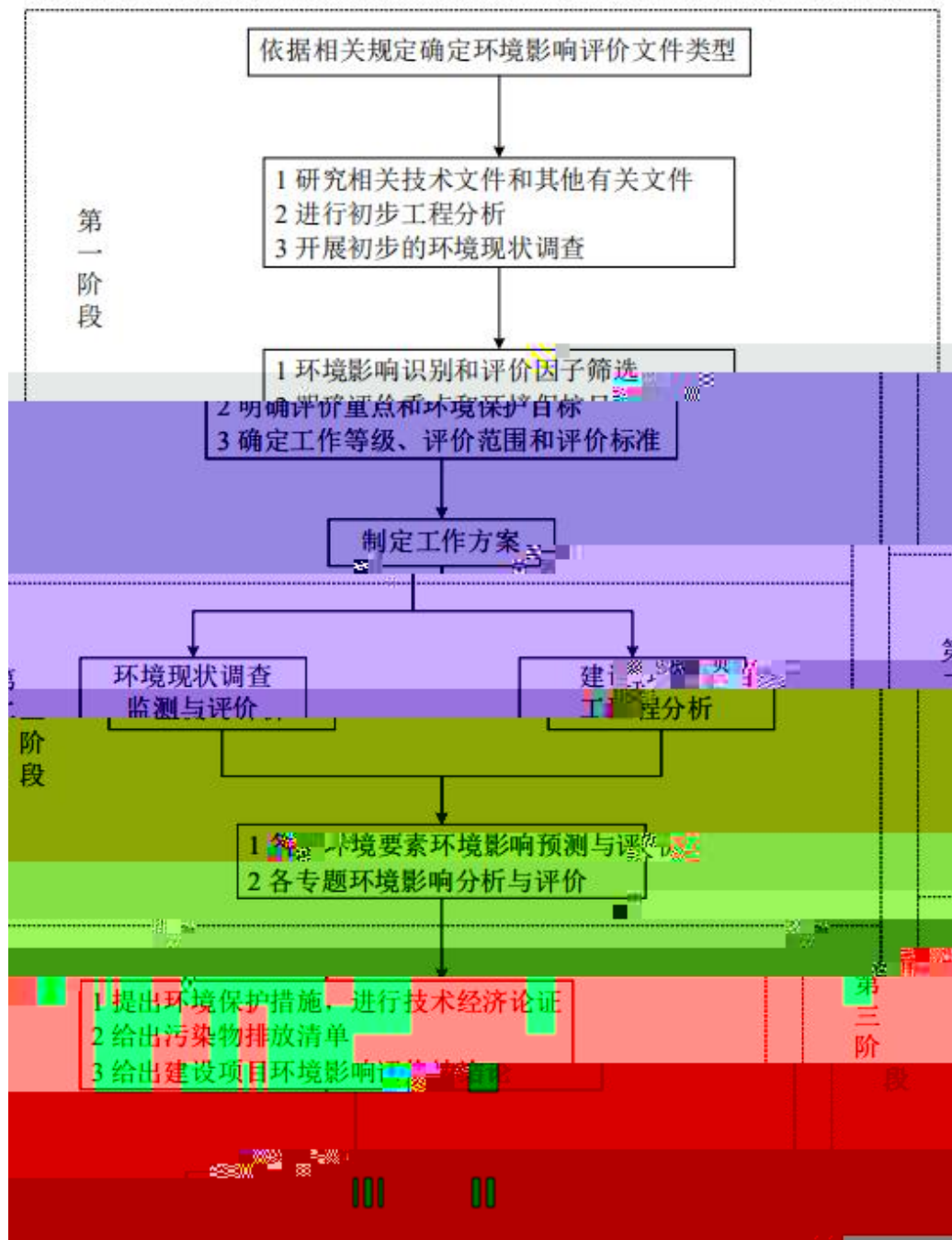
	HJ2.2-2018) 10%		5km	HJ22-2018
	HJ2.4-2021 GB3096 2		200m	HJ2.4-2021
	HJ/T2.3-2018)	B		HJ2.3-2018
	HJ610-2016 I		2.3km 3.2km 7.3km ²	HJ610-201 6
	HJ19-2022			HJ19-2022

	HJ964—2018 I		1km	HJ964—2018
	HJ/T169-2018		5km	HJ/T169-2018

1.7-2

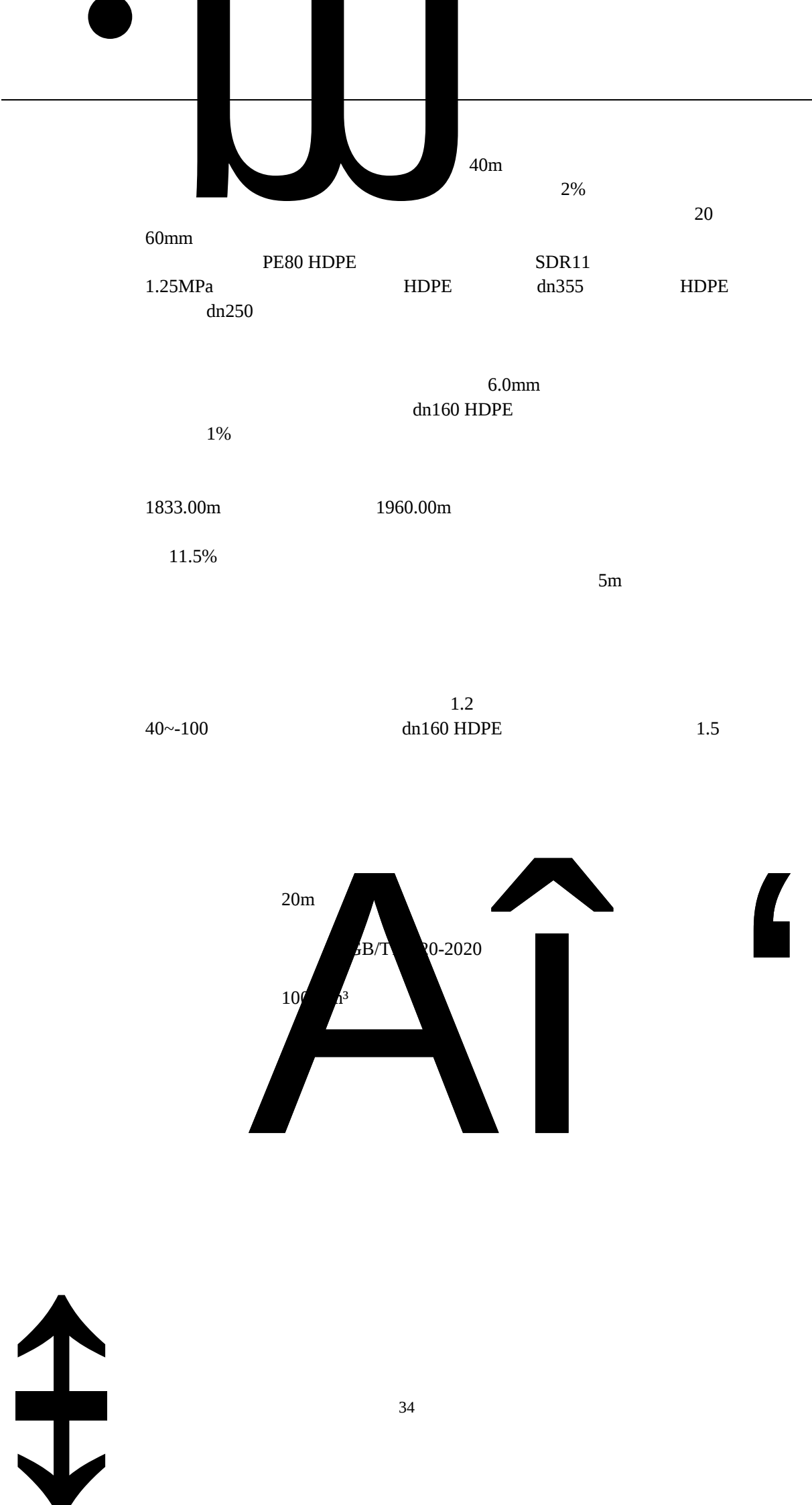
1.7-1
5

1.8.1



2.1-1

		116.55 m ³ 116.55 m ³ 1970.00m 10m 1:4 1840.00m 10m 1:3.0 134m 7m 1:2.0 HDPE	
		1:2.0 10m 3m 1:1.25 8m 2m 2	
		3	
		25cm 4m 145	
		300mm 20~60mm 200g/m ² 200g/m ² 500mm 20 40mm 600g/m ² 2.0mm HDPE 400g/m ² 6mm 400g/m ² 1.5mm HDPE 5000g/m ² GCL 50cm	
		1000mm 1:1 1000mm 200g/m ² dn400 HDPE 2% 70 30m 2% 1000mm 1:1 1000mm 200g/m ² dn200 HDPE	+



12m³/d

		25.12	t	7.00	481.75	kg
		12.56	t	7.00	240.88	kg
		14.34	t	7.00	275.01	kg
	30%	127.98	t	7.00	2454.41	kg
	PFS	8.40	t	7.00	161.10	kg
	MBR	3.15	t	7.00	60.49	kg
	NF	22.39	t	7.00	429.40	kg
	RO	37.98	t	7.00	728.38	kg
	RO	2.10	t	7.00	40.25	kg
	PAM	0.84	t	7.00	16.11	kg
		54154.3	m ³	/	/	/
	HDPE	180600		/	/	/
		180600		/	/	/
		108308.5	m ³	/	/	/
		180514.1		/	/	/

1			2
2			2
3			1
4			1
5			1

105160.05m² 330.33 m³

3-1

1

52

10

2

365

8h

2.1-5

1	m ²	105160.05		105160.05m ²	157.74
2	m ³	330.33		95.43	330.33 m ³
3		19.5	600 /	3	
4	t/d	150			15630.93m ²
			4700.27m ²	2	
5	m ²	4700.27	1500m ²	1	400m ²
			1		30m ²
			1		135m ²
6		52			
	m ³	116.55			
7	m ³				

S

CaCl_2 CaSO_3

1 30%

2 () 3ug/kg;

3 HJ/T300

(GB16889-2008 1

(GB16889-2008)

: ;
()

2.2-1



10		4.5
11		1.5
12		0.1

2020 4

2021 12 31

2020-530125-77-03-007893

2022 5

2022 8 5

2022 227

1

0.93 0.97 160kPa

0.95

20°

0.90

2

3

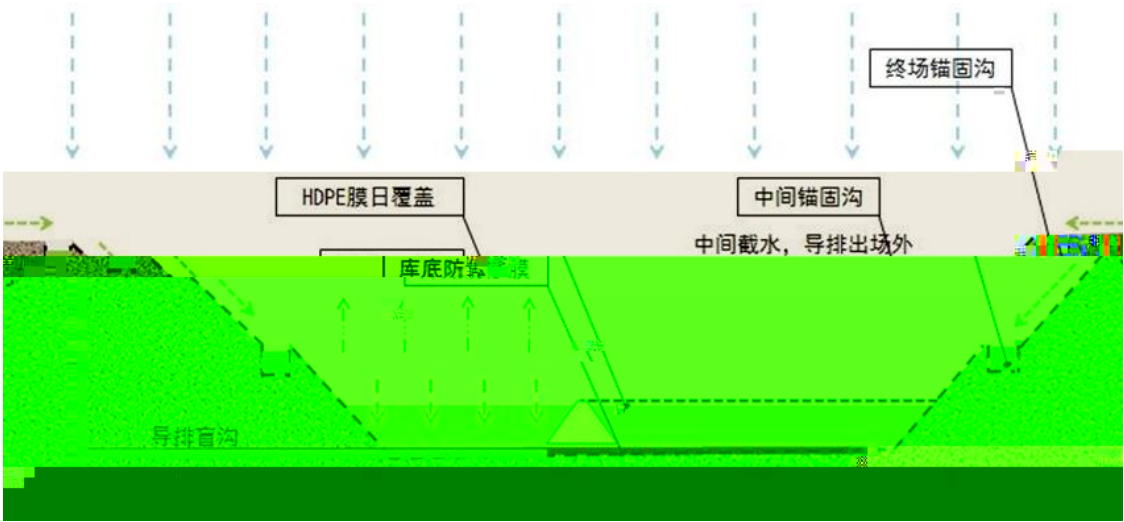
		12%	2%	
1833.00m				
				1.0mm
105160.05m ²				
1				
2				
3				
4				
5				
1				
1				
			5350t/d	2020
6050 t/d	2022	7300 t/d		365

50.81 m³ 3

		49.66	50.81	3
		157.74	330.33	19.5

3

1



2

2

3

40m × 50m

2000m2

1:2.0

10m

3m

1

1.25

8m

2m

2

2

3

2

GB 50869-2013 8.2.1

$1.0\times10^{-7}\text{cm/s}$

2m

»€

Ÿ•bE2q•Ÿ

~

HDPE	6~8m						
	HDPE					0.75~2.5mm	
	0.75mm	1.0mm	1.5mm	2.0mm	2.5mm	3.0mm	1.5mm
HDPE	HDPE						
1.5mm	HDPE			2.0mm			
2							

2.0mm HDPE

400g/m²

6mm

 400g/m^2

1.5mm HDPE

 5000g/m^2

GCL

 600g/m^2

4

6.0mm

DN160 HDPE

1%

3

!ÿ Z Q†`ZWdC12 ě

5.0

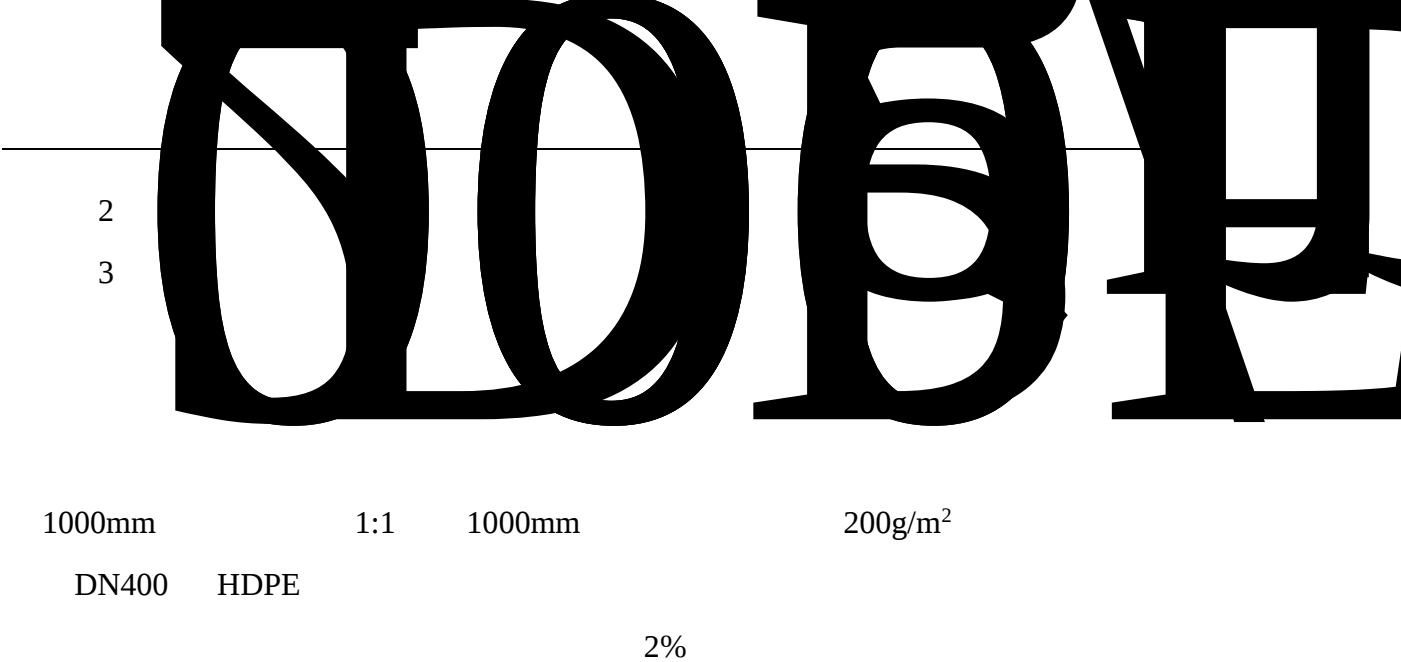
6

2

1

1	16.7	294.34	1550	0
2	16.6	292.58	1400	0
3	19.1	336.64	1550	0
4	24.3	428.30	1500	



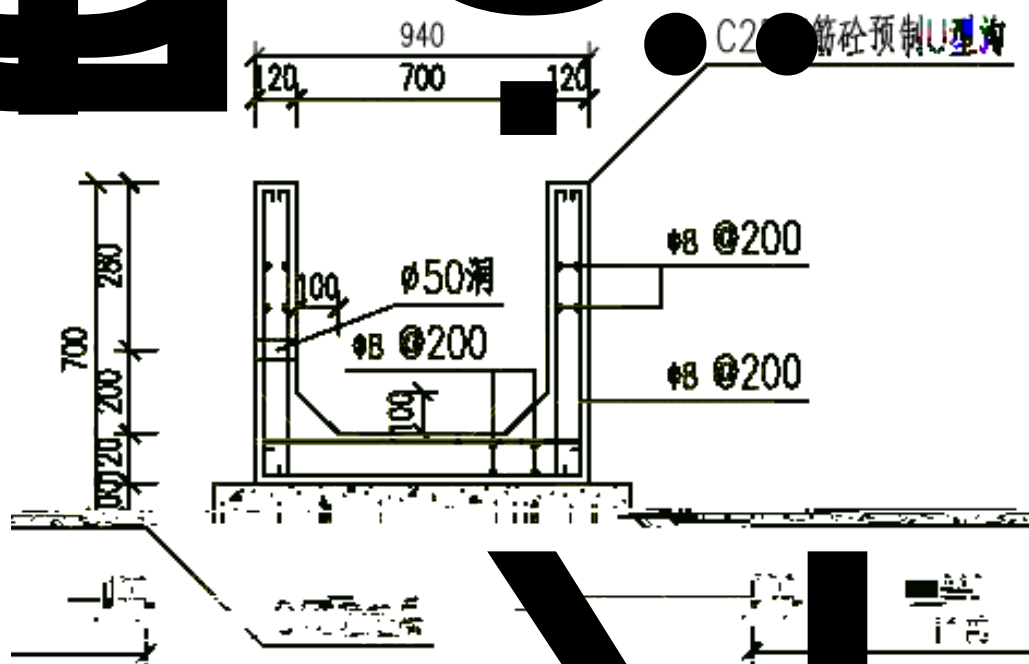


1



q—
p— 50
t — 15
s— 37.45
ψ—

- chib



9

1

324

5648

5

2~3

107.73

2

4m

145

2% 6%

1/100

9%

“

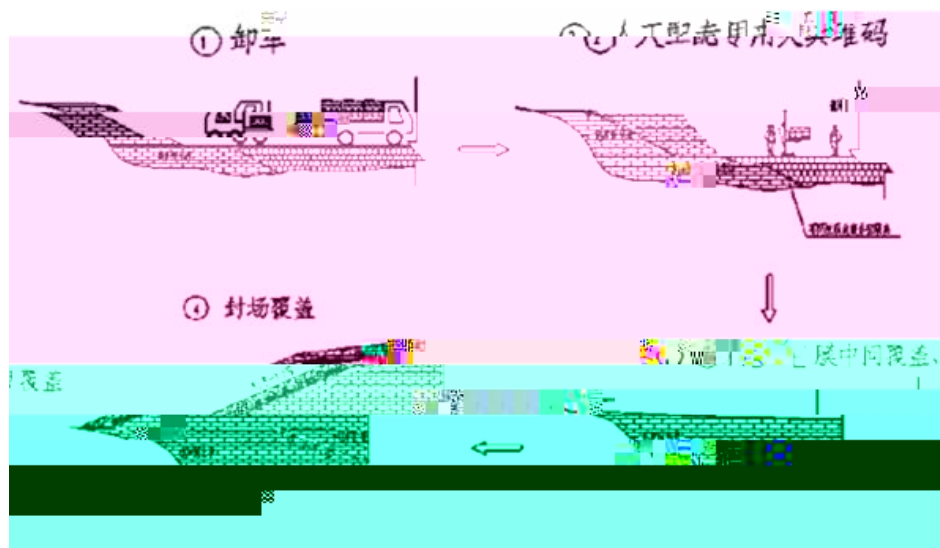
”

4m

25cm

15cm

C30



④

GB16889-2008

“ ”

(2021

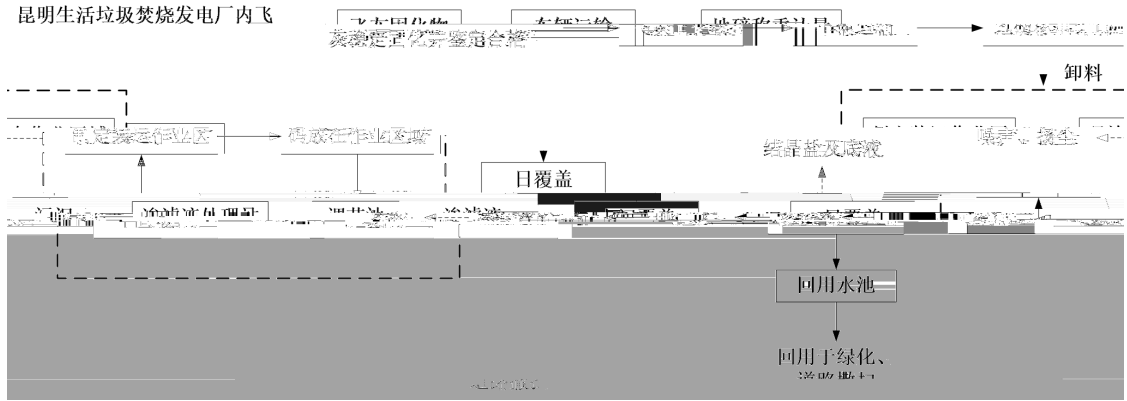
HW18

GB

16889-2008 6.3

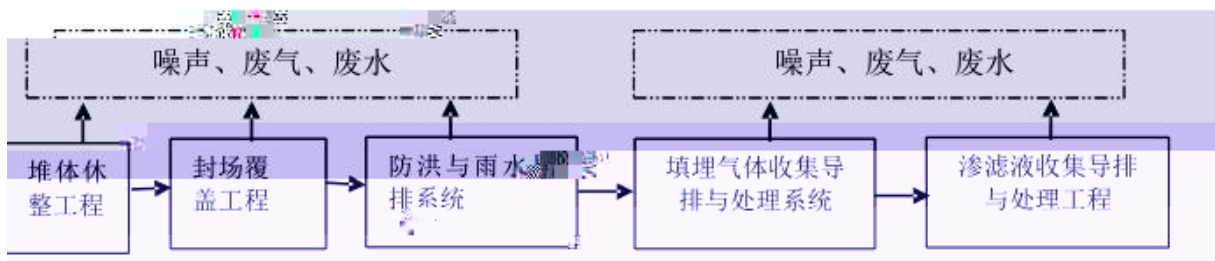
2

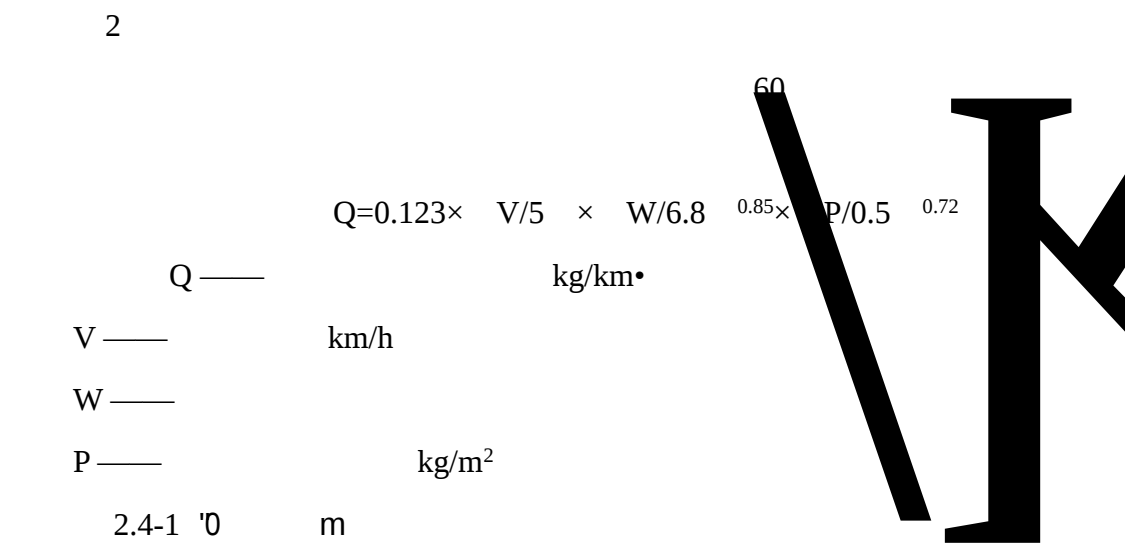
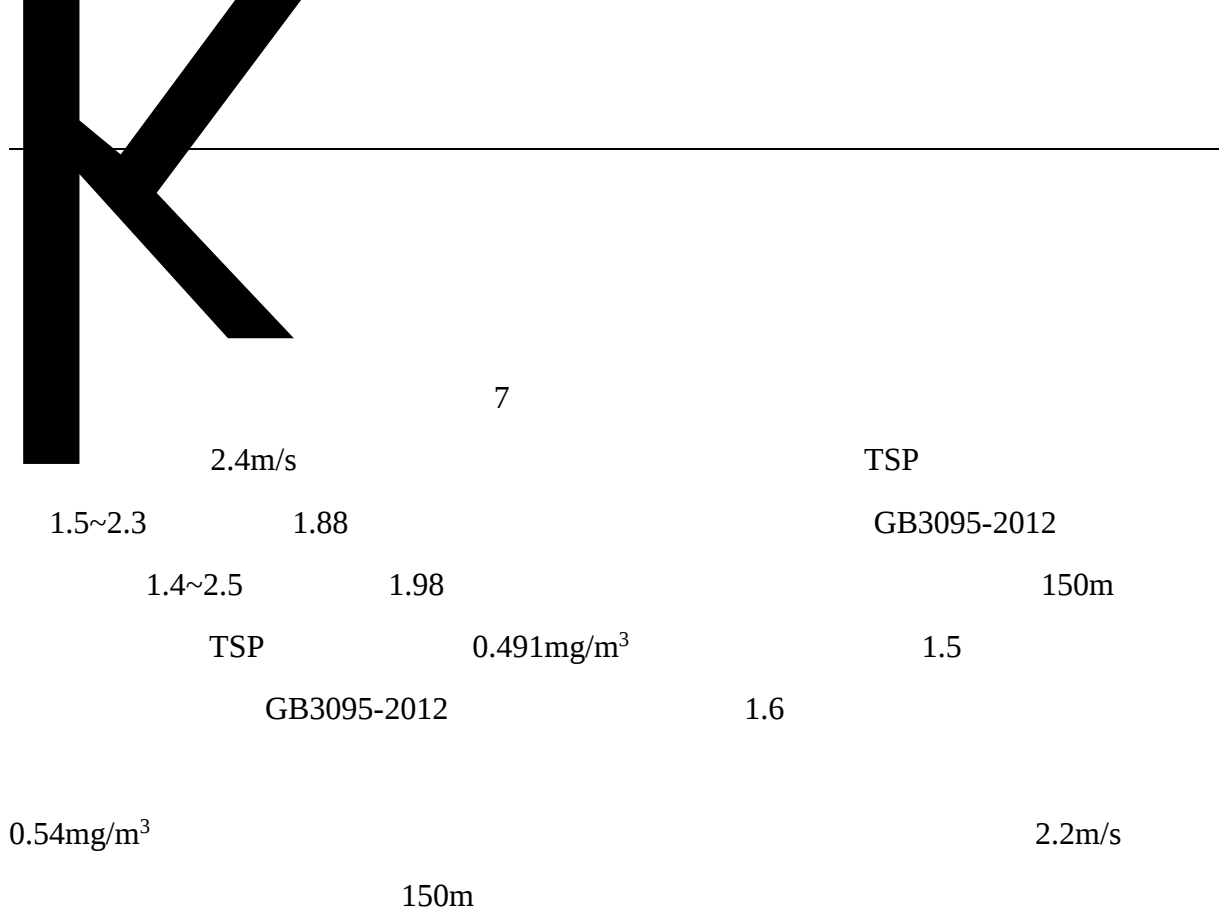
昆明生活垃圾焚烧发电厂内飞



2

2.4-3





$$Q = 0.123 \times \frac{V}{5} \times \frac{W}{6.8} \times \frac{P}{0.5} \times 0.72$$

Q — kg/km²

V — km/h

W — m

P — kg/m²

2.4-1 '0

					30m		
2					CO	NO ₂	
					50m	CO	NO ₂
	0.2mg/m ³	0.117mg/m ³			0.13mg/m ³	0.0558mg/m ³	
1		—		DB53/T168-2019			
			0.8m ³ /m ²				
		105160.05m ²			84128.04m ³		
		10%			8412.804m ³		6
184			45.72m ³ /d				
			SS				
2							
					3.5km		

5m

84~90dB A

騒音(音)環境

				107.26	m ³ (		8.97	m ³	
49.33	m ³	48.96	m ³)			99.42	m ³ (		98.29
m ³		1.13	m ³)	56.80	m ³				
		9.29	m ³ (			17.13	m ³ (		
7.84	m ³	9.29	m ³)		17.13	m ³			
					30cm		60cm		
				270.77					
16.25	m ³								
		2.4-3							

1

 $V_{1\epsilon P}/\delta$ 10.516hm^2 $n_{\text{@}} F \sim \delta$ $nA'_{\text{@}} \tilde{n}_0 \quad S\% \quad 6$ 2_{-}'@°

CH₄ CO₂ H₂ N₂ O₂

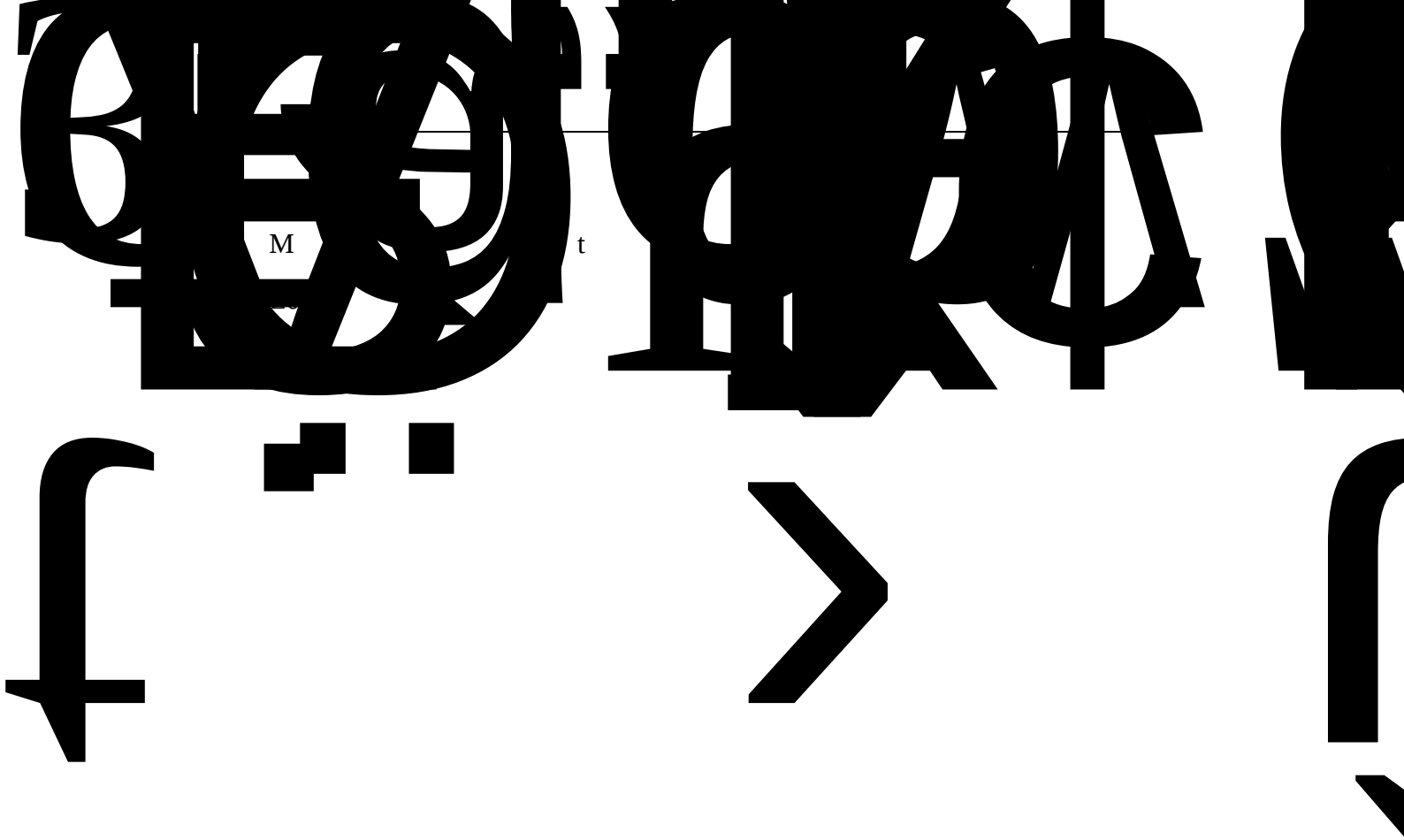
H₂S NH₃ CO

2.4-4

%	40~45	40~60	2~5	0.5~1.0	0~0.2	0~0.2	0.1~1.0	0~0.3	0.01~0.6

∫2

l



k

CJJ133-2009

4.0.5 3

	0.10-0.36
	0.05-0.15
	0.02-0.10

2020

2019

17.9

0.7

0.5

848.38

76.5

80.6

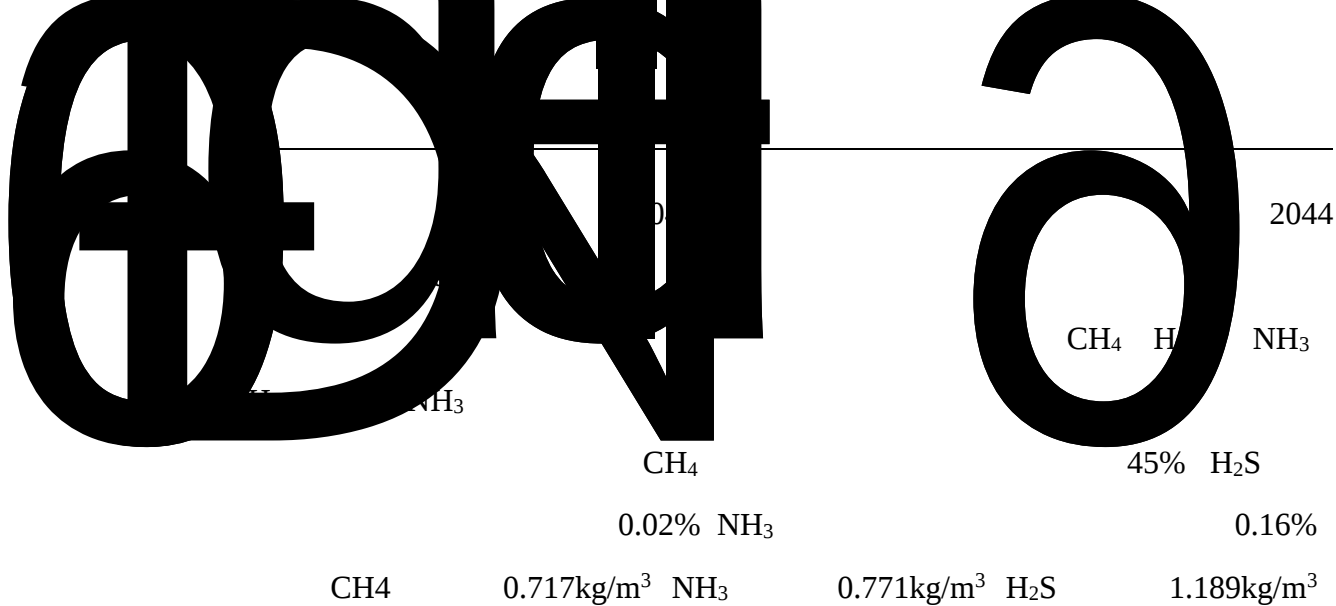
k

0.10

t/	17.92	17.92	17.92	m ³
2022	22.62			22.62
2023	20.47	22.62		43.09
2024	18.52	20.47	22.62	61.61
2025	16.76	18.52	20.47	55.75
2026	15.16	16.76	18.52	50.44
2027	13.72	15.16	16.76	45.64
2028	12.41	13.72	15.16	41.29
2029	11.23	12.41	13.72	37.36
2030	10.16	11.23	12.41	33.80
2031	9.20	10.16	11.23	30.59
2032	8.32	9.20	10.16	27.68
2033	7.53	8.32	9.20	25.05
2034	6.81	7.53	8.32	22.66
2035	6.16	6.81	7.53	20.50
2036	5.58	6.16	6.81	18.55
2037	5.05	5.58	6.16	16.79
2038	4.57	5.05	5.58	15.20
2039	4.13	4.57	5.05	13.75
2040	3.74	4.13	4.57	12.44
2041	3.38	3.74	4.13	11.25
2042	3.06	3.38	3.74	10.18
2043	2.77	3.06	3.38	9.21
2044	2.51	2.77	3.06	8.34

2023

616100m³/a



83400m ³ /a	CH ₄	26.91	3.07	26.91	3.07
	NH ₃	0.1587	0.018	0.1587	0.018
	H ₂ S	0.01286	0.00147	0.01286	0.00147

H₂S NH₃)

2.4-9)

5

3 4~5

	× 10 ⁻⁶ mg/m ³							
NH ₃	0.1	0.1	0.6	1	2	5	10	40
H ₂ S	0.0005	0.0005	0.006	0.02	0.06	0.2	0.7	8

2

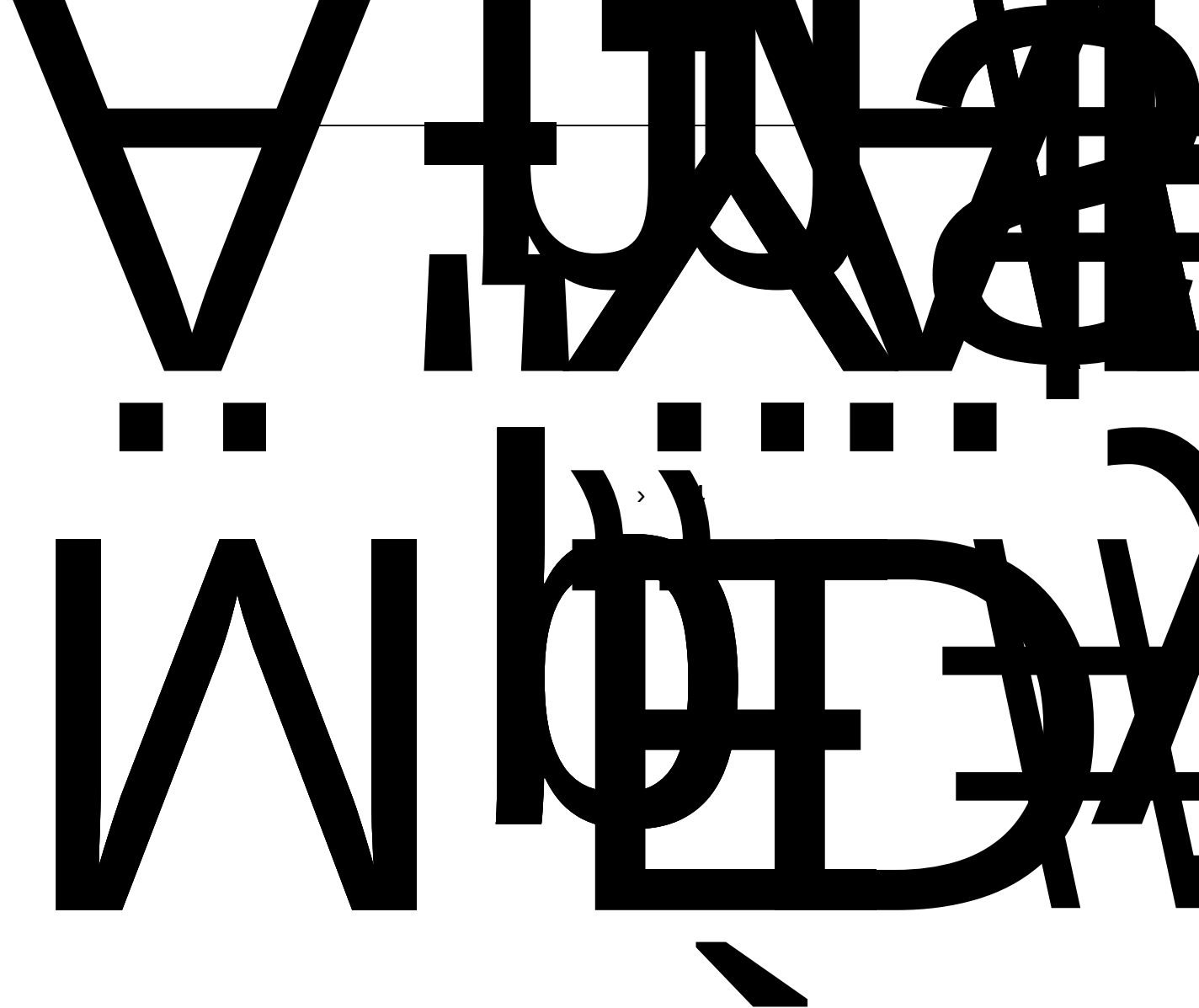
3

4000m³

0.000031g	CH ₃	0.00012g	H ₂ S	2.4.3	"
BOD ₅		31.48t	NH ₃	4.2	
97t/a	0.00377t/a				

ē

		70%	1.8kg/h
2			
		CO CH NO _x	
3			
	5.6km	100-250mg/Nm ³	
3			
		2	



A4——

m²

70%	0.85~1.00	0.75~0.95	0.5~0.75
≤70%	0.7~0.8	0.5~0.7	0.4~0.55
;			

		2.36	0.7	0.35	0.1	2000	0	0	3.30
		2.36	0.7	0.35	0.1	2000	40248.78	0	36.50
		2.36	0.7	0.35	0.1	0	0	40248.78	9.49
	—	—	—	—	—	—	—		
		2.36	0.7	0.14	0.1	0	0	0	0.00
		2.36	0.7	0.14	0.1	0	33108.32	0	10.93
		2.36	0.7	0.14	0.1	0	0	33108.32	7.80
	—	—	—	—	—	—	—		
		2.36	0.7	0.14	0.1	0	0	0	0.00
		2.36	0.7	0.14	0.1	0	105165.26	0	34.70
		2.36	0.7	0.14	0.1	0	0	105165.26	24.79
	—	—	—	—	—	—	—		

3

A

COD

+

$$\leq 5\mathbb{Z} "@'à$$

SS

	10
mg/L	54
mg/L	46
mg/L	16
mg/L	0.227
µg/L	11.1
mg/L	2.32
mg/L	20
µg/L	0.05
µg/L	0.581
mg/L	0.05
mg/L	0.097
mg/L	0.2

“ ”

Cl-

BOD₅ 6 mg/L
 6 15 mg/L
 COD BOD₅
 BOD₅/COD
 BOD₅/COD C N P

GB 50869-2013

HJ564-2010

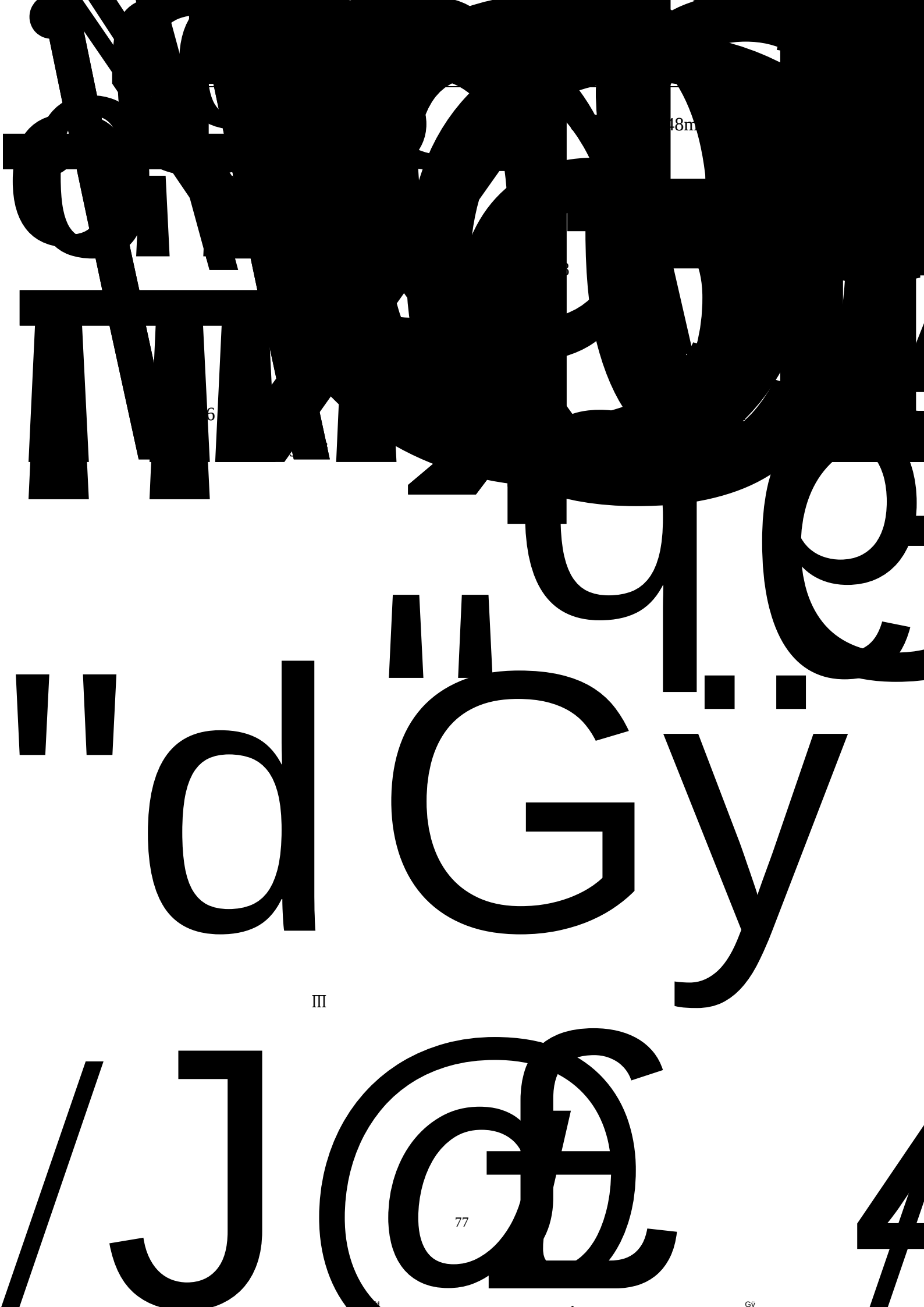
	1000~5000	300~2000	≤300	1000~2000	500~3500	≤15
	5000	2000	300	2000	3500	15
	0-0.016	0-0.4	0-0.16	0-0.07	0-0.2	0-0.4
	0.016	0.4	0.16	0.07	0.2	0.4

	6 9	≤250	≤70	≤100	≤30	≤20	≤0.3
	9	250	70	100	30	20	0.3
	≤0.25	≤0.50	≤12	≤1.5	≤2.5	≤5.0	50000
	0.25	0.50	12	1.5	2.5	5.0	50000

+ MBR “ +MVR
+NF +RO ”
GB/T18920-2020

GB16889-2008 2

n



48m

6

III

77

Gv

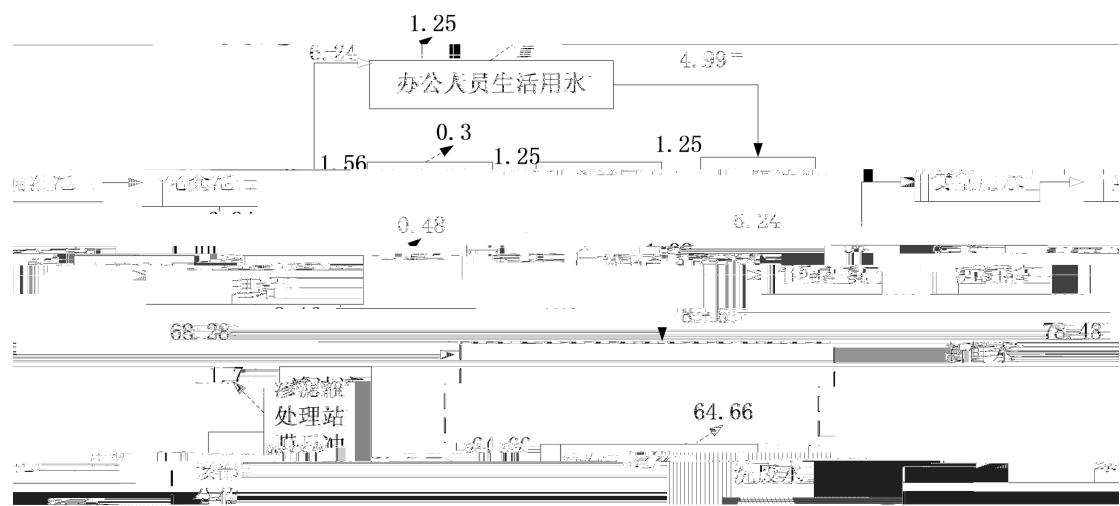
13322.5m ³ /a	5000	2000	300	3500	2000	0.4
16654.95m ³ /a	250	70	100	30	20	5
2448m ³ /a	5000	1500	300	3500	500	0.4
	2560.22	970.93	197.27	1717.68	869.75	2.76
	83.02	31.48				

—

82

		15	0.0105	/	0	
		/	2277.6	/	0	
	COD	350	0.797	/	0	
	BOD ₅	150	0.342	10	0	
	SS	150	0.342	/	0	
		35	0.0797	/	0	
	TN	50	0.114	/	0	
	TP	5	0.0114	/	0	

2.4-4



80~85dB A

85
2

85



60%

2

“ + MVR + ”

MBR

+NF

+RO

”

3~5

0.5t/

3

m ”

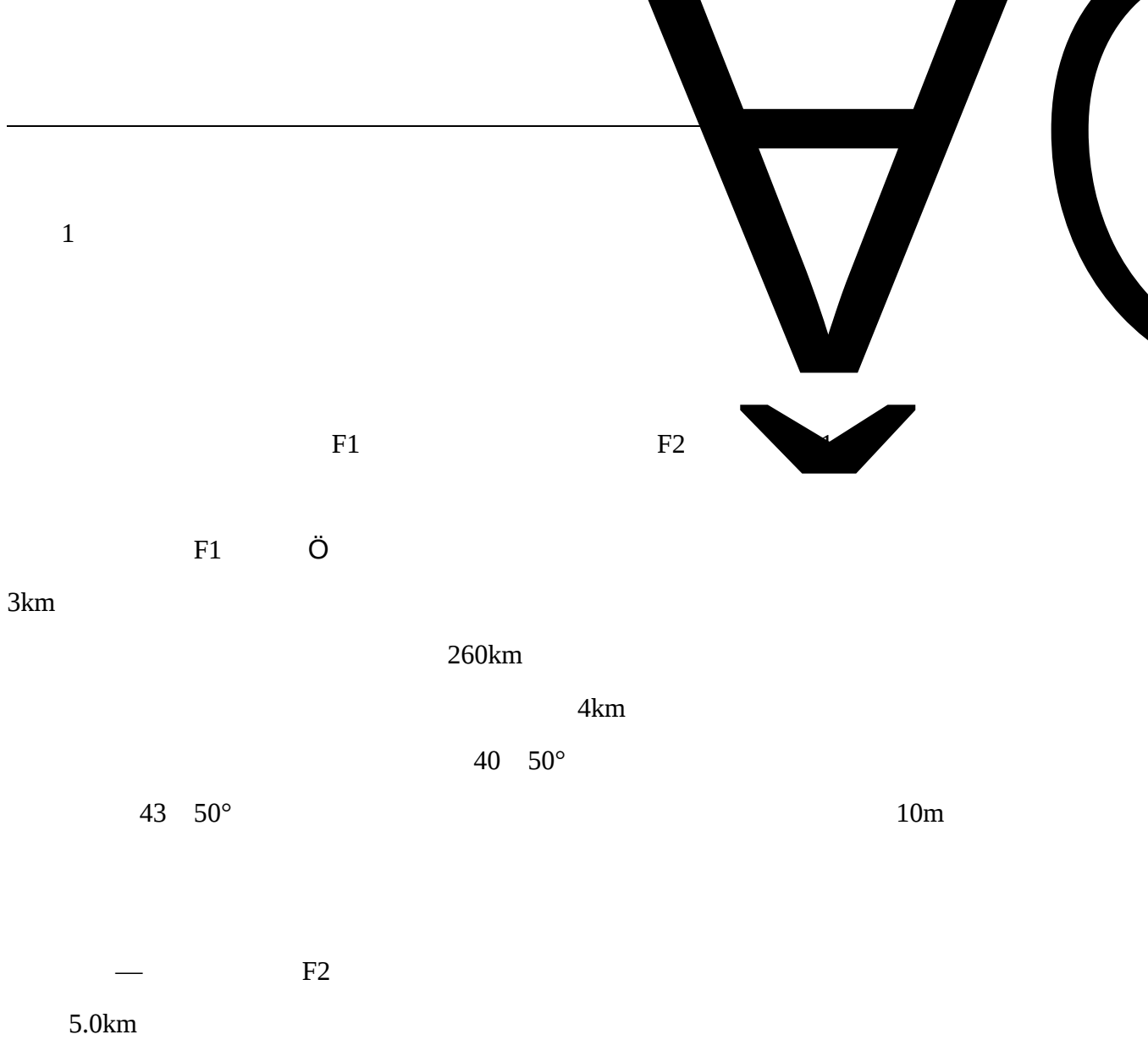
Cl⁻

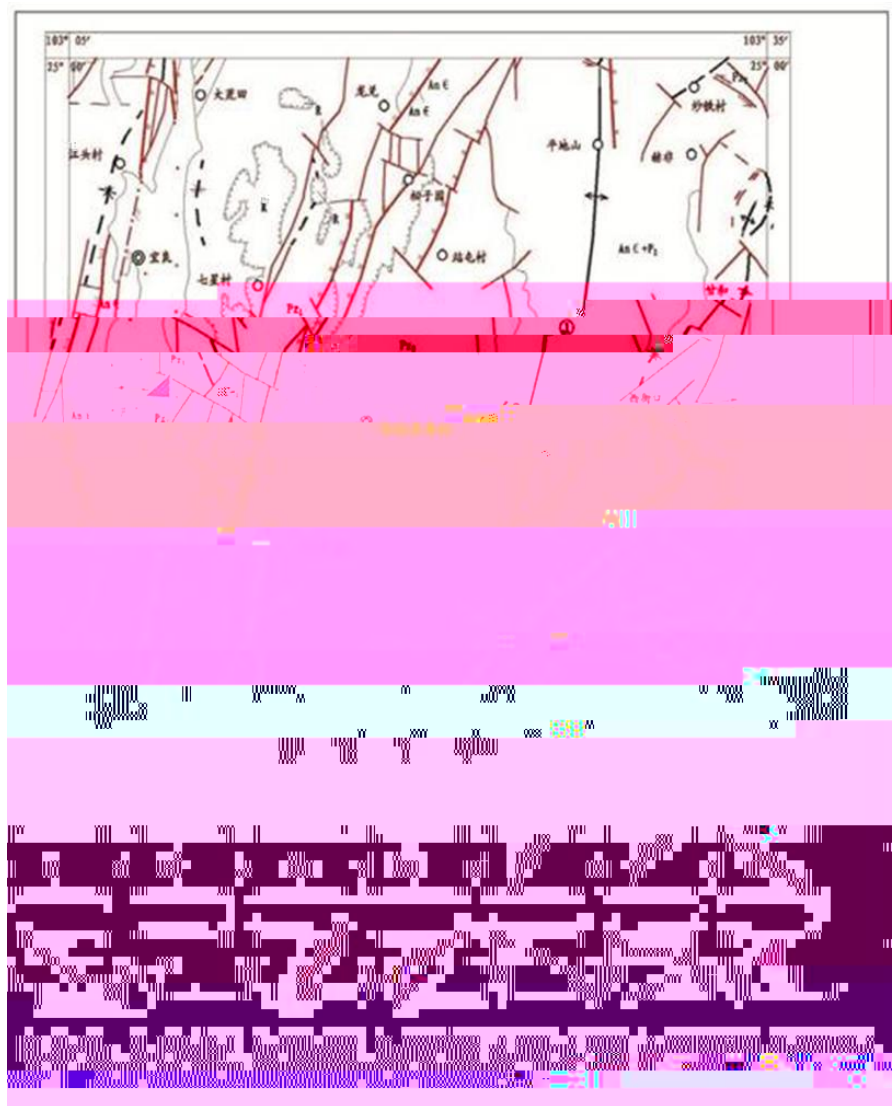
“ MVR ”

Cl⁻

MVR

10%





2

1

S

S₂m^a

(

)

104

S₂m^b

0

S₂m^a

35

S₂m^b

86.4m³/d·km²

3

SO₄•HCO₃-Ca•Mg

HCO₃-Ca•Mg

HCO₃-Ca

pH7.24 7.40

11

4

5~10

16.3°

33.9

-10.1

21.7

8.1

898.9mm

75%

260

2.2m/s

24.7m/s

23%

2177.3

,

128.74

50%

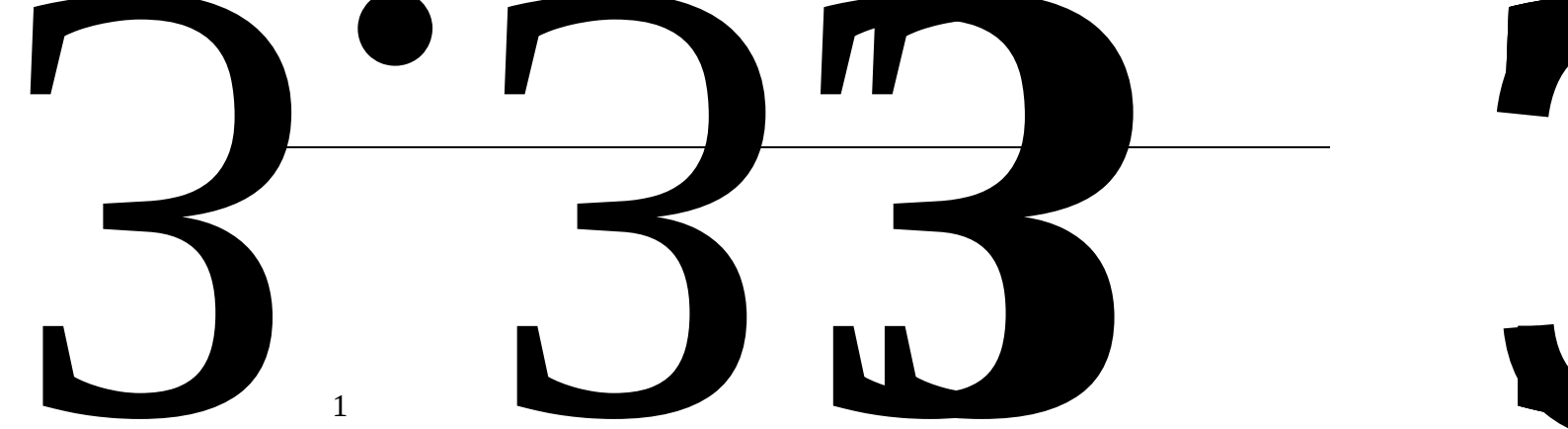
63%

11

80~

2.5km

	CH ₄	NH ₃	H ₂ S
195.9t/a	0.262t/a	0.009t/a	
			29977.45t/a



G1	NH ₃	0.02~0.06	30%	0	
	H ₂ S	1~4	40%	0	
		10L	/	/	/
G2	NH ₃	0.06~0.10	50%	0	
	H ₂ S	4~7	70%	0	
		10L	/	/	/
1	“L”				
2	10				

H₂S NH₃

HJ2.2-2018 D

-

3.5km

2014

III

GB3838-2002 III

2021

2020

V

V

2020 04 JC01 JC05

2021 3 JC06

3.3-2

3.3-1

pH	0.1	6.5-8.5	7.23	7.365	7.64	7.255	7.375	7.29
	0.025	0.5	0.3075	0.3565	0.4605	0.395	0.491	0.1285
	0.02	20	0.0845	1.005	0.185	9.255	8.325	4.09
	0.003	1	0.0045	0.003	L	L	0.0565	L
	0.0003	0.002	L	L	L	L	L	L
	0.004	0.05	L	L	L	L	L	L
	0.007	450	L	L	L	L	L	L
	0.004	0.01	L	L	L	L	L	L
	5	450	342.5	385.5	271	276.5	411	321.5
	0.01	0.01	L	L	L	L	L	L
	0.05	1	0.22	0.09	0.095	0.08	0.105	0.155
	0.001	0.005	L	L	L	L	L	L
	0.03	0.3	L	L	L	L	L	L
	0.01	0.1	L	L	L	L	L	L
	0.001	1000	551	409.5	459.5	297	820.5	360
	0.5	3	1.55	L	2.15	L	2.2	1.55
	8	250	106	81.95	32.8	25.6	106	24.85
	5	250	21.5	14.5	15.75	18.8	21.5	11.85
	0.001	1	L	L	L	L	L	L
	0.05	1	0.2235	L	L	L	0.2235	L
SS	N/A	N/A	141	37.5	27	17.5	470.5	8.5

K ⁺	0.02	N/A	13.2	1.54	2.48	0.64	6.22	0.985
Na ⁺	0.02	200	4.03	1.605	1.19	1.645	3.465	4.005
Ca ²⁺	0.03	N/A	82.6	87.1	75.25	86.65	154	104.5
Mg ²⁺	0.02	N/A	44.1	43.85	29.4	19.45	29.75	15.2
HCO ₃ ⁻	5	N/A	315.5	416.5	308.5	278.5	393.5	353.5
CO ₃ ²⁻	5	N/A	L	L	L	L	L	L
Cl ⁻	0.007	N/A	21.5	14.35	15.4	18.8	30.6	9.775
SO ₄ ²⁻	0.018	N/A	107.5	87.4	36.35	25.4	74.15	20.0
	1	N/A	4	1.5	2.5	1	3.5	1.5
	1	100	52	62.5	52	51	49	44
	0.00002	0.001	L	L	L	L	L	L
	2	3	L	L	L	L	L	L
pH	mg/L		L					
			N/A					
			GB/T14848-2017					
			III					

50% 67% pH

100%

1#	1m		44	44	44	
			42	41	41.5	
2#	1m		43	44	43.5	
			42	41	41.5	
3#	1m		42	42	42	
			40	40	40	
4#	1m		42	43	42.5	
			40	40	40	

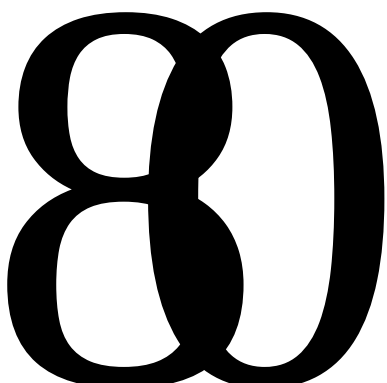
(GB3096-2008

9.



2020 5 17

0.5m	103°12'35"	24°53'16"				1%
1.5	103°12'35"	24°53'16"				4%
3.0	103°12'35"	24°53'16"				10%
0.5m		7.2	444	0.003	1.43	41.5
1.5		6.8	364	0.001	1.52	35.1
3.0		7.1	423	0.001	1.47	38.4





1,2-

*

2020/5/17

5

1.1L

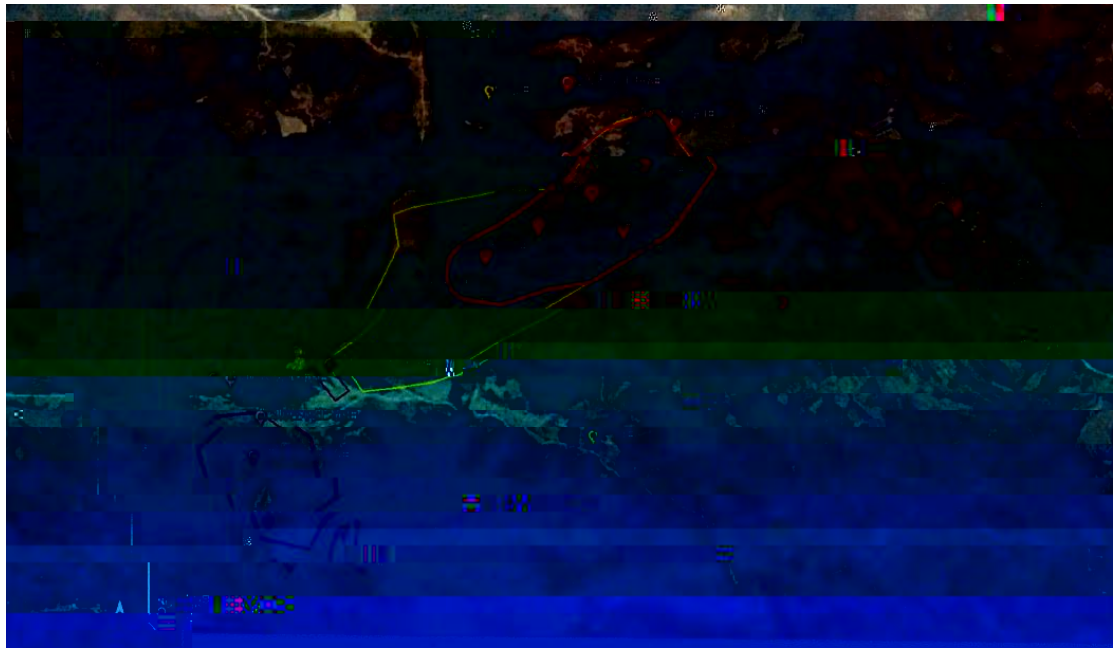
	2020/5/17	/	7.24		7.29 /
	2020/5/17	60	15.0		15.6
	2020/5/17	800	26.4		39.5
	2020/5/17	18000	30		42
	2020/5/17	5.7	2.00L		2.00L
	2020/5/17	900	11		19
	2020/5/17	65	0.26		0.22
	2020/5/17	38	0.075		0.049
	2020/5/17	/	6.8	/	7.1 /
	2020/5/17	/	364	/	423 /
	2020/5/17	/	0.001	/	0.001 /
	2020/5/17	/	1.52	/	1.47 /
	2020/5/17	/	35.1	/	38.4 /

I B A M K I E

	2020/5/17	5.5~6.5	6.05	5.68	6.21			2020/5/17	≤5.5	5.05	
	2020/5/17	0.3	0.24	0.22	0.24			2020/5/17	0.3	0.21	
	2020/5/17	1.8	0.137	0.243	0.085			2020/5/17	1.3	0.040	
	2020/5/17	40	27.0	19.7	16.8			2020/5/17	40	13.8	
	2020/5/17	90	45.8	42.6	81.4			2020/5/17	70	36.7	
	2020/5/17	150	107	104	114			2020/5/17	150	87	
	2020/5/17	50	49	47	42			2020/5/17	50	36	
	2020/5/17	70	28	26	26			2020/5/17	60	19	
	2020/5/17	200	34	47	40			2020/5/17	200	39	
	2020/5/17	/	0.42	0.54	6.21			2020/5/17	/	0.36	
*											

GB36600-2018

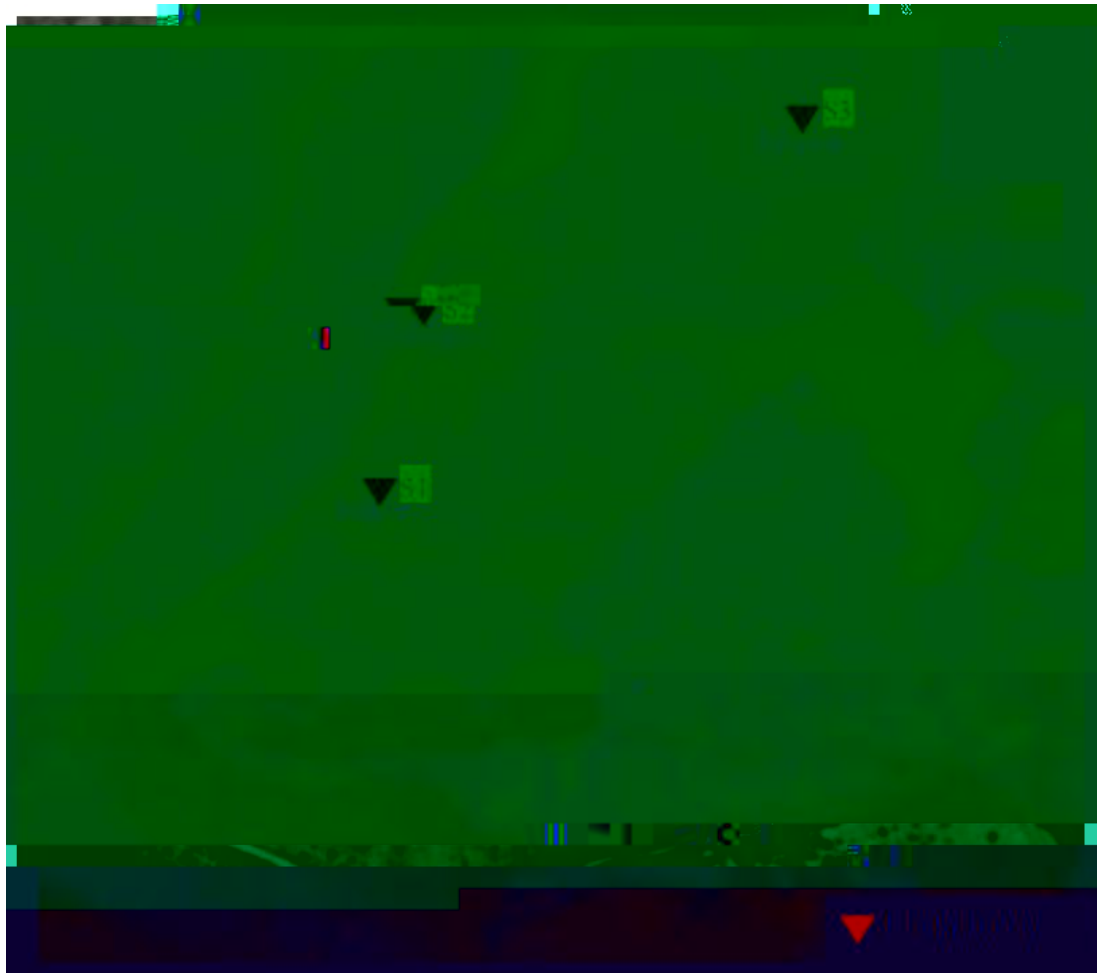
GB15618-2018



2

2022 5 11

S ₁		0-0.2m	
S ₂		0 0.5m 0.5 1.5m 1.5 3m	
S ₃		0-0.2m	



		pH							
			mg/kg						
2022-05-11	S1 0-0.2m	—	11.4	0.382	47	0.35	47	63	0.5
	S2-1 0-0.5m	—	9.38	0.458	44	0.13	35	51	0.5
	S2-2 0.5-1.5m	—	9.48	0.438	42	0.06	36	53	0.5
	S2-3 1.5-3m	—	9.57	0.431	47	0.10	36	52	0.5
	S3 0-0.2m	—	15.8	0.322	56	0.18	42	65	0.5
		—	60	38	800	65	18000	900	5.7
		—							

					1,1-	1,2-	1,1-	1,2-	-1,2-	
		mg/kg								
2022-05-11	S1 0-0.2m	<0.0013	<0.0011	<0.001	<0.0012	<0.0013	<0.001	<0.0013	<0.0014	<0.0015
	S2-1 0-0.5m	<0.0013	<0.0011	<0.001	<0.0012	<0.0013	<0.001	<0.0013	<0.0014	<0.0015
	S2-2 0.5-1.5m	<0.0013	<0.0011	<0.001	<0.0012	<0.0013	<0.001	<0.0013	<0.0014	<0.0015
	S2-3 1.5-3m	<0.0013	<0.0011	<0.001	<0.0012	<0.0013	<0.001	<0.0013	<0.0014	<0.0015
	S3 0-0.2m	<0.0013	<0.0011	<0.001	<0.0012	<0.0013	<0.001	<0.0013	<0.0014	<0.0015
		2.8	0.9	37	9	5	66	596	54	616

		1,2-	1,1,1,2-	1,1,2,2-		1,1,1-	1,1,2		1,2,3	
		mg/kg								
2022-05-11	S1 0-0.2m	<0.0011	<0.0012	<0.0012	<0.0014	<0.0013	<0.0012	<0.0012	<0.0012	<0.001
	S2-1 0-0.5m	<0.0011	<0.0012	<0.0012	<0.0014	<0.0013	<0.0012	<0.0012	<0.0012	<0.001
	S2-2 0.5-1.5m	<0.0011	<0.0012	<0.0012	<0.0014	<0.0013	<0.0012	<0.0012	<0.0012	<0.001
	S2-3 1.5-3m	<0.0011	<0.0012	<0.0012	<0.0014	<0.0013	<0.0012	<0.0012	<0.0012	<0.001
	S3 0-0.2m	<0.0011	<0.0012	<0.0012	<0.0014	<0.0013	<0.0012	<0.0012	<0.0012	<0.001
		5	10	6.8	53	840	2.8	2.8	0.5	0.43

				1,2-	1,4-				+		
		mg/kg									
2022-05-11	S1 0-0.2m	<0.0019	<0.0012	<0.0015	<0.0015	<0.0012	<0.0011	<0.0013	<0.0012	<0.0012	<0.09
	S2-1 0-0.5m	<0.0019	<0.0012	<0.0015	<0.0015	<0.0012	<0.0011	<0.0013	<0.0012	<0.0012	<0.09
	S2-2 0.5-1.5m	<0.0019	<0.0012	<0.0015	<0.0015	<0.0012	<0.0011	<0.0013	<0.0012	<0.0012	<0.09
	S2-3 1.5-3m	<0.0019	<0.0012	<0.0015	<0.0015	<0.0012	<0.0011	<0.0013	<0.0012	<0.0012	<0.09
	S3 0-0.2m	<0.0019	<0.0012	<0.0015	<0.0015	<0.0012	<0.0011	<0.0013	<0.0012	<0.0012	<0.09
		4	270	560	20	28	1290	1200	570	640	76

			2-	[a]	[a]	[b]	[k]	[a,h] [1,2,3-cd]					
			mg/kg										
2022-05-11	S1	0-0.2m	<0.02	<0.06	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.09	0.10
	S2-1	0-0.5m	<0.02	<0.06	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.09	—
	S2-2	0.5-1.5m	<0.02	<0.06	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.09	—
	S2-3	1.5-3m	<0.02	<0.06	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.09	—
	S3	0-0.2m	<0.02	<0.06	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.09	0.21
0 2													

2009

III

III1

III1-11

900-1000

1

7.7283hm²

33.6887hm²

7.7283hm²

25.9891hm²

14.3656hm²

	/	/	/	/
	7.7283	7.7283		3.4588 hm ²
	14.3656	/		2.3193 hm ²
	11.5948	/		/

“

”

1

7

150m

GB3095-2012

1.4-2.5

150m

150m

3 1

... 1

!

7

7

SS

$$\begin{aligned} & 100\text{dB A} \qquad 86\text{dB A} \qquad 85\text{dB A} \qquad 79\text{dB A} \qquad 90\text{dB A} \\ & \text{Loct(r)} \quad \text{Loct(r0)} \quad 20\lg(r/r0) \quad \text{Loct} \\ & \text{Loct(r)} \text{---} \\ & \text{Loct(r0)} \text{---} \\ & r0 \text{---} \qquad \qquad \qquad (m) \\ & r \text{---} \qquad \qquad \qquad (m) \\ & \text{Loct} \text{---} \qquad \qquad \qquad 5\text{dB(A)} \\ & \qquad \qquad \qquad 4.1-2 \end{aligned}$$

	——	90	79	73	71	65	60.9	60.6	59	53.9
	——	90	79	73	71	65	60.9	60.6	59	53.9
	——	86	75	69	67	61	56.9	56.6	55	49.9
	——	79	68	62	60	54	49.9	49.6	48	42.9
	100	86	75	69	67	61	56.9	56.6	55	49.9
	——	94.59	83.6	77.6	75.6	69.6	65.5	65.2	63.59	58.5
	——	85	74	68	66	60	55.9	55.6	54	48.9

4.1-2

20m

100m

GB12523-2011

50m 179m

GB12523-2011

50m

GB12523-2011

215m

1

1.104t

2

6t

2011 88

3

NH₃ H₂S

2

AERSCREEN

4.2-1

HJ2.2-2018

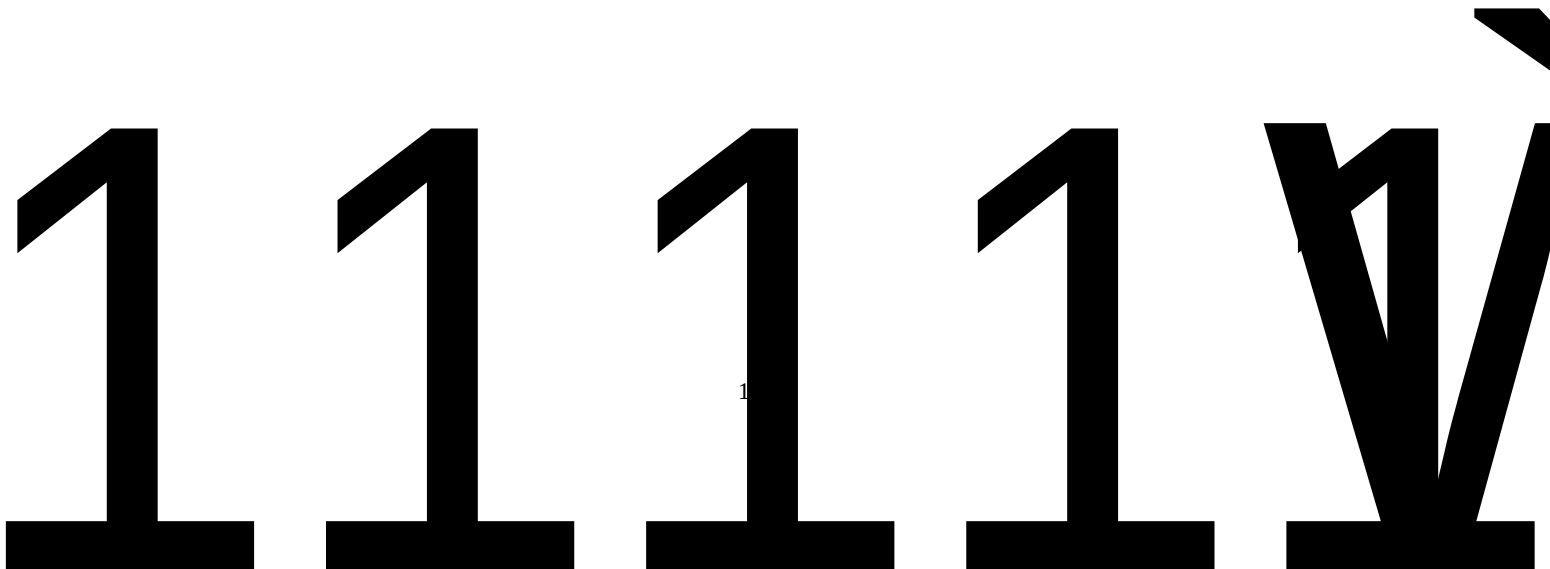
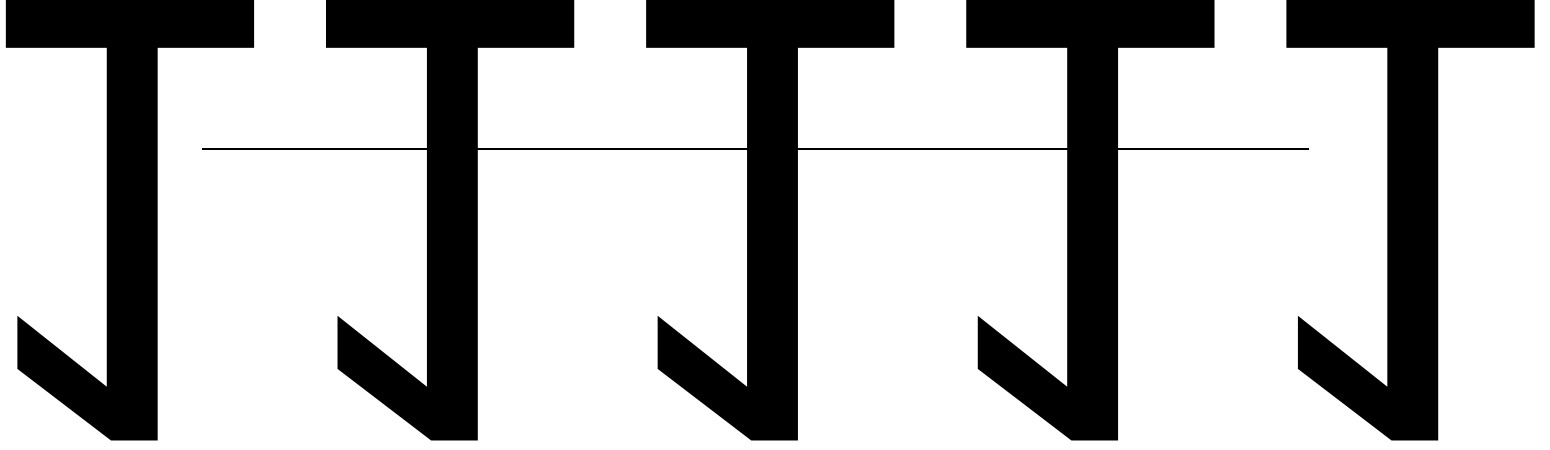
Δ

111

	HJ2.2—2018	D	NH ₃	200μg/ m ³	H ₂ S
10μg/ m ³	10—2500m		0.057—3.85μg/ m ³		
	10—2500m		0.0032—0.3142μg/ m ³		
10—2500					
	GB14554-93	1			
	1500 μ g/m ³	60 μ g/m ³			
			HJ2.8-2 18	“	
				”	



L											
GB/T 39499-2020						100m			50m		
100m		1000m		100m		1000m		200m			
6.2											
						NH ₃		H ₂ S			
50m						100m					
NH ₃						H ₂ S					
NH ₃	0.018	0.2	278	243328	470	0.021	1.85	0.84	0.664	50	
H ₂ S	0.00147	0.01	278	243328	470	0.021	1.85	0.84	1.191	50	
NH ₃	0.000388	0.2	69.3	15087	470						



8

CO CH NO_x

9

1:3~1:6

、 ! DI
E80HDPE

30 40m

2%

20 60mm

▽

£

PE80HDPE

SDR11

1.25MPa

HDPE +Pf F@í ^

´ j DN35----

£

KT» E! p3bDE -u) .

» E!

2

“ MVR ”
 “ MBR
 Cl-
 +NF +RO ”
 GB16889-2008 2
 GB/T18920-2020

		COD	SS	BOD ₅	NH ₄ -N
	t/a	mg/L	mg/L	mg/L	mg/L
	32425.45	2560.22	197.27	970.93	869.75
		7.3	0.099	1.85	3.479
		100	30	10	8

4.2-10

COD BOD₅

SS

GB/T18920-2020

GB16889-2008

GB16889-2008 3

82.13t/d

150m³/d

152.31m³/d

68.28m³/d

3

3

4000m³

12000m³

1 10000m³

1

HJ610-2016

2021

HW18

GB16889-2008 6.3

“

”

“U

” “151

”

-

HJ610-2016

1.6-7 1.6-8

2

1

A



a

10cm

25cm

35.75cm

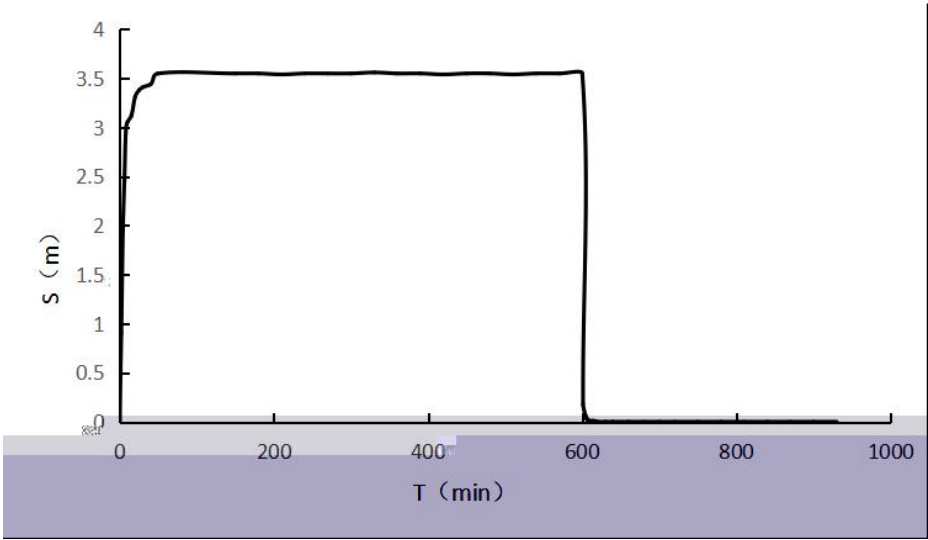
10cm

2~3cm

10cm

1	JC03	-
4.2-5	4.2-10	
0.075m/d	8.64×10-5cm/s	

JC03	123.00	3.53	9.3	5.77	0.063	25.00	26.78	0.075	8.64×10-5



2

A

M=13.95 q=2.1 Qc=1-16

B

S_{2m}^b

Qc=0.05-0.5

C



20m

0.08

A

B

JC02

1.5km

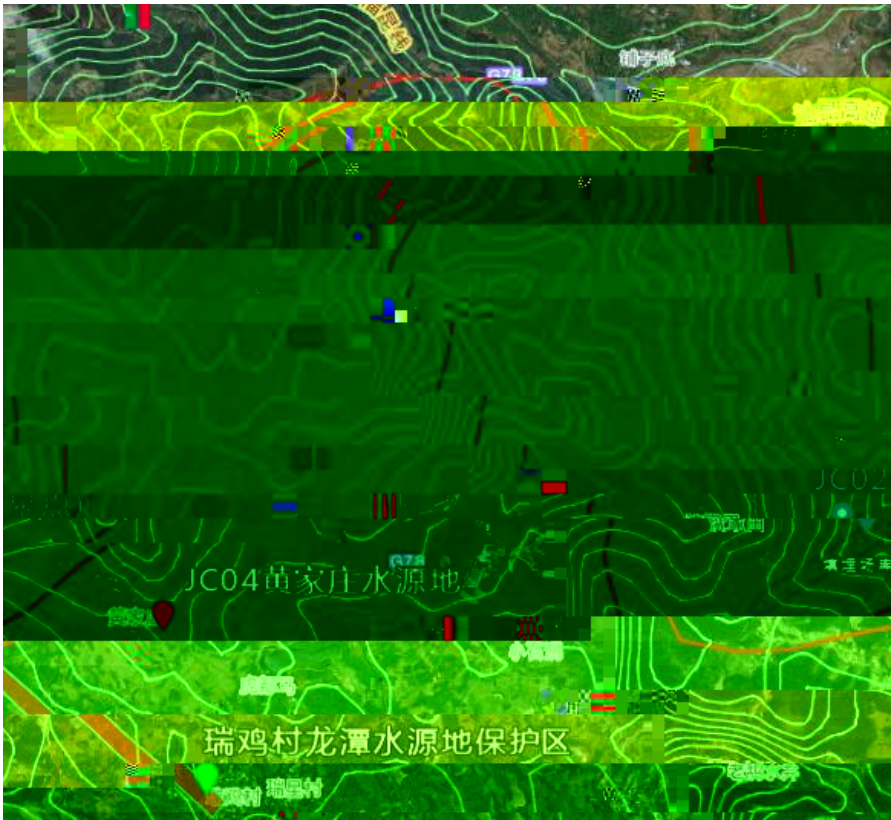
JC04

1.4km

4.2-11

4.2-6

JC02	103°12'37.37"	103°12'37.37"	1842	
JC04	24°53'5.04"	24°53'5.04"	1826	
	103°13'2.03"	24°52'22.73"	1906	



4.2-12

2020 3

4.2-7

4.2-12

SO₄•HCO₃-Ca•Mg

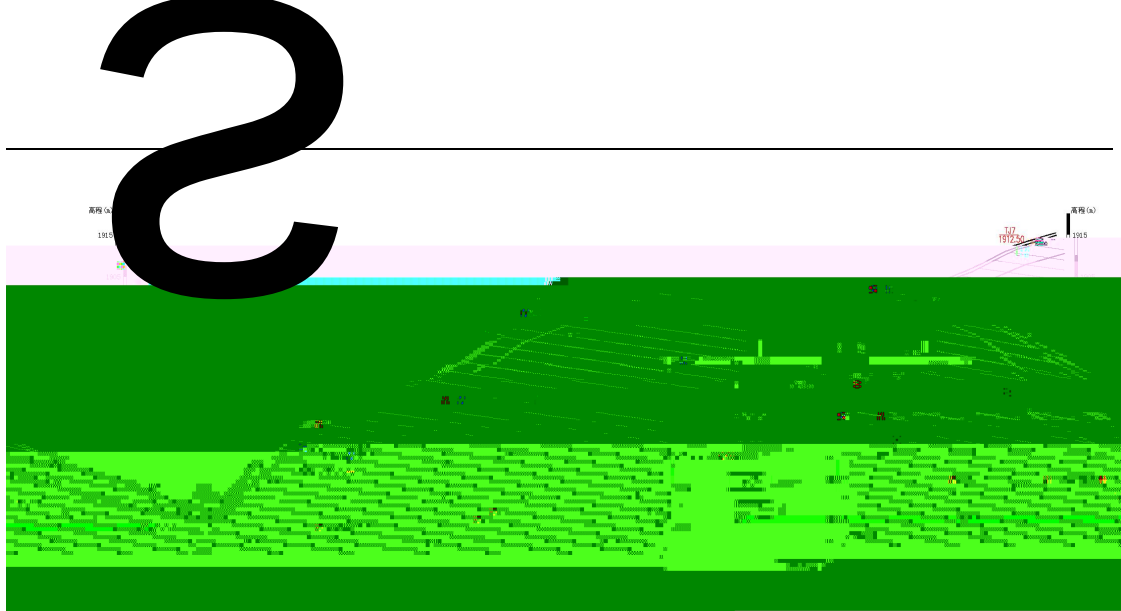
HCO₃-Ca•Mg

HCO₃-Ca

15~18 pH 7.24~7.40

JC0 1	103°1 2'12.0 4"	24°52' 47.12"	80	1962	74.8	75.1	1887. 2	1886. 9
JC0 2	103°1 2'37.3 7"	24°53' 5.04"	/	1842	/	/	1842. 0	1842. 0
JC0 3	103°1 2'50.8 9"	24°53' 15.46"	10	1772	0.7	0.9	1771. 3	1771. 1
JC0 4	103°1 3'17.8 0"	24°52' 51.65"	/	1826	/	/	1826. 0	1826. 0
JC0 5	103°1 3'2.06 "	24°54' 13.14"	30	1648	4.6	4.8	164	

		Q^{ml}		Q^{el+pl}
	S_2m^b			
1		Q^{ml}		
2		Q^{al+pl}		
3		S_2m^b		
		4.2-8	2	3
				0.7-4.6
				$10^{-7}cm/s$



Q^{4el+pl}

S_2m^b

1

Q^{4el+pl}

2

S_2m^b

3

$2.0 \times 10^{-5} \text{cm/s}$

HJ610-2016

$Mb \geq 1.0m \quad K \leq 1.0 \times 10^{-6} \text{cm/s}$
 $0.5m \leq Mb \leq 1.0m \quad K \leq 1.0 \times 10^{-6} \text{cm/s}$
 $Mb \geq 1.0m \quad 1.0 \text{Ó}$

HJ610-2016

2

S₂m^b

8.64×10⁻⁵ cm/s

$$\text{DT} \frac{y}{\text{m}^2/\text{d}}$$

$$\pi \frac{1}{\text{m}^2/\text{d}}$$

$$k_0 \frac{1}{\text{m}^2/\text{d}}$$

$$W \frac{u^2 t}{4D_L}, \frac{1}{\text{m}^2/\text{d}}$$

M

mM

n

u

DL

DT

1

M

	250	4.164	20	12.5
BOD ₅	70	1.166	4	17.5
SS	100	1.665	/	/
TN	30	0.500	1	30
NH ₃ -N	20	0.333	0.5	40
TP	0.3	0.005	0.2	1.5
Hg	0.25	0.004	0.001	250
Cd	0.5	0.008	0.005	100
Cr ⁶	1.5	0.025	0.05	30
As	2.5	0.042	0.01	250
Pb ²	5	0.083	0.01	500
Cl ⁻	50000	832.748	250	200

COD BOD₅ NH₃-N TN Cd

BOD₅ NH₃-N Hg As Pb Cl-

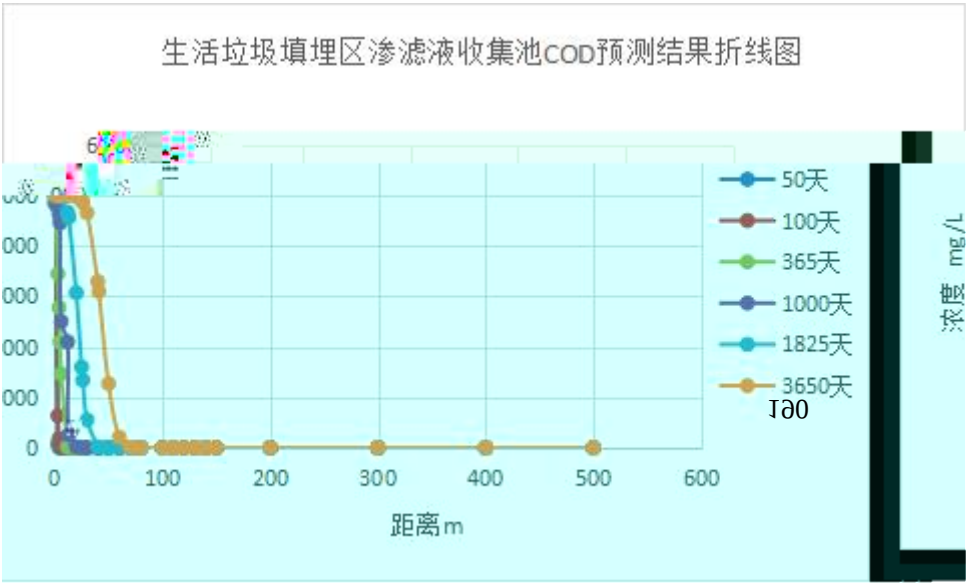
500m

13322.5t/a

4.2-17

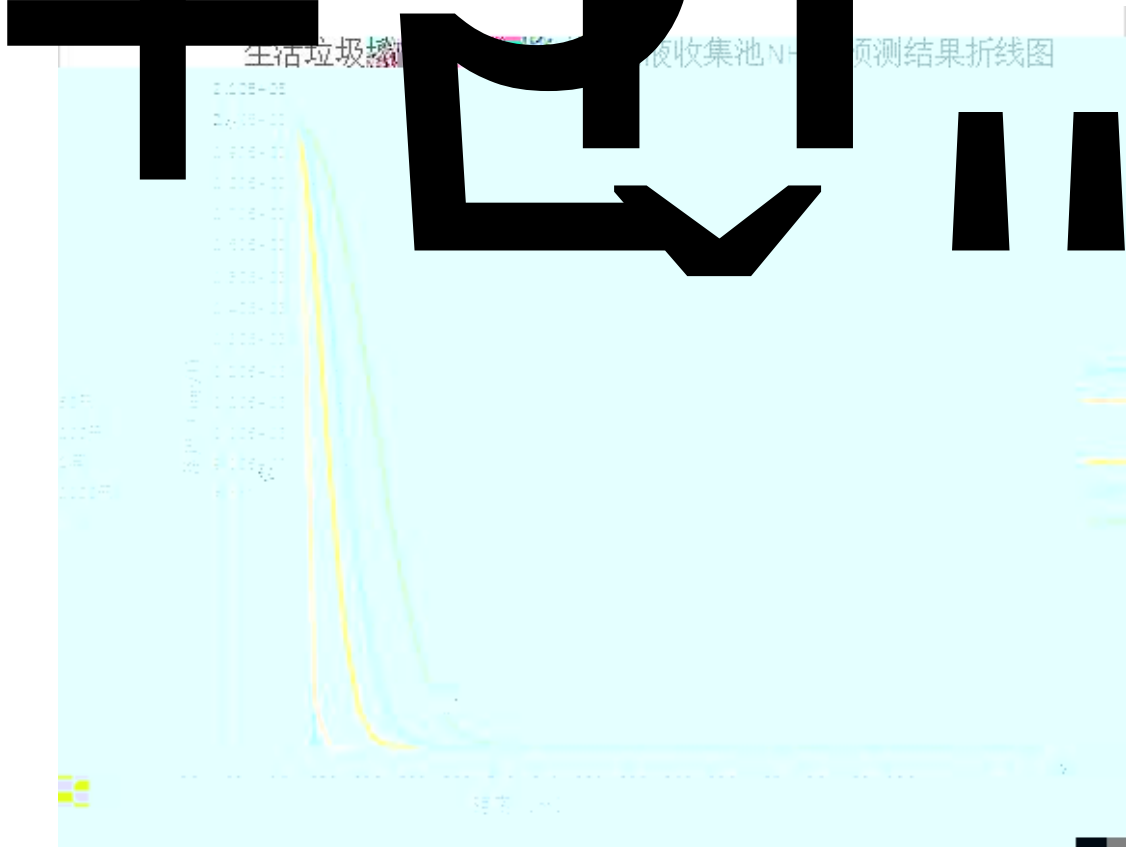
16654.95t/a

4.2-18



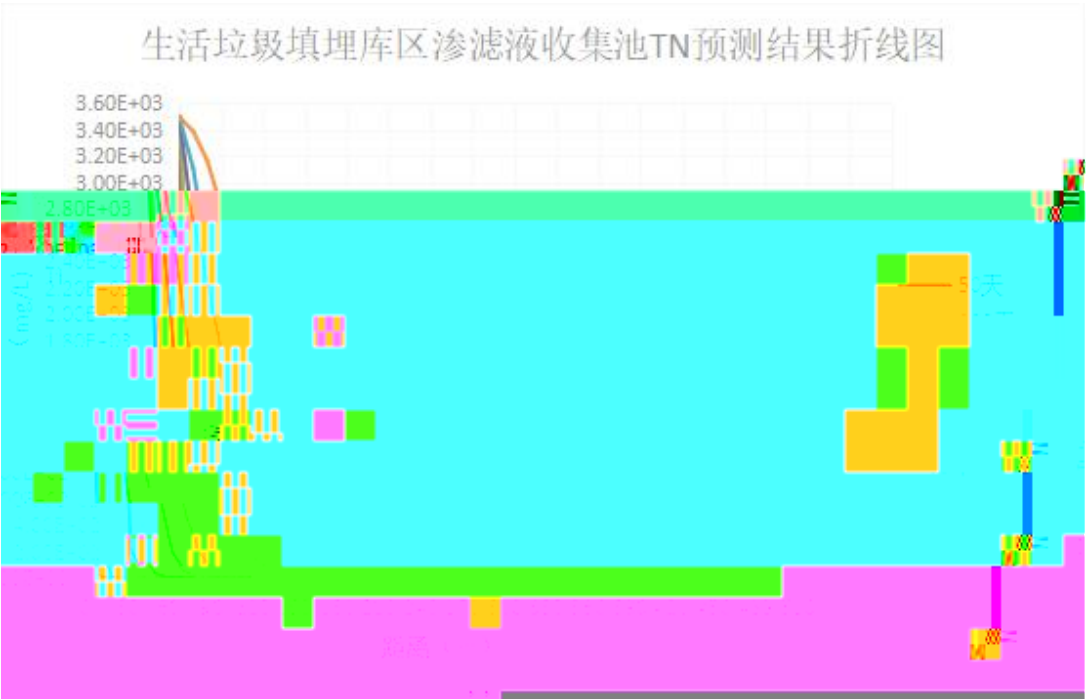
BOD ₅						
	50		3m		4m	100
		4m	5m		1	
11m	12m		1000			23m
24m	5			37m		38m
10		66m		67m		
	50	100	365	1000	1825	3650
0	2000	2000	2000	2000	2000	2000
3	29.8298	254.3306	1376.0456	1936.7766	1995.9341	1999.9877
4	1.9507	71.8784	1109.0749	1899.1569	1993.2987	1999.9793
5	0.0596	14.2749	836.5948	1847.8159	1989.4172	1999.9664
6	0.0008	1.9519	584.9657	1779.7633	1983.7611	1999.9464
11	0	0	25.3072	1161.7515	1900.4407	1999.5425
12	0	0	10.0369	1000.0032	1865.3173	1999.3203
20	0	0				

80	0.00	0.00	6.66E-13	2.00E-02	8.85E+00	3.07E+02
90	0.00	0.00	0.00	8.52E-04	1.87E+00	1.69E+02
100	0.00	0.00	0.00	2.50E-05	3.17E-01	8.37E+01
110	0.00	0.00	0.00	4.72E-07	4.32E-02	3.75E+01
120	0.00	0.00	0.00	3.16E-09	4.73E-03	1.51E+01
130	0.00	0.00	0.00	2.80E-11	4.29E-04	5.50E+00
140	0.00	0.00	0.00	1.11E-13	3.00E-05	1.79E+00
150	0.00	0.00	0.00	0.00	1.66E-06	5.25E-01
160	0.00	0.00	0.00	0.00	4.17E-08	1.38E-01
170	0.00	0.00	0.00	0.00	1.61E-09	3.34E-02
180	0.00	0.00	0.00	0.00	4.53E-11	7.01E-03
190	0.00	0.00	0.00	0.00	9.99E-13	1.32E-03
200	0.00	0.00	0.00	0.00	0.00	2.39E-04
210	0.00	0.00	0.00	0.00	0.00	1.97E-05
220	0.00	0.00	0.00	0.00	0.00	2.64E-06
230	0.00	0.00	0.00	0.00	0.00	3.17E-07
240	0.00	0.00	0.00	0.00	0.00	3.40E-08
250	0.00	0.00	0.00	0.00	0.00	3.26E-09
260	0.00	0.00	0.00	0.00	0.00	3.01E-10
270	0.00	0.00	0.00	0.00	0.00	2.29E-11
280	0.00	0.00	0.00	0.00	0.00	1.55E-12
290	0.00	0.00	0.00	0.00	0.00	1.11E-13
300	0.00	0.00	0.00	0.00	0.00	0.00
310	0.00	0.00	0.00	0.00	0.00	0.00
320	0.00	0.00	0.00	0.00	0.00	0.00
330	0.00	0.00	0.00	0.00	0.00	0.00
340	0.00	0.00	0.00	0.00	0.00	0.00
350	0.00	0.00	0.00	0.00	0.00	0.00
360	0.00	0.00	0.00	0.00	0.00	0.00
370	0.00	0.00	0.00	0.00	0.00	0.00
380	0.00	0.00	0.00	0.00	0.00	0.00
390	0.00	0.00	0.00	0.00	0.00	0.00
400	0.00	0.00	0.00	0.00	0.00	0.00
410	0.00	0.00	0.00	0.00	0.00	0.00
420	0.00	0.00	0.00	0.00	0.00	0.00
430	0.00	0.00	0.00	0.00	0.00	0.00
440	0.00	0.00	0.00	0.00	0.00	0.00
450	0.00	0.00	0.00	0.00	0.00	0.00
460	0.00	0.00	0.00	0.00	0.00	0.00
470	0.00	0.00	0.00	0.00	0.00	0.00
480	0.00	0.00	0.00	0.00	0.00	0.00
490	0.00	0.00	0.00	0.00	0.00	0.00
500	0.00	0.00	0.00	0.00	0.00	0.00



TN									
50		13m		15m		100			
	18m	22m		1					
38m	44m	1000		67m					
78m	5	96m		111m					
10		149m		171m					

120	0.00	0.00	0.00	5.53E-09	8.28E-03	2.65E+01
130	0.00	0.00	0.00	4.90E-11	7.50E-04	9.62E+00
140	0.00	0.00	0.00	1.94E-13	5.25E-05	3.14E+00
150	0.00	0.00	0.00	0.00	2.91E-06	9.18E-<



Cd

50

9m

11m

100

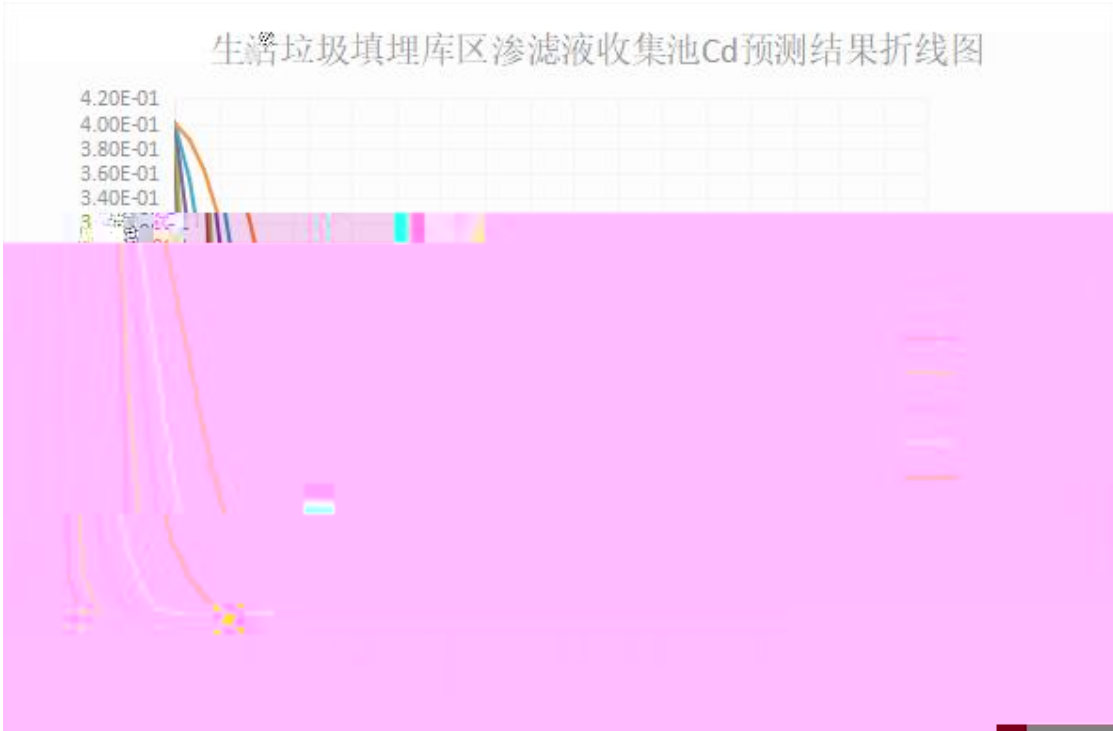
13m

15m

1

27m

160	0.00	0.00	0.00	0.00	8.34E-12	2.76E-05
170	0.00	0.00	0.00	0.00	3.22E-13	6.67E-06
180	0.00	0.00	0.00	0.00	9.06E-15	1.40E-06
190	0.00	0.00	0.00	0.00	2.00E-16	2.64E-07
200	0.00	0.00	0.00	0.00	0.00	4.78E-08
210	0.00	0.00	0.00	0.00	0.00	3.93E-09
220	0.00	0.00	0.00	0.00	0.00	5.28E-10
230	0.00	0.00	0.00	0.00	0.00	6.33E-11
240	0.00	0.00	0.00	0.00	0.00	6.80E-12
250	0.00	0.00	0.00	0.00	0.00	6.52E-13
260	0.00	0.00	0.00	0.00	0.00	6.01E-14
270	0.00	0.00	0.00	0.00	0.00	4.57E-15
280	0.00	0.00	0.00	0.00	0.00	3.11E-16
290	0.00	0.00	0.00	0.00	0.00	2.22E-17
300	0.00	0.00	0.00	0.00	0.00	0.00
310	0.00	0.00	0.00	0.00	0.00	0.00
320	0.00	0.00	0.00	0.00	0.00	0.00
330	0.00	0.00	0.00	0.00	0.00	0.00
340	0.00	0.00	0.00	0.00	0.00	0.00
350	0.00	0.00	0.00	0.00	0.00	0.00
360	0.00	0.00	0.00	0.00	0.00	0.00
370	0.00	0.00	0.00	0.00	0.00	0.00
380	0.00	0.00	0.00	0.00	0.00	0.00
390	0.00	0.00	0.00	0.00	0.00	0.00
400	0.00	0.00	0.00	0.00	0.00	0.00



0 171m COD
0 134m BOD₅ 0 140m NH₃-N 0 150m TN
0 149m Cd 0 114m

5

BOD₅

	50		7m		8m		100
		10m		11m		365	
21m		24m		1000			39m
44m		1825			59m		65m
3650			95m		104m		

0	7.00E+01	7.00E+01	7.00E+01	7.00E+01	7.00E+01	7.00E+01	7.00E+01
10	4.44E-01	4.65E+00	3.10E+01	5.34E+01	6.22E+01	6.77E+01	
20	1.46E-06	8.26E-03	5.71E+00	3.12E+01	4.92E+01	6.33E+01	
30	0.00	2.80E-07	3.85E-01	1.33E+01	3.37E+01	5.65E+01	
40	0.00	8.94E-14	9.00E-03	3.98E+00	1.95E+01	4.74E+01	
50	0.00	0.00	7.08E-05	8.22E-01	9.35E+00	3.71E+01	
60	0.00	0.00	1.84E-07	1.16E-01	3.69E+00		

000000

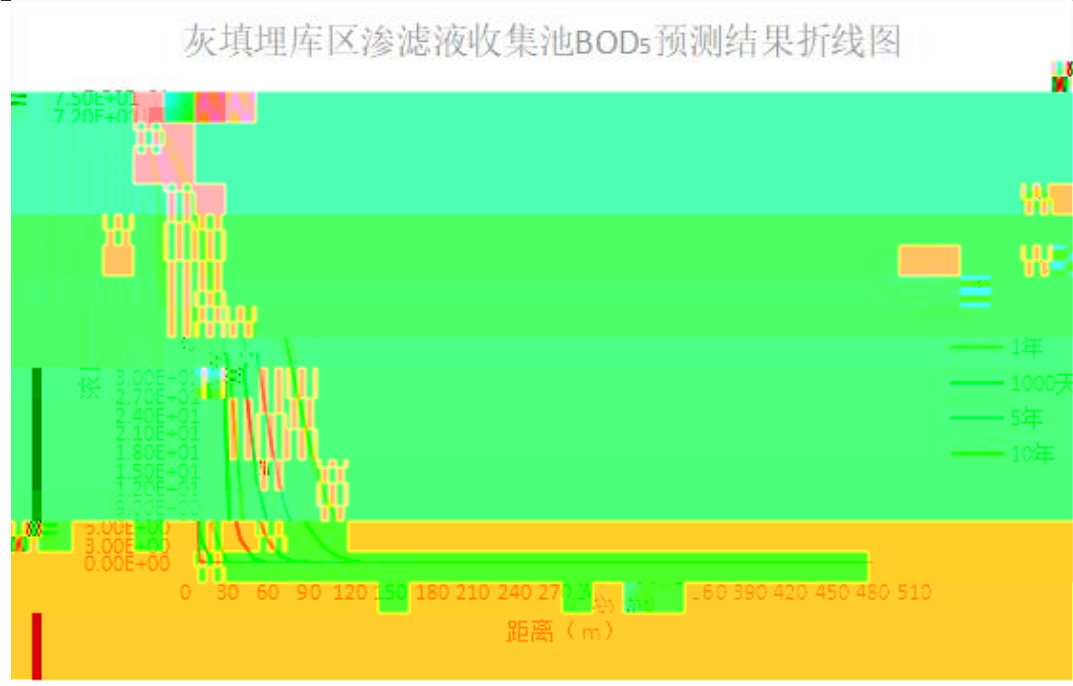
3'15 00E 0 93

1005

12

+2 灰库A、B、D

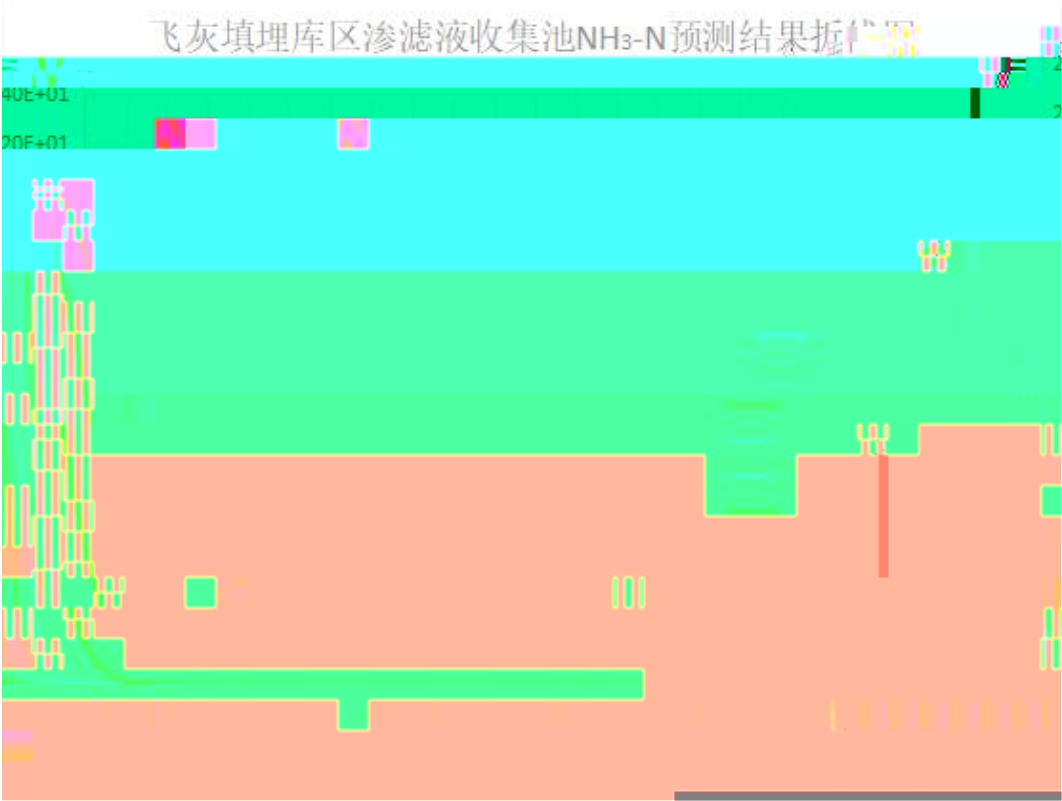
390	0.00	0.00	0.00	0.00	0.00	0.00
400	0.00	0.00	0.00	0.00	0.00	0.00
410	0.00	0.00	0.00	0.00	0.00	0.00
420	0.00	0.00	0.00	0.00	0.00	0.00
430	0.00	0.00	0.00	0.00	0.00	0.00
440	0.00	0.00	0.00	0.00	0.00	0.00
450	0.00	0.00	0.00	0.00	0.00	0.00
460	0.00	0.00	0.00	0.00	0.00	0.00
470	0.00	0.00	0.00	0.00	0.00	0.00
480	0.00	0.00	0.00	0.00	0.00	0.00
490	0.00	0.00	0.00	0.00	0.00	0.00
500	0.00	0.00	0.00	0.00	0.00	0.00



50	8m	11m	100
12m	16m	1	
24m	34m	1000	45m
61m	5	66m	88m
10	106m	137m	

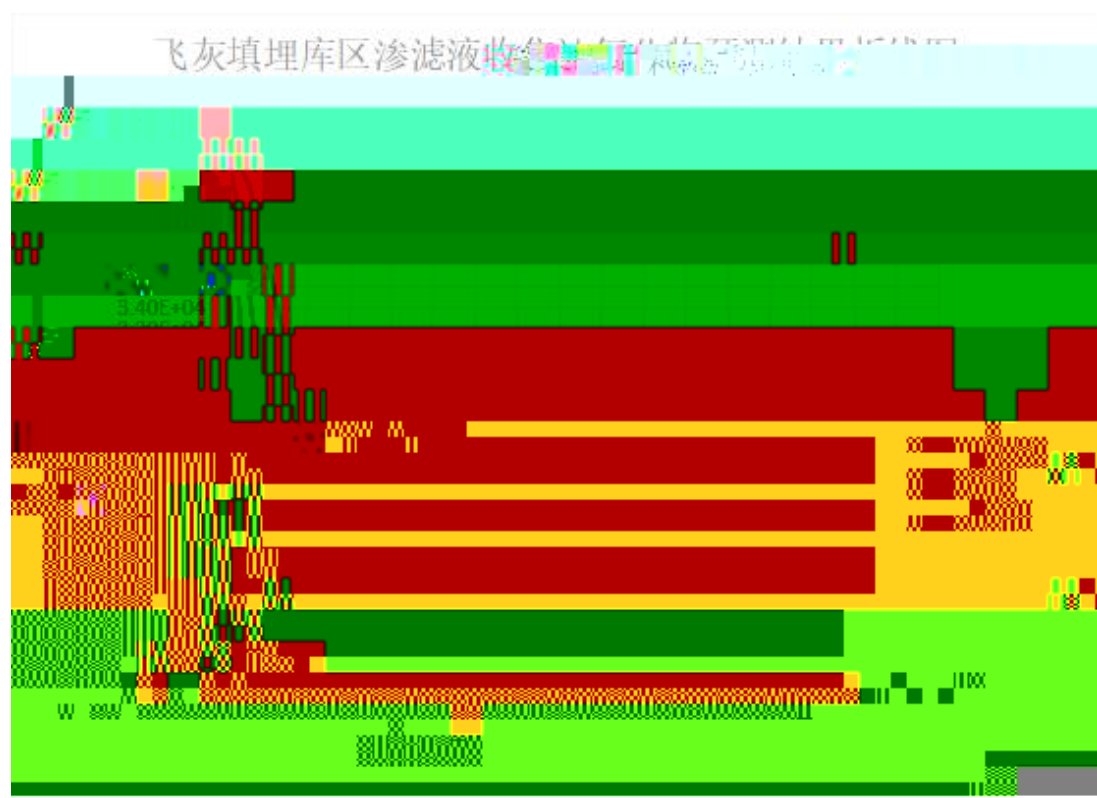
0	2.00E+01	2.00E+01	2.00E+01	2.00E+01	2.00E+01	2.00E+01
10	1.27E-01	1.33E+00	8.86E+00	1.53E+01	1.78E+01	1.93E+01
20	4.17E-07	2.36E-03	1.63E+00	8.93E+00	1.41E+01	1.81E+01
30	0.00	7.99E-08	1.10E-01	3.80E+00	9.63E+00	1.61E+01
40	0.00	2.55E-14	2.57E-03	1.14E+00	5.56E+00	1.36E+01
50	0.00					

					□	
480	0.00	0.00	0.00	0.00	0.00	0.00
490	0.00	0.00	0.00	0.00	0.00	0.00
500	0.00	0.00	0.00	0.00	0.00	0.00



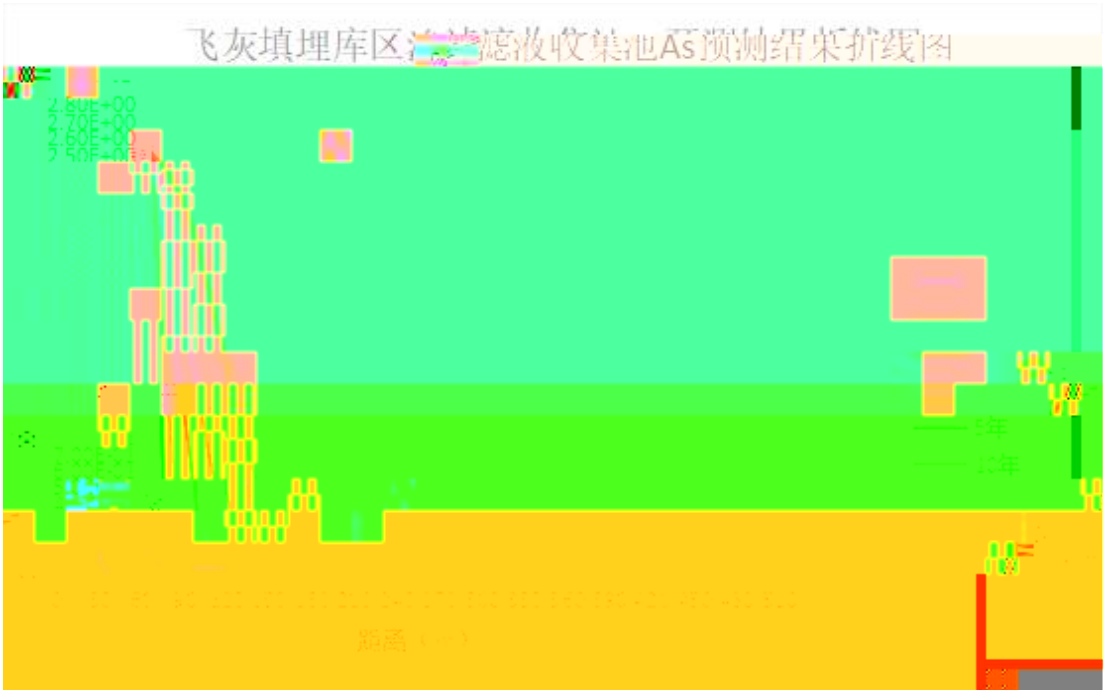
	50	10m	13m	100
	14m	19m	1	
30m	38m	1000	54m	
69m	5	79m	98m	
10	124m	152m		

80	0.00	0.00	1.67E-11	4.99E-01	2.21E+02	7.68E+03
90	-					



Hg						
	50		10m		14m	100
		15m	20m		1	
30m	41m		1000		55m	
72m	5		80m		103m	
10		126m	158m			
0	2.50E-01	2.50E-01	2.50E-01	2.50E-01	2.50E-01	2.50E-01
10	1.58E-03	1.66E-02	1.11E-01	1.91E-01	2.22E-01	2.42E-01
20	5.22E-09	2.95E-05	2.04E-02	1.12E-01	1.76E-01	2.26E-01
30	0.00	9.99E-10	1.38E-03	4.75E-02	1.20E-01	2.02E-01
40	0.00	3.19E-16	3.22E-05	1.42E-02	6.92E-02	1.69E-01
50	0.00	0.00	2.53E-07	2.94E-03	3.34E-02	1.33E-01
60	0.00	0.00	6.59E-10	4.13E-04	1.32E-02	9.59E-02
70	0.00	0.00	5.72E-13	3.92E-05	4.24E-03	6.35E-02
80	0.00	0.00	8.33E-17	2.50E-06	1.11E-03	3.84E-02
90	0.00	0.00	0.00	1.06E-07	2.33E-04	2.11E-02
100	0.00	0.00	0.00	3.13E-09	3.96E-05	1.05E-02
110	0.00	0.00	0.00	5.90E-11	5.90E-11	5.90E-11

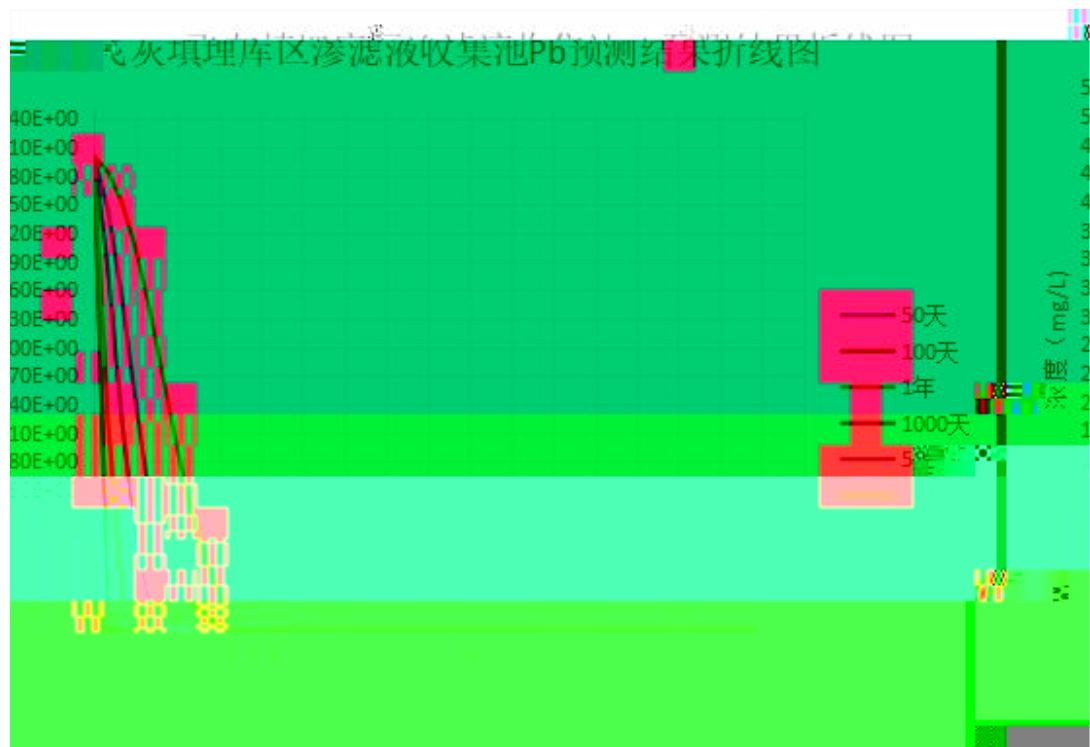
150	0.00	0.00	0.00	0.00	2.08E-09	6.56E-04
160	0.00	0.00	0.00	0.00	5.21E-11	1.72E-04
170	0.00	0.00	0.00	0.00	2.01E-12	4.17E-05
180	0.00	0.00	0.00	0.00	5.66E-14	8.76E-06
190	0.00	0.00	0.00	0.00	1.25E-15	1.65E-06
200	0.00	0.00	0.00	0.00	0.00	2.99E-07
210	0.00	0.00	0.00	0.00	0.00	2.46E-08
220	0.00	0.00	0.00	0.00	0.00	3.30E-09
230	0.00	0.00	0.00	0.00	0.00	3.96E-10
240	0.00	0.00	0.00	0.00	0.00	4.25E-11
250	0.00	0.00	0.00	0.00	0.00	4.08E-12
260	0.00	0.00	0.00	0.00	0.00	3.76E-13
270	0.00	0.00	0.00	0.00	0.00	2.86E-14
280	0.00	0.00	0.00	0.00	0.00	1.94E-15
290	0.00	0.00	0.00	0.00	0.00	1.39E-16
300	0.00	0.00	0.00	0.00	0.00	0.00
310	0.00	0.00	0.00	0.00	0.00	0.00
320	0.00	0.00	0.00	0.00	0.00	0.00
330	0.00	0.00	0.00	0.00	0.00	0.00
340	0.00	0.00	0.00	0.00	0.00	0.00
350	0.00	0.00	0.00	0.00	0.00	0.00
360	0.00	0.00	0.00	0.00	0.00	0.00
370	0.00	0.00	0.00	0.00	0.00	0.00
380	0.00	0.00	0.00	0.00	0.00	0.00
390	0.00	0.00	0.00	0.00	0.00	0.00
400	0.00	0.00	0.00	0.00	0.00	0.00
410	0.00	0.00	0.00	0.00	0.00	0.00
420	0.00	0.00	0.00	0.00	0.00	0.00
430	0.00	0.00	0.00	0.00	0.00	0.00
440	0.00	0.00	0.00	0.00	0.00	0.00
450	0.00	0.00	0.00	0.00	0.00	0.00
460	0.00	0.00	0.00	0.00	0.00	0.00
470	0.00	0.00	0.00	0.00	0.00	0.00
480	0.00	0.00	0.00	0.00	0.00	0.00
490	0.00	0.00	0.00	0.00	0.00	0.00
500	0.00	0.00	0.00	0.00	0.00	0.00



Pb

50	50	11m	11m
100	16m	16m	1
32m	32m	1000	59m
59m	5	85m	85m
10	132m	132m	

0	5.00E+00	5.00E+00	5.00E+00	5.00E+00	5.00E+00	5.00E+00
10	3.17E-02	3.32E-01	2.22E+00	3.81E+00	4.44E+00	4.84E+00
20	1.04E-07	5.90E-04	4.08E-01	2.23E+00	3.52E+00	4.52E+00
30	0.00	2.00E-08	2.75E-02	9.50E-01	2.41E+00	4.03E+00
40	0.00	6.38E-15	6.43E-04	2.84E-01	1.39E+00	3.39E+00
50	0.00	0.00	5.06E-06	5.87E-02	6.68E-01	2.65E+00
60	0.00	0.00	1.32E-08	8.26E-03	2.64E-01	1.92E+00
70	0.00	0.00	1.14E-11	7.84E-04	8.48E-02	1.27E+00
80	0.00	0.00	1.67E-15	4.99E-05	2.21E-02	7.68E-01
90	0.00	0.00	0.00	2.13E-06	4.66E-03	4.21E-01
100	0.00	0.00	0.00	6.26E-08	7.92E-04	2.09E-01
110	0.00	0.00	0.00	1.18E-09	1.08E-04	9.37E-02
120	0.00	0.00	0.00	7.90E-12	1.18E-05	3.78E-02
130	0.00	0.00	0.00	6.99E-14	1.07E-06	1.37E-02
140	0.00	0.00	0.00	2.78E-16	7.49E-08	4.48E-03
150	0.00	0.00	0.00	0.00	4.15E-09	1.31E-03

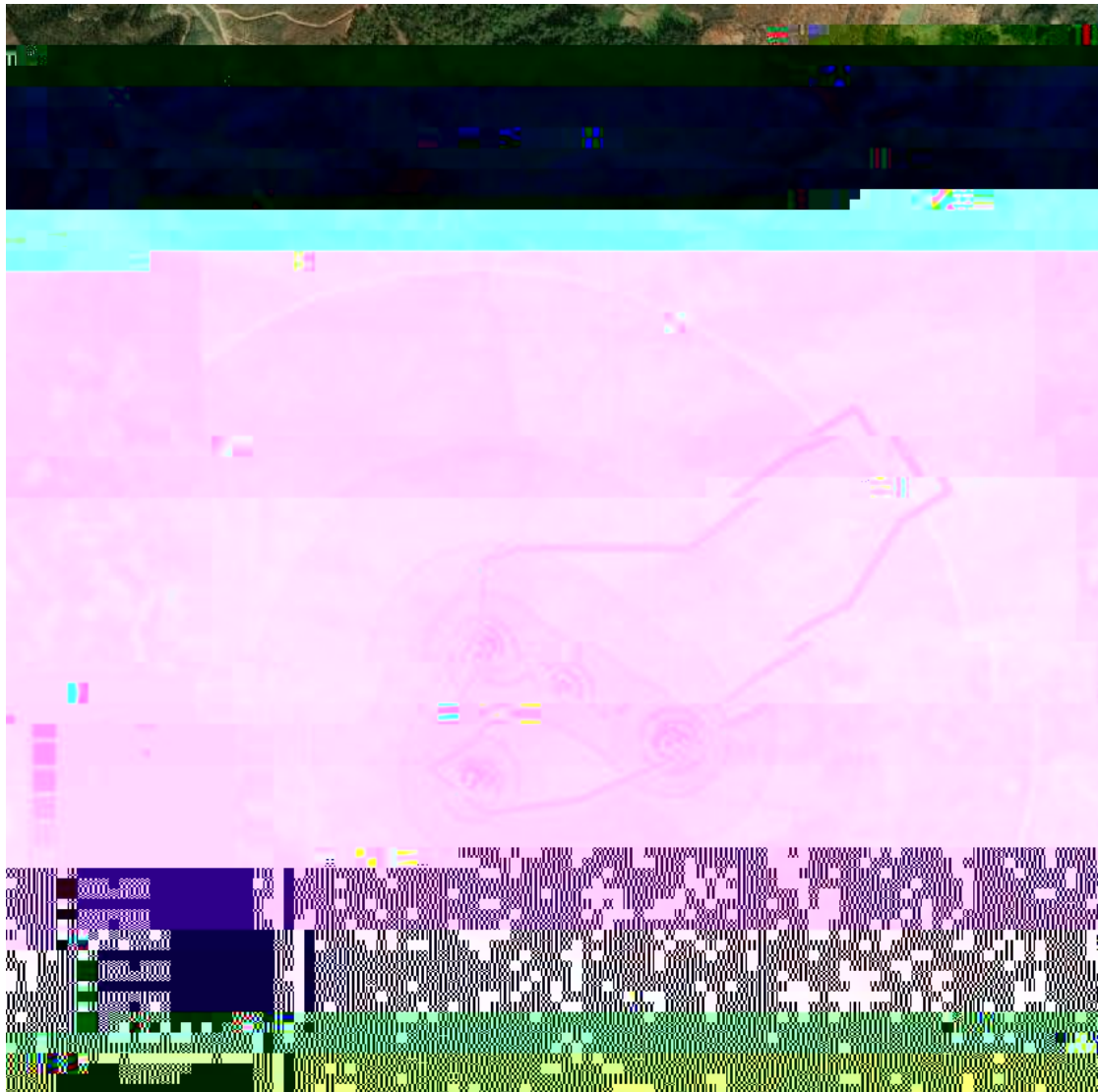


A B

80~85dB A 2.4-22

2

1		m/s	2.2	
2		/		
3			16.3	
4		%	75	
5		atm	1	



秘訣

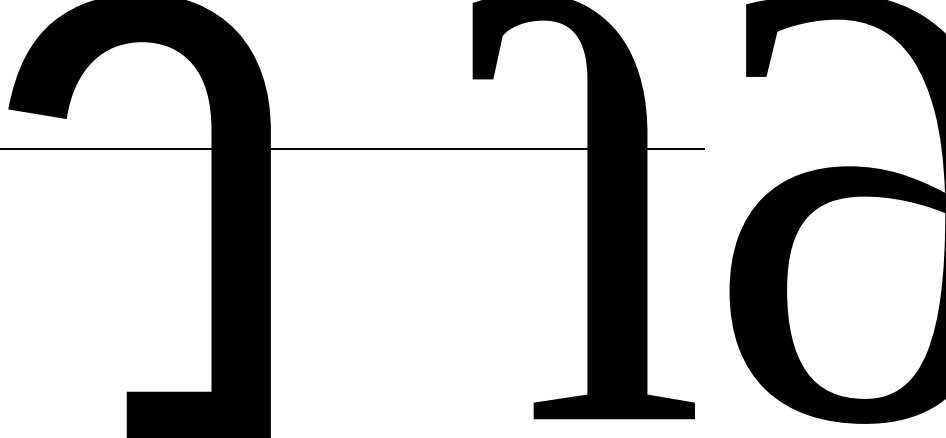
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[illegible]



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HJ964-2018 A.1“

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270.77 18.05hm²

$$c(z,t) = c_0 \quad t > 0, \quad z = 0$$

Neumann

$$-\gamma D \frac{\partial c}{\partial z} = 0 \quad t > 0, \quad z = l$$

$$16654.95 \text{ t/a}$$

HYDRUS-1D

0-2m

HYDRUS-1D

4.2-36

	0.095	0.41	0.019	1.31	1.728	0.5	1.47	10	1

C0=1.5 mg/L

Dirichlet

h0= -100cm

C0=0 mg/L

HYDRUS-1D

50

100

1

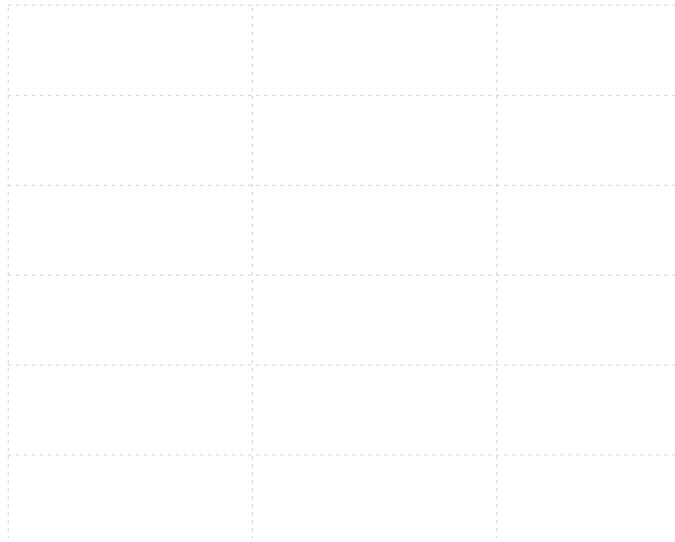
1000

5

10 6

4.2-37

0.1	0.001886	0.02315	0.3745	0.8938	1.152	1.353
0.2	3.592e-008	1.048e-005	0.02111	0.3129	0.6809	1.104
0.3	0	0	0.0001182	0.04388	0.2562	0.7665
0.4	0	0	4.092e-007	0.004248	0.07647	0.471
0.5	0	0	5.41e-010	0.0002298	0.0162	0.2467
0.7	0	0	0	5.614e-008	0.0001595	0.03259
1.0	0	0	0	0	2.259e-008	0.0005166
1.3	0	0	0	0	0	1.066e-006
1.6	0	0	0	0	0	6.501e-010
1.66	0	0	0	0	0	1.235e-010



QOW

169-2018/

Q

$$Q = \frac{q_1}{Q_1} + \frac{q_2}{Q_2} + \dots + \frac{q_n}{Q_n} \quad (C.1)$$

$q_1 \quad q_2 \quad q_3 \quad \dots \dots q_n$ — q

			10/	0
		0		
			5/	0
		a	5/	0
/				
	/		10	0
				

E1	5km 5 1000 500 m 200 m 200
E2	5km 1 1000 5 500 m 200m 100 200 500
E3	5km 1 500 m 200m 500 100

5Km

E2

2

E1

E2

E3

5.1-6

5.1-7

5.1-8

S1	E1	E1	E2
S2	E1	E2	E3
S3	E1	E2	E3

F1	24h
F2	24h
F3	

F3

S1	10 km

S2	10 km
S3	10 km

1

2

3

3

S3

E3

E2

E3

E1

5.1-9

5.1-10

5.1-11

G

D

D1	E1	E1	E2
D2	E1	E2	E3
D3	E1	E2	E3

D1	$Mb \geq 1.0m \quad K \leq 1.0 \times 10^{-6} \text{cm/s}$
D2	$0.5m \leq Mb < 1.0m \quad K \leq 1.0 \times 10^{-6} \text{cm/s}$ $Mb \geq 1.0m \quad 1.0 \times 10^{-6} \text{cm/s} \quad K \leq 1.0 \times 10^{-4} \text{cm/s}$
D3	“D2” “D3”
Mb	K

D2

E3

3

I II III IV/IV+

5.1-12

100 Q

P

P3

E

E2

E3

E3

E1	+			
E2				
E3				
+				

HJ 169-2018

5.1-3

	+			
				a

				III	
	E				E3
					/m
	1		G3	—	D2
	E				E3

5.2-1

CH₄ 53.32kPa/-168.8
 0.717g/L
 4.59Mpac

-182.5 -188 538C
 -161.5 2

%(V/NN)15.4
 %(VV)5.0

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2

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3			0.54
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5			4000

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5.3-1

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HJ169-2018

5.4-1

		COD BOD ₅	

10⁻⁴ /

H169-2018

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CH₄ H₂S NH₃

CH₄ H₂S NH₃

CH₄ 0.717kg/m³ NH₃ 0.771kg/m³ H₂S 1.189kg/m³

22.362kg/h 0.0164 kg/h

/

/

$$G_{\text{二氧化硫}} = 2BS$$

G — kg/h

B — kg/h S — %

/ CO 2CH₄+5O₂=4H₂O+2CO

				kg/s	min	kg/60min
		CO		0.0096626	60	34.785
		SO ₂		0.0000753	60	0.27106

2

AFTOX

3

F 1.5m/s 20

50%

4

(HJ169-2018

H

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79mg/m³

2

2mg/m³

1

380mg/m³

2

95mg/m³

10m

5.5-3

10	1.2059E+02	7.0478E-01
20	4.1055E+01	2.3995E-01
30	2.0649E+01	1.2069E-01
40	1.1729E+01	6.8551E-02
50	7.3720E+00	4.3087E-02
60	4.9957E+00	2.9198E-02
70	3.5797E+00	2.0922E-02
80	2.6763E+00	1.5642E-02
90	2.0682E+00	1.2088E-02
100	1.6412E+00	9.5925E-03
200	3.5557E-01	2.0782E-03
300	1.4495E-01	8.4720E-04
400	7.6661E-02	4.4806E-04
500	4.6768E-02	2.7334E-04
1000	8.1533E-03	4.7654E-05
2000	1.0029E-03	5.8615E-06
3000	2.9435E-04	1.7204E-06
4000	1.2335E-04	7.2094E-07
5000	6.2827E-05	3.6720E-07

120.59mg/m³

10m

-1 380mg/m³

CO

-2

95mg/m³

10m

0.70478mg/m³

10m

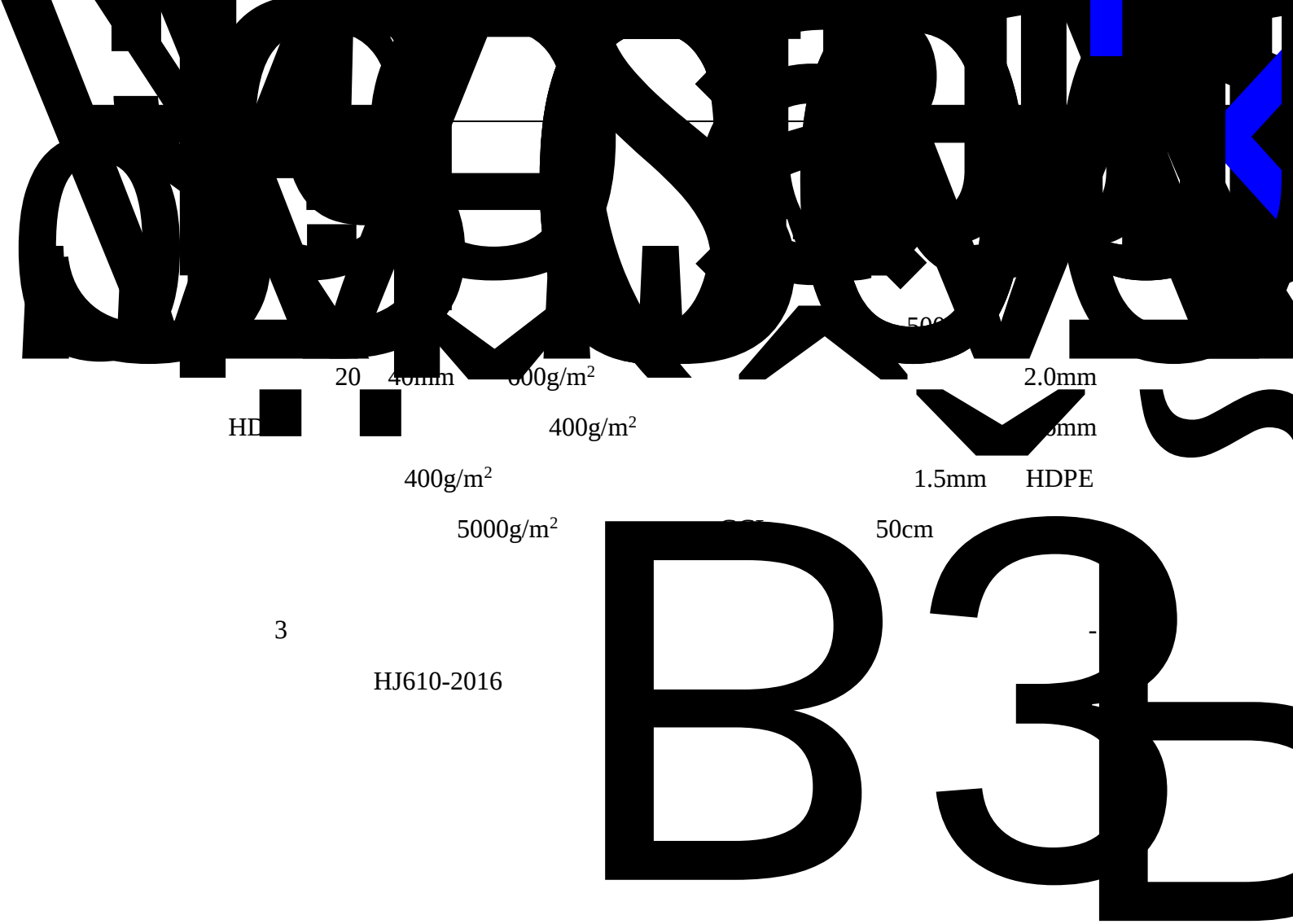
-1 79mg/m³

-2 2mg/m³

2

1		-32 78	212 9	1.32E-05|15	0.00E+ 00	0.00E+ 00	1.32E- 05	1.32E- 05	1.32E- 05	1.32E- 05	1.32E- 05	1.32E- 05	1.32E- 05	1.32E- 05	1.32E- 05	1.32E- 05
2		-40 84	416	0.00E+00|15	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00
3		-38 77	-13 08	0.00E+00|15	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00
4		-46 21	-22 89	0.00E+00|15	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00
5		-34 74	-30 94	0.00E+00|15	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00
6		760	242 9	1.59E-04|20	0.00E+ 00	0.00E+ 00	0.00E+ 00	1.59E- 04	1.59E- 04	1.59E- 04	1.59E- 04	1.59E- 04	1.59E- 04	1.59E- 04	1.59E- 04	1.59E- 04
7		-29 4	204 7	7.58E-04|15	0.00E+ 00	0.00E+ 00	7.58E- 04	7.58E- 04	7.58E- 04	7.58E- 04	7.58E- 04	7.58E- 04	7.58E- 04	7.58E- 04	7.58E- 04	7.58E- 04
8		179 3	193 3	6.42E-06|15	0.00E+ 00	0.00E+ 00	6.42E- 06	6.42E- 06	6.42E- 06	6.42E- 06	6.42E- 06	6.42E- 06	6.42E- 06	6.42E- 06	6.42E- 06	6.42E- 06
9		956	132 4	3.54E-05|10	0.00E+ 00	3.54E- 05	3.54E- 05	3.54E- 05	3.54E- 05	3.54E- 05	3.54E- 05	3.54E- 05	3.54E- 05	3.54E- 05	3.54E- 05	3.54E- 05
10		-41 8	111 8	4.12E-03|10	0.00E+ 00	4.12E- 03	4.12E- 03	4.12E- 03	4.12E- 03	4.12E- 03	4.12E- 03	4.12E- 03	4.12E- 03	4.12E- 03	4.12E- 03	4.12E- 03
11		-15 33	240	3.18E-08|5	3.18E- 08	3.18E- 08	3.18E- 08	3.18E- 08	3.18E- 08	3.18E- 08	3.18E- 08	3.18E- 08	3.18E- 08	3.18E- 08	3.18E- 08	3.18E- 08
12		-4	13	0.00E+00|5	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00
13		241 2	-70 9	0.00E+00|5	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00
14		-25	-10 29	0.00E+00|5	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00
15		173	-15	0.00E+00 5	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00	0.00E+ 00





HDPE 20 40mm 600g/m² 2.0mm
400g/m² 500g/m² 1.5mm
5000g/m² 50cm

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HJ610-2016

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CJJ 90-2009 7.7.8

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(GB16889-2008)

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HJ 1134—2020

7.3-1

1	GB18597 HJ 2025		
2	GB16297	GB 16889-2008 6.3	
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4	HJ1091	HJ1091	

5	GB16889		
6			
7	GB/T16157 HJ/T397 GB/T16157 HJ/T397 HJ77.3 HJ557		
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HJ

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7.4-1

1	(GB50869-2013)	500m 50m 3km	215 “ ” 500m 4 500m 2018 32	
			(2019-2035) 2011-2020	
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500m
3.5km

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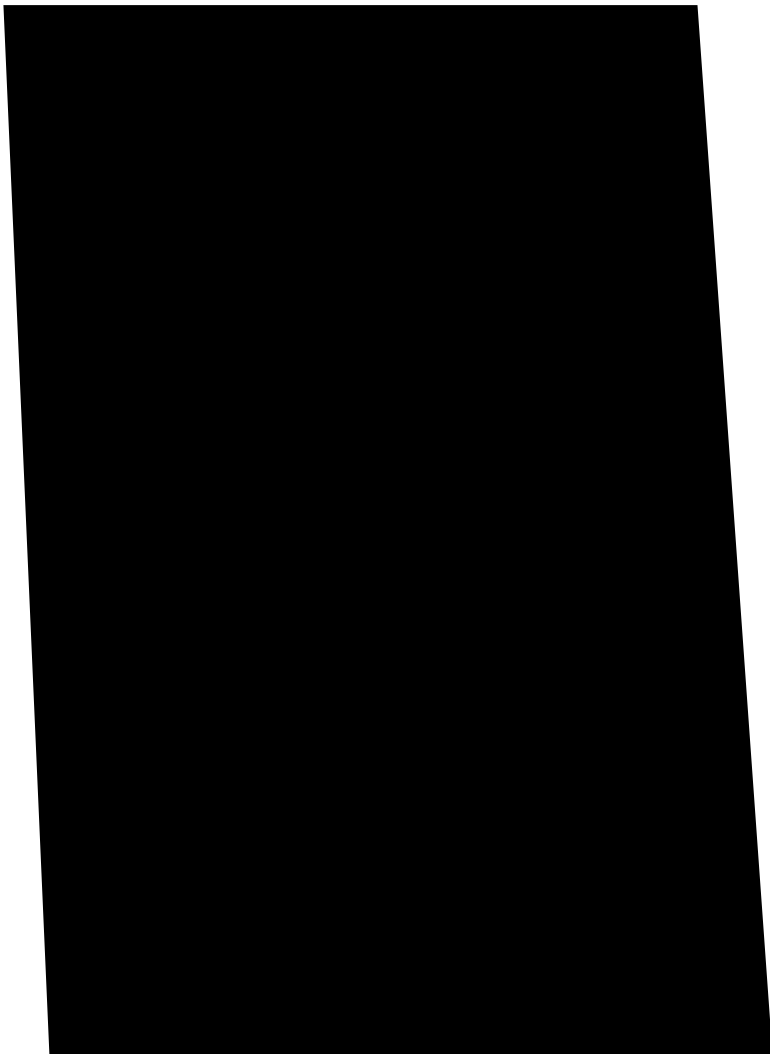
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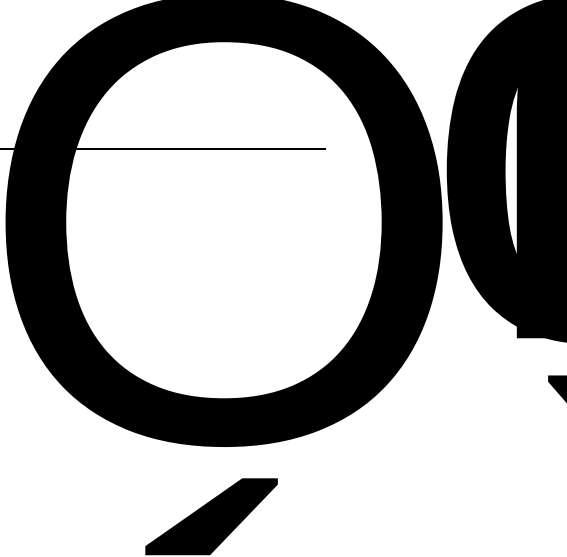
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60m³

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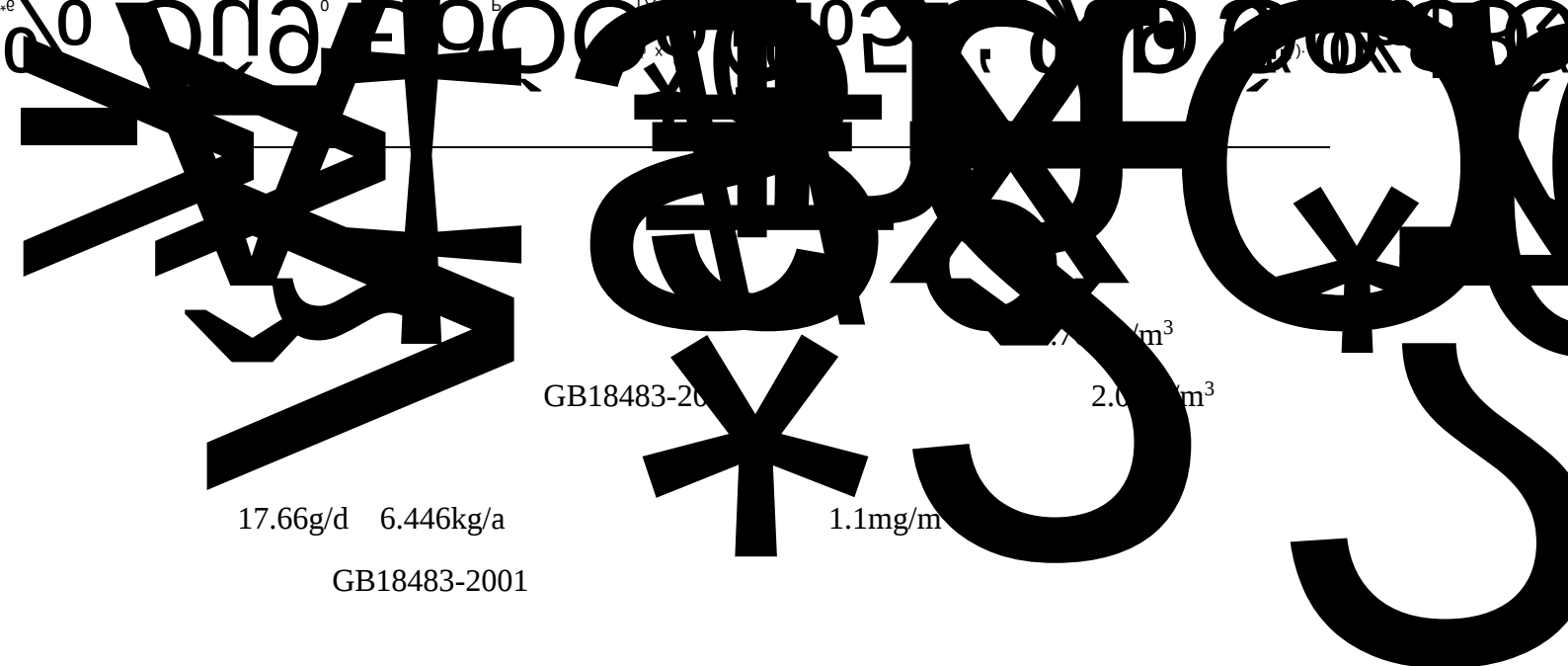
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5%

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17.66g/d 6.446kg/a

GB18483-2001

GB18483-2001

1.1mg/m

2.0m³

Cl- $\bar{A}$

+NF

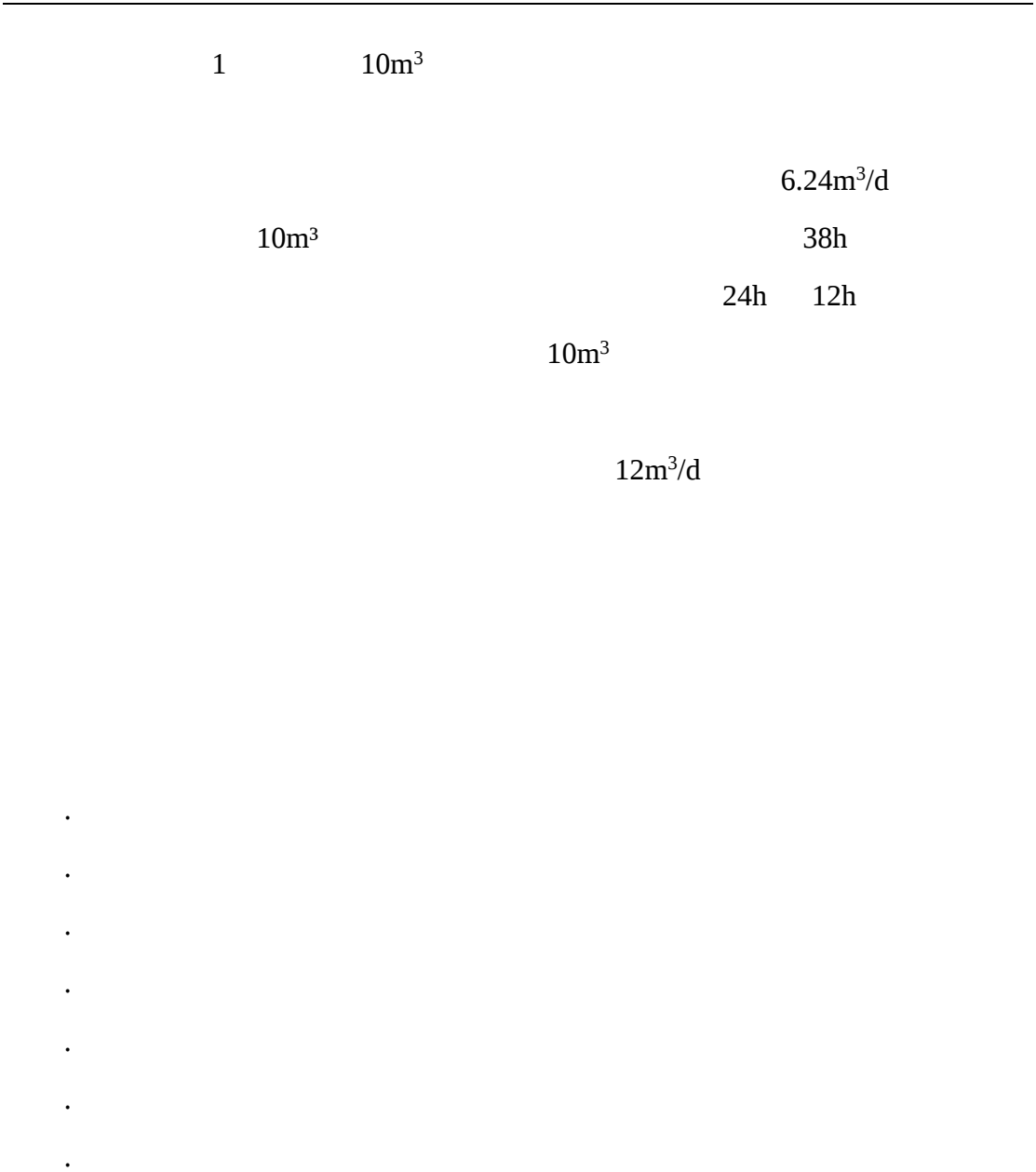
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GB/T18920-2020

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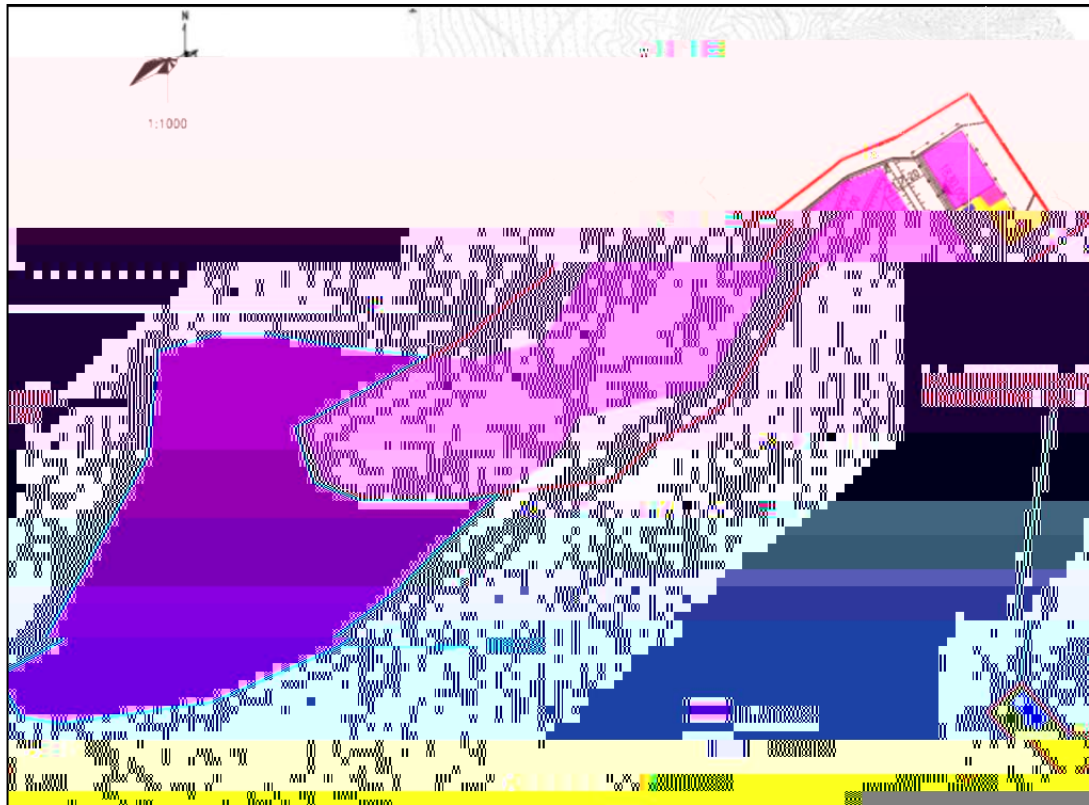
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GB16889-2008 “

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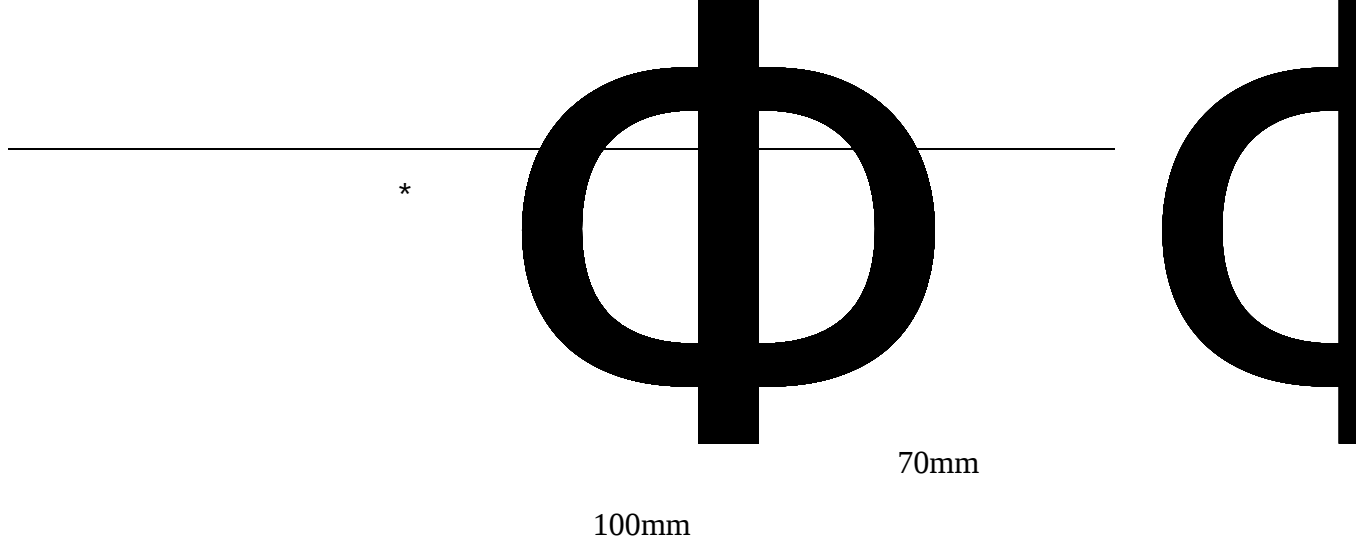
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HJ610-2016

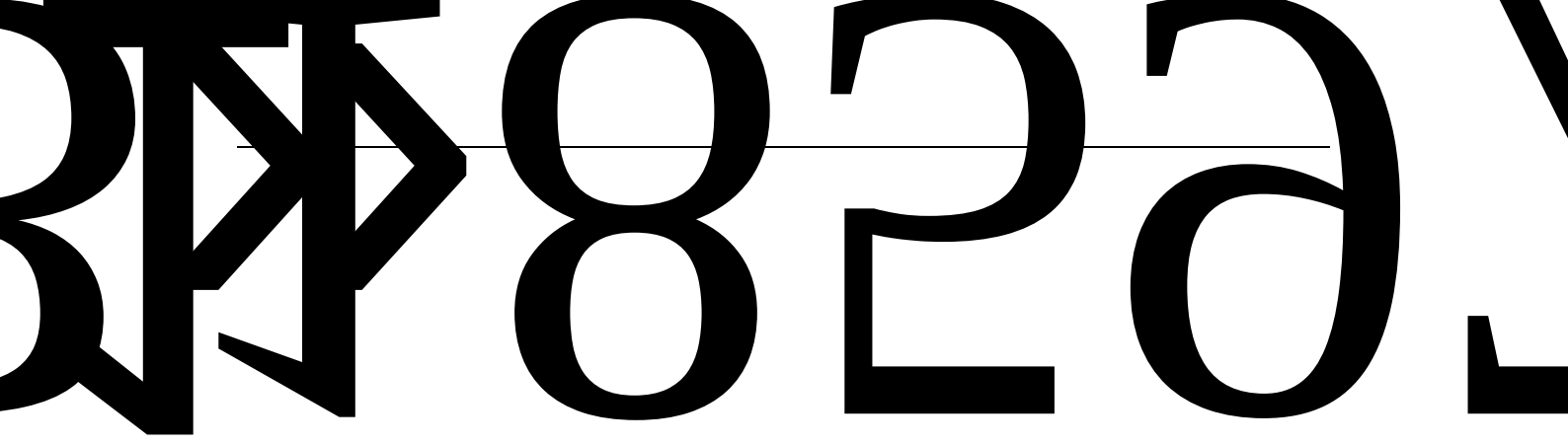
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HJ964-2018

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GB/T18920-2020

GB/T18920-2020 1

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HJ610-2016

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GB50016—2006

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$\nabla \cdot \mathbf{u} = 0$

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Case 3:597-
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25776.85

711.2

2.76%

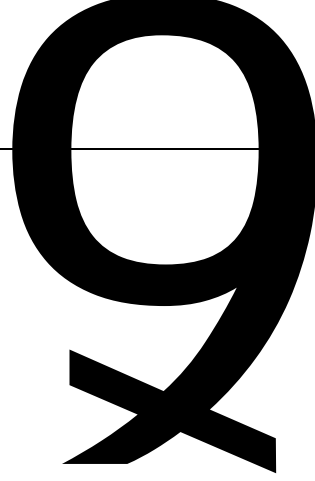
9.1-1

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		COD BOD SS	/	0			GB/T18920-2020
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			/	0			
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			/	0			GB16889-2008 2
			/	/			
			/	/			GB16297-1996 1.0mg/m ³
			/	0.162095			
			/	0.0131875		)	GB14554-93
			/	/			1
			1.1	0.006446		1 60%	GB18483-2001

HJ

819-2017

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HJ1106-2020

GB16889-2008

GB/T18772-2017

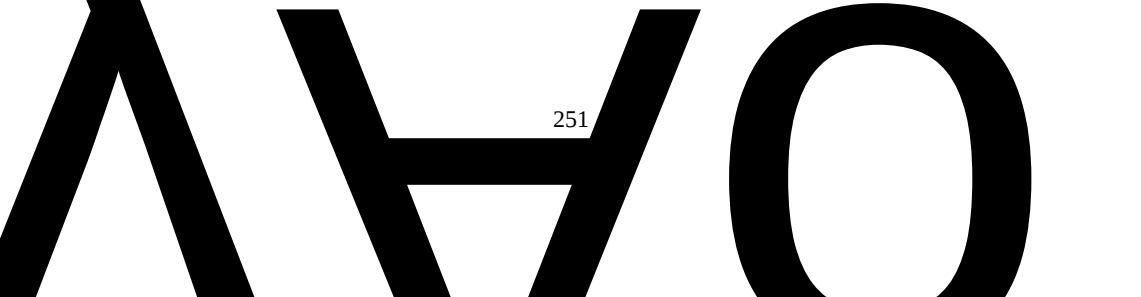
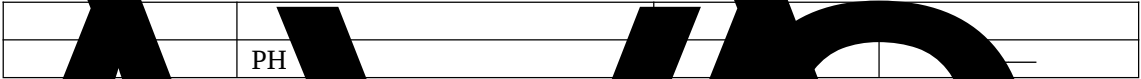
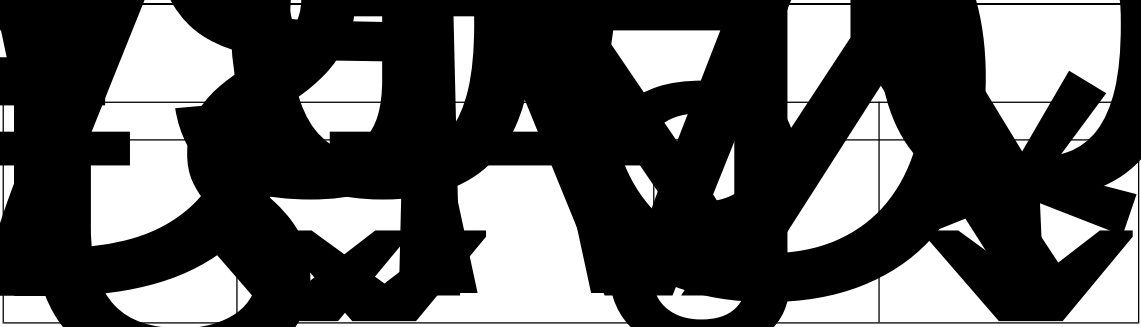
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		1 3 ≥ 10% 1882 • D			GB14554-93 1
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				1	(GB16889-2008)

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GB12349-90

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GB16889-2008 2

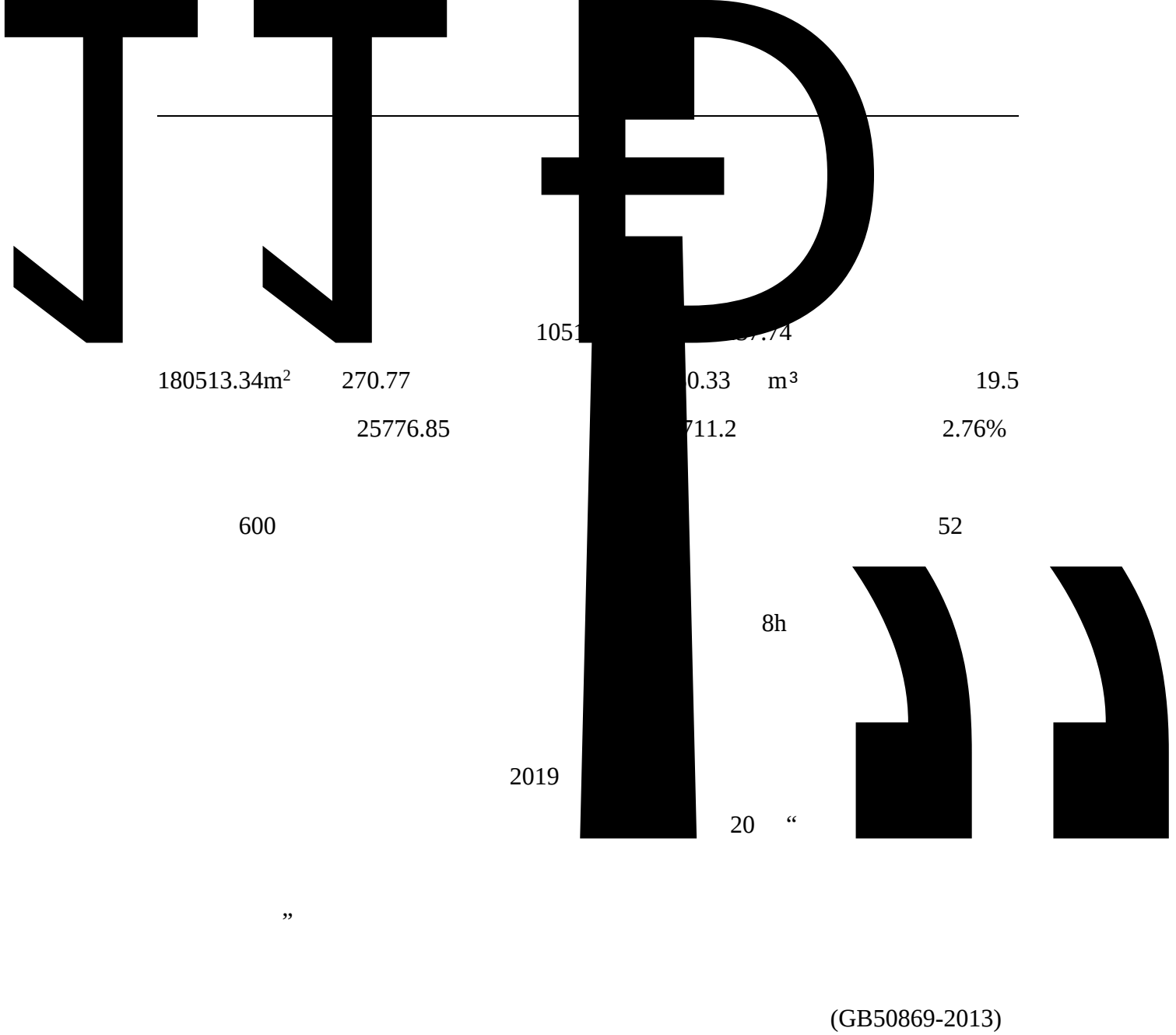
118.15 m³

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GB36600-2018

GB36600-2018

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GB14554-93 1

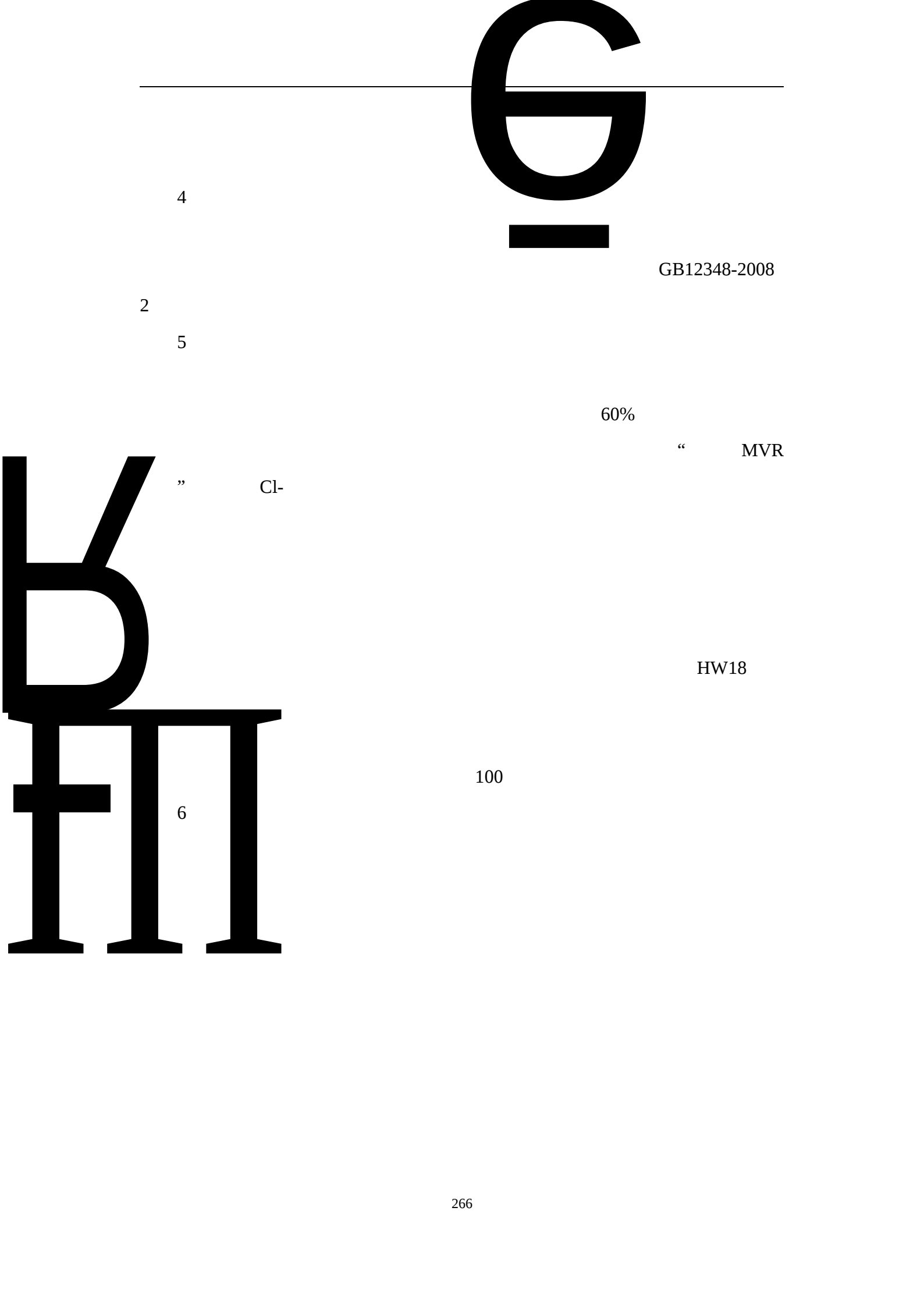
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