

	6				
	6				
	/				
			2022 305 2022 6 14		
	/		/		
	/				
			2023 3 ~2023 7		
	1	6	2022 6 30 2023 1 1		
	1	6	2022 12 9 2023 1 24		
	11800		286		2.42%
	11095		318		2.87%
	2022 5	6	2022 6 14 2022 305		

		ZJ80 8437.11m	7999m	ZJ80 8132.2m	304.91m
			1	1	
		1	2	1	2
		1	1	1	1
		1	1	1	1
		1			
		1	20m ³		
		500kW	2		
		18km	4.5m	500m	6m
		2400m ²		2400m ²	
		2	200m ³ / +	2	200m ³ / +

		300m ³ 1 +	300m ³ 1 +	
		1	1	
		1	1	
		1	1	
		1	1	
		1	1	
	H ₂ S	H ₂ S	H ₂ S	



97000m²

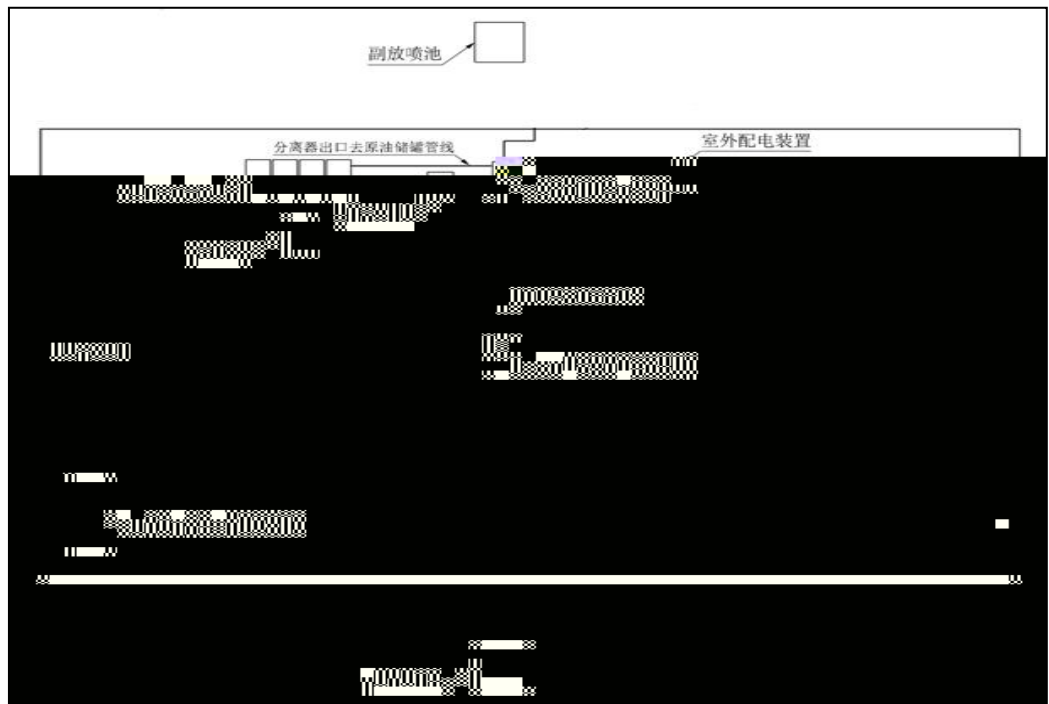
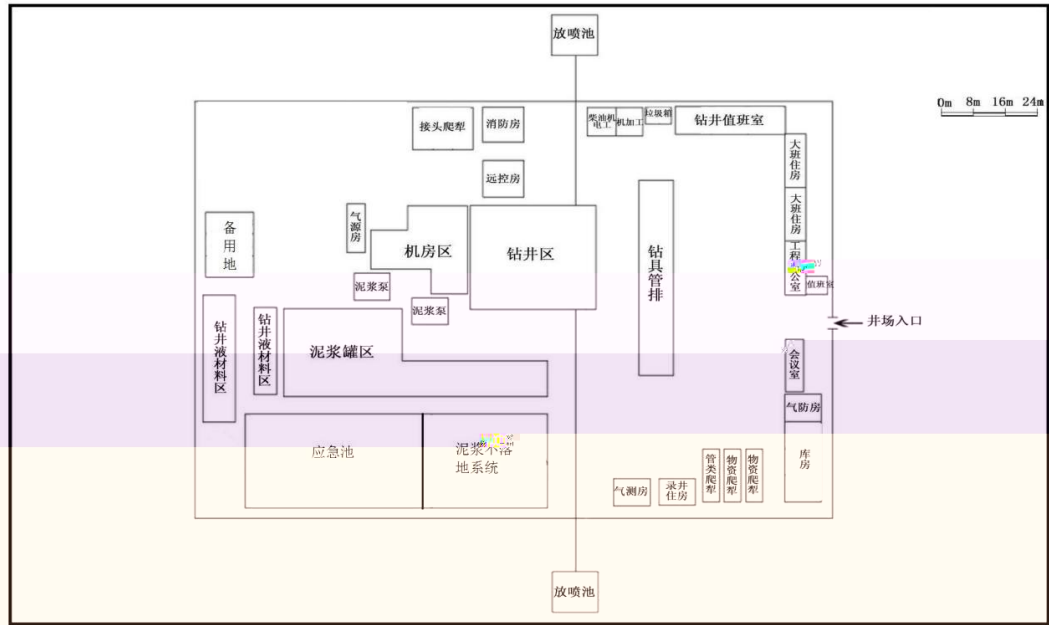
2-2

2-3

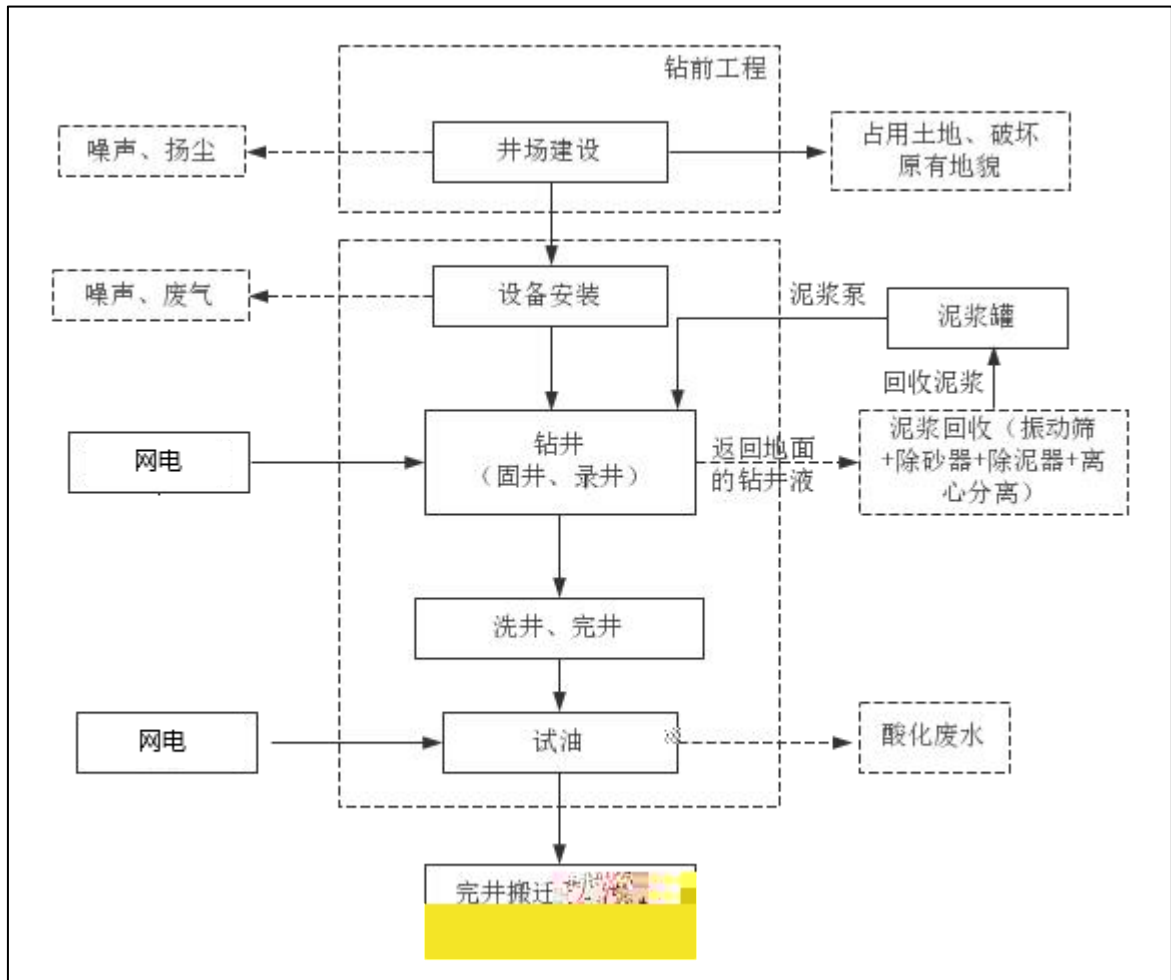
2-4

	120m×110m	13200m ²	120m×110m	13200m ²	
*	/	500m ²	/	500m ²	
	18000m×4.5m	81000m ²	18000m×4.5m	81000m ²	
	60m×40m	2400m ²	60m×40m	2400m ²	
	20m×10m	200m ²	20m×10m	200m ²	
	20m×10m	200m ²	20m×10m	200m ²	
	/	97000m ²	/	97000m ²	/

*



24h



8437.11m

7999m

8132.2m

2-3

	8437.11m 7999m	8132.2m	304.91m

2019 910

2019 12 10

65km

	2019	4	I ₂
	II ₃		
2021			
1			
2			
3			
1			
2			
3			1m×1m
			180000m ²
	4600m ²		
4			



1

2

3

4

5

6

2-4



	120×110m	120×110m	

~~M4HL6~~ Aî

p̄-Lb

1

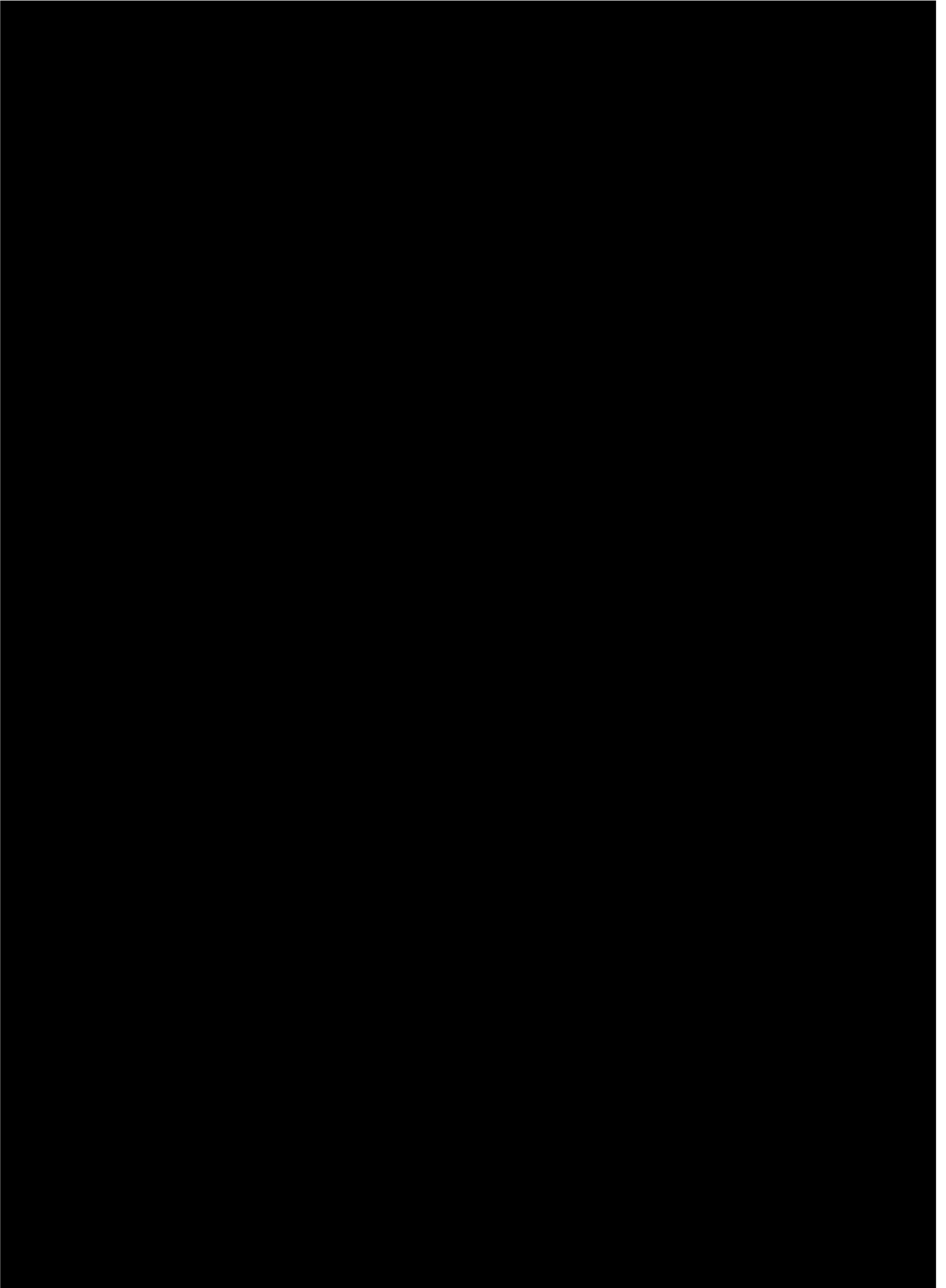
2

3

GB39728-2020			
1			
2			
3	1284m ³ TPZC20220808WS21	2000m ³	2 B
	2-6		

		2000m ³	
			/
DB654275-2019 2 B	+ DB654275-2019 2 B	+ TPZC20220808WS21 DB65 4275-2019 2 B	
/			
/		+	
1			
2			

3			
2-7			
GB12523-2011			
GB12348-2008			
2			
1			
2			
3			
+ + +			



DB65/T3997-2017	DB65/T3997-2017	2018 20	
(DB65/T3997-2017)	DB65/T3997-2017		
		9.45t	
/		0.836t	
/			
	100%		
/	/		

+

Mb 6.0m K 1×10^{-14} cm/s

Mb 1.5m K 1×10^{-7} cm/s

2-9

H ₂ S			

		/			
		11800	286		2.42%
2-10		11095	318		2.87%
1			15	15	
2		+	10	20	
3			/	2	
4		+	30	30	
5			/	1	
6			65	70	
7			15	15	
8			1	5	
9			/	10	
10			45	45	
11		+	50	50	
12			50	50	
13		+			
14			5	5	

	286	318	--

2022 6 14

2022 305

83°29 32.350"

40°10 39.038"

8437.11m

7999m

1

300m³

2

2×200m³

2

2×100m³

1

1

9.66hm²

11800

286

2.42%

SY/T6997-2014

GB16297-1996

GB39728-2020

GB12523-2011

GB12348-2008 2

DB654275-2019

2 B

DB65/T3997-2017

DB65/T3997-2017

H₂S

5

10

1

2015.1.1

2

2018.10.26

3

2018.1.1

4

2020.9.1

5

2022.6.5

6

2022.12.30

7			2011.3.1		
8			2018.12.29		
9			682	2017.10.1	
10			2019.1.1		
1					
	2017	4	2017.11.22		
2					
2016.4.8					
3					
			2021	70	2021.8.23
4					
2015	52		2015.6.4		
5					
	2019	910	2019.12.13		
6					
			2019.11.13		
1					HJ612-2011
2					HJ/T394-2007
3					

1

GB39728-2020

2

GB36600-2018

1

6

2022.5

2

6

2022 305 2022.6.14

3

3-1

1		200m
2		200m
3		200m
4		
5		200m
6		

3-2

1		
2		COD _{cr} BOD ₅
3		pH
4		L _{Aeq}
5		pH
6		COD _{cr}
3-3		

		1		
		1440m ³	9.45t	0.836t
		2		
			TPZC20220708GF03	
		DB65/T3997-2017		
			2018 20	
			3	
		4		5
				6

		<p>HSE</p>

2023 5 29 ~2023 5 30

6

1

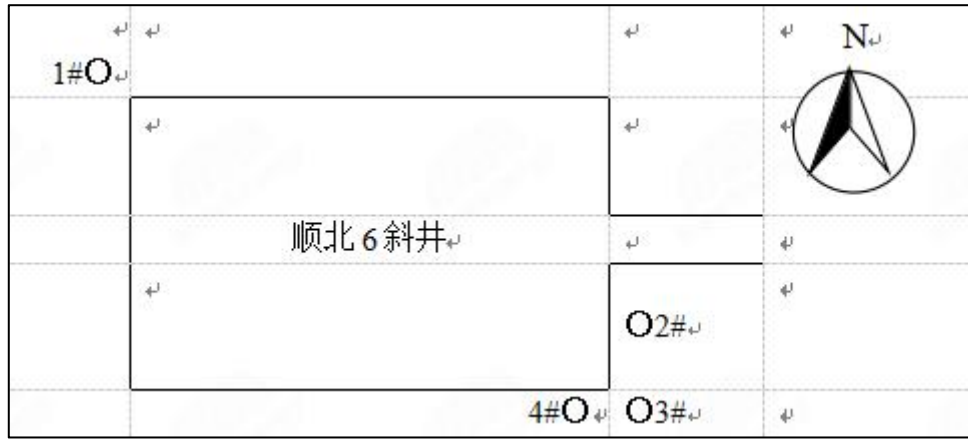
6

1

3

5-1

5-1



	1	3	2023.5.29~2023.5.30	4 / 2

		m/s		kPa	%	
2023/05/29		1.6~1.8	18.3~20.3	91.2~91.5	26.5~27.2	
2023/05/30		1.3~1.5	20.4~23.8	91.0~91.3	26.9~28.1	

2

5-3

	GB39728-2020	4.0mg/m ³

3

6

5-4

6 2023/5/29~2023/5/30	1#	1.30~1.54	4.0	
	2#	1.45~1.68		
	3#	1.56~1.73		
	4#	1.64~1.72		

6

1.73mg/m³

GB39728-2020

GB16297-1996

1

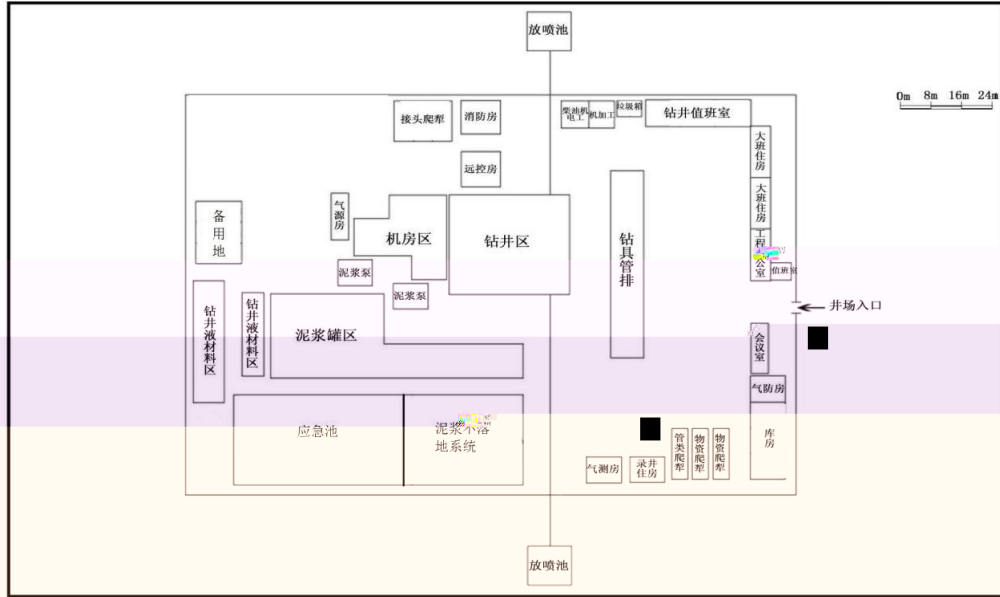
1

46

5-5

5-2

[a] ⁺	[a]	[b]	[k]	2-	
	[a,h]	[1,2,5-cd]			
					GB36600-2018 2



3

5-7

		mg/kg		mg/kg	
		6	6		
1		<6	<6	4500	
2		5.14	4.31	60	
3		<0.002	<0.002	38	
4		10.9	10.2	18000	
5		13	13	800	
6		<0.07	<0.07	65	
7		16	15	900	
8		2.2	2.5	5.7	
9		<0.0019	<0.0019	4	
10		<0.0013	<0.0013	1200	
11		<0.001	<0.001	0.43	
12	1,1-	<0.001	<0.001	66	

13		<0.0015	<0.0015	616	
14	-1,2-	<0.0014	<0.0014	54	
15	1,1-	<0.0012	<0.0012	9	
16	-1,2-	<0.0013	<0.0013	596	
17		<0.0011	<0.0011	0.9	
18	1,1,1-	<0.0013	<0.0013	840	
19		<0.0013	<0.0013	2.8	
20	1,2-	<0.0013	<0.0013	5	
21		<0.0012	<0.0012	2.8	
22		<0.001	<0.001	37	
23	1,1,2-	<0.0012	<0.0012	2.8	
24		<0.0014	<0.0014	53	
25		<0.0012	<0.0012	270	
26	1,1,1,2-	<0.0012	<0.0012	10	
27		<0.0012	<0.0012	28	
28	+	<0.0012	<0.0012	570	
29		<0.0012	<0.0012	640	
30		<0.0011	<0.0011	1290	
31	1,1,2,2-	<0.0012	<0.0012	6.8	
32	1,2,3-	<0.0012	<0.0012	0.5	
33	1,4-	<0.0015	<0.0015	20	
34	1,2-	<0.0015	<0.0015	560	
35		<0.09	<0.09	70	
36	1,2-	<0.0011	<0.0011	5	
37		<0.09	<0.09	76	
38		<0.1	<0.1	260	
39	2-	<0.06	<0.06	2256	
40	a	<0.1	<0.1	15	
41	a	<0.1	<0.1	1.5	
42	b	<0.2	<0.2	15	
43	k	<0.1	<0.1	151	
44		<0.1	<0.1	1293	
45	(a,h)	<0.1	<0.1	1.5	
46	1,2,3,-cd	<0.1	<0.1	15	

GB36600-2018

6

6

5-8

		mg/kg									
		6	6	6	6	6	6	6	6		
		20220708 GF03-01-01 2022/7/8	20220708 GF03-02-01 2022/7/8	20220729 GF02-01-01 2022/7/29	20220729 GF02-02-01 2022/7/29	20221127 GF21-01-01 2022/11/27	20221127 GF21-02-01 2022/11/27	20221127 GF22-01-01 2022/11/27	20221127 GF22-02-01 2022/11/27		
1	pH	8.51	8.57	8.34	8.42	10.1	10.0	9.41	9.33	2.0~12.5	
2		2.69	2.71	4.02	3.81	2.07	2.27	2.86	2.59	13	
3		30.7	28.9	31.3	33.6	37.6	39.1	39.6	38.4	600	
4		121	117	294	381	337	341	415	421	1500	
5		13.6	12.5	31.2	29.8	41.1	39.9	42.8	44.2	150	
6		1.6	1.5	1.4L	1.4L	1.4L	1.4L	1.4L	1.4L	600	
7		0.2	0.2	0.1L	0.1L	0.1L	0.1L	0.1L	0.1L	20	
8		4.78	4.36	7.77	8.47	22.2	21.9	32.8	32.8	80	
9		0.2L	0.2L	0.2L	0.2L	0.2L	0.2L	0.2L	0.2L	0.7	
10	COD mg/L	118	110	43.5	47.9	104	95.4	81.7	79.5	150	
11	%	0.256	0.254	1.18×10^{-2}	1.19×10^{-2}	1.34	1.33	1.12	1.13	2	
12	%	42.3	42.8	41.8	42.3	32.7	33.2	24.7	24.4	60	

L

		mg/kg									
		6	6	6	6	6	6	6	6		
		20221127GF23- 01-01 2022/11/27	20221127GF23- 02-01 2022/11/27	20221127GF24- 01-01 2022/11/27	20221127GF24- 02-01 2022/11/27	20221127GF25- 01-01 2022/11/27	20221127GF25- 02-01 2022/11/27				
1	pH	8.26	8.38	8.06	8.14	8.20	8.33	2.0~12.5			
2		2.55	2.91	2.37	2.42	2.53	2.78	13			

3		41.2	40.4	38.6	39.8	41.3	42.8	600	
4		423	429	453	461	393	393	1500	
5		37.9	36.1	41.5	43.1	41.2	45.1	150	
6		1.4L	1.4L	1.4L	1.4L	1.4L	1.4L	600	
7		0.1L	0.1L	0.1L	0.1L	0.1L	0.1L	20	
8		33.4	29.3	27.0	26.1	25.6	23.0	80	
9		0.2L	0.2L	0.2L	0.2L	0.2L	0.2L	0.7	
10	COD mg/L	78.6	74.5	57.7	61.2	65.1	72.4	150	
11	%	1.13	1.13	1.21	1.22	1.25	1.26	2	
12	%	23.8	23.0	28.3	29.4	28.2	29.5	60	
L									

3

	2	TSP PM ₁₀		
	3	pH COD _{cr} BOD ₅ SS		1
	2 1	A	1m	
	1	pH		

		a	COD		

HSE					
HSE		HSE		HSE	

6

83°29 32.350''

40°10 39.038''

8232.2m

1

300m³

2

2×200m³

2

2×100m³

1

1

97000m²

1

		6					/						
		M7471							/		E83°29 32.350'' N40°10 39.038''		
		/					/						
							2022 305						
		2022 6 30 2023 1 1					2022 12 9 2023 1 24				/		
											/		
											/		
		11800					286		%		2.42		
		11095					318		%		2.87		
		35		32		1		100			45	105	
		/					/				/		
							91650000742248144Q				2023 3 ~2023 9		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/
		/	1.73mg/m ³	4.0mg/m ³	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/