
500

1		1
2		2
2.1		2
2.2		2
2.3		2
3		3
3.1		3
3.2		5
3.3		7
3.4		9
4		10
4.1		10
4.2		12
4.3		13
4.4	“ ”	14
5		18
5.1		18
5.2		19
6		22
6.1		22
6.2		III =

1

3

2009

2010 3 30

144

120

“

861 ”

“

”

1986

2016

2017 7

2018 9

2016

11 21

ñ

2016 80 ò

2017)4

2019 3

2.1

2015	1	1
------	---	---

2016 9 1

2016	1	1
------	---	---

(5) 1997 3

(6)	682	2017	10	1
-----	-----	------	----	---

(7)

2017)4 2017 11 20

(8)

[2018]26 2018.3.2

(9)

2015 113 2015 12 30

2.2

1

[2018]9 2018.5.15

2.3

1

2016.9

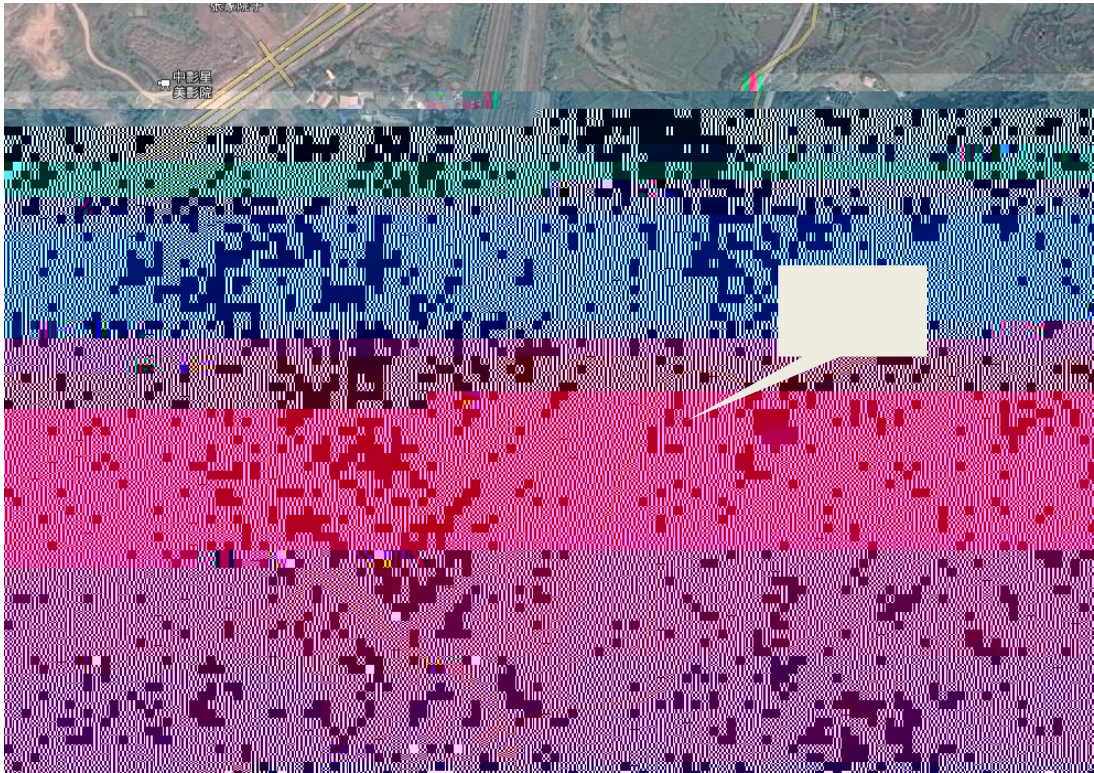
2

2016 80 2016.11.21

3

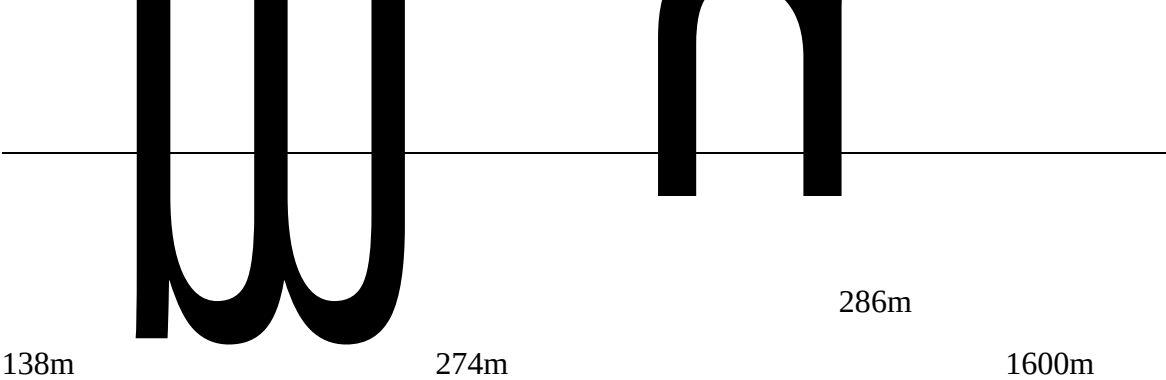
3.1

3



3

30km,
2.0km 0.8km 410m
460m 630m
50m
100m 102m
 214m 323m
 319m 320m
50 350m
195m



160m 450m

1 13.5 × 300m

26

52

2 3000m³

92#

1 2000m³

95#

3 5000m³

0#

1 5000m³

1 2000m³

3.0 m³

5

6

150m²

0.15m

22710m²

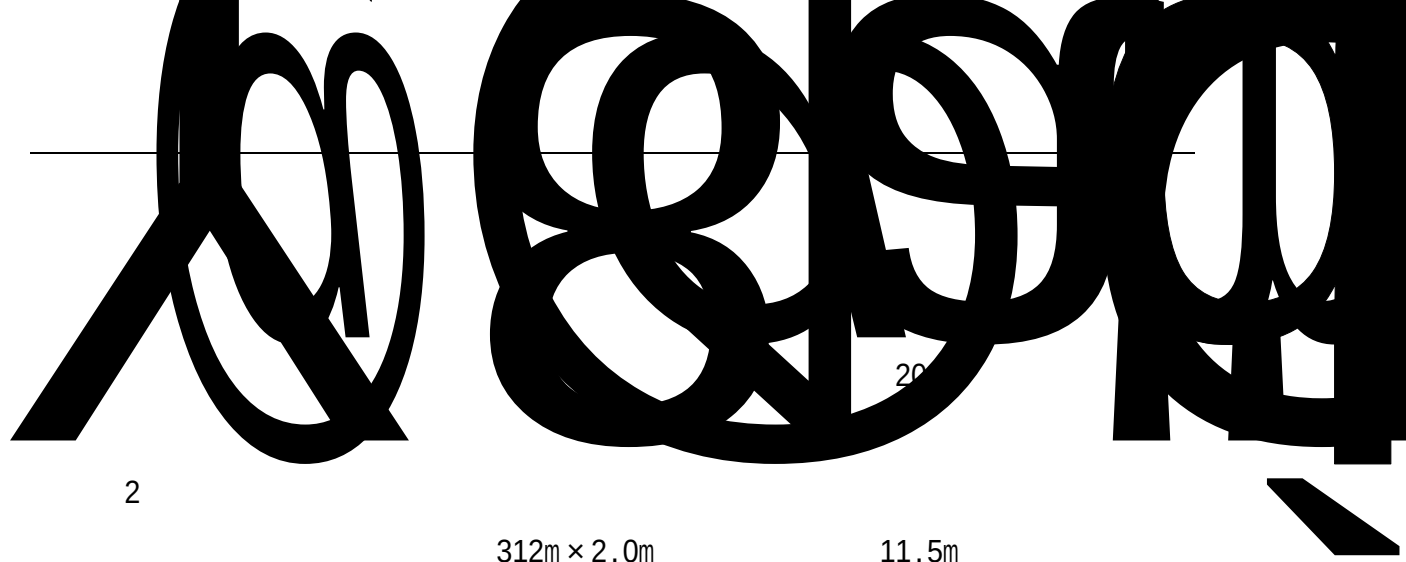
100m

um

1		4 2 2	5000m ³ D 19.5m h 17.84m 3000m ³ D 17.00m h 15.84m 2000m ³ D 14.5m h 13.86m	8
2			100GY25B	18
3			150GY40	4
4			PU-001A-C	4
5			1000m ³	2
6			560KW	1
7			500kVA	1
8				1
9				1
10				1
11			DN100 ,85m ³ /h	8

3-2

	3		$0.8 \times 10^4 \text{ m}^3$	92#	2
3000m ³	95#	1	2000m ³		
0#		3	5000m ³		$1.5 \times 10^4 \text{ m}^3$
	1	5000			$0.5 \times 10^4 \text{ m}^3$
	1	2000m ³			$0.2 \times 10^4 \text{ m}^3$
			1		
		111m	70m	1.0m	
7770m ³					
				1064.53m	
	3		200m		
450m					
		450m		1	
300m × 6.0m				3.7m	
	26				52
	DN100				
DN250		3			



2

312m × 2.0m

11.5m

26

DN100

DN250

4

92#

95#

1

4

1

1

1

1

30m3

2

2

1

→

→

→

→

3

→

→

→

→

→

→

2

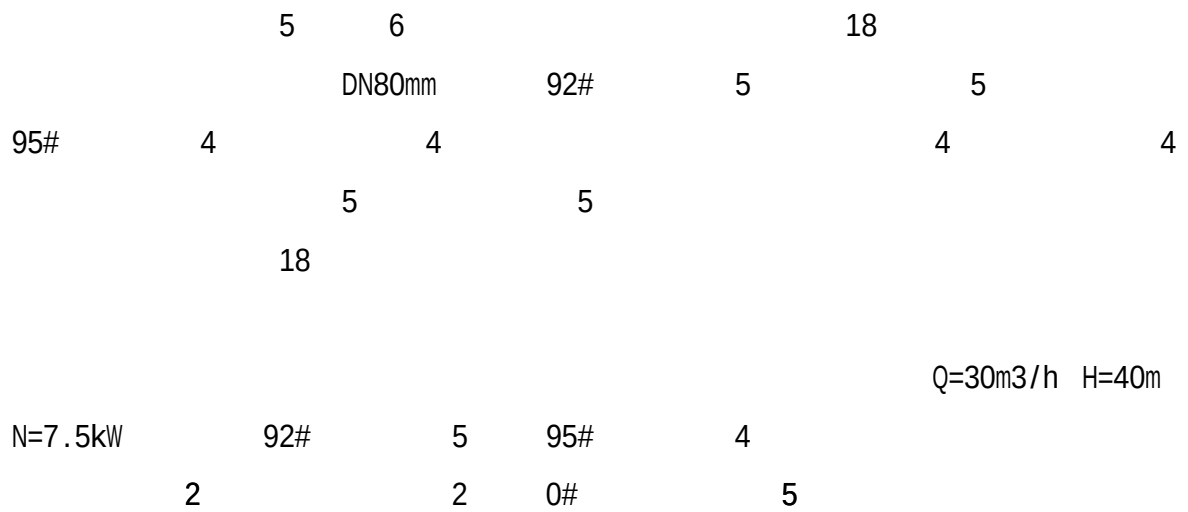
92# 95#

0#

3-3

		m ³		m ³	
1	92#	6000	2	2 × 3000	Φ 17m, H15.84m
2	95#	2000	1	1 × 2000	Φ 14.5m, H13.86m
3	0#	50000	3	3 × 5000	Φ 19.5m, H17.84m
4		5000	1	1 × 5000	Φ 19.5m, H17.84m
5		2000	1	1 × 2000	Φ 14.5m, H13.86m

3



4

4.1

4.1.1

160m

160m

30

30

30~60m

30m

30m

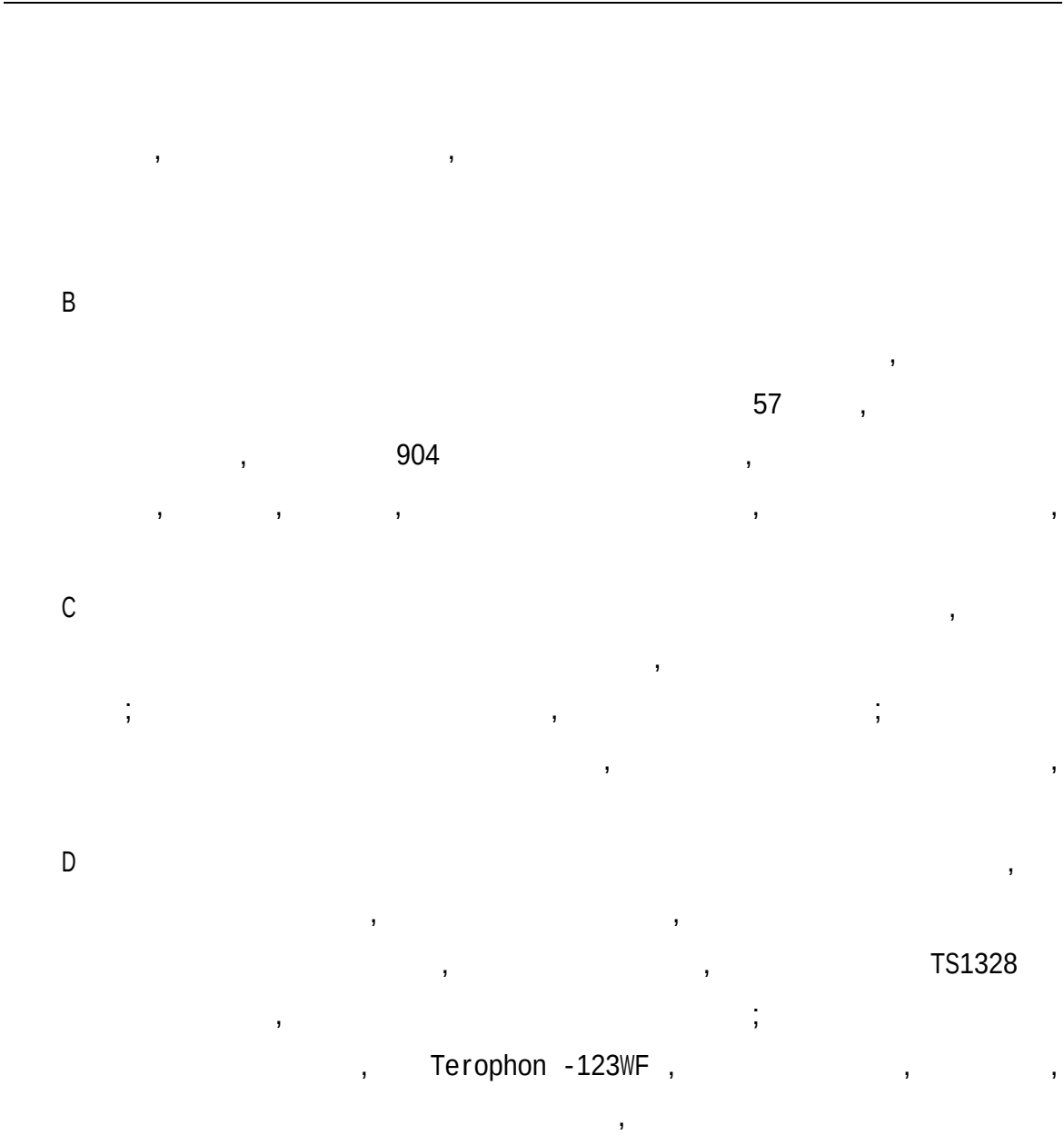
200m

A

,

,

:



4.1.2

4.1.3

2014 11 18

“ ” /

80/80dB

4.2

4.3

1

	10g/m ³	30m ³ /h	
Q/SH0117-2007		180m ³ /h	1.0
	180m ³ /h		200m ³ /h
5.8	m ³	365	1
	1.0t/a		5m
			200m ³ /h
	≥ 95	≥ 98	

2

1.5%

“ ”

“ ”

90%

4.4

“ ”

10850.12

1232

11.35

1232

11.35

4-1

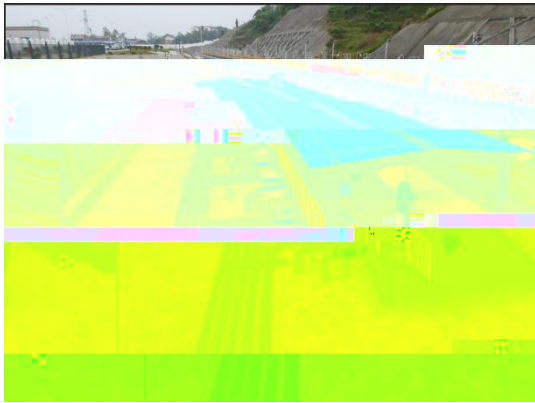
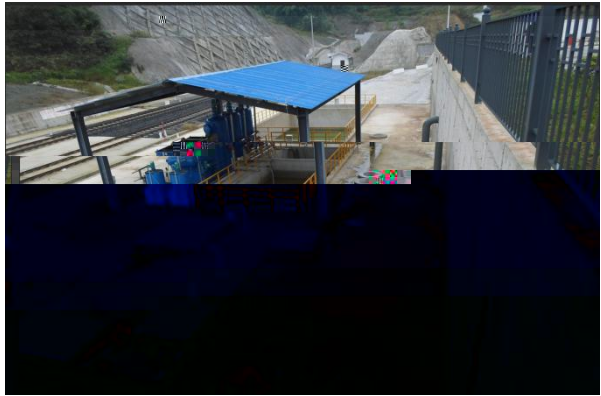
50.00

50m3

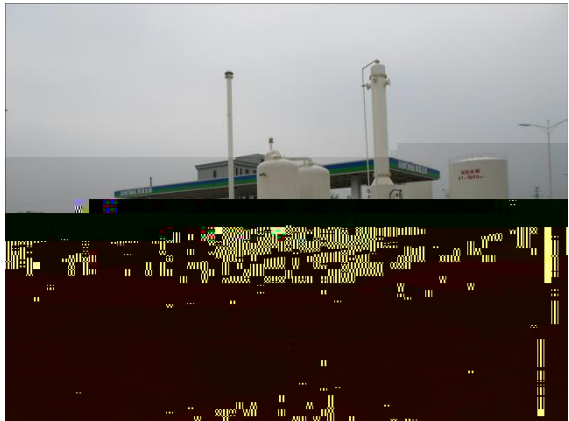
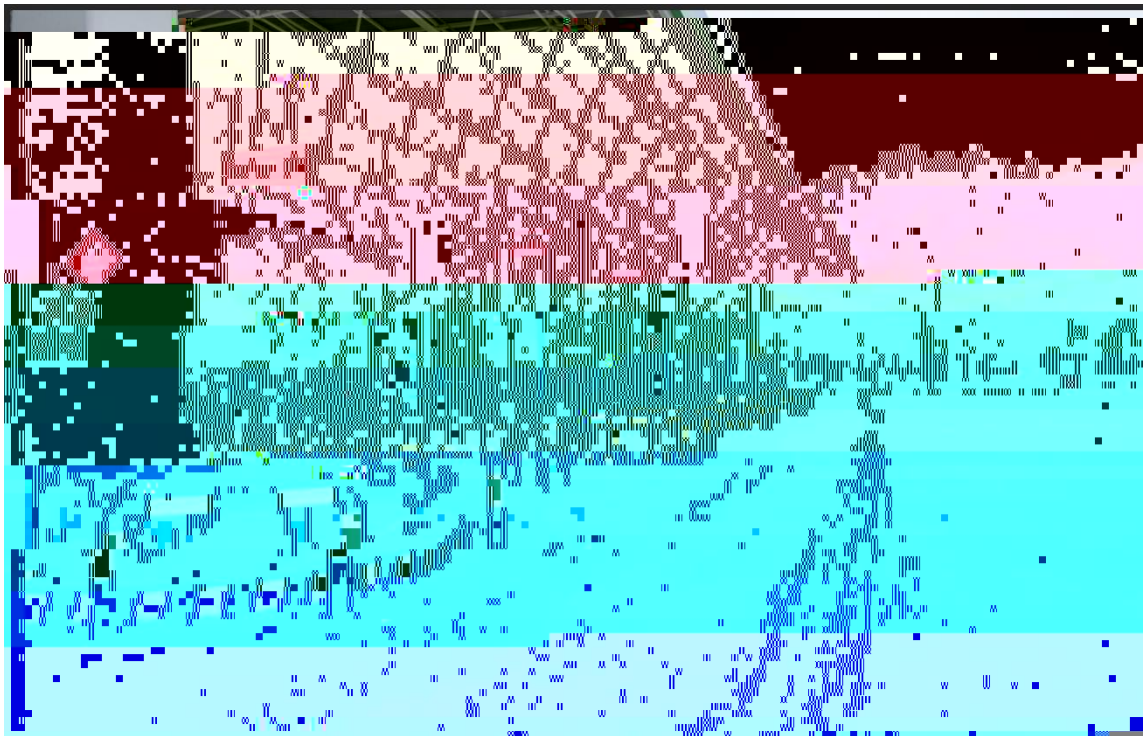
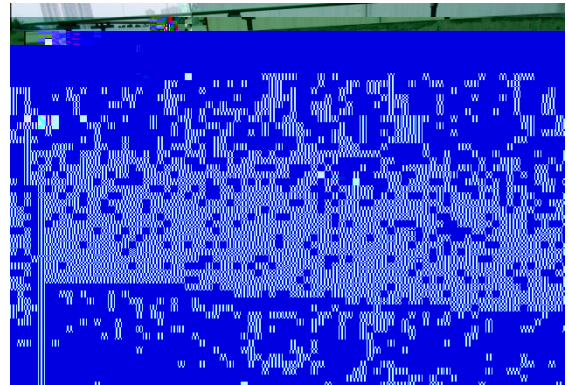
62.00

90%

200.00



100



5

5.1

1

—

97 Q7

Q7 37

Q8 402.11m 20 Q1 365.88m

328.33 330.12m

Q8 Q1 132

20

3

30km/h 220m

GB3096-2008 3

(GB12348-2008)3 [

<65dB(A) <55dB(A)]

5.2

2016 11 21 2016 80

3 235

3 m³ 2 3000m³ 1 2000m³ 0.8 m³ 3

5000m³ 1.5 m³ 1 0.5 m³ 1

0.2 m³ 20

1064.5 3

200

2

450

10850.12

1232

11.35%

5

7

2016.11.21

6

6.1

GB12348-2008 3

30m

GB12525-90

7

1

pH
pH

pH

A Leq(dB(A))

2

7-1		
	3#	2 4
	4#	

7-2		
	1# 1	2 1
	2# 1	
	3# 1	
	4# 1	

7-3

8

8.1

1

2

3

,

4

2

0.5dB

5m/s

GB12348 2008

8.2

1

2

3

4

5

6

7

8.3

8-1

9

9.1

0.2 m³ 3.0 m³ 0.8 m³ 1.5 m³ 0.5 m³
20 /

75%
30000m³ 8 5000m³ 4 3000m³
2 2000 2
2019 3 4 5

9-1

9-1

		/	/	%
2019 3 4		555	176	32
2019 3 5		555	82.3	14.8

9.2

2019 3 4 5 5m/s

9-2

dB(A)

		2019.3.04		2019.3.05	
1#	1	55.7	44.4	55.9	44.7
2#	1	57.7	45.6	57.7	45.7
3#	1	54.5	44.4	55.5	44.5
4#	1	53.1	43.6	52.4	43.5

9.3

9-3

mg/L

	2019.3.04				2019.3.05			
	3#							
	JY20190304 -03W03(1)	JY20190304 -03W03(2)	JY20190304 -03W03(3)	JY20190304 -03W03(4)	JY20190304 -03W03(5)	JY20190304 -03W03(6)	JY20190304 -03W03(7)	JY20190304 -03W03(8)
pH	7.17	7.24	7.26	7.19	7.21	7.25	7.20	7.24
	31	27	30	28	32	30	27	29
	235	237	231	230	229	232	240	228
	4#							
	JY20190304 -03W04(1)	JY20190304 -03W04(2)	JY20190304 -03W04(3)	JY20190304 -03W04(4)	JY20190304 -03W04(5)	JY20190304 -03W04(6)	JY20190304 -03W04(7)	JY20190304 -03W04(8)
pH	7.46	7.49	7.55	7.48	7.51	7.47	7.53	7.50
	36	39	32	37	34	35	37	38
	255	257	254	259	260	251	253	250
	62	66	56	61	64	62	58	60
	96.7	98.2	99.2	95.2	97.2	94.2	96.2	100

9-4

mg/L

	1#		2#	
	2019.3.04		2019.3.05	
	2019.3.04		2019.3.04	
	JY20190304-03W01(1)	JY20190304-03W01(2)	JY20190304-03W02(1)	JY20190304-03W02(2)
pH	7.66	7.61	7.92	7.89
	26	29	24	26
	0.06	0.05	0.04	0.03

GB14848-2017

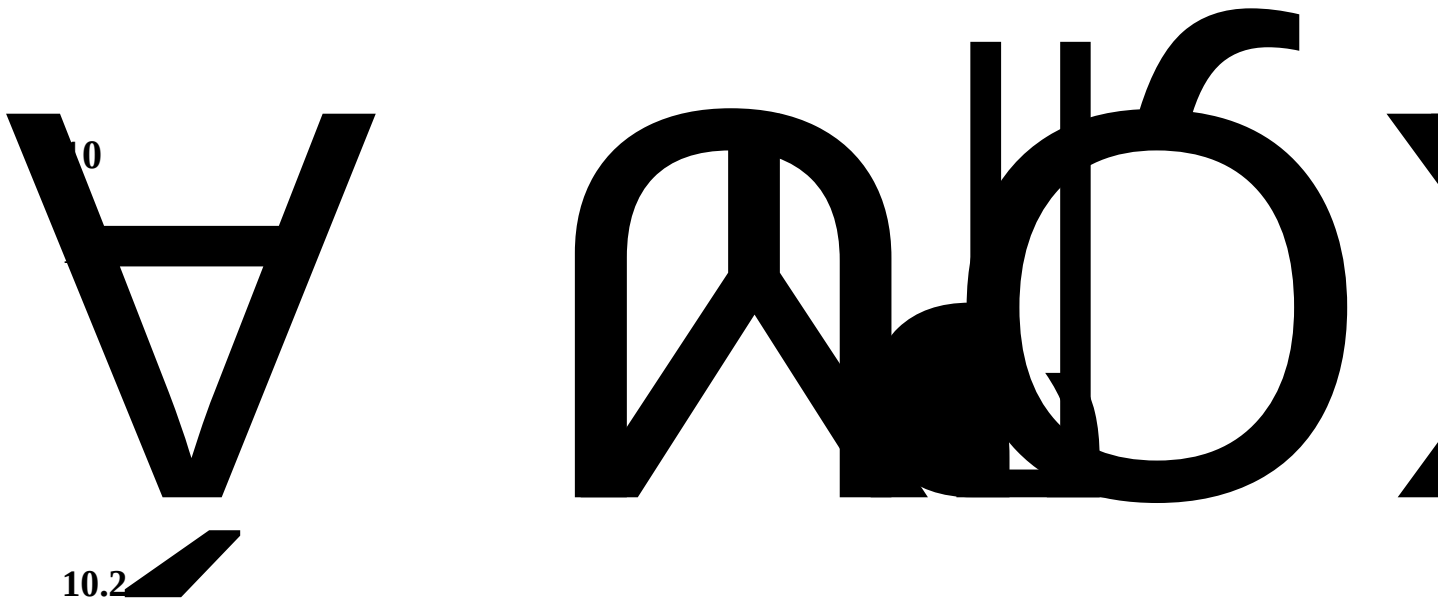
9.4

9-5

mg/m³

	2019.3.04				2019.3.05			
	1#				5m			
	JY20190304 -03Q01(1)	JY20190304 -03Q01(2)	JY20190304 -03Q01(3)	JY20190304 -03Q01(4)	JY20190304 -03Q01(5)	JY20190304 -03Q01(6)	JY20190304 -03Q01(7)	JY20190304 -03Q01(8)
	0.91	1.04	1.00	1.01	0.93	0.99	1.05	1.06
	2#				5m			
	JY20190304 -03Q02(1)	JY20190304 -03Q02(2)	JY20190304 -03Q02(3)	JY20190304 -03Q02(4)	JY20190304 -03Q02(5)	JY20190304 -03Q02(6)	JY20190304 -03Q02(7)	JY20190304 -03Q02(8)
	0.96	1.02	1.11	0.98	1.06	1.09	1.08	1.10
	3#				5m			
	JY20190304 -03Q03(1)	JY20190304 -03Q03(2)	JY20190304 -03Q03(3)	JY20190304 -03Q03(4)	JY20190304 -03Q03(5)	JY20190304 -03Q03(6)	JY20190304 -03Q03(7)	JY20190304 -03Q03(8)
	1.04	1.06	1.13	1.03	1.03	1.06	1.04	1.04

GB16297-1996



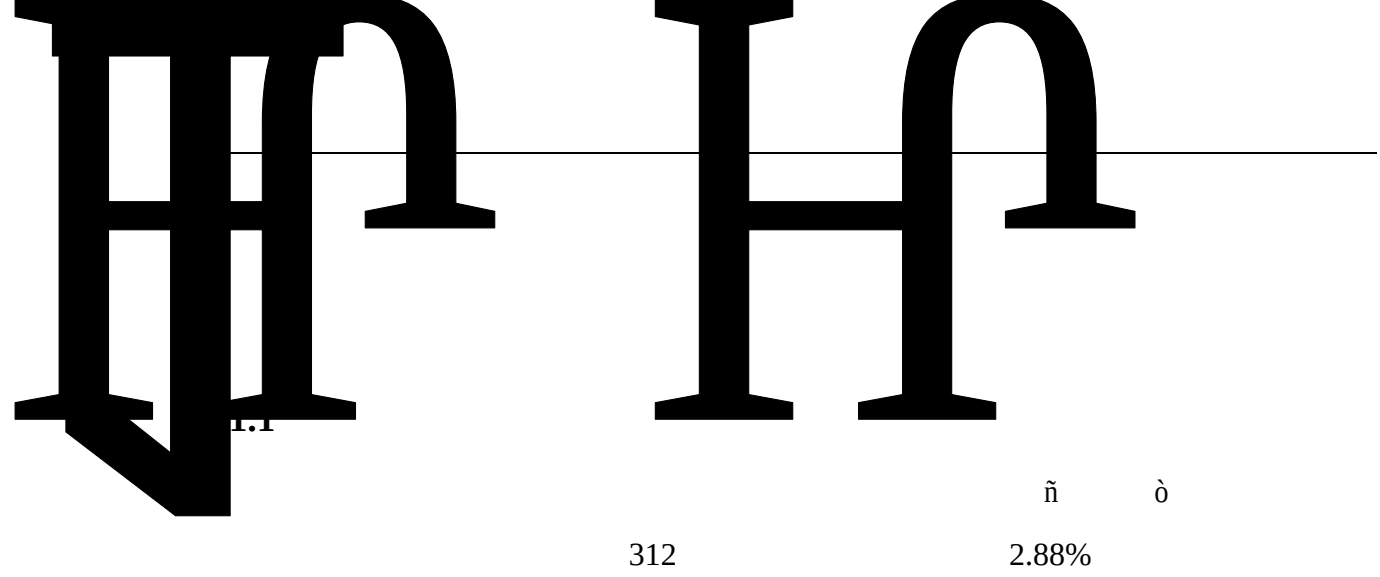
10.2

10.3

10-1

10-1

22:00-6:00
12:00-14:00



GB12348-2008 3

8

9 “ HSE ”

“ ”

/

■ □ □ /
3.0 m3 0.8 m3
1.5 m3 0.5 m3 0.2 m3
20 /

/

/

/

/

/

10850.12