





“ ”

“ + ”

58

6100 18279.67m<sup>2</sup> 27.42 11126.11m<sup>2</sup>

1300

3000

2021 5 28

2105-450109-04-01-581249 2

682

2018 12 29

2021

“ 13 18 135 ‘

10 1 15 1000 ”

2021 6 21

1

108.82858,22.62584

”

15m

0.035%

2017 10 1 2017 HJ 2.1-2016

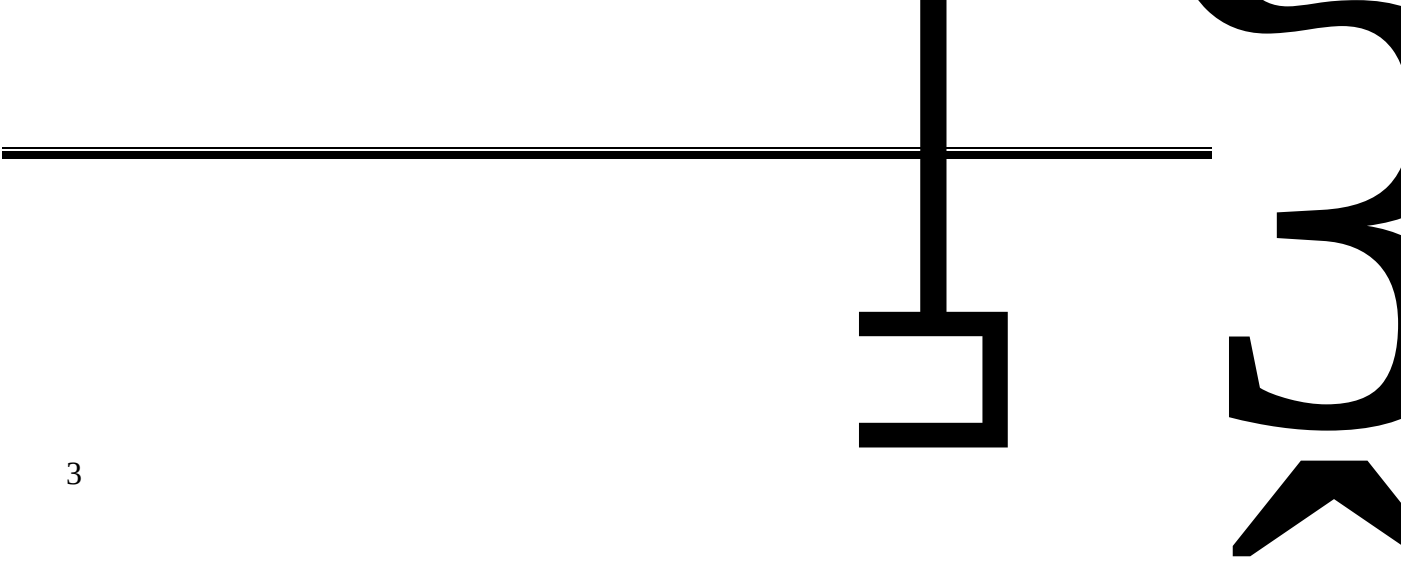
HJ 2.1-2016

2021 6 21  
2021 7 1 ~7 7

1 2019  
“ ” 26 “ ”

2  
1

[2020]42



3

7

3.8km

2010 12 22

4 “ ”

---

“ ”

5

1

2

3

4

5

---

---



---

---

|     |       |    |
|-----|-------|----|
| 1   | ..... | 1  |
| 1.1 | ..... | 1  |
| 1.2 | ..... | 5  |
| 1.3 | ..... | 7  |
| 1.4 | ..... | 13 |
| 1.5 | ..... | 21 |
| 2   |       |    |

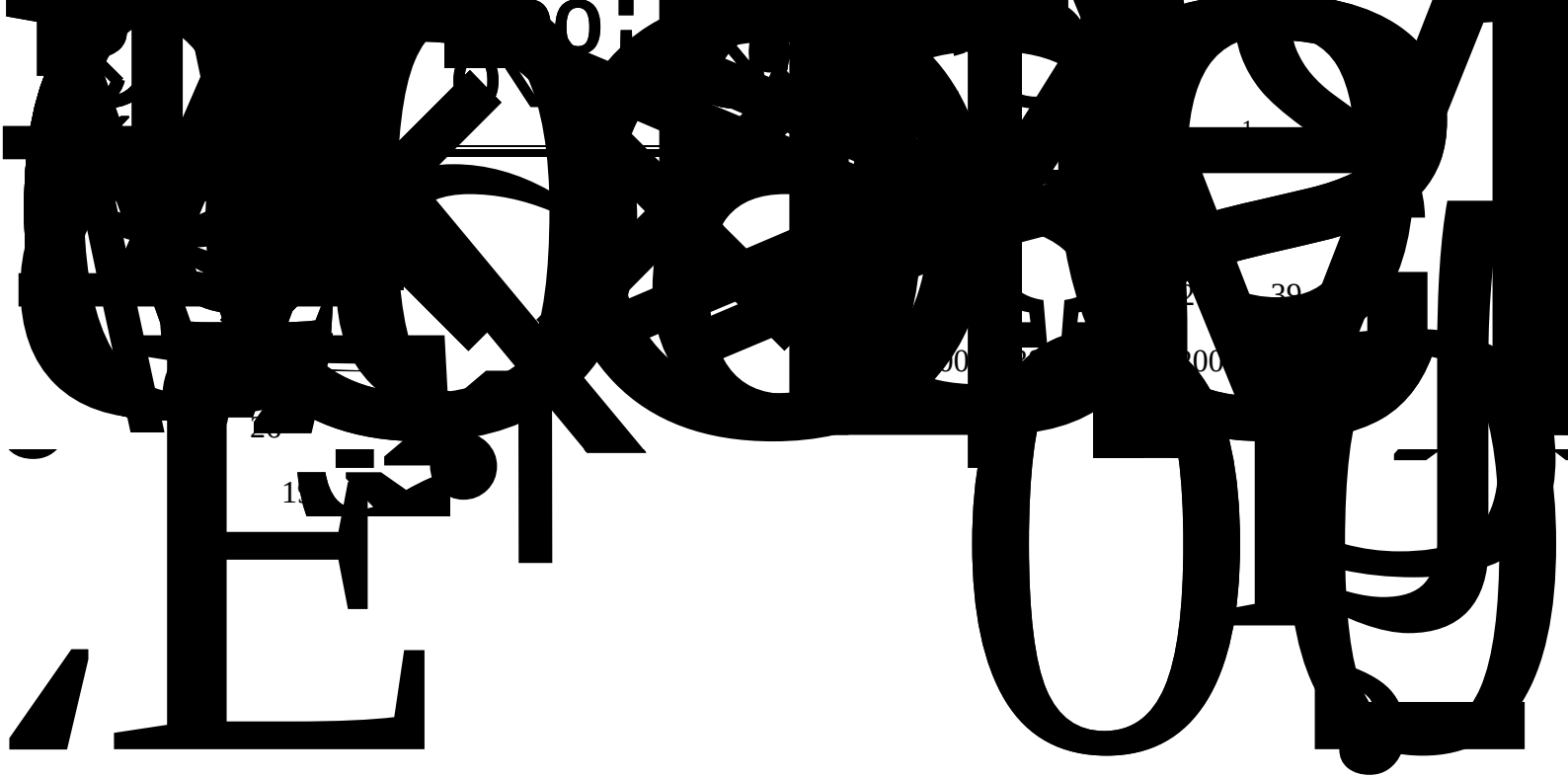
---

---

|      |       |     |
|------|-------|-----|
| 6.4  | ..... | 133 |
| 6.5  | ..... | 134 |
| 7    | ..... | 135 |
| 7.1  | ..... | 135 |
| 7.2  | ..... | 139 |
| 7.3  | ..... | 141 |
| 7.4  | ..... | 146 |
| 7.5  | ..... | 148 |
| 8    | ..... | 149 |
| 8.1  | ..... | 149 |
| 8.2  | ..... | 149 |
| 8.3  | ..... | 150 |
| 8.4  | ..... | 152 |
| 8.5  | ..... | 155 |
| 8.6  | ..... | 155 |
| 8.7  | ..... |     |
| 8.8  | ..... | 156 |
| 8.9  | ..... | 156 |
| 8.10 | ..... | 156 |

|    |    |      |      |      |      |    |      |      |
|----|----|------|------|------|------|----|------|------|
| 1  |    | 2014 |      | 2015 | 1    | 1  |      |      |
| 2  |    |      | 2018 | 12   | 29   |    | 2018 | 12   |
| 29 |    |      |      |      |      |    |      |      |
| 3  |    |      | 2017 | 6    | 27   |    | 2018 | 1 1  |
| 4  |    |      |      |      |      |    |      |      |
|    |    |      | 2018 | 10   | 26   |    | 2018 | 10   |
| 26 |    |      |      |      |      |    |      |      |
| 5  |    |      |      |      | 2020 | 4  | 29   | 2020 |
| 9  | 1  |      |      |      |      |    |      |      |
| 6  |    |      |      | 2018 | 12   | 29 |      | 2018 |
| 12 | 29 |      |      |      |      |    |      |      |
| 7  |    |      | 2010 | 12   | 25   |    | 2011 | 3 1  |
| 8  |    | 2016 | 7    |      |      |    |      |      |
| 9  |    |      | 2019 | 8    | 26   |    | 2020 | 1 1  |
| 10 |    |      |      |      |      |    |      |      |
|    |    |      | 2016 | 5    | 16   |    | 2016 | 7    |
| 1  |    |      |      |      |      |    |      |      |
| 11 |    |      | 2018 | 1    | 1    |    |      |      |
| 12 |    |      | 2007 | 10   | 28   |    | 2008 | 4 1  |
| 13 |    |      |      |      |      |    |      |      |
|    |    |      | 2011 | 2    | 16   |    | 2011 | 12 1 |

|    |      |     |   |      |    |      |      |      |
|----|------|-----|---|------|----|------|------|------|
| 14 |      |     |   | 2021 | 5  | 1    |      |      |
| 15 |      |     |   | 2015 | 4  | 24   |      |      |
| 16 |      |     |   | 2012 | 12 | 28   |      |      |
| 17 |      |     |   | 2013 | 6  | 29   |      |      |
| 1  |      |     |   | 2017 |    | 2017 | 10   | 1    |
| 2  |      |     |   | 2021 |    |      |      |      |
| 16 | 2021 | 1   | 1 |      |    |      |      |      |
| 3  |      |     |   | 2019 | 1  | 1    |      |      |
| 4  |      |     |   | 2015 | 6  | 5    |      |      |
| 5  |      |     |   |      |    |      | 2012 | 98   |
| 6  |      |     |   |      |    |      | 2014 | 56   |
| 7  |      |     |   |      |    |      | 2011 | 35   |
| 8  |      |     |   |      |    |      |      | 2012 |
| 77 |      |     |   |      |    |      |      |      |
| 9  |      |     |   | 2021 |    |      |      |      |
|    |      |     |   |      | 15 | 2021 | 1    | 1    |
| 10 |      |     |   |      |    |      |      |      |
|    | 2016 | 150 |   |      |    |      |      |      |
| 11 |      |     |   |      |    |      |      |      |



7

2012 103

8

&lt;

&gt;

2016 19

9

&lt;

2019

&gt;

16



1.2 -1

|  |  |  |  | √ |   |   | √ |  | √ |
|--|--|--|--|---|---|---|---|--|---|
|  |  |  |  | √ |   |   | √ |  | √ |
|  |  |  |  | √ |   |   | √ |  | √ |
|  |  |  |  | √ |   |   | √ |  | √ |
|  |  |  |  |   | √ | √ |   |  | √ |
|  |  |  |  | √ |   | √ |   |  | √ |
|  |  |  |  | √ |   | √ |   |  | √ |
|  |  |  |  | √ |   | √ |   |  | √ |
|  |  |  |  | √ |   | √ |   |  | √ |

1.2-2

|  |                  |                 |                  |                  |                               |                               |                 |                        |                  |                  |
|--|------------------|-----------------|------------------|------------------|-------------------------------|-------------------------------|-----------------|------------------------|------------------|------------------|
|  |                  |                 |                  |                  |                               |                               |                 |                        |                  |                  |
|  | pH               |                 |                  |                  |                               |                               |                 |                        |                  |                  |
|  | 13               |                 |                  |                  |                               |                               |                 |                        |                  |                  |
|  | K <sup>+</sup>   | Na <sup>+</sup> | Ca <sup>2+</sup> | Mg <sup>2+</sup> | CO <sub>3</sub> <sup>2-</sup> | HCO <sub>3</sub> <sup>-</sup> | Cl <sup>-</sup> | COD NH <sub>3</sub> -N |                  |                  |
|  | pH               |                 |                  |                  |                               |                               |                 | 20                     |                  |                  |
|  | O <sub>3</sub>   | SO <sub>2</sub> | NO <sub>2</sub>  | PM <sub>10</sub> | PM <sub>2.5</sub>             | CO                            | TSP             | NH <sub>3</sub>        | H <sub>2</sub> S | PM <sub>10</sub> |
|  | L <sub>Aeq</sub> |                 |                  |                  |                               |                               |                 | L <sub>Aeq</sub>       |                  |                  |



2-1-18   2010 2008 ———— “2-1”  
”  
2-1

1.3-1

1.3-1

|   |    |                      |
|---|----|----------------------|
|   |    |                      |
| 1 |    | “2-1                 |
| 2 |    | GB3095-2012 2018 9 1 |
| 3 |    | GB3838-2002          |
| 4 |    | GB/T14848-2017       |
| 5 |    | GB3096-2008 3        |
|   | 4a |                      |
| 6 |    |                      |
| 7 |    |                      |
| 8 |    |                      |
| 9 |    |                      |

1

GB 3095-2012 2018

NH<sub>3</sub> H<sub>2</sub>S

-

HJ 2.2-2018

1.3-2

|   |                   |    |                       |                             |
|---|-------------------|----|-----------------------|-----------------------------|
|   |                   |    |                       |                             |
| 1 | SO <sub>2</sub>   |    | 60μg/m <sup>3</sup>   | 3095-2012      2018      GB |
|   |                   | 24 | 150μg/m <sup>3</sup>  |                             |
|   |                   | 1  | 500μg/m <sup>3</sup>  |                             |
| 2 | NO <sub>2</sub>   |    | 40μg/m <sup>3</sup>   |                             |
|   |                   | 24 | 80μg/m <sup>3</sup>   |                             |
|   |                   | 1  | 200μg/m <sup>3</sup>  |                             |
| 3 | TSP               |    | 200μg/m <sup>3</sup>  |                             |
|   |                   | 24 | 300μg/m <sup>3</sup>  |                             |
| 4 | PM <sub>10</sub>  |    | 70μg/m <sup>3</sup>   |                             |
|   |                   | 24 | 150μg/m <sup>3</sup>  |                             |
| 5 | PM <sub>2.5</sub> |    | 35μg/m <sup>3</sup>   |                             |
|   |                   | 24 | 75μg/m <sup>3</sup>   |                             |
| 6 | O <sub>3</sub>    | 8  | 160μg/m <sup>3</sup>  |                             |
|   |                   | 24 | 200μg/m <sup>3</sup>  |                             |
| 7 | CO                | 24 | 4mg/m <sup>3</sup>    |                             |
|   |                   | 1  | 10mg/m <sup>3</sup>   |                             |
| 8 | NH <sub>3</sub>   |    | 0.2mg/m <sup>3</sup>  | HJ 2.2-2018      -      D   |
| 9 | H <sub>2</sub> S  |    | 0.01mg/m <sup>3</sup> |                             |

2

GB 3838-2002

1.3-3

1.3-3

mg/L

|   |    |     |    |
|---|----|-----|----|
| 1 |    | ≤1  | ≤2 |
| 2 | pH | 6   | 9  |
| 3 |    | ≥2  |    |
| 4 |    | ≤15 |    |

|    |    |              |
|----|----|--------------|
|    |    |              |
| 11 |    | $\leq 1.0$   |
| 12 | /L | $\leq 40000$ |

3

GB/T14848-2017

1.3-4

1.3-4

mg/L pH

|    |                    |                               |    |                  |                    |
|----|--------------------|-------------------------------|----|------------------|--------------------|
|    |                    |                               |    |                  |                    |
| 1  | pH                 | $6.5 \leq \text{pH} \leq 8.5$ | 11 | $\text{HCO}_3^-$ | /                  |
| 2  |                    | $\leq 450$                    | 12 |                  | $\leq 0.005$       |
| 3  |                    | $\leq 3$                      | 13 |                  | $\leq 1.0$         |
| 4  |                    | $\leq 0.50$                   | 14 |                  | /                  |
| 5  |                    | $\leq 250$                    | 15 |                  | $\leq 200$         |
| 6  |                    | $\leq 20.0$                   | 16 |                  | /                  |
| 7  |                    | $\leq 1.00$                   | 17 |                  | /                  |
| 8  | Cr                 | $\leq 0.05$                   | 18 | Fe               | $\leq 0.3$         |
| 9  | $\text{Cl}^-$      | $\leq 250$                    | 19 | Mn               | $\leq 1.0$         |
| 10 | $\text{CO}_3^{2-}$ | /                             | 20 |                  | $\leq 3$ MPN/100ml |

4

GB 3096-2008 2 3 4a

GB3096-2008 3

4a

GB3096-2008 2

1.3-5

1.3-5

(GB 3096-2008)

dB A

|    |    |    |
|----|----|----|
|    |    |    |
| 2  | 60 | 50 |
| 3  | 65 | 55 |
| 4a | 70 | 60 |

1

GB16297-1996 2

## 1.3-6

1.3-6

2

mg/m<sup>3</sup>

|   |  |  |      |
|---|--|--|------|
|   |  |  |      |
| 1 |  |  | 0.40 |
| 2 |  |  | 0.12 |
| 3 |  |  | 1.0  |

GB13271-2014

2

8m

GB14554-93

1

2

GB18483-2001

2

1.3-7

2

mg/m<sup>3</sup>

|   |  |     |  |
|---|--|-----|--|
|   |  |     |  |
| 1 |  | 50  |  |
| 2 |  | 200 |  |
| 3 |  | 20  |  |

## 1.3-8

|   |     |     |           |                        |
|---|-----|-----|-----------|------------------------|
|   |     |     |           |                        |
| 1 |     | 15m | 4.9 kg/h  | 1.5 mg/m <sup>3</sup>  |
| 2 |     |     | 0.33 kg/h | 0.06 mg/m <sup>3</sup> |
| 3 | ( ) |     | /         | 20                     |

1.3-9

( )

|                   |     |    |    |
|-------------------|-----|----|----|
|                   |     |    |    |
| mg/m <sup>3</sup> | 2.0 |    |    |
| %                 | 60  | 75 | 85 |

2

GB13457-92

3

## 1.3-10

## 1.3-10

| 1 |                   | 300     | 5.4 | 150 | 150 |
|---|-------------------|---------|-----|-----|-----|
| 2 | BOD <sub>5</sub>  | 250     | 4.5 | 110 | 110 |
| 3 | COD <sub>Cr</sub> | 500     | 9.0 | 250 | 250 |
| 4 |                   | 50      | 0.9 | —   | 50  |
| 5 |                   | —       | —   | 30  | 30  |
| 6 |                   | —       | —   | 35  | 35  |
| 7 |                   | —       | —   | 3   | 3   |
| 8 | pH                | 6.0~8.8 |     | /   | —   |
| 9 | m <sup>3</sup> /t | 18.0    |     | —   | —   |

3

GB 12523-2011

1.3-11

1.3-11

Leq[dB(A)]

|  |    |    |
|--|----|----|
|  |    |    |
|  | 70 | 55 |

GB 12348-2008 3

GB 12348-2008 4

13-12

1.3-12

dB A

|  |    |    |   |
|--|----|----|---|
|  |    |    |   |
|  | 65 | 55 | 3 |
|  | 70 | 55 | 4 |

4

GB

18599-2020

GB 18597-2001

[2013]36

(HJ2.2-2018) 5.3

A

AERSCREEN

1  $P_{\max}$   $D_{10\%}$ 

(HJ2.2-2018)

P

$$P_i = \frac{C_i}{C_{0i}} \times 100\%$$

 $C_i$  ———  $i$ 

%

 $C_i$  ——— $i$ 

1h

 $\mu\text{g}/\text{m}^3$  $C_{0i}$  ———  $i$  $\mu\text{g}/\text{m}^3$   $C_{0i}$ 

GB3095-2012 1

 $\text{SO}_2$   $\text{NO}_2$ 

GB3095-2012 1

 $\text{PM}_{10}$ 

GB3095-2012

 $\text{NH}_3$   $\text{H}_2\text{S}$ 

HJ2.2-2018

D

2

1.4-1

 $P_{\max}$  10%

|  |         |
|--|---------|
|  | Pmax<1% |
|--|---------|

2

1.4-2



4

1.4-5

1.4-5

|   |     |        |
|---|-----|--------|
|   |     |        |
| / | /   |        |
|   | ( ) | /      |
|   |     | 40.4°C |
|   |     | -2.1°C |
|   |     |        |
|   |     |        |
|   | (m) | 90     |
|   | /km | /      |
|   | /°  | /      |
|   |     |        |

6

P<sub>max</sub> D<sub>10%</sub>1.4-6 P<sub>max</sub> D<sub>10%</sub>

|    |                  |     |  |        |        |   |
|----|------------------|-----|--|--------|--------|---|
|    |                  |     |  |        |        |   |
| 1# | SO <sub>2</sub>  | 500 |  | 0.0003 | 0.0001 | / |
|    | NO <sub>2</sub>  | 200 |  | 6.6810 | 3.34   | / |
|    |                  | 450 |  | 1.0279 | 0.23   | / |
| 2# | NH <sub>3</sub>  | 200 |  | 0.4471 | 0.22   | / |
|    | H <sub>2</sub> S | 10  |  | 0.0033 | 0.03   | / |
| 3# | NH <sub>3</sub>  | 200 |  | 1.4028 | 0.70   | / |
|    | H <sub>2</sub> S | 10  |  | 0.0533 | 0.53   | / |
|    | NH <sub>3</sub>  | 200 |  | 2.0664 | 1.03   | / |
|    | H <sub>2</sub> S | 10  |  | 0.0209 | 0.21   | / |
|    | NH <sub>3</sub>  | 200 |  |        |        | / |
|    | H <sub>2</sub> S | 10  |  | 0.2953 | 2.95   | / |

P<sub>max</sub>NH<sub>3</sub> P<sub>max</sub>



|  |   |
|--|---|
|  |   |
|  | a |
|  |   |

a“ ”

1.7-9

HJ 610-2016 A “N ” “98 ” “ 10  
100 ”

1.5-9



2

5dB

200m

HJ 964

2018

A

18279.67m<sup>2</sup>

2km<sup>2</sup>

HJ19-2011

1.5-10

|  |                                        |  |  |
|--|----------------------------------------|--|--|
|  |                                        |  |  |
|  | $\leq 2\text{km}^2$<br>50km            |  |  |
|  | $18279.67\text{m}^2 \leq 2\text{km}^2$ |  |  |

200m

HJ169-2018

1

HJ169-2018

B

Q

Q

Q

$$Q=\sum q_i/Q_i$$

$q_i$ —— $t$

$Q_i$ —— $t$

Q 1

$Q \geq 1$       Q       $1 \leq Q < 10$      $10 \leq Q < 100$      $Q \geq 100$

(HJ 169—2018)      B

1.125t

0.4t

5t    2500t

$$Q=1.125/5+0.4/2500=0.225 \quad Q < 1 \quad \text{I}$$

2

HJ169-2018

1.5-11

1.5-11

|   |   |  |  |   |
|---|---|--|--|---|
|   | + |  |  |   |
|   |   |  |  | a |
| a |   |  |  |   |

1.5-12



1.5-12

|             |                  |                 |    |
|-------------|------------------|-----------------|----|
| HJ2.2-2018  |                  | NH <sub>3</sub> |    |
| 1%          | P <sub>max</sub> | 4.28%           | 1% |
|             | 10%              |                 |    |
| HJ 2.3-2018 |                  |                 |    |

1.5-1

1.5-1

|           |            |       |   |     |
|-----------|------------|-------|---|-----|
| 22.624897 | 108.494845 | 29900 |   | 35m |
| /         | /          | /     | / |     |



1

2

κ



1573.20m<sup>2</sup>      7.8m



|   |     |   |     |  |       |
|---|-----|---|-----|--|-------|
|   | A05 |   | 1   |  |       |
|   | A06 |   | 1   |  | ,38 4 |
|   | A07 |   | 2   |  |       |
|   | A08 |   | 1   |  |       |
|   | A09 |   | 1   |  |       |
|   | A10 |   | 1   |  |       |
|   | A11 |   | 2   |  |       |
|   | A12 |   | 1   |  |       |
|   | A13 |   | 1   |  |       |
|   |     |   |     |  |       |
| + | B01 |   | 115 |  |       |
|   |     |   | 2   |  | 2.2KW |
|   |     |   | 2   |  |       |
|   |     |   | 2   |  | 3.7KW |
|   |     |   | 12  |  |       |
|   |     |   | 2   |  | 30°   |
|   |     | B | 2   |  |       |
|   | B02 |   | 1   |  |       |
|   | B03 |   | 2   |  |       |
|   | B04 |   | 1   |  |       |
|   | B10 |   | 1   |  |       |
|   | B11 |   | 1   |  | 80    |
|   | B12 |   | 3   |  | L=6.5 |
|   |     |   |     |  |       |
|   | C01 |   | 0   |  | 10    |
|   | C02 |   | 1   |  |       |

## 2.1-4

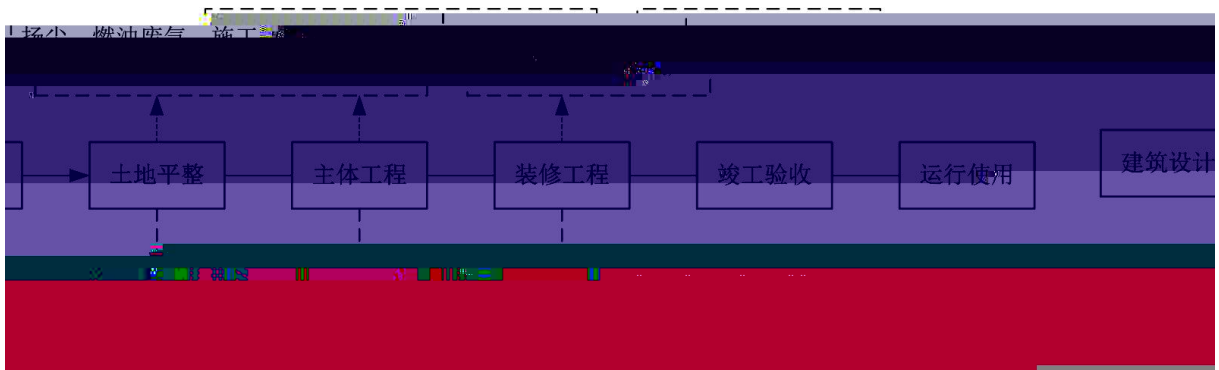
|     |                         |       |      |
|-----|-------------------------|-------|------|
|     | t/a                     | /     |      |
|     | 20000                   | /     | 1300 |
|     | 1.125                   | NaClO |      |
|     | 120                     | CaO   |      |
| PAC | 72                      |       |      |
| PAM | 12                      |       |      |
|     | 0.5                     | R22   |      |
|     | 50                      |       |      |
|     | 28 m <sup>3</sup> /a    | /     | /    |
|     | 1000 kWh/a              | /     | /    |
|     | 10.08 m <sup>3</sup> /a | CH4   |      |

|     |                    |                           |           |
|-----|--------------------|---------------------------|-----------|
|     |                    | pH 3~9                    |           |
| R22 | CHClF <sub>2</sub> | CAS 75-45-6<br>200        | 5000mg/kg |
|     | CH <sub>4</sub>    | CAS 74-82-8<br>25~30%     | /         |
|     | /                  | 70<br>70<br>100<br>8%~10% | /         |
|     | /                  | 10~22                     | /         |





2.2-1



2.2-1

2.2-2

1

1

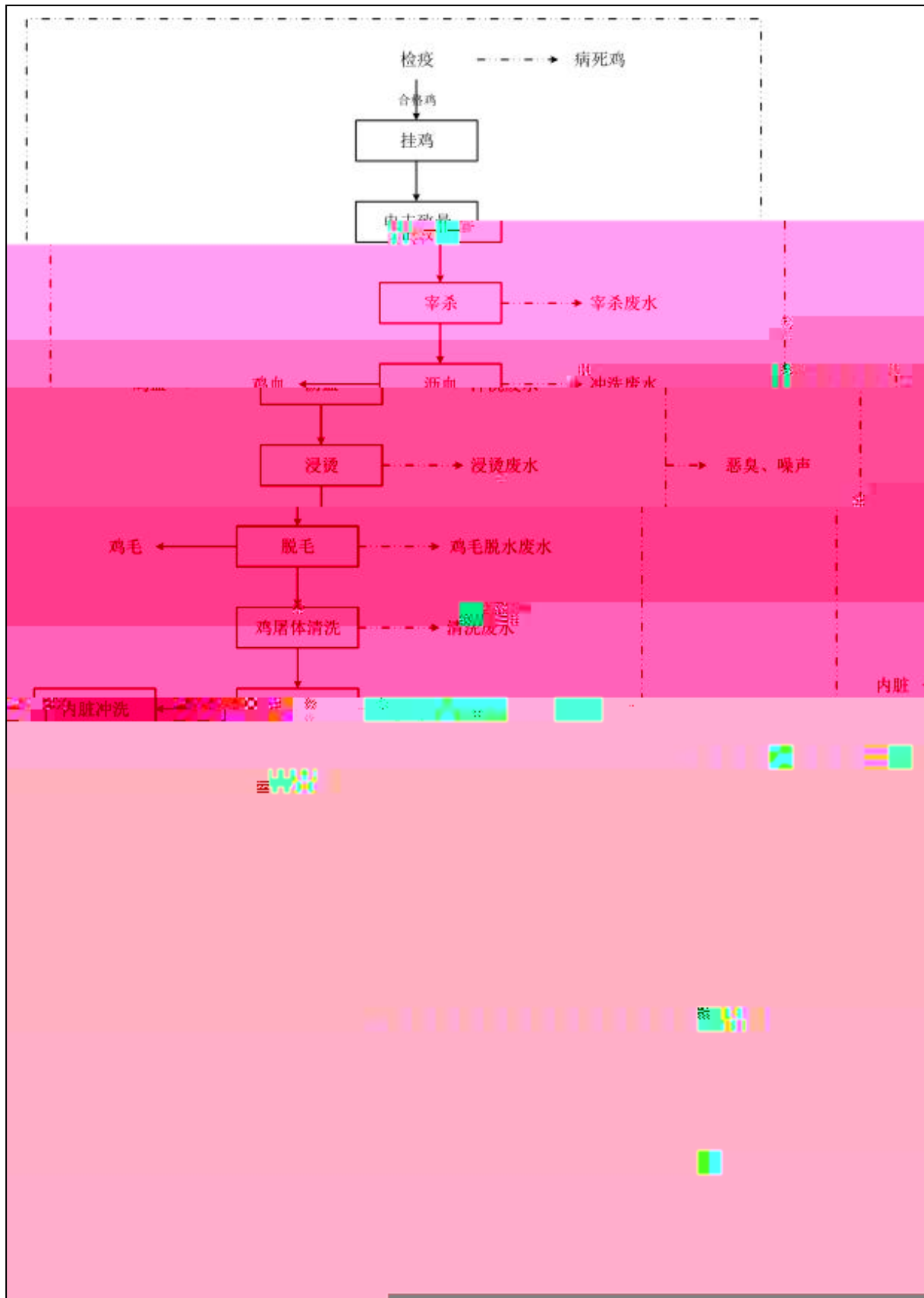
2~3

36~70V

2.5~3min

59-61

40-90s



2.2-2

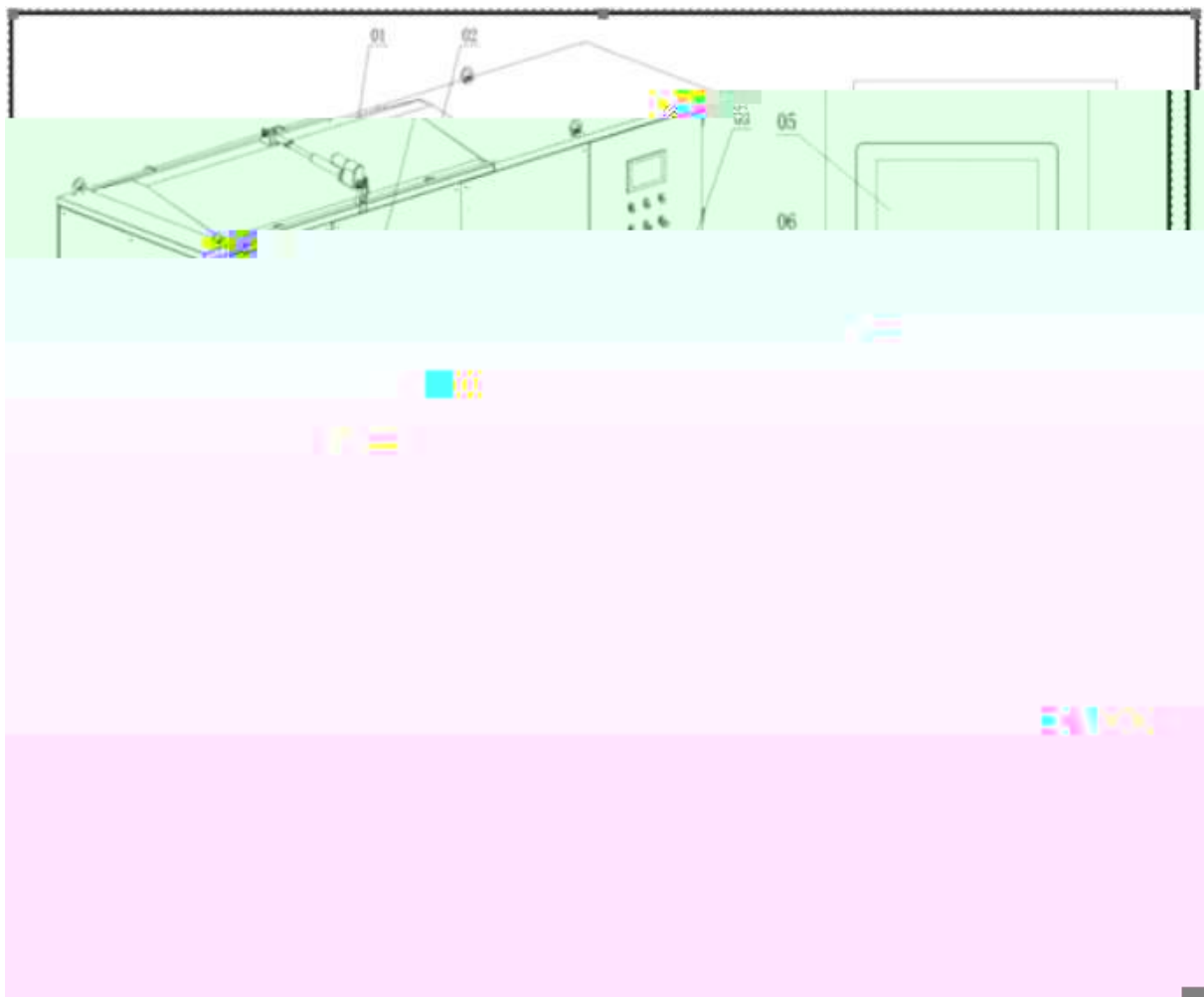
e

¢

---

2

2



2.2-3



2.2-4

1

2

150kg

10~20min

3













1

1

0.05~0.1m<sup>3</sup>0.07m<sup>3</sup>/m<sup>2</sup>11126.11m<sup>2</sup>778.83m<sup>3</sup>

2

12

20

50L/ ·d

1m<sup>3</sup>/d

80%

0.8m<sup>3</sup>/d

2.2-3

2.2-3

|  | 0.8 | 350 | 0.280 | 200 | 0.160 | 250 | 0.200 | 30 | 0.024 |
|--|-----|-----|-------|-----|-------|-----|-------|----|-------|
|  |     |     |       |     |       |     |       |    |       |
|  | 0.8 | 220 | 0.176 | 110 | 0.088 | 120 | 0.096 | 27 | 0.022 |

2

1





3

12

20

0.5kg/ ·d

10kg/d

5

1

2

## 2.2.1.4

690.496m<sup>3</sup>/d 248578.56m<sup>3</sup>/a

1

SS400mg/L 100mg/L COD<sub>Cr</sub>300mg/L BOD<sub>5</sub>250mg/L  
 NH<sub>3</sub>-N30mg/L

5

2.2.1.4

10.6m<sup>3</sup>/d 3816m<sup>3</sup>/aCOD<sub>Cr</sub> BOD<sub>5</sub>SS NH<sub>3</sub>-N

—

2007

2.2-6

| m <sup>3</sup> /a | COD <sub>Cr</sub> |       | BOD <sub>5</sub> |       | SS   |       | NH <sub>3</sub> -N |       |
|-------------------|-------------------|-------|------------------|-------|------|-------|--------------------|-------|
|                   | mg/L              | t/a   | mg/L             | t/a   | mg/L | t/a   | mg/L               | t/a   |
| 3816              | 350               | 1.336 | 250              | 0.954 | 250  | 0.954 | 35                 | 0.134 |
| 3816              | 220               | 0.840 | 190              | 0.725 | 120  | 0.458 | 30                 | 0.114 |



GB18918-2002

A

1

0.5t/h

8h/d 360d/a

2880h

12 m<sup>3</sup>

HJ991-2018

HJ953-2018

$$V_{gy}=0.285Q_{net}+0.343$$

 $V_{gy}$ ——Nm<sup>3</sup>/m<sup>3</sup>Nm<sup>3</sup>/kg $Q_{net}$ ——MJ/m<sup>3</sup>35.5MJ/Nm<sup>3</sup>10.461Nm<sup>3</sup>/m<sup>3</sup>

125.526

Nm<sup>3</sup>/a

HJ991-2018

$$E_{SO_2} = 2R \times S_t \times \left(1 - \frac{\eta_s}{100}\right) \times K \times 10^{-5}$$

 $E_{SO_2}$ ——

t

 $R$ ——m<sup>3</sup> $S_t$ ——mg/m<sup>3</sup>0.042mg/m<sup>3</sup>

$\eta_s$ —— % 0%

K—— K=1

$$E_{NO_i} = \rho_{NO_x} \times Q \times \left(1 - \frac{\eta_{NO_i}}{100}\right) \times 10^{-9}$$

$E_{NO_x}$ —— t

$\rho_{NO_x}$ —— mg/m<sup>3</sup> HJ 991

180mg/m<sup>3</sup>

Q—— m<sup>3</sup>

$\eta_{NO_x}$ —— % 0%

$$E_j = R \times \beta_j \times \left(1 - \frac{\eta}{100}\right) \times 10^{-3}$$

$E_j$ —— t

R—— t m<sup>3</sup>

$\beta_j$ —— kg/t kg/ m<sup>3</sup> HJ 953 2.86kg/ m<sup>3</sup>

$\eta$ —— % 0%

125.526 Nm<sup>3</sup>/a SO<sub>2</sub>

0.0000101t/a 0.0000035kg/h NO<sub>x</sub> 0.226t/a 0.078kg/h

0.0343t/a 0.012kg/h 3400m<sup>3</sup>/h SO<sub>2</sub> NO<sub>x</sub>

0.00103mg/m<sup>3</sup> 23.075mg/m<sup>3</sup> 3.505mg/m<sup>3</sup> 8m

0.3m SO<sub>2</sub> NO<sub>x</sub>

GB13271-2014 2

2

NH<sub>3</sub> H<sub>2</sub>S

NH<sub>3</sub> H<sub>2</sub>S

500

2020 7

2.2-8

2.2-9

2.2-8

|     |                 |  |
|-----|-----------------|--|
|     |                 |  |
| 500 | 500 / 1.38<br>/ |  |
|     | 1300 / 3.6<br>/ |  |

2.2-9

|     |       |                  |                                                |                       |
|-----|-------|------------------|------------------------------------------------|-----------------------|
|     |       |                  | kg/h                                           | kg/h                  |
| 500 | 1.3 / | NH <sub>3</sub>  | $4.73 \times 10^{-3} \sim 8.02 \times 10^{-3}$ | $6.05 \times 10^{-3}$ |
|     |       | H <sub>2</sub> S | $4.47 \times 10^{-5} \sim 1.08 \times 10^{-4}$ | $5.63 \times 10^{-5}$ |

90%

1

85%

1 15m 0.8m

6500m<sup>3</sup>/h

10%

2.2-10 NH<sub>3</sub> H<sub>2</sub>S

GB14554-93 2 15m

|  |                  | (m <sup>3</sup> /h) | (mg/m <sup>3</sup> ) | t/a     |  | %  | (kg/h)  | (mg/m <sup>3</sup> ) | t/a     |
|--|------------------|---------------------|----------------------|---------|--|----|---------|----------------------|---------|
|  | NH <sub>3</sub>  | 6500                | 2.7376               | 0.15374 |  | 85 | 0.00267 | 0.41063              | 0.02306 |
|  | H <sub>2</sub> S |                     | 0.0255               | 0.00143 |  |    | 0.00002 | 0.00382              | 0.00021 |
|  | NH <sub>3</sub>  | /                   | /                    | 0.01708 |  | 0  | 0.00198 | /                    | 0.01708 |
|  | H <sub>2</sub> S |                     | /                    | 0.00016 |  |    | 0.00002 | /                    | 0.00016 |

3

 $\text{NH}_3$   $\text{H}_2\text{S}$  $\text{NH}_3$   $\text{H}_2\text{S}$ 

15000



|                   |                         |                 |                 |        |         |        |
|-------------------|-------------------------|-----------------|-----------------|--------|---------|--------|
|                   |                         | SO <sub>2</sub> | NO <sub>x</sub> |        | CO      |        |
| g/L               | 12m <sup>3</sup> /kg    | 4.00            | 2.56            | 0.714  | 1.52    | 1.49   |
| t/a               | 489600m <sup>3</sup> /a | 0.194           | 0.124           | 0.035  | 0.074   | 0.072  |
| kg/h              | 5100m <sup>3</sup> /h   | 2.024           | 1.295           | 0.361  | 0.769   | 0.754  |
| mg/m <sup>3</sup> | /                       | 264.550         | 169.312         | 47.222 | 100.529 | 98.545 |
| mg/m <sup>3</sup> | /                       | 550             | 240             | 120    |         |        |

6

3

4h/d

175

360d

2.0kg/100

·d

3.50kg/d

1.26t/a

3%

0.105kg/d 0.0378t/a

2000m<sup>3</sup>/h

75%

4.375mg/m<sup>3</sup>1.094mg/m<sup>3</sup>

GB18483-2001

2

≤2.0mg/m<sup>3</sup>

0.026kg/d 0.009t/a

7

4

1

60~95dB A

2.2-14

|  |  |       |  |       |       |
|--|--|-------|--|-------|-------|
|  |  |       |  |       |       |
|  |  | 60~75 |  | 10~15 | 50~65 |
|  |  | 70~80 |  | 10~20 | 60~70 |
|  |  | 60~70 |  | 10~15 | 50~60 |
|  |  | 70~80 |  | 10~15 | 60~70 |
|  |  | 60~70 |  | 10~15 | 50~60 |
|  |  | 70~80 |  | 10~15 | 60~70 |
|  |  | 60~70 |  | 10~15 | 50~60 |
|  |  | 60~70 |  | 10~15 | 50~60 |
|  |  | 70~80 |  | 10~15 | 60~70 |
|  |  | 80~90 |  | 10~20 | 65~75 |
|  |  | 85~95 |  | 10~15 | 65~75 |
|  |  | 65~75 |  | 10~20 | 55~65 |
|  |  | 70~80 |  | 10~20 | 60~70 |
|  |  | 65~75 |  | 10~20 | 55~65 |
|  |  | 80~90 |  | 10~20 | 65~75 |
|  |  | 60~75 |  | 10~20 | 55~65 |

2

60~75dB A

60~70dB A

75~80dB A

1

8





BOD<sub>5</sub>162.8t/a

98%

226kg/d 81.4t/a

80%

22.6kg/d 8.14t/a

7

3~4

250kg

3

2

0.17t/a

8

1t/a

2021

HW08

900-214-08

“ ”

9

175

360

0.5kg/ ·d

87.5kg/d 31.5t/a

2.2-15

|  |  |  |  |  |       |
|--|--|--|--|--|-------|
|  |  |  |  |  | t/a   |
|  |  |  |  |  | 700   |
|  |  |  |  |  | 680   |
|  |  |  |  |  | 20    |
|  |  |  |  |  | 18    |
|  |  |  |  |  | 28.14 |
|  |  |  |  |  | 0.17  |
|  |  |  |  |  | 1     |
|  |  |  |  |  | 31.5  |

1

50%

2.2-16

2

50%

|  |                    | t/a                  |  |                      |
|--|--------------------|----------------------|--|----------------------|
|  |                    |                      |  |                      |
|  |                    |                      |  |                      |
|  |                    |                      |  |                      |
|  |                    | 0.8m <sup>3</sup> /d |  | 0.8m <sup>3</sup> /d |
|  | COD <sub>Cr</sub>  | 0.280kg/d            |  | 0.176kg/d            |
|  | BOD <sub>5</sub>   | 0.160kg/d            |  | 0.088kg/d            |
|  | SS                 | 0.200kg/d            |  | 0.096kg/d            |
|  | NH <sub>3</sub> -N | 0.024kg/d            |  | 0.022kg/d            |
|  |                    |                      |  | 0                    |
|  |                    | 27.82t               |  | 0                    |
|  |                    | 10kg/d               |  | 0                    |

2.2-19

| t/a              |           |      |     |       |           |
|------------------|-----------|------|-----|-------|-----------|
| SO <sub>2</sub>  | 0.0000101 |      |     |       | 0.0000101 |
| NO <sub>x</sub>  | 0.226     |      | +8m |       | 0.226     |
|                  | 0.0343    |      |     |       | 0.0343    |
| NH <sub>3</sub>  | 0.15374   |      |     | 1 15m | 0.02306   |
| H <sub>2</sub> S | 0.00143   | 0.8m |     |       | 0.00021   |
| NH <sub>3</sub>  | 0.01708   |      |     |       | 0.01708   |
| H <sub>2</sub> S | 0.00016   |      |     |       | 0.00016   |
| NH <sub>3</sub>  | 0.4542    |      |     | 1 15m | 0.0681    |
| H <sub>2</sub> S | 0.0176    | 0.4m |     |       | 0.0026    |
| NH <sub>3</sub>  | 0.0505    |      |     |       | 0.0505    |
| H <sub>2</sub> S | 0.0020    |      |     |       | 0.0020    |
| SO <sub>2</sub>  | 0.194     |      |     |       | 0.194     |
| NO <sub>x</sub>  | 0.124     |      |     |       | 0.124     |
|                  | 0.035     |      |     |       | 0.035     |
| CO               | 0.074     |      |     |       | 0.074     |
| HC               | 0.072     |      |     |       | 0.072     |
|                  | 0.0378    |      |     |       | 0.009     |



3

107°19'~109°38'

22°12'~24°2'

32

108°29'42.87"

22°37'33.01"

1

5

57.78%

4.6%

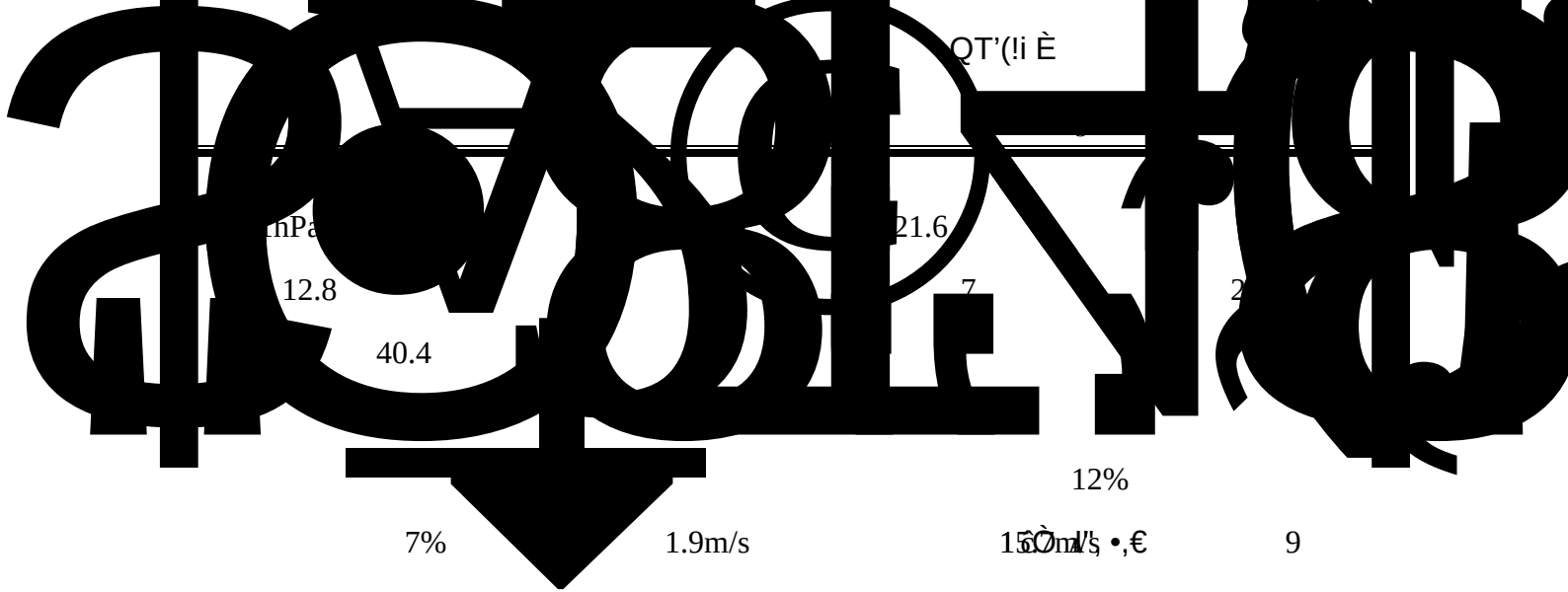
300m 600m 25° 40°

2.61%

300m 400m ã 120m 160m







3

3

|   |    |                        |          |                     |        |
|---|----|------------------------|----------|---------------------|--------|
| 1 | 3m | 10.8 m <sup>3</sup> /s | 55.55 km | 1.11km <sup>2</sup> | 165.9m |
|---|----|------------------------|----------|---------------------|--------|



600

---

3.8km

7

3.1-1

1.5-1

|  |  |       |  |
|--|--|-------|--|
|  |  |       |  |
|  |  | 3.8km |  |

HJ 2.2-2018

2020

2020

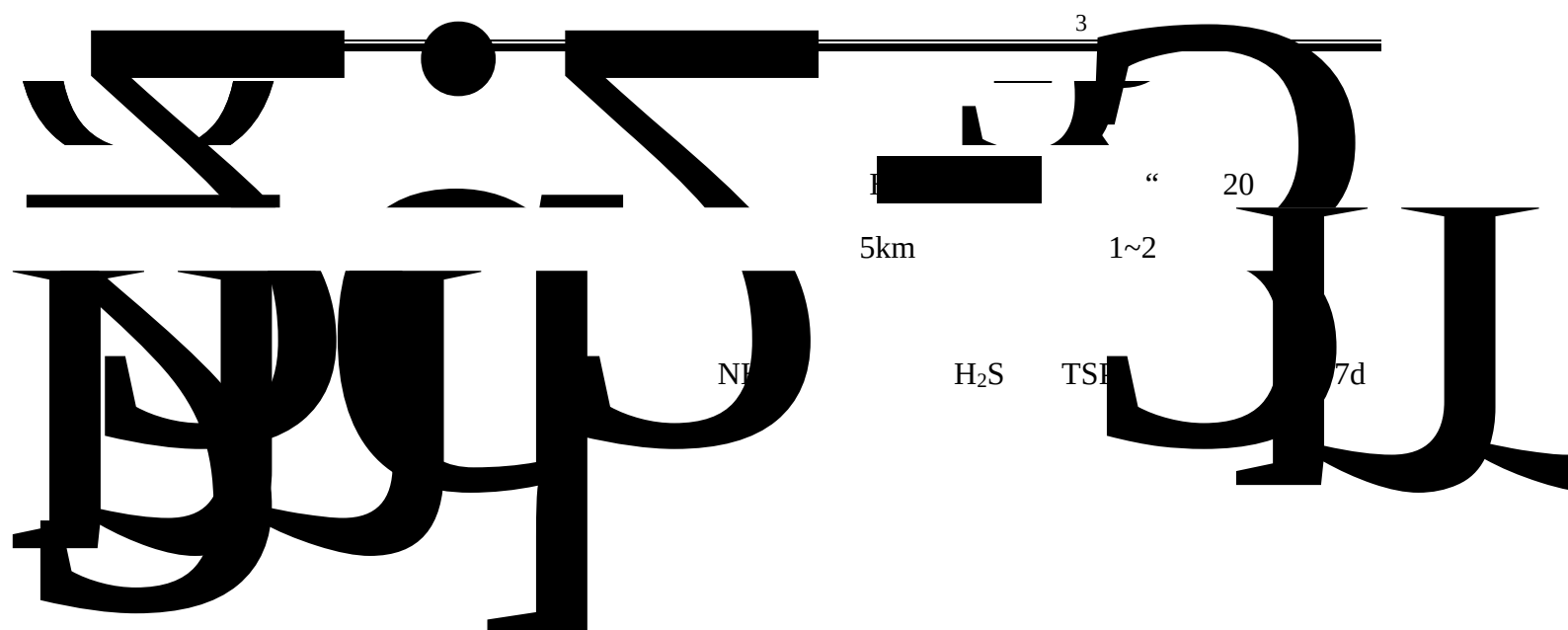
3.2-1

 $\mu\text{g}/\text{m}^3$  $\text{SO}_2$ 

8

60

13.33%



|     |                 |                        |
|-----|-----------------|------------------------|
|     |                 |                        |
|     | HJ 533-2009     | 0.01mg/m <sup>3</sup>  |
|     | 2003            | 0.001mg/m <sup>3</sup> |
| TSP | GB/T 15432-1995 | 1μg/m <sup>3</sup>     |
|     | GB/T 14675-1993 | 10                     |

HJ 2.2—2018            D

$P_i = C_i/C_{oi}$

$P_i$ ——

$C_i$ —— mg/m<sup>3</sup>

$C_{oi}$ —— mg/m<sup>3</sup>

$P_i>1$

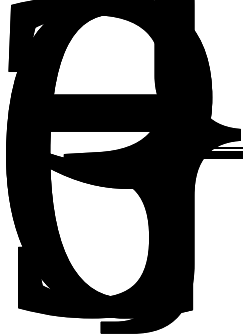
3.2-4

3.2-5

3.2-6

7

|            |  |      |       |    |  |     |
|------------|--|------|-------|----|--|-----|
|            |  |      |       |    |  |     |
| 2021.07.01 |  | 29.1 | 99.59 | 78 |  | 0.3 |
|            |  | 34.1 | 99.10 | 67 |  | 0.7 |
|            |  | 30.7 | 99.40 | 78 |  | 0.5 |
|            |  | 28.8 | 99.61 | 79 |  | 0.1 |
| 2021.07.02 |  | 30.6 | 99.30 | 73 |  | 0.8 |
|            |  | 33.8 | 99.13 | 68 |  | 0.9 |
|            |  | 31.0 | 99.37 | 75 |  | 2.1 |
|            |  | 29.3 | 99.62 | 76 |  | 0.4 |
| 2021.07.03 |  | 29.7 | 99.30 | 74 |  | 0.3 |
|            |  | 35.0 | 99.03 | 69 |  | 0.8 |
|            |  | 30.4 | 99.38 | 70 |  | 0.4 |
|            |  | 28.7 | 99.69 | 75 |  | 0.1 |
| 2021.07.04 |  | 29.0 | 99.32 | 70 |  | 1.0 |
|            |  | 33.8 | 99.06 | 69 |  | 0.6 |
|            |  | 30.0 | 99.29 | 75 |  | 0.9 |
|            |  | 28.8 | 99.70 | 75 |  | 0.5 |
| 2021.07.05 |  | 28.6 | 99.40 | 76 |  | 1.3 |
|            |  | 34.1 | 99.00 | 70 |  | 0.9 |
|            |  | 30.0 | 99.33 | 68 |  | 0.4 |
|            |  | 28.8 | 99.35 | 76 |  | 2.1 |
| 2021.07.06 |  | 29.4 | 99.32 | 77 |  | 1.4 |
|            |  | 35.0 | 99.00 | 75 |  | 2.4 |
|            |  | 30.2 | 99.34 | 69 |  | 0.7 |
|            |  | 29.2 | 99.34 | 70 |  | 0.2 |
| 2021.07.07 |  | 29.4 | 99.31 | 78 |  | 0.6 |
|            |  | 34.2 | 99.02 | 74 |  | 1.4 |
|            |  | 30.4 | 99.31 | 75 |  | 0.2 |
|            |  | 28.8 | 99.40 | 72 |  | 0.3 |



| A2 | 2021.07.01 |  | 0.073 | ND | ND | 10 |
|----|------------|--|-------|----|----|----|
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    | 2021.07.02 |  | 0.072 | ND | ND | 10 |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    | 2021.07.03 |  | 0.071 | ND | ND | 10 |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    | 2021.07.04 |  | 0.073 | ND | ND | 10 |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    | 2021.07.05 |  | 0.072 | ND | ND | 10 |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    | 2021.07.06 |  | 0.072 | ND | ND | 10 |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    | 2021.07.07 |  | 0.069 | ND | ND | 10 |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |
|    |            |  |       | ND | ND |    |





3.2-8

|    |              |    |    |
|----|--------------|----|----|
| pH | pH           |    |    |
|    | HJ 1147-2020 |    | -- |
|    | 13195-1991   | GB | -- |

$$S_j = C_j / C_{si}$$

$S_{ij}$ ——

$C_{ij}$ —— mg/L

$C_{si}$ —— mg/L

○ pH

$$S_j = (7.0 - pH_j) / (7.0 - pH_{sd}) \quad pH_j \leq 7.0$$

$$S_j = (pH_j - 7.0) / (pH_{su} - 7.0) \quad pH_j > 7.0$$

$S_{pH,j}$ ——pH

$pH_j$ ——pH

$pH_{sd}$ ——pH

$pH_{su}$ ——pH

○ DO

$$S_{DO,j} = DO_s / DO_j \quad DO_j \leq DO_f$$

$$S_{DO,j} = \frac{|DO_f - DO_j|}{DO_f - DO_e} \quad DO_j > DO_f$$

$S_{DO,j}$ ——

$DO_f$ —— mg/L

$DO_j$ ——j mg/L

$DO_s$ —— mg/L

T——

3.2-9

3.2-10

5

3.2-9 3.2-10

GB3838-2002

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

|  |  |
|--|--|
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |



|    |                  |           |
|----|------------------|-----------|
| pH | pH               | 0.01      |
|    | GB 6920-1986     | ( )       |
|    | EDTA             |           |
|    | GB 7477-1987     | 5.0mg/L   |
|    |                  | 1.1       |
|    |                  | 0.05 mg/L |
|    | GB/T 5750.7-2006 |           |
|    |                  | HJ        |
|    | 53.02009         | 0.025mg/L |

3

1

GB/T14848-2017

1

$$i = C_i / C_{si}$$

$$i \text{ — } i$$

$$C_i \text{ — } i$$





|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

HJ2.4-2009

6 3.2-15

|    |  |    |
|----|--|----|
|    |  |    |
| N1 |  | 1m |
| N2 |  | 1m |
| N3 |  | 1m |
| N4 |  | 1m |
| N5 |  |    |
| N6 |  |    |

A

GB 3096-2008

2021 7 1~7 2 2

3.2-16 7

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

3.2-16

GB3096-2008 3

GB3096-2008 4a

GB3096-2008 2

2.5km

10                      7                      85m    513                      300m

| Distance (m) | Concentration (mg/m³) |
|--------------|-----------------------|
| 0            | 3                     |
| 20           | 1.303                 |
| 50           | 0.722                 |
| 100          | 0.402                 |

C.

d.

e.

f.

g.

29m

2

CO NO<sub>2</sub> THC

CO NO<sub>2</sub> THC

3

GB/T18883-2002

1

2



$$L_A(r) = L_{A1}(r_0) - A$$

$$A = A_{div} + A_{atm} + A_{bar} + A_{gr} + A_{misc}$$

LA(r) ————— dB

LA(r0) ————— dB

r r0 ————— m

A ————— dB

Adiv ————— Adiv=20lg r/r0 dB

Aatm ————— Aatm=a r-r0 /1000 dB

Abar ————— dB

Agrr ————— dB

Amisc ————— dB 0.025dB/m

$$L_{eqs} = 10 \lg \left( \sum_{i=1}^n 10^{0.1 L_{eqi}} \right)$$

Leqs ————— dB(A)

Leqi — i dB(A)

4.1-1

dB(A)

|  |  |     | m    |      |      |      |      |      |      |    |    |
|--|--|-----|------|------|------|------|------|------|------|----|----|
|  |  |     | 10   | 30   | 55   | 100  | 150  | 200  | 350  |    |    |
|  |  | 103 | 83.0 | 77.0 | 73.5 | 64.9 | 63.0 | 59.5 | 57.0 | 70 | 55 |
|  |  | 105 | 85.0 | 79.0 | 75.5 | 66.9 | 65.0 | 61.5 | 59.0 |    |    |
|  |  | 107 | 87.0 | 81.0 | 77.5 | 68.9 | 67.0 | 63.5 | 61.0 |    |    |
|  |  | 105 | 85.0 | 79.0 | 75.5 | 66.9 | 65.0 | 61.5 | 59.0 |    |    |
|  |  | 95  | 75.0 | 69.0 | 65.5 | 56.9 | 55.0 | 51.5 | 49.0 |    |    |
|  |  | 105 | 85.0 | 79.0 | 75.5 | 66.9 | 65.0 | 61.5 | 59.0 |    |    |
|  |  | 105 | 85.0 | 79.0 | 75.5 | 66.9 | 65.0 | 61.5 | 59.0 |    |    |
|  |  | 105 | 85.0 | 79.0 | 75.5 | 66.9 | 65.0 | 61.5 | 59.0 |    |    |
|  |  | 105 | 85.0 | 79.0 | 75.5 | 66.9 | 65.0 | 61.5 | 59.0 |    |    |
|  |  | 100 | 80.0 | 70.5 | 65.2 | 65.2 | 56.5 | 54.0 | 49.1 |    |    |

4.1-1

30~55m

200~350m

29m

35m

3m

35m

5~13dB A

“

”

GB12523-2011

1

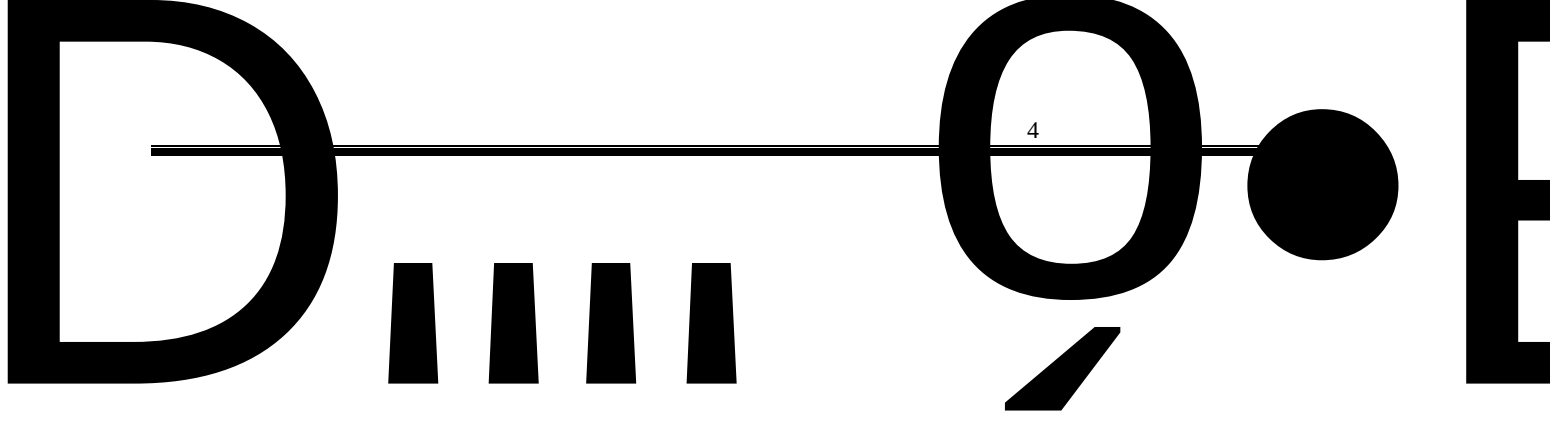


---

---

|                 |     |    |      |              |                 |
|-----------------|-----|----|------|--------------|-----------------|
|                 | SCR | 8m | 0.3m |              | SO <sub>2</sub> |
| NO <sub>x</sub> |     |    |      | GB13271-2014 | 2               |





690.496m<sup>3</sup>/d

pH COD BOD

GB18918-2002

A



1

2

3

HJ610-2016

100 1000

4

COD NH<sub>3</sub>-N300m<sup>3</sup>

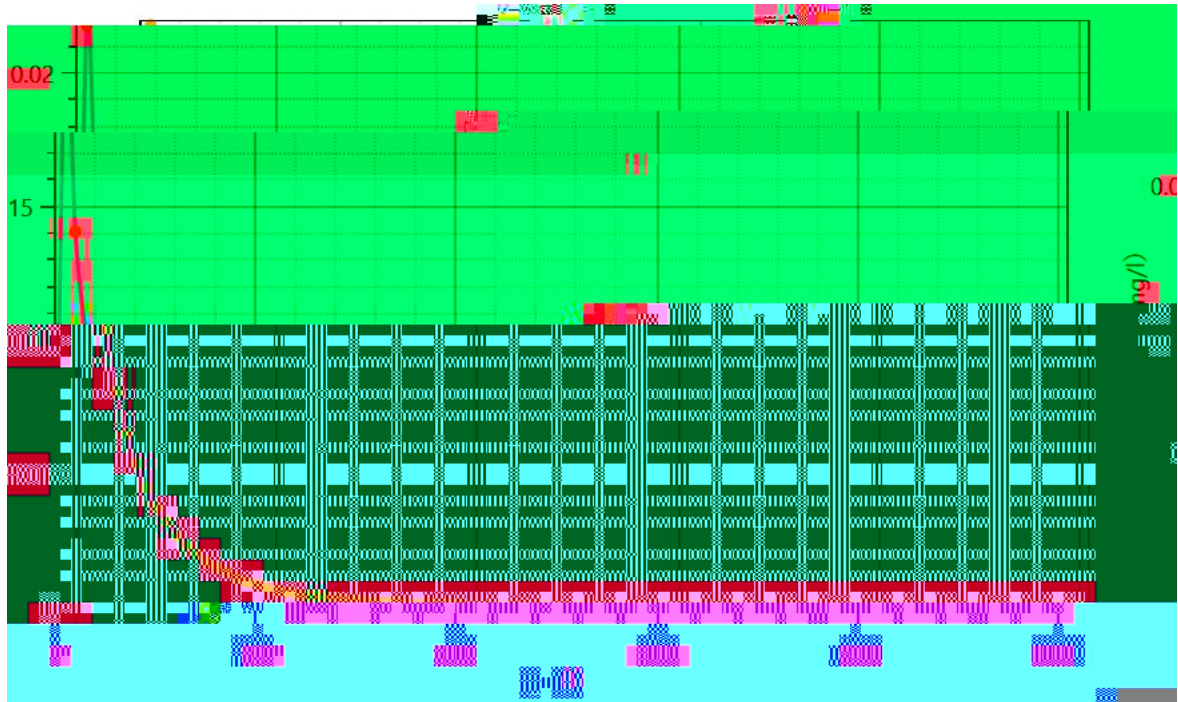
5%

4.2-3

4.2-3

5%



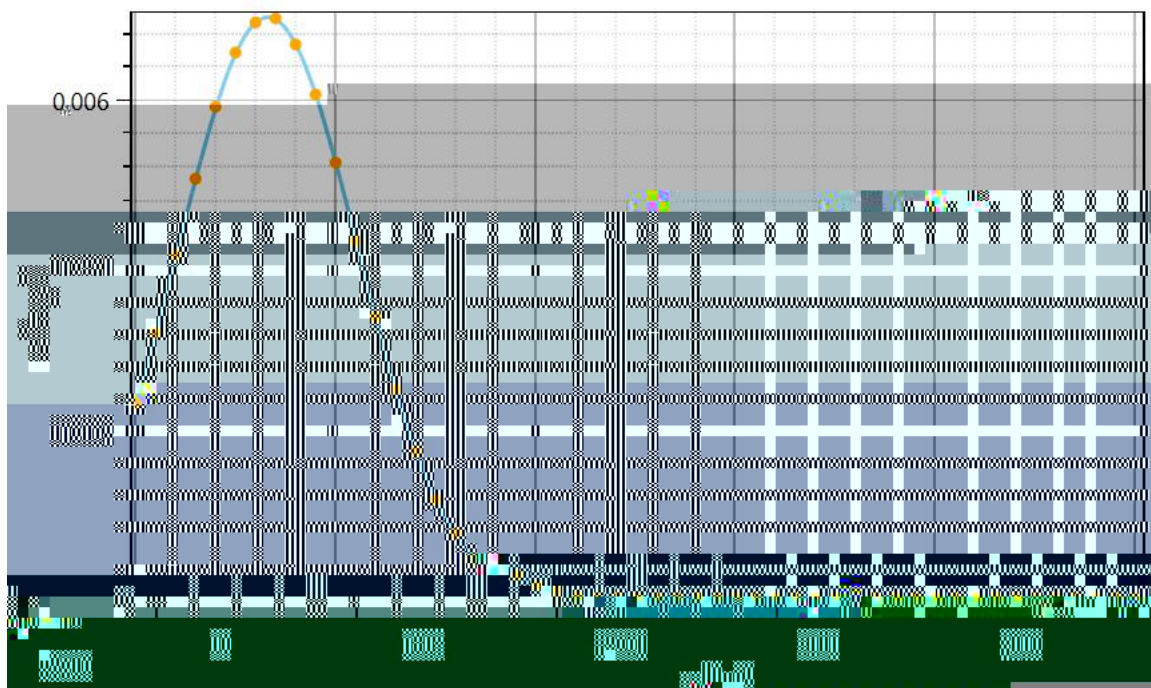


4.2-1

5%

4m

COD



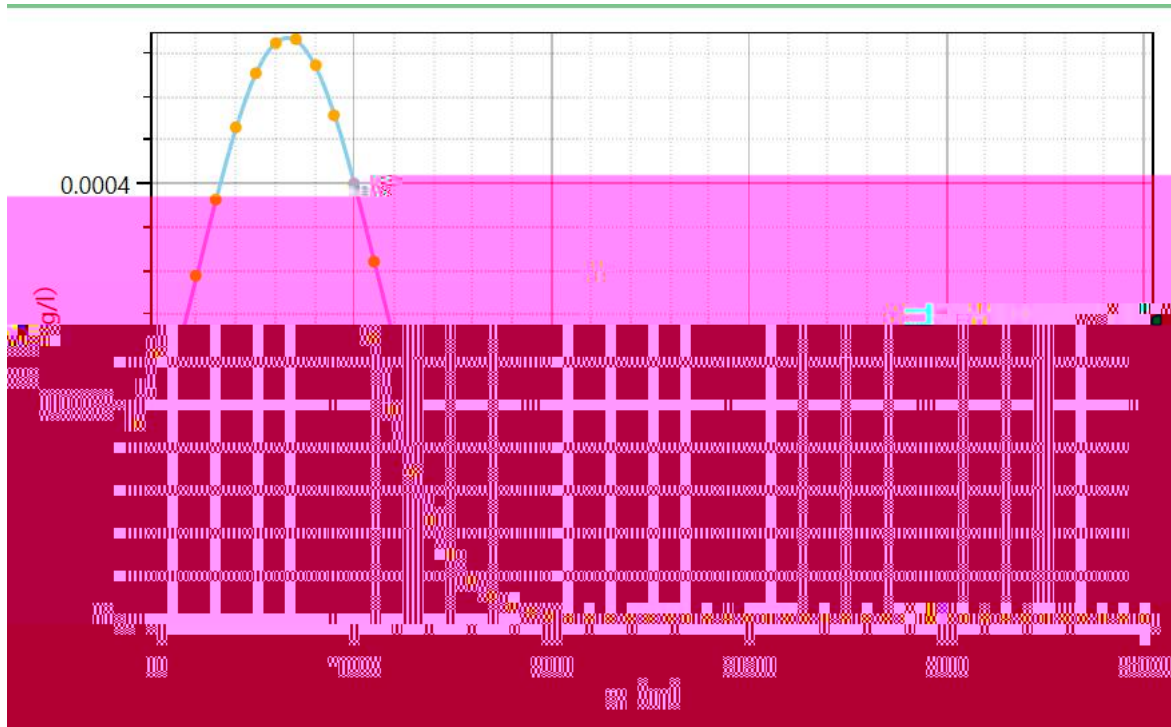
4.2-2

5%

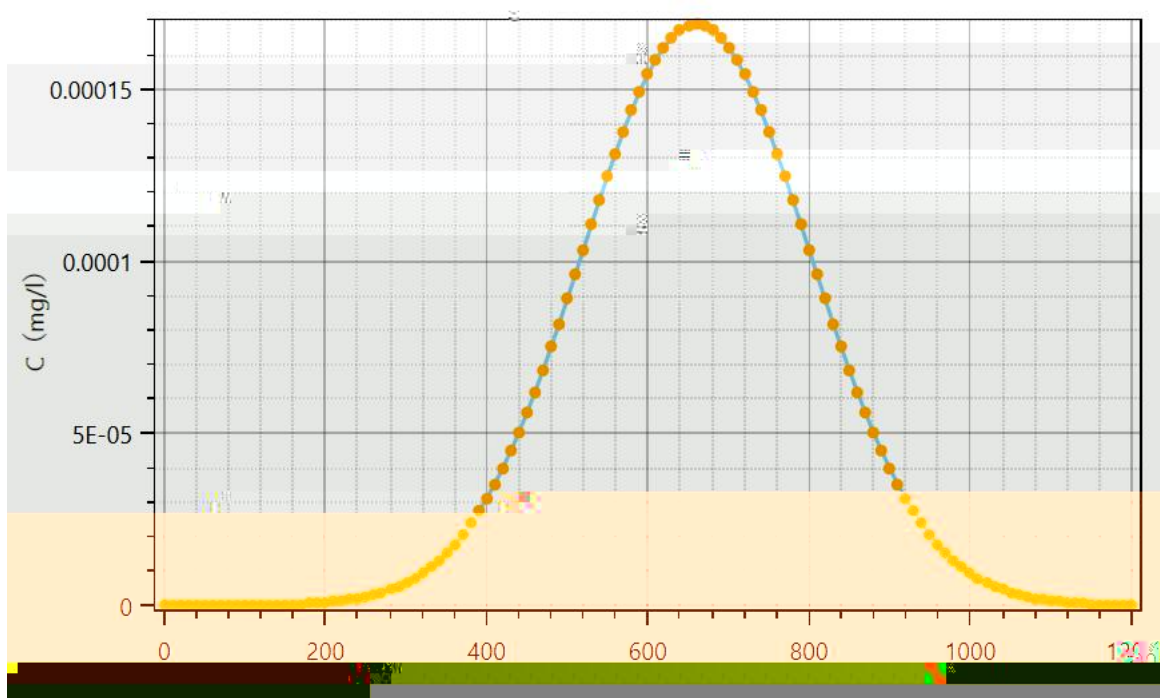
100d

COD





4.2-5 5% 100d  $\text{NH}_3\text{-N}$



4.2-6 5% 1000d  $\text{NH}_3\text{-N}$



$$K = 1 \cdot 10^{-7} \text{ cm/s}$$

$$65 \text{ } 95 \text{ dB(A)}$$

$$2.2-14$$

$$200 \text{ m}$$

$$75 \text{ dB(A)}$$

$$L_p = L_w - 20 \log r - 8 - L$$

$$L_p \text{ --- } r \text{ --- } \text{dB(A)}$$

$$L_w \text{ --- } \text{dB(A)}$$

$$\begin{aligned}
 & r \text{ — } m \\
 & L \text{ — } \text{dB(A)} \quad 0 \\
 & = 10 \lg \left( \sum_{i=1}^n 10^{0.1 L_i} \right) \\
 & L_1 \quad L_2 \text{ — } 1 \quad 2 \quad \text{dB(A)} \\
 & r_1 \quad r_2 \text{ — } m \\
 & \Delta \text{ — } \text{dB(A)} \\
 & L_{eqs} \text{ — } \text{dB(A)} \\
 & L_{eqi} \text{ — } \text{dB(A)}
 \end{aligned}$$

4.2-4

4.2-1

|                  |       |         |         |         |
|------------------|-------|---------|---------|---------|
|                  |       |         |         |         |
| 1#               | 26.11 | 51.4    | 51.41   | 0       |
| 2#               | 25.62 | 50.6    | 50.61   | 0       |
| GB3096—2008 2    |       | 60dB(A) |         |         |
| 1m               | 37.33 | 49.3    | /       | 0       |
| 1m               | 32.67 | 50.5    | /       | 0       |
| 1m               | 46.04 | 51.8    | /       | 0       |
| 1m               | 32.47 | 49.9    | /       | 0       |
| GB12348—2008 3 4 |       | 3       | 65dB(A) | 55dB(A) |
|                  |       | 4       | 70dB(A) | 55dB(A) |

4.2-4

GB3096—2008 2

GB

12348-2008 3

GB 12348-2008 4





1

8

2

700t/a

3

680t/a

4

20t/a

5

18t/a

6

246t/a

7

0.17t/a

8

1t/a

GB18599-2001 2013



HJ169-2018

1

HJ169-2018

B

Q

Q

Q

$$Q = \sum q_i / Q_i$$

 $q_i$  —

t

 $Q_i$  —

t

Q 1

Q ≥ 1

Q

1 ≤ Q

10

10 ≤ Q

100

Q ≥ 100

HJ 169-2018

B

3

1.5-1 5

HJ 169-2018

B

1

74.44

( =1)1.1

-6

102.2

kPa /

2

16.04

( =1)0.55

-182.5

-161.5

-188

-82.6

538

4.59MPa

3

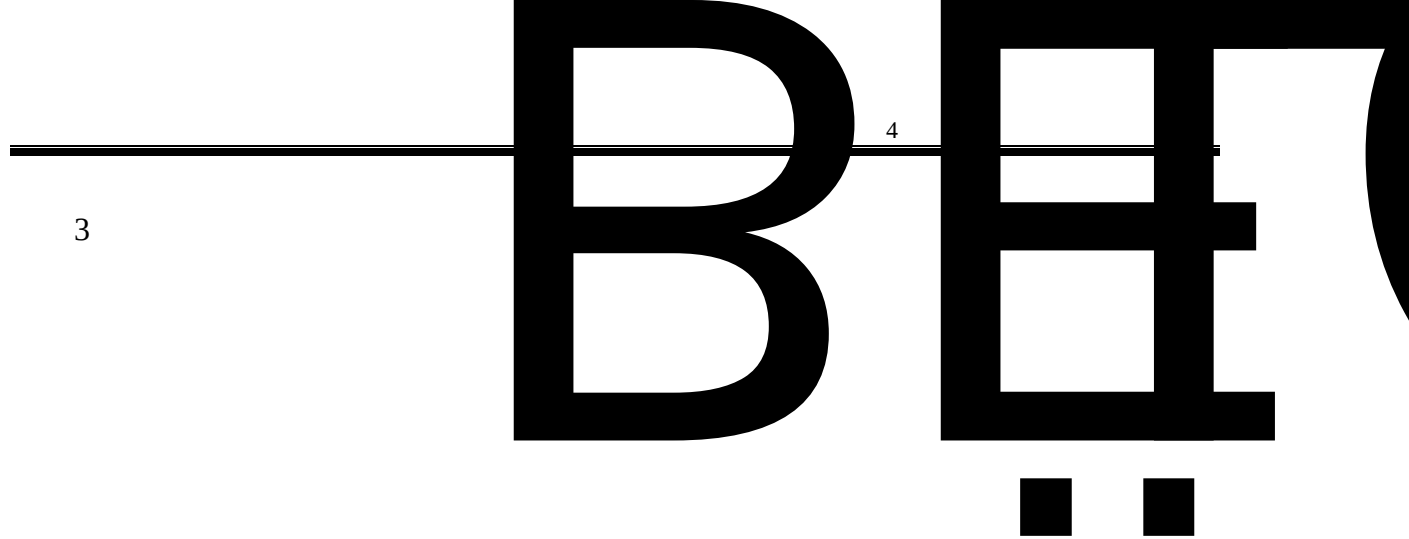
GB/T4016-83

70

70

100

8% 10%



1

1

2

50cm

10cm

50cm

GB/T13869-1992

2







4.2-7

108°49'42.87"

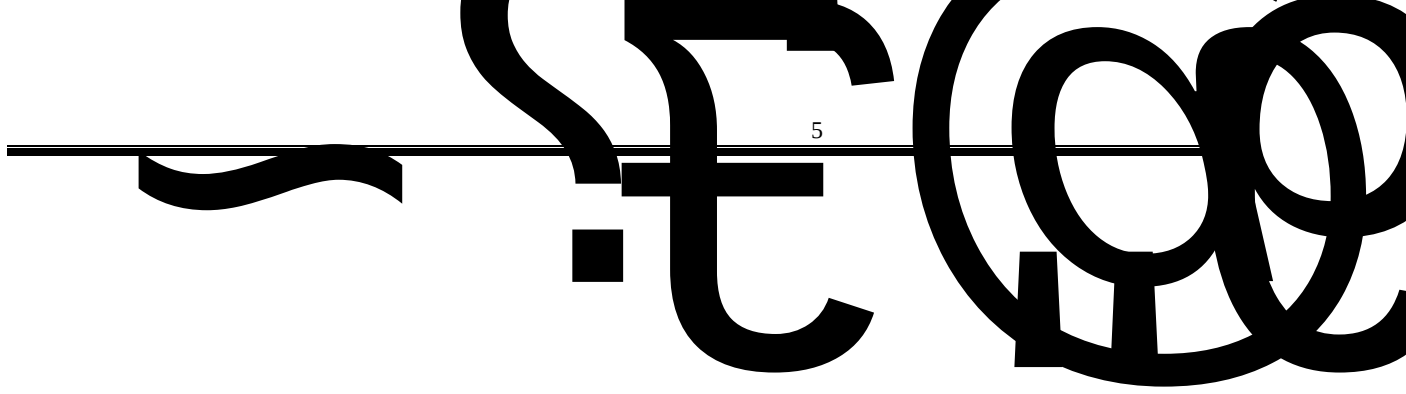
22°37'33.01"



100%

8

9



2

3

4

5

1

2

3

4

5

6

7

8







1

900m<sup>3</sup>/d

“

+A/O+

”

1

5.2-1

5.2-1

+

+A/O

A/O

PAM PAC

—

HJ 860.3—2018

7 “

-

”

A/O

PAM PAC

HJ 2004-2010

HJ 2004-2010

88

2300m<sup>3</sup>/d “ ø\$+ P \$a!DB3+"d@G” +A/O + ¼ +.2 %\$! Ö 4ó@’  
8

|   |                  |     |     |    |
|---|------------------|-----|-----|----|
| 1 |                  | 100 | 150 | 62 |
| 2 | BOD <sub>5</sub> | 110 | 110 | 28 |
| 3 |                  |     |     |    |

5

400m<sup>3</sup>4000m<sup>3</sup>400m<sup>3</sup>100m<sup>3</sup>





GB18597-2001

2mm

 $\leq 1.0 \times 10^{-12} \text{cm/s}$ 

HDPE

3

a.

b.

c.

d.

1

1

a.

b.

4

HJ610-2016

1

2

3



4

GB12348 2008 3

ă ~

95 2013

24

75~90

M P K ă ≥7% ≥75% ≤30%  
M25-2011 ≥5% ≥45% ≤30%

—

5.2-3

|  |    |     |     |  |           |
|--|----|-----|-----|--|-----------|
|  | %  | %   | %   |  | /t        |
|  | ≥5 | ≥45 | ≤30 |  | 1200~1500 |
|  |    |     |     |  |           |

|  |          |           |           |  |      |
|--|----------|-----------|-----------|--|------|
|  | $\geq 7$ | $\geq 75$ | $\leq 30$ |  | 800  |
|  | $\geq 7$ | $\geq 75$ | $\leq 30$ |  | 2000 |

NY525-2011

5

6

7

900-214-08

GB18597-2001

6100

650

10.66 %

5.3-1

|  |  |  |  |     |
|--|--|--|--|-----|
|  |  |  |  |     |
|  |  |  |  | 6   |
|  |  |  |  | /   |
|  |  |  |  | /   |
|  |  |  |  | 5   |
|  |  |  |  | 3   |
|  |  |  |  | 8   |
|  |  |  |  | 0   |
|  |  |  |  | 4   |
|  |  |  |  | 2   |
|  |  |  |  |     |
|  |  |  |  | 50  |
|  |  |  |  | 60  |
|  |  |  |  | 10  |
|  |  |  |  | 5   |
|  |  |  |  | 300 |
|  |  |  |  | 10  |
|  |  |  |  | 25  |
|  |  |  |  | 70  |
|  |  |  |  | 10  |
|  |  |  |  | /   |

10



6100                      650                      10.66 %

1  
650                      20                      32.50

/

2 “ ”

2 /

3

2%                      7.81

5.85 /                      6.3-1

|   |     |      |
|---|-----|------|
|   |     |      |
| 1 |     | 32.5 |
| 2 | “ ” | 2    |
| 3 |     | 13   |
|   |     | 47.5 |

2  
15m                      2                      8m

“ +A/O+ ”









2

3

4

7.1-1

1

2

682

&lt;

&gt;

7.1-1 7.1-2

1  
2  
3  
4

“ ”

1  
2

“ ”

3  
4

5  
6  
7

8

“ ”



|  |                    |                            |      |       |                            |
|--|--------------------|----------------------------|------|-------|----------------------------|
|  | t/a                |                            |      |       |                            |
|  | SO <sub>2</sub>    | 0.0000101                  |      |       | 0.0000101                  |
|  | NO <sub>x</sub>    | 0.226                      | +8m  |       | 0.226                      |
|  |                    | 0.0343                     |      |       | 0.0343                     |
|  | NH <sub>3</sub>    | 0.15374                    |      | 1 15m | 0.02306                    |
|  | H <sub>2</sub> S   | 0.00143                    | 0.8m |       | 0.00021                    |
|  | NH <sub>3</sub>    | 0.01708                    |      |       | 0.01708                    |
|  | H <sub>2</sub> S   | 0.00016                    |      |       | 0.00016                    |
|  | NH <sub>3</sub>    | 0.4542                     |      | 1 15m | 0.0681                     |
|  | H <sub>2</sub> S   | 0.0176                     | 0.4m |       | 0.0026                     |
|  | NH <sub>3</sub>    | 0.0505                     |      |       | 0.0505                     |
|  | H <sub>2</sub> S   | 0.0020                     |      |       | 0.0020                     |
|  | SO <sub>2</sub>    | 0.194                      |      |       | 0.194                      |
|  | NO <sub>x</sub>    | 0.124                      |      |       | 0.124                      |
|  |                    | 0.035                      |      |       | 0.035                      |
|  | CO                 | 0.074                      |      |       | 0.074                      |
|  | HC                 | 0.072                      |      |       | 0.072                      |
|  |                    | 0.0378                     |      |       | 0.009t/a                   |
|  |                    | 248578.56m <sup>3</sup> /a |      |       | 248578.56m <sup>3</sup> /a |
|  | COD <sub>Cr</sub>  | 390.222                    |      |       | 62.145                     |
|  | BOD <sub>5</sub>   | 201.340                    |      |       | 27.344                     |
|  | SS                 | 209.903                    |      |       | 37.287                     |
|  | NH <sub>3</sub> -N | 29.765                     |      |       | 7.457                      |

“ ”

COD

NO<sub>x</sub>

COD

COD

SO<sub>2</sub>      NO<sub>x</sub>0.194t/a NO<sub>x</sub>

---

10

HJ819-2017

HJ942—2018









---

---

HJ942—2018

HJ 860.3—2018

HJ

820-2017

1

2

3

5

4

1

2

3

2014 56

4

&lt; &gt;

682 2017 10 1

“

”

[2017]4

“

”

2017 10 1

2018 9

“

”

7.4-1



7.5-1

\_\_\_\_\_

---

2

1# 2# 3#

GB/T14848-2017 III

1

2

3

(GB 12523-2011

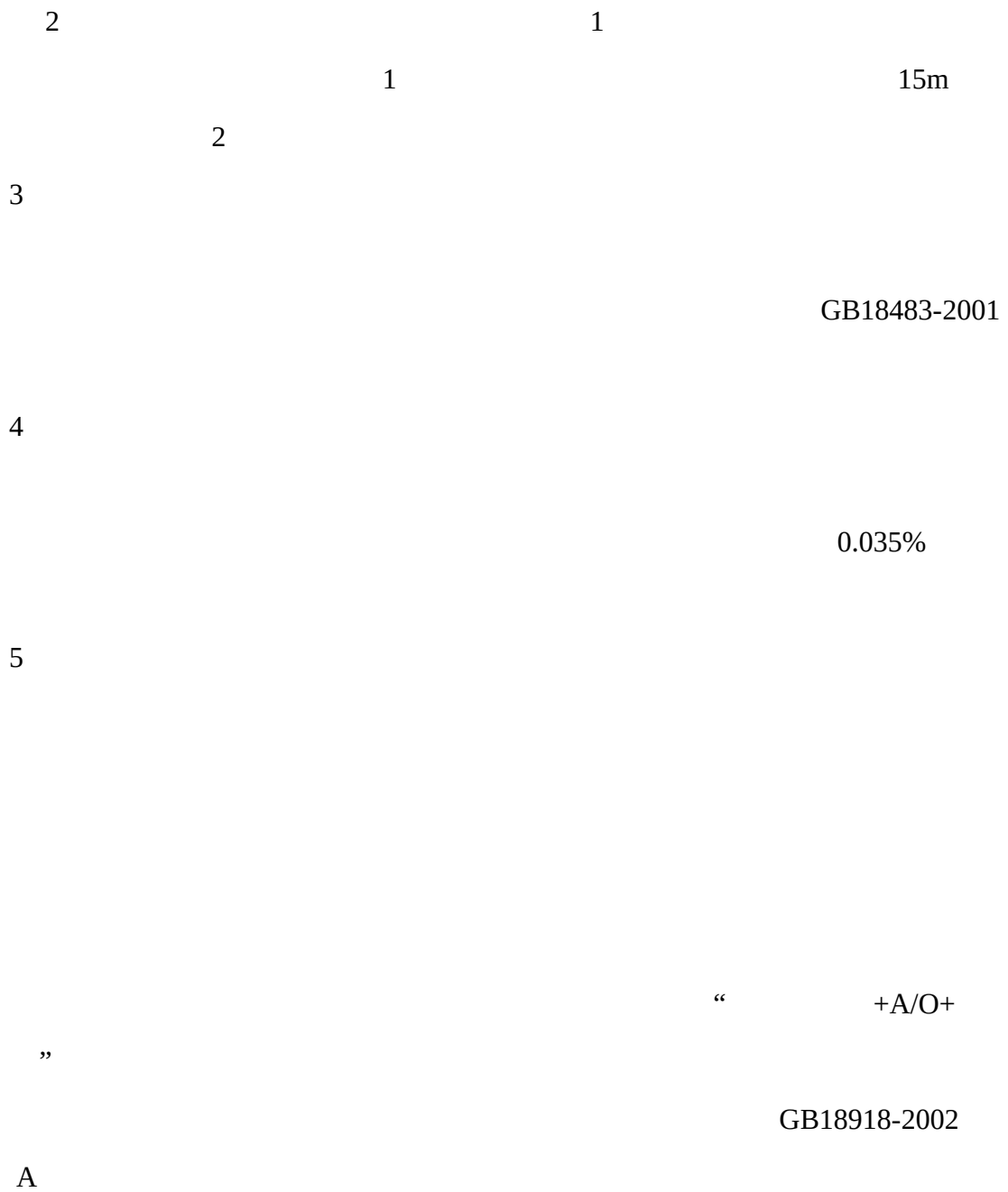
4







4





6100

650

10.66 %