广州东方红印刷厂地块土壤污染状况初步调查报告

（简本）

代业主管理单位：广州环投控股有限公司

土壤污染状况调查单位：广州华清环境监测有限公司

编制日期：2022 年 2月

48012.42m^2

313 113.264167

23.079972°

G1 B1

G1

B1

313 48012.42

m^2

11

G1 B1

GB 36600-2018

2009 19 “

”

2020 67

GB/T 14848-2017

1

○ 92

1

○ 50

○ 1968 11 -1969

1969

○ 1976

○ 1982

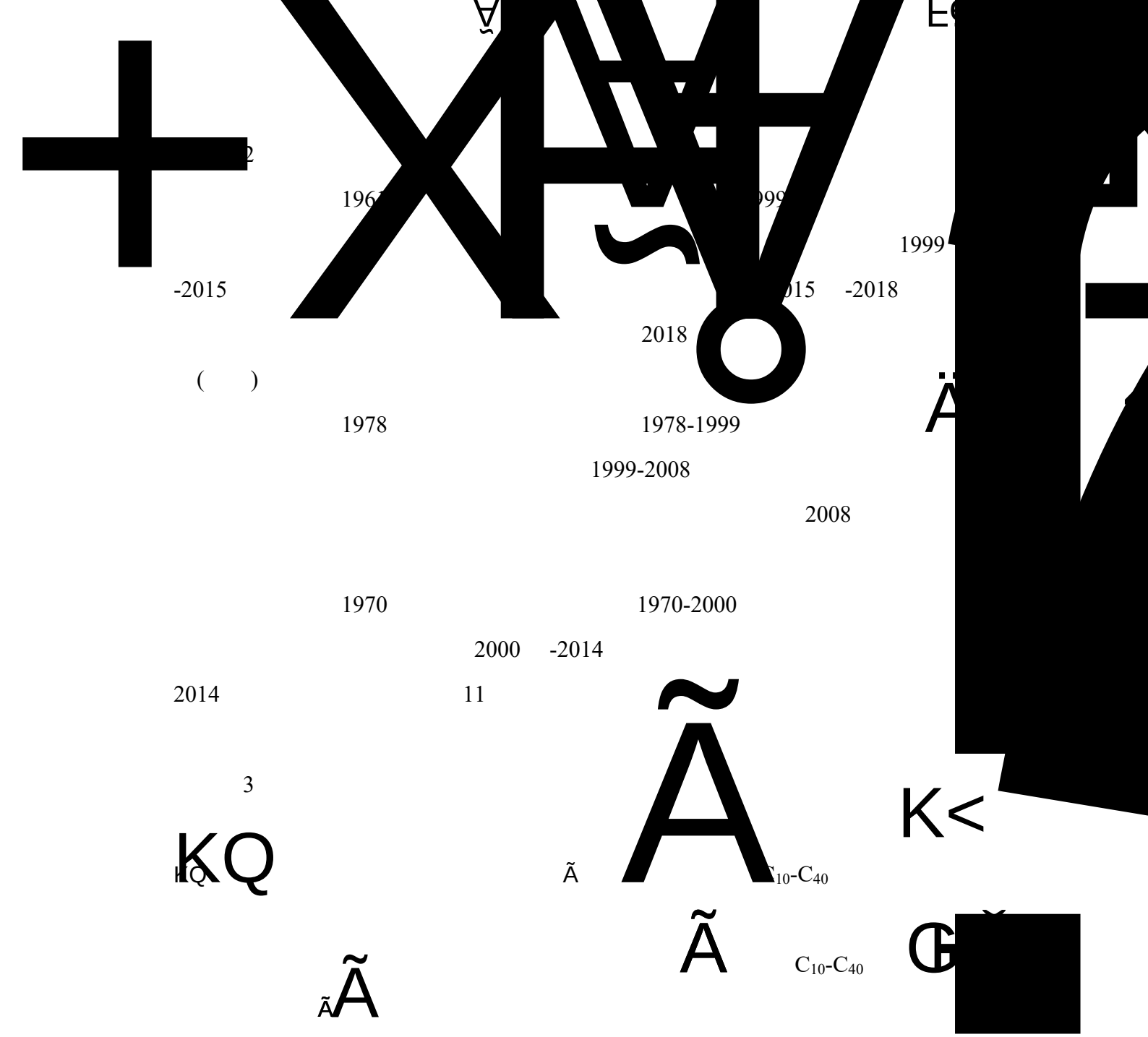
,@ñ0 Qx… P

○ 1983

^° $ P Y H'¤

1 1

○ 1994



41 1171.02 m^2/

129m

689m 1

2 2021 08 09 8 20

2021 08 25 ~ 08 26

2 129m

689m pH

45

C_{10}-C_{40} 2,4- 6

8 10

7

3 C_{10}-C_{40}

41

GB 36600-2018

pH 45

C_{10}-C_{40} 2,4-

6 8

10 .

-1,2- C_{10}~C_{40}

2- 2,4,5-

2,4,6- 2,4- 2,4-

S5 S6 S7

S8 S24 S33

8 8

2 12 1

11 3 12 6

16 C_{10}-C_{40}

4- 2,4- [a] [b]

C_{10}-C_{40}

W2 4- W3

4- W8

G1 B1

GB36600—2018

GB/T14848-2017 IV

4-

1.

1.1.

313

48012.42 m^2

G1 B1

1.2.

313

[2011] 63 48012.42 m^2

11

G1 B1

2012 140

2013 7

2014 66 2016

145 2017

2018 8

2021 06

1.3.2.

1

2

3

1.4.

313

1.4-1 48012.42 m^2

11

1.5.

HJ

25.1-2019 (HJ 25.2-2019)

HJ 25.3-2019

2017 72 1

DB4401/T 102.1-2020

- -

1 ——

1

2

GPS /

3

4

2 ——

1

2

1.6.

1.6.1.

1 2015 1 1

2 2019 1 1

3

7

2015 115

8 2016 26

9 2017 13

10

2017 185

11

2018 26

12 2018 11

29

13 2019

2019 4 2019 6 13

14

2020 3 5

1.6.3.

1

GB36600-2018

2 GB/T14848-2017

3 HJ25.1-2019

4 HJ25.2-2019

5 HJ25.3-2019

6 1 DB4401/T

102.1-2020

7 3

DB4401/T 102.3-2020

8 4

DB4401/T 102.4-2020

9 HJ/T166-2004

10 HJ 164-2020

11 HJ1019-2019

12 GB50021-2001 2009

13 2019 9

14 2014

11

15

2018 173

16 2017

72

17

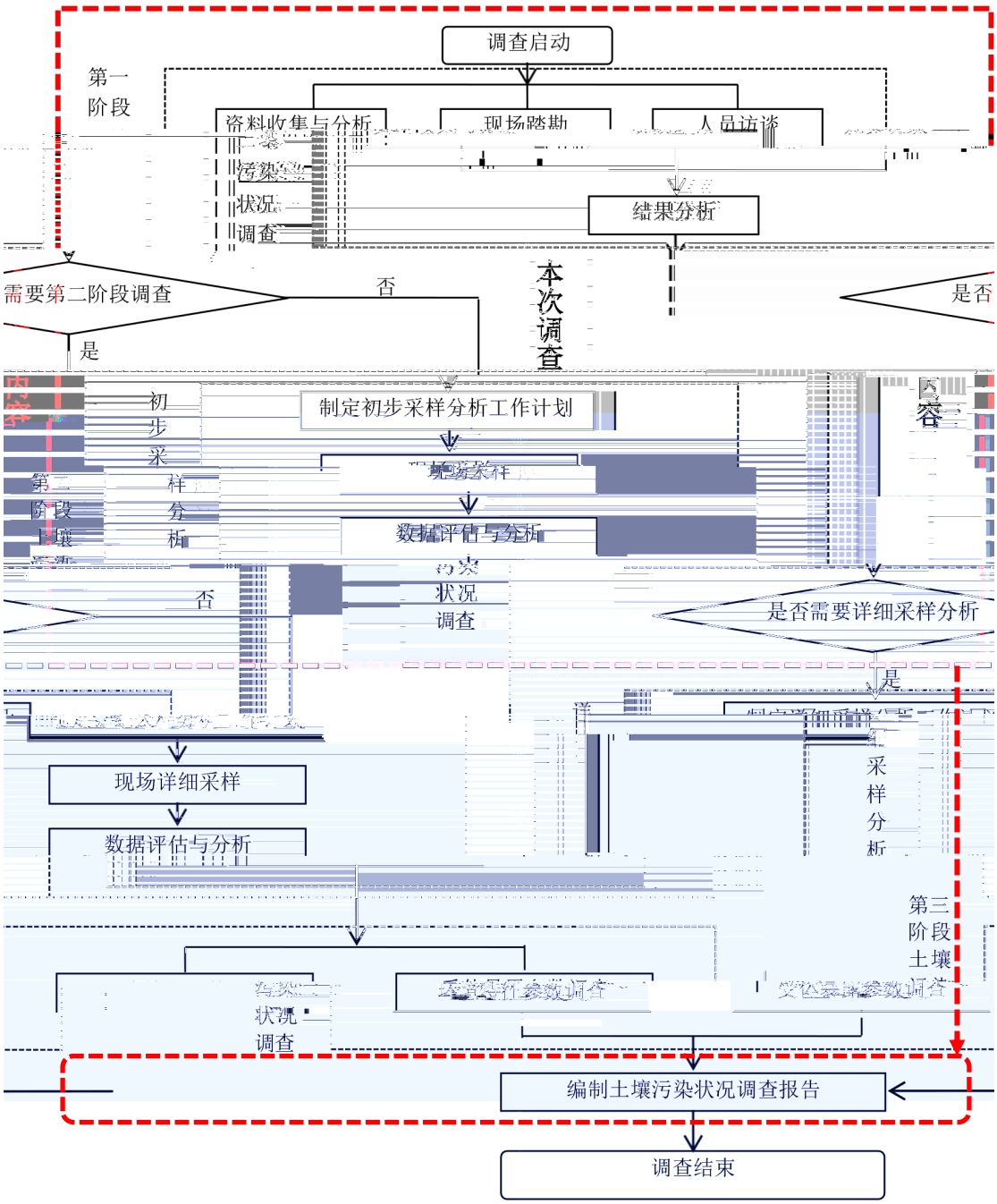
18 GB50137-2011

19

2020 67

1.7.

1.7- 1


调查启动
第一阶段
资料收集与分析
现场踏勘
人员访谈
污染状况调查
结果分析
需要第二阶段调查
否
是
本次调查
是否
制定初步采样分析工作计划
数据评估与分析
污染状况调查
否
是否需要详细采样分析
是
现场详细采样
数据评估与分析
第三阶段土壤
状况调查
编制土壤污染状况调查报告
调查结束

2

2.1.

112 57 ~114 3 22 26 ~23 56

113 14 ~113 23

23 3 ~23 16

2.2.

2.2.1.

1~2 21.8 7 28.4
0 38.7 1700 4~9 80.4%
4~6 7~9 78.5%

29.3% 1.9 / 1825
4570 / 800 1650
6 208

2.2.2.

3

0.39
25
7000
40

5

4~9m, 12~18m

2.2.3.

2.2.4.

90.40

2019 18

2019 172.42 1.8% 106.73

0.9% 10911 10.14 7.08

3.06 97.22% 2020

11 1 1819037

2.2.5.

2019 1935.12

7.6% 6.1% 6.2% 6.8%

1.54 10.7% 397.27

10.1% 1536.31 6.9%

0.1:20.5:79.4 GDP 53.2% 21.41 / GDP 11.32

2020 2086.93 2.8%

2.2.6.

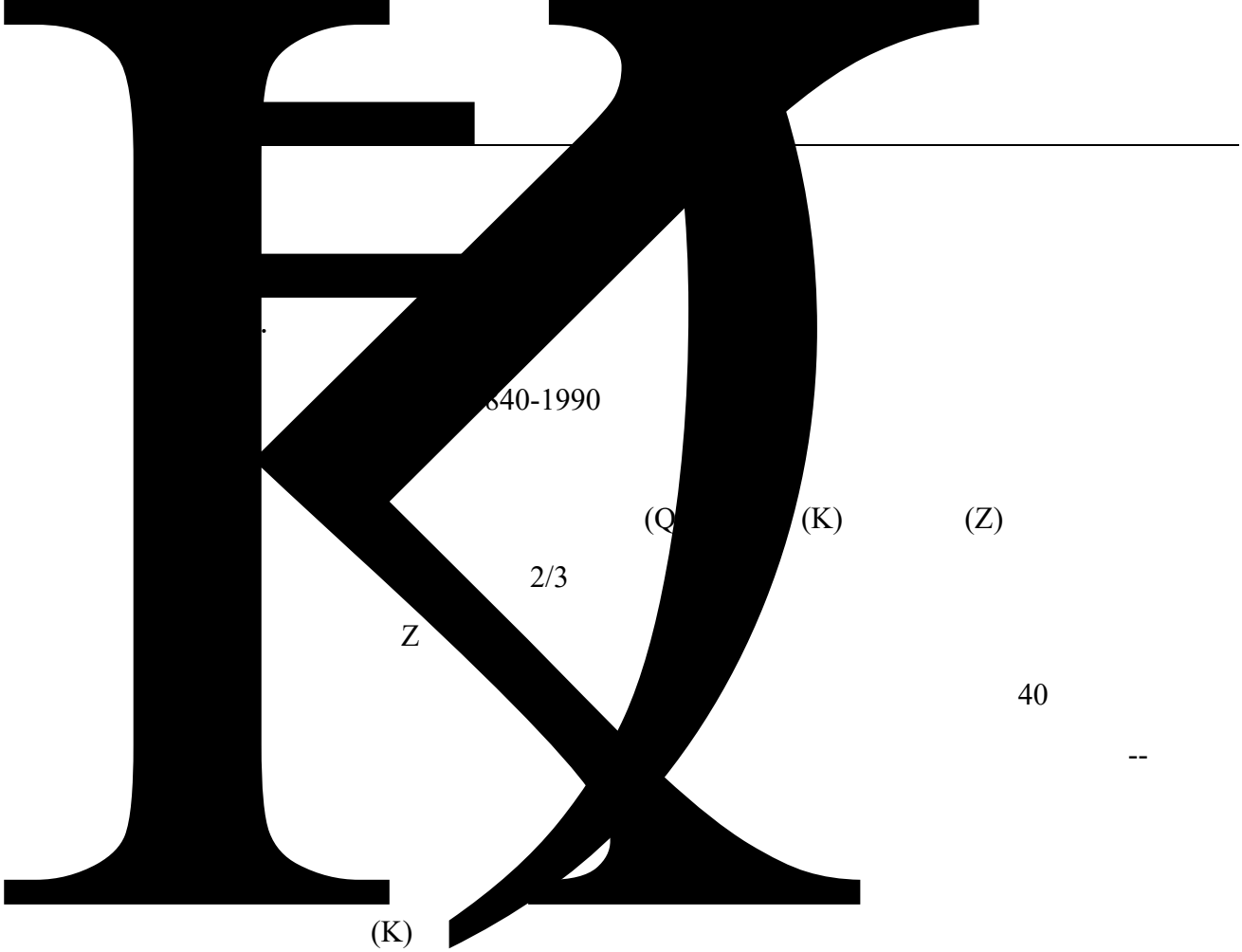
2019 21.73%

1200 18

4866

1 4 2

4913



.

640-1990

(Q (K) (Z)

2/3

Z

40

--

(K)

(20~45)

(Q)

a.

1) 40 20

51.2

2)

b.

(» к ı µ

Ę

:

a.

19

40

~55

b.

600

40 ~45 20

c.

54 300

d.

, 340 ~350

11

1300m

2.3.2.

F-49-[12]

K_2

56-451 / Cl-Na.Ca

2.99-13.38 /

:

N S

NW SE

NW E

2.4.

2.4.1.

(Q) (Q^{ml}) Q^{al}

J

1 Q^{ml}

Q^{ml}

0.60 4.60m 2.23m

2 Q^{al}

Q^{al}

0.90 6.70m 4.92m

3 J

J

0.10 1.00m

0.34m

2.4.2.

2.4-2

2.5.

2.5.1.

2018

2.5.2.

1939

1939

50

1968 11 -1969

1969

1976

1982

1

1983

1 1

1994 6

2.6.

2.6.1.

11

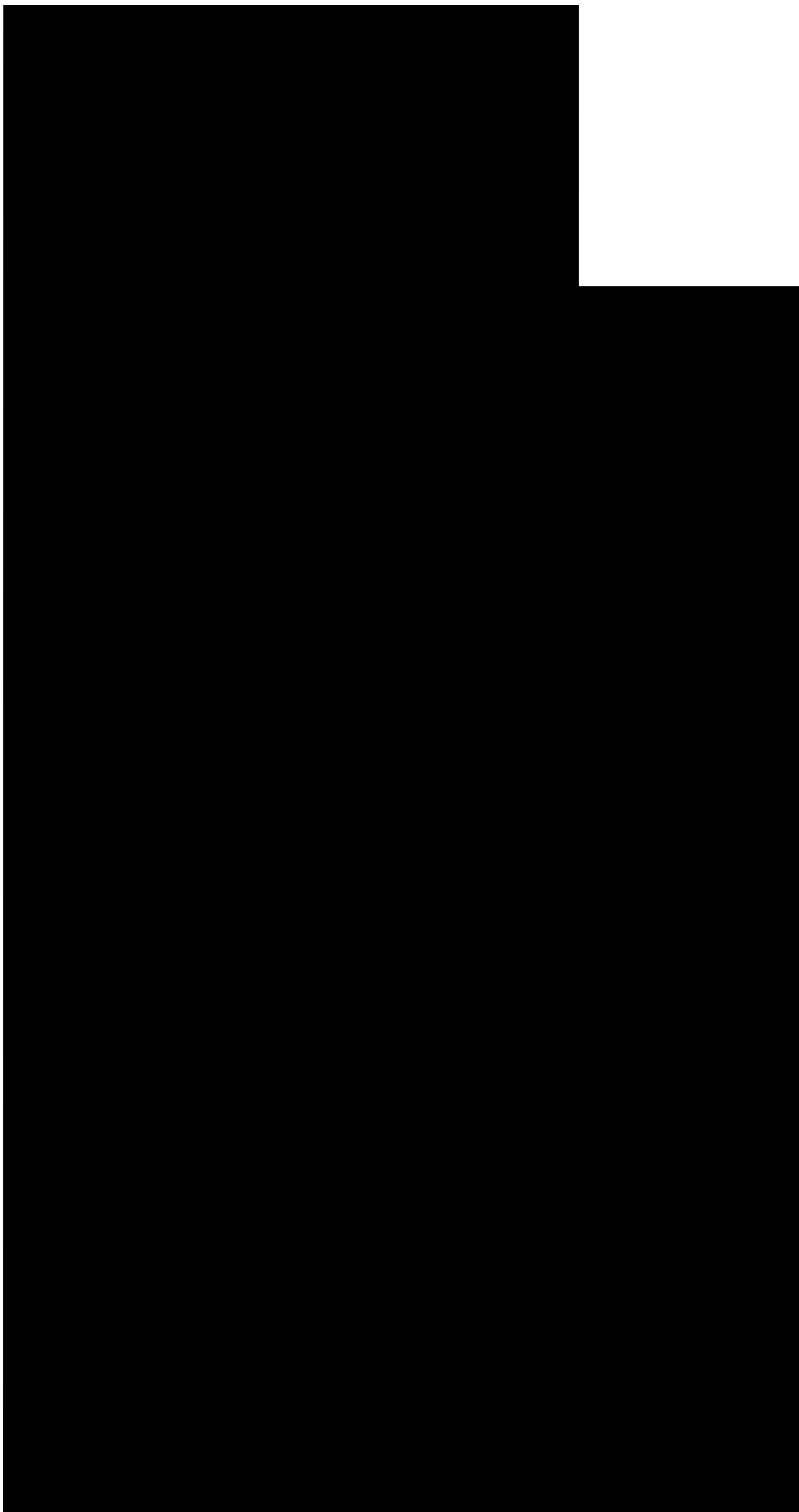
2.6.2.

1961

-2015

( )

1978



2.8.

G1 B1

( )

(GB36600-2018)

2.9.

2009 19

“

” 1 DB4401/T

102.1-2020 “

GB/T 14848-2017

IV ” IV

3.

3.1.

3.2.

HJ25.1-2019 1

DB4401/T 102.1-2020

a)

b)

c)

d)

e)

3.2.1.

2021 6 -7

1988 1999 2000 2004

google 2005~2010 2012~2019

1966 1969 1974

2021

6 -9

2021 7

313

3.2.2.

2021 6-9

3.2.3.

3.3.

3.3.1.

HJ 25.1-2019

1 DB4401/T 102.1-2020

2021 6 5

1

2

3.3.2.

HJ 25.1—2019

1 DB4401/T 102.1-2020

3

2021 6 5

11

HJ 25.1—2019

1 DB4401/T 102.1-2020

◯ 1939

◯ 1939

1

1 1 1 1

1 1 1 1

1 1 1 1

1

◯ 50

◯ 1968 11 -1969

1 1 1 1

1969

◯ 1976

2 1

◯ 1980

◯ 1982

◯ 1983

1 1

◯

◯ 1996

◯ 2007

◯ 2010

◯ 2010 -2019

◯ 2019

1) 1978

3.3-1

3.4.

1820

0.5~2.9m

3.5.

1

1) C_{10}-C_{40}

2)

4

3)

4) C_{10}~C_{40}

5)

C_{10}~C_{40}

6)

7)

C_{10}~C_{40}

8)

C_{10}~C_{40}

9)

10) C_{10}-C_{40}

11)

C_{10}-C_{40}

C_{10}-C_{40}

2

7

1)

C_{10}-C_{40}

2)

C_{10}~C_{40}

3)

C10-C40

4)

C_{10}~C_{40}

C_{10}~C_{40}

5)

C_{10}-C_{40}

2017 8 9

333 (20171708)

333

C_{10}-C_{40}

3.6.

1

◯ 1939

◯ 1939

◯ 50

◯ 1968 11 -1969

1969

◯ 1976

◯ 1982

◯ 1983

1 1

◯ 1994 6

◯ 1996

◯ 2007

◯ 2010

◯ 2010 -2019

◯ 2019

2

1961 1961-1999

1999 -2015

2015 -2018

2018 ( )

1978 1978-1999

1999-2008

2008

1970 1970-2000

2000 -2014

2014 11

3

C_{10}-C_{40}

C_{10}-C_{40}

C_{10}-C_{40}

4.

4.1.

2018 173

1 DB 4401/T

102.1-2020 HJ 25.1-2019

1 DB 4401/T 102.1-2020

4.2.

4.2.1.

4.2.1.1.

HJ 25.2-2019

2018 173

1 DB 4401/T 102.1-2020

4.2.1.2.

1

1

40

m×40 m

1600 m^2

5

2

10000

3 2m

2

1 3

2 0.5m

3 15

1

5 -8

5

3

2

3

3 4 -5

3

0 -0.5 0.5

0.5 -6 2

4

4.2.2.

1 48012.42 m^2

41 1171.02 m^2/

129m 689m 1

2

GB 50137

G1 B1

GB 36600-2018

2

6-8m

8m

0.5m

1 0.5m

1 2m

5

5

3

8 S41/W3 S35/W8

S1/W1 S6/W2

2

4.2-2

4.3.

4.3.1.

4.3.1.1.

41

1 pH

2 45

7

VOCs 27 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-

+

SVOCs 11 2- [a] [a] [b]

[k] [a,h] [1,2,3-cd]

3

◯

◯ C_{10}~C_{40}

◯ 2 4-

◯ 2,4,5- 2,4,6- 2,4 2,4-

2- 4- 4- 2.4-

◯ 6

2-

◯ 3,3’4,4’- 3,4,4’,5- 2,3,4,4’,5-

2’,3,4,4’,5- 2,3,3’,4,4’- 3,3’,4,4’,5-

2,3’,4,4’,5- 2,3,3’,4,4’,5- 2,3’,4,4’,5,5’- 3,3’,4,4’,5,5’-

2,3,3’,4,4’,5’- 2,3,3’,4,4’,5,5’-

◯

◯

◯

◯ 8 g,h,i

4.3.1.2.

8

1 pH

◯ 12

◯ C_{10}~C_{40}

◯ 3 :

◯ 11 1,2- 1,4-

+ 2 4-

◯ 12 2- 2,4,5- 2,4,6-

2,4 2,4- 2- 4-

4- 2.4-

◯ 6

2-

◯ 3,3’4,4’- 3,4,4’,5- 2,3,4,4’,5-

2’,3,4,4’,5- 2,3,3’,4,4’- 3,3’,4,4’,5-

2,3’,4,4’,5- 2,3,3’,4,4’,5- 2,3’,4,4’,5,5’- 3,3’,4,4’,5,5’-

2,3,3’,4,4’,5’- 2,3,3’,4,4’,5,5’-

◯

◯

◯

◯ 16 [a] [a] [b] [k]

[a,h] [1,2,3-cd] g,h,i

4.3.2.

4.3.3.

GB HJ

4.4.

HJ/T 166-2004 HJ

25.2-2019

4.4.1.1.

2021 08 09 ~ 08 20

GB 50021-2001

VOCs

5 g 40 mL

1 10 mL 3

VOCs

60mL 4℃

VOCs

2 SVOCs C_{10}-C_{40}

SVOCs VOCs

250mL

4℃ SVOCs

C_{10}-C_{40}

3

250

mL

pH

0 ~ 4 ℃

4.4.2.

8

S1/W1 S6/W2

S41/W3 S27/W4

S24/W5 S26/W6

S32/W7 ,

S35/W8

HJ 164-2020

4.4.2.1.

2021 08 09 ~ 08 20

127 mm

63 mm U-PVC

0.5 mm 5 mm U-PVC

U-PVC

0.1 ~ 0.2 cm

40 ~ 50 cm

50 cm

cm

3

4.4.2.2.

4.5

HJ 56-2004

HJ 164-2020

2 SVOCs C_{10}-C_{40}

SVOCs VOCs

250mL

4℃ SVOCs

C_{10}-C_{40}

3

250

mL

pH

4

,

10% 1

5

0 ~ 4 ℃

6

8.2 8.4

4.6.2.

4.6.2.1.

1 CMA

CMA 10

2

11

4.6.2.2.

1

1

2 20

3

5 %

4

5 %

5 %

5

] [6

2-

] 8.3% 14

2,4,5- 2,4,6- 2,4- 2,4-

6.5% 16 C_{10}~C_{40}

6.9% 14

6.9% 5 [2,3,3 ,4,4 ,5,5 -

2,3,3 ,4,4 ,5 - 2,3,3 ,4,4 - 2,3 ,4,4 ,5-

2,3 ,4,4 ,5,5 - 2,3,4,4 ,5- 2 ,3,4,4 ,5- 3,3 ,4,4 ,5,5

- 3,3 ,4,4 ,5- 3,3 ,4,4 ,- 3,4,4 ,5-

2,3,3 ,4,4 ,5-] 7.9%

4 30 2 7

VOCs 27 SVOCs 11 C_{10}-C_{40} 8

13.7 % 29

10 15.4 % 1

18 % 27 6

15.3 % 10

12 18.9%

5 30 12.0 %

18 7.2%

27 10.8%

15 6.9% 34

15.7% 7

11.9% 16

27 11 5.6%

6.4% 14 [6 2,4-

2- 4- 4- 2.4-]

C_{10}~C_{40} 6.4% 15

8 7.4% 13

6 6.4% 12

2,4,5- 2,4,6- 2,4- 2,4-

5.5% 14 6.9%

5 12 6.3%

Ã

4.6.3.2.

HJ 164-2020

4.6-2

1 2 12

3

11 1,2- 1,4-

+ 2 4-

12 6 12 16
25 %
4 4 2,4-
28.6 % 2
10 1 3 9
C_{10}-C_{40} 11 6 12
16 14.3 %

5 2 12 3
11 12 14.3 %
1 12 C_{10}-C_{40}
6 16 7.14 %

6 2 3
11 12 14.3 %
1 11 C_{10}-C_{40}
6 16 7.14%

7 4 28.6 %
3 21.4 % 2
28.6 %
1 28.6 %

4.7.

4.7.1.

GB 36600-2018

1. GB 36600-2018

2. HJ 25.3-2019

3.

1.

C_{10}-C_{40}

GB 36600-2018

GB36600—2018 A.1

GB/T 14848

IV ” IV

GB/T 14848-2017

GB 5749-2006

HJ 25.3-2019

GB/T 14848-2017

IV

HJ 25.3-2019

4.7.3.

HJ25.3-2019

5.

5.1.

5.1.1.

8

1

0~4.60m 2.23m

2

0.60~8.00m 4.92m

3

1.90~8.00m 0.34m

0~460cm 600~800cm

190~800cm 5.1-1 ~5.1-6

5.1.2.

8

5.1-1 0.46 ~ 3.37m

3.95 ~ 6.79m

pH

6.45~7.11

5.2.

2

129m 689m

5.2-1

5.3.

5.3.1.

217

pH 5.5 ~ 9.4 6.24 pH < 4.5

9 4.15 % pH 4.5~ 6.0 77 35.48%

pH 6.0 ~ 6.5 38 17.51% pH 6.5 ~ 7.0

44 20.28% pH 7.0 ~ 7.5 21 9.68 %

pH 7.5 ~ 9.5 27 12.44% pH > 9.5

1 0.46 % pH 5.3-1

2.4 ~ 31.8 % 14.7%

5.3.2.

41 G1 B1

GB 36600-2018

12

5.3-3

12 ND~30.16mg/kg 5.22mg/kg

S5 S6 S7

S8 S33

S5 S6 S7 S5 S6 S7

S5

S8 S8

S33

S33

5.3.3.

41 G1 B1

GB 36600-2018

GB36600 1 VOCs 27 SVOCs 11 C_{10}~C_{40}

2 4- [10 2,4,5- 2,4,6-

2,4 2,4- 2- 4- 4-

2.4-] [6

2-

] 8

g,h,i

5.3- 4

5.3-4

1 ND~0.0914mg/kg 0.00448mg/kg

2 ND~0.0212mg/kg 0.000137mg/kg

3 ND~0.0018mg/kg 8.2904E-06mg/kg

4 ND~0.0013mg/kg 1.1520E-05mg/kg

5 ND~0.0024mg/kg 6.6353E-05mg/kg

6 ND~0.0044mg/kg 0.0000393mg/kg

7 -1,2- ND~0.0436mg/kg

0.0002230mg/kg

8 ND~0.17mg/kg 0.003516mg/kg

9 ND~0.2mg/kg 0.0010752mg/kg

10 ND~0.2mg/kg 0.001081mg/kg

11 ND~0.19mg/kg
0.00104mg/kg

12 ND~1.41mg/kg
0.0330mg/kg

13 ND~128mg/kg
1.9171mg/kg

14 2- ND~0.9mg/kg
0.148mg/kg

15 2,4,5- ND~3.53mg/kg 0.0998mg/kg

16 2,4,6- ND~1.36mg/kg 0.023mg/kg

17 2,4- ND~0.13mg/kg 0.005mg/kg

18 2,4- ND~2.73mg/kg 0.0863mg/kg

19 (C10-C40) ND~326mg/kg
27.4780mg/kg

20 0.08~18.8mg/kg 0.771mg/kg S24
1.8m 18.8 mg/kg
16.5 mg/kg
S24

S24 S24

5.4.

8

12 1

3 11 C_{10}-C_{40} 12

6 16

5.4-1

1	pH( )	6.45~7.11,	6.74
2	(NTU)	92~238,	138.62
3	(mg/L)	0.039~0.719mg/L,	0.308625mg/L
4	(mg/L)	0.00936~0.113mg/L,	0.054145mg/L
	(mg/L)	0.00063~0.00459mg/L,	

12 (mg/L) ND~0.00033mg/L, 0.00011875mg/L

13 (mg/L) ND~0.0006mg/L, 0.000075mg/L

14 (mg/L) 0.0119~0.0528mg/L, 0.0265mg/L

15 (mg/L) ND~0.005mg/L, 0.0017375mg/L

16 4- (mg/L) ND~0.0336mg/L, 0.0117mg/L W2 4- 0.032 mg/L W3 4- 0.0336 mg/L W2 W3 4- 0.03 mg/L 1.07 1.12

17 2,4- (mg/L) 0.0103~0.0157mg/L, 0.01305mg/L

18 [a] (mg/L) ND~0.0000051mg/L, 0.0000006375mg/L

19 [b] (mg/L) ND~0.000264mg/L, 0.0000793125mg/L

20 (mg/L) ND~0.000057mg/L, 0.000007125mg/L

21 (mg/L) ND~0.000015mg/L, 0.000001875mg/L

22 (mg/L) ND~NDmg/L, 0mg/L

23 (mg/L) ND~0.00086mg/L, 0.0001264mg/L

24 (mg/L) ND~0.0000215mg/L, 0.00000695mg/L

25 C10-C40 (mg/L) 0.22~0.4mg/L,

0.3125mg/L

26 (mg/L) ND~1.59mg/L, 0.49125mg/L W3

12.5 mg/L 0.9 mg/L

1.77

27 (mg/L) ND~0.0000069mg/L,

0.0000048mg/L

92~238NTU

W2 4- W3 4-

W8

W2 4- W2

W3 4-

W3

W8 W8

5.5. Λ● $

B3ž r 5

BD'@C$ P$B P3 'BÄ3E"B)6D K"'

P3E ¼

7-

W8 W8

6.

6.1.

6.1.1.

313

[2011] 63 48012.42 m^2

11

G1 B1

GB 36600-2018

2009 19

“ ”

2020 67 “

GB/T 14848 IV

” IV

1

◯ 1939

◯ 1939

◯ 50

◯ 1968 11 -1969

1969

◯ 1976

◯ 1982

◯ 1983

1 1

◯ 1994 6

◯ 1996

◯ 2007

◯ 2010

◯ 2010 -2019

◯ 2019

2

1961 1961-1999

1999 -2015

2015 -2018

2018 ( )

1978 1978-1999

1999-2008

2008

1970 1 2000

2000 014

14 11

3

C_{10}-C_{40}

C_{10}-C_{40}

C_{10}-C_{40}

2,4- 6

8 10

7 3

VOCs 27 C_{10}-C_{40}

41

GB 36600-2018

2 13 VOCs 27

SVOCs 11 C_{10}-C_{40} 2,4-

6 8 10

-1,2- C10~C40

2- 2,4,5-

2,4,6- 2,4- 2,4-

S5 S6 S7

S8 S24 S33

2021 08 25 ~ 08 26

8 8

2 12 1

11 3 12 6

16 C_{10}-C_{40}

4- 2,4- [a] [b]

C_{10}-C_{40}

W2 4- W3

4- W8

6.1.3.

G1 B1

GB36600—2018

GB/T14848-2017 IV

4-

6.2.