
4

4.1

4.1.1

35 ≈ 36 н

36 13 н

118 13 н

119 03 н III

ц

ц

ц

III

ц

ц

ц

ц

ц

6

ц

ц

ц

4

4.1.4

		622		3	---	ч	ч		
151							8.16	III	
	ч	ч	ч			ч			
	110		III						
						III			
			III			III		ч	ч
	ч					III	56km		1200m
	670m		1437.7km ² III		11		ч	ч	ч
	ч		ч	ч	ч	ч		III	
							ч		
								III	

4.1.6

		Ч	Ч	3	11	17	67	III
		III						
							Ч	Ч
		III			0.798%			
4	5		0.058%					
	60ppm						4ppm	
		5			96ppm			
		19.7	/100			8		
15		10.3%			47%		8.9%	
		19.7%		1.4g/cm ³		1.23	1.6g/cm ³	



ц

ц

4-3III

4-2

1		N	700m	
2		S	2500m	

4.2.3.2

4-3III

4-3

1#		ц	7	4
2#			14 ц20	02 ц08 ц
			45	
ц ц ц ц				

4.2.3.3

4-4III

4-4

	HJ 584-2010	/	$1.5 \times 10^{-3} \text{ mg/m}^3$
	HJ 604-2017	ц ц -	0.07 mg/m^3

4.2.3.4

4-5

4-6III

4-5

	20:00	-2	100.3	1.5	NE	2/2
	2:00	-3	100.4	1.1	N	0/0
2019.2.22	8:00	3	100.9	1.3	NW	2/0
	14:00	9	100.2	0.8	N	2/0
	20:00	-1	100.7	1.4	NW	4/1
	2:00	-2	100.3	2.7	N	1/0
2019.2.23	8:00	4	100.9	2.3	N	2/0
	14:00	11	101.1	0.9	NE	2/1
	20:00	0	100.7	1.4	N	2/0
	2:00	0	101.5	1.9	NW	4/2
2019.2.24	8:00	6	101.3	1.6	N	3/0
	14:00	14	101.4	1.1	N	3/2
	20:00	2	101.6	2.3	NW	2/1
	2:00	0	100.9	3.1	N	2/0
2019.2.25	8:00	5	100.6	2.4	N	3/2
	14:00	13	100.7	2.2	N	3/1
	20:00	3	100.8	2.9	N	2/2
	2:00	1	3//	° Ě	Ů ° .26	
2019.2.26						

4-8III

4-8

	%	0	0
		$\frac{1}{2}$ $\frac{1}{2}$	$\frac{1}{2}$ $\frac{1}{2}$
	%	0	0
		0.845	0.885

Э Ю Ш Ч 3 2019 6 30 Ч Ч Ч 3 Ш 4 2019 10 31 Ш 5 2019 6 30 Ч Ч Э Ю Ш 3 Ш 2019 9 30 Ч Ч Ч Ч Ч Ч Ч Ш 1 Ш 4 1 1 1 Ш

4.3

4.3.1

4.3.1.1	2018-2035	В	Ю2018	4	Э	III
		4-9 Ч	4-4	III		

4-9

4#	1#
----	----

4.3.1.2	pH ȳ COD ȳ BOD						
54.55.56	54.55.56 ȳ ȳ	ȳ	ȳ	ȳ	ȳ	ȳ	ȳ

pH

HJ 505-2009

2.0 mg/LSS

Cr

HJ V828-2017

HJ 84-2016

4 mg/L

0.007



4-11

mg/L pH

/L

		pH	COD _{Cr}	BOD ₅	SS								
1#	2018.04.10	7.47	34	7.8	13	0.21		0.76	7.56	0.09	221	235	902
	2018.04.11	7.63	32	8.4	12	0.12		0.72	8.90	0.11	205	213	897
	2018.04.12	7.51	36	9.1	14	0.10		0.91	7.71	0.10	216	225	897
2#	2018.04.10	7.25	33	7.7	9	0.08		1.03	7.22	0.14	214	222	890
	2018.04.11	7.27	34	7.9	9	0.07		0.74	6.95	0.14	226	234	892
	2018.04.12	7.23	35	7.2	10	0.11		0.66	8.41	0.14	222	232	885
3#	2018.04.10	7.36	29	5.9	22	0.14		0.72	12.2	0.09	249	239	964
	2018.04.11	7.36	28	5.7	26	0.11		1.01	12.2	0.09	247	237	981
	2018.04.12	7.43	27	5.8	29	0.04		1.06	12.7	0.09	248	240	976
4#	2018.04.10	7.11	25	5.6	30			0.26	18.4	0.05	249	214	921
	2018.04.11	7.51	26	5.4	30			0.25	19.3	0.04	244	206	935
	2018.04.12	7.19	27	5.1	32			0.24	18.9	0.04	246	206	928
1#	2018.04.10	0.483								40	0.19		
	2018.04.11	0.454								20	0.20		
	2018.04.12	0.540									0.18		
2#	2018.04.10	0.546				0.008					0.16		
	2018.04.11	0.496				0.007				20	0.16		
	2018.04.12	0.525									0.16		
3#	2018.04.10	0.619								20	0.48		



	2018.04.11	0.560				0.008					0.49		
	2018.04.12	0.580				0.008					0.47		
4#	2018.04.10	0.635				0.004					0.22		
	2018.04.11	0.655									0.21		
	2018.04.12	0.684									0.22		
						(m)	(m)	(m/s)	(m ³ /s)	($\ddot{N}$)	($\ddot{N}$)	-	-
1#	2018.04.10					80.0	1.5		-	19.4	19.4	-	-
	2018.04.11									19.7	19.7	-	-
	2018.04.12									19.1	19.1	-	-
2#	2018.04.10					70.0	1.6	0.008	0.90	18.1	18.1	-	-
	2018.04.11									18.3	18.3	-	-
	2018.04.12									18.0	18.0	-	-
3#	2018.04.10					50.0	1.1	-	-	18.6	18.6	-	-
	2018.04.11									18.5	18.5	-	-
	2018.04.12									18.4	18.4	-	-
4#	2018.04.10					36.0	1.0	0.020	0.79	18.3	18.3	-	-
	2018.04.11									18.1	18.1	-	-
	2018.04.12									18.3	18.3	-	-

4.3.2

4.3.2.1

③

Ю GB3838-2002 Ⅲ

Ⅲ

1-8Ⅲ

4.3.2.2

Ⅲ

1

$$S_i = \frac{C_i}{C_{si}}$$

$$S_i \leq 1$$

$$C_i \leq C_{si} \quad \text{mg/l}$$

$$C_{si} \leq C_{si} \quad \text{mg/l Ⅲ}$$

2 pH

$$S_{pHj} = \frac{pH_j - pH_{sd}}{pH_j - pH_{su}} \quad pH_j \leq$$

$$S_{pHj} = \frac{pH_j - pH_{su}}{pH_j - pH_{sd}} \quad pH_j >$$

$$S_{pHj} \leq 1$$

$$pH_j \leq pH_{sd}$$

$$pH_{sd} \leq pH_{su}$$

$$pH_{su} \leq pH_{sd} \quad \text{Ⅲ}$$

3

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

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

$$S_{DO,j} \leq 1$$

$$DO_j \leq DO_s \quad \text{mg/L}$$

$$DO_s \leq DO_f \quad \text{mg/L}$$

$$DO_f \leq DO_s \quad \text{mg/L}$$

4.3.2.3

4-12III

4-12

III

III

III

III

III 4 4

¶ III III

10% III

III

III 2020 95% III

$$\mathbf{r} = \mathbf{u}$$

III2018

III

III 1 £ 4 4 4

4 4 4 4

4 4

4

4 4

III 2020

III

4 4 4

4 4 £ 4

III

4. III 1 £ 4

	HJ 639-2012	/ -	1.4 g/L
	GB/T 5750.6-2006	4.2	0.2 mg/L
	GB/T 5750.6-2006	5.1	0.05 mg/L
Na ⁺	HJ 812-2016	□ □ □ □ □	0.02 mg/L
	HJ 694-2014	□ □ □	0.4 g/L
	GB 21900-2008	A	0.1 mg/L
	GB/T 16489-1996		0.005 mg/L
	GB/T 5750.4-2006		0.05 mg/L

4.4.1.4

4-15

	1#	2#
pH	7.22	7.18
(mg/L)	0.172	0.201
(mg/L)	3.3	3.7
(mg/L)	0.05	0.09
(mg/L)	0.001L	0.001L
(mg/L)	877	905
(mg/L)	107.3	120.9
(mg/L)	0.3	0.6
(mg/L)	0.004L	0.004L
(mg/L)	0.005L	0.005L
(mg/L)	0.002L	0.002L
MPN/100mL	2L	2L
CFU/mL	4	6
(mg/L)	2.91	2.82
(mg/L)	1.0 § 10 ⁻⁴ L	1.0 § 10 ⁻⁴ L
(mg/L)	1.0 § 10 ⁻³ L	1.0 § 10 ⁻³ L
(mg/L)	0.01L	0.01L
(mg/L)	0.001L	0.001L
(mg/L)	0.05L	0.05L
(mg/L)	0.01L	0.01L
(mg/L)	4.0 § 10 ⁻⁴ L	4.0 § 10 ⁻⁴ L



4.4.2.4

Э Ю GB/T14848-2017 Ч Э Ю(HJ/T
164-2004) Э Ю III 4-17III

4-17

K ⁺	HJ 812-2016	Ч Ч Ч Ч Ч	0.02 mg/L
Na ⁺	HJ 812-2016	Ч Ч Ч Ч Ч	0.02 mg/L
Ca ²⁺	HJ 812-2016	Ч Ч Ч Ч Ч	0.03 mg/L
Mg ²⁺	HJ 812-2016	Ч Ч Ч Ч Ч	0.02 mg/L
SO ₄ ²⁻	HJ 84-2016	F ⁻ Cl ⁻ NO ₂ ⁻ Br ⁻ NO ₃ ⁻ PO ₄ ³⁻ SO ₃ ²⁻ Ч SO ₄ ²⁻	0.018 mg/L
Cl ⁻	HJ 84-2016	F ⁻ Cl ⁻ NO ₂ ⁻ Br ⁻ NO ₃ ⁻ PO ₄ ³⁻ SO ₃ ²⁻ Ч SO ₄ ²⁻	0.007 mg/L
	DZ/T 0064.49-1993	Ч	5 mg/L
	DZ/T 0064.49-1993	Ч	5 mg/L
pH	GB/T 5750.4-2006		--
	GB/T 5750.4-2006		1.0 mg/L
	GB/T 5750.4-2006		10 mg/L
	GB/T 5750.7-2006		0.05 mg/L
	GB /T 5750.5-2006		0.02 mg/L
	GB/T 5750.5-2006		0.2 mg/L
	GB/T 5750.5-2006		0.001 mg/L
	GB/T 5750.4-2006	4-	0.001 mg/L
	GB/T 5750.5-2006	-	0.002 mg/L
	GB/T 5750.6-2006		1.0 g/L
	GB/T 5750.6-2006		0.1 g/L
	GB/T 5750.6-2006		0.004 mg/L
	GB 7475-1987		0.01 mg/L
	GB/T 5750.5-2006		0.2 mg/L
	GB 7475-1987		0.001 mg/L

	GB/T 5750.6-2006		0.3 mg/L
	GB/T 5750.6-2006		0.1 mg/L
	GB 5750.12-2006	1.1	--
	GB/T 5750.12-2006		2MPN/100mL
/	HJ 639-2012	/ -	2.2 g/L
	HJ 639-2012	/ -	1.4 g/L
	GB/T 5750.6-2006	4.2	0.2 mg/L
	GB/T 5750.6-2006	5.1	0.05 mg/L
	HJ 694-2014	□ □ □	0.4 g/L
	GB 21900-2008	A	0.1 mg/L
	GB/T 16489-1996		0.005 mg/L
	GB/T 5750.4-2006		0.05 mg/L

4.4.2.5

4-18III

4-18

	1#	2#	3#	4#	5#	6#
pH	7.24	7.2	7.16	7.18	7.23	7.22
mg/L	0.108	0.069	0.11	0.087	0.1	0.196
mg/L	13.5	12.8	12.9	13.5	11.9	12.8
mg/L	0.008	0.009	0.007	0.012	0.008	0.007
mg/L	0.001L	0.001L	0.001L	0.001	0.001L	0.001L
mg/L	945	827	953	635	844	986
mg/L	685.7	706.5	843.2	577.3	687.3	780.5
mg/L	0.3	0.2L	0.2	0.2L	0.2	0.4
mg/L	0.004L	0.004L	0.004L	0.004L	0.004L	0.004L
mg/L	0.005L	0.005L	0.005L	0.005L	0.005L	0.005L
mg/L	0.002L	0.002L	0.002L	0.002L	0.002L	0.002L
MPN/100mL	2L	2L	2L	2L	2L	2L
CFU/mL	9	5	6	11	8	4



mg/L	1.05	1.29	0.97	1.09	1.21	0.93
mg/L	1.0 § 10 ⁻⁴ L	1.0 § 10				

Ю GB/T14848-2017 ы

III

4.5

4.5.1

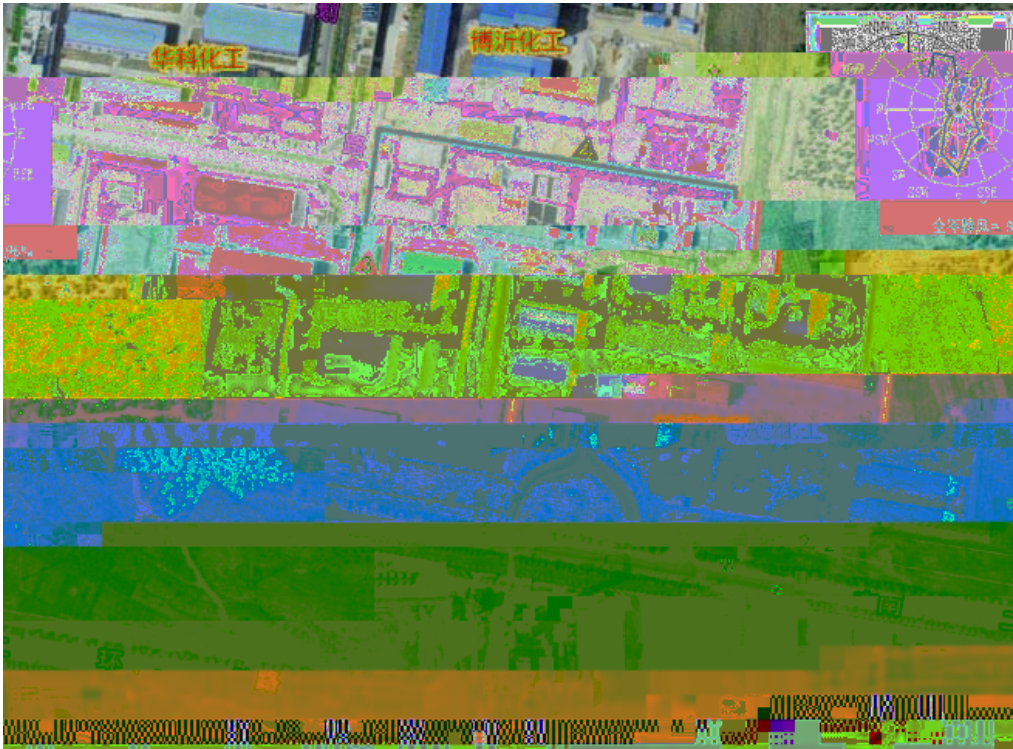
4.5.1.1

2019 2 21

4-6 4-20III

4-20

1#		E	1m
2#		S	1m
3#		W	1m
4#		N	1m



4-6

4.5.1.2

4-21III

4-21

dB(A)

	2019.2.21	
	54.9	51.8
	54.5	52.7
	56.2	52.8
	58.7	54.2

4.5.2

4.5.2.1

65dB(A)
 55dB(A)
 GB12348-2008

4.5.2.2

$P=L_{Aeq}-L_b$
 P
 dB(A)
 L_{eq}
A
 dB(A)
 L_b
dB(A)

4.5.2.3

		4-22			dB(A)			
3.28		54.9	65	-10.1		51.8	55	-3.2
		54.5	65	-10.5		52.7	55	-2.3
		56.2	65	-8.8		52.8	55	-2.2
		58.7	65	-6.3		54.2	55	-0.8

4.6

4.6.1

4.6.1.1

1
 III

1#		

У У

4 4 4 4 4 4 4 4

У 1,2-

У -1,2-

Ч1,1- Ч1,2- Ч1,1- Ч -1,2-

У 1,1,1,2-

4

Ч_{1,2}- Ч_{1,1,1,2}- Ч_{1,1,2,2}- Ч

4

Ч

У 1,2-

Ч1,1,2- Ч Ч1,2,3- Ч Ч Ч

1,4-

	HJ 605-2011	/ -	1.0 í g/kg
1,1-	HJ 605-2011	/ -	1.2 í g/kg
	HJ 605-2011	/ -	1.5 í g/kg
-1 2-	HJ 605-2011	/ -	1.4 í g/kg
-1 2-	HJ 605-2011	/ -	1.4 í g/kg
1,2-	HJ 605-2011	/ -	1.3 í g/kg
1,2-	HJ 605-2011	/ -	1.1 í g/kg
1 1 1-	HJ 605-2011	/ -	1.3 í g/kg
	HJ 605-2011	/ -	1.3 í g/kg
	HJ 605-2011	/ -	1.9 í g/kg
	HJ 605-2011	/ -	1.2 í g/kg
	HJ 605-2011	/ -	1.0 í g/kg
	HJ 605-2011	/ -	1.3 í g/kg
1 1 2-	HJ 605-2011	/ -	1.2 í g/kg
	HJ 605-2011	/ -	1.4 í g/kg
	HJ 605-2011	/ -	1.2 í g/kg
1 1 1 2-	HJ 605-2011	/ -	1.2 í g/kg
	HJ 605-2011	/ -	1.2 í g/kg
-	HJ 605-2011	/ -	1.2 í g/kg

	HJ 605-2011	/ -	1.2 í g/kg
	HJ 605-2011	/ -	1.1 í g/kg
1 1 2 2-	HJ 605-2011	/ -	1.2 í g/kg
1 2 3-	HJ 605-2011	/ -	1.2 í g/kg
1 4-	HJ 605-2011	/ -	1.5 í g/kg
1,2-	HJ 605-2011	/ -	1.5 í g/kg
	HJ 834-2017	-	0.09mg/kg
	HJ 834-2017	-	--
2-	HJ 834-2017	-	0.06mg/kg
[â]	HJ 834-2017	-	0.1mg/kg
[â]	HJ 834-2017	-	0.1mg/kg
[b]	HJ 834-2017	-	0.2mg/kg
[a,h]	HJ 834-2017	-	0.1mg/kg
[1,2,3-cd]	HJ 834-2017	-	0.1mg/kg
[k]	HJ 834-2017	-	0.1mg/kg
	HJ 834-2017	-	0.1mg/kg
	HJ 834-2017	-	0.09mg/kg

4.6.1.5

4-25III

4-25

	mg/kg	11.3
	mg/kg	0.31
	mg/kg	0.391
	mg/kg	1.13
	mg/kg	18
	mg/kg	52
	mg/kg	2
	mg/kg	<0.09
4-	mg/kg	<0.09
2-	mg/kg	<0.08
3-	mg/kg	<0.1
4-	mg/kg	<0.1
2-	mg/kg	<0.06
[â]	mg/kg	<0.1
[â]	mg/kg	<0.1
[b]	mg/kg	<0.2
[a,h]	mg/kg	<0.1
[1,2,3-cd]	mg/kg	<0.1
[k]	mg/kg	<0.1
	mg/kg	<0.1
	mg/kg	<0.09
	í g/kg	1.0
1,2-	í g/kg	1.3
1,1-	í g/kg	11.8
	í g/kg	1.0
	í g/kg	1.1
	í g/kg	1.5
1,2-	í g/kg	1.3
1,1-	í g/kg	1.3
1,2-	í g/kg	4.0
	í g/kg	2.3
1,1,1-	í g/kg	1.3
	í g/kg	4.8
	í g/kg	4.1
	í g/kg	1.2
