



TEST REPORT

Technical Report

技术报告:

First Test

初次测试

(6621)082-0606

April 8, 2021

Date Received:

收到时间

March 23, 2021

2021 年 3 月 23 日

Page 1 of 30

Factory Company Name:

工厂名称

Hangzhou Fuen Textile Co.,Ltd

杭州福恩纺织有限公司

Factory Address:

工厂地址

Yinan Village, Jingjiang Street, Xiaoshan District, Hangzhou City

杭州市萧山区靖江街道义南村

Client Reference No.:

客户编号

N/A

Sample Method:

采样方法

I001) Incoming water/进水- Grab/抓取*

I002) Raw Wastewater/原始废水- 6 hours Time - weighted Composite/6 小时加权混合*

I003) Discharged Wastewater/排放废水 - 6 hours Time - weighted Composite/6 小时加权混合*

Sample Pick Up Date:

采样时间

March 23, 2021

2021 年 3 月 23 日

Wastewater Discharge to:

排放至

Centralized ETP (Hangzhou Xiaoshan Sewage Treatment Co.,Ltd)

集中污水处理厂 (杭州萧山污水处理有限公司)

On-Site Effluent Treatment Plant

(ETP)/现场污水处理装置:

Yes

是

Discharge Type:

排放类型

Indirect Discharge

间接排放

Test Period:

测试周期

March 23, 2021 to April 8, 2021

2021 年 3 月 23 日至 2021 年 4 月 8 日

Sample Description:

样品描述

I001) Colorless liquid/无色液体- Incoming water/进水

I002) Light grey liquid/浅灰色液体- Raw Wastewater/原始废水

I003) Light yellow liquid/浅黄色液体- Discharged Wastewater /排放废水



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 2 of 30

REMARK/备注

If there are questions or concerns on this report, please contact the following persons:

若有任何疑问或咨询,可通过下述联络方式与我们联系

General enquiry and invoicing
常规咨询和发票

Ms. Shelly Lin
林慧贤女士
(021) 24081951
Shelly.Lin@bureauveritas.com

Technical enquiry-Chemical
化学技术问题

Mr. Steven Han
韩政先生
(021) 24081838
Steven-Z.han@bureauveritas.com

This report shown the test result of the auxiliary chemical and/or raw material samples, which collected during particular factory audit. The results of this report shall not be used for any regulatory compliance purposes.

此报告所示为特定工厂审核时收集的化学助剂和/或原材料样品的结果,此报告的结果不得用于任何遵循法规的目的。

* The sampling is agreed with client.

采样已经过客户允许

BUREAU VERITAS
CONSUMER PRODUCTS SERVICES DIVISION (SHANGHAI)
必维申美商品检测(上海)有限公司
Laboratory Test Location 实验室检测地址:
No.368,Guangzhong Road, Zhuanqiao Town, Minhang, Shanghai.
上海市闵行区光中路 368 号
No.168, Guanghua Road, Zhuanqiao Town, Minhang, Shanghai.
上海市闵行区光华路 168 号

PREPARED BY: Shelly

Steven Han
Technical Manager



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 3 of 30

Executive Summary/执行摘要

1A) Conventional Parameters/常规参数	I001	I002	I003
Temperature/温度	NR	NR	N/A
TSS/总悬浮固体			□
COD/化学需氧量			□
Total-N/总氮			□
pH Value/酸碱值			□
Color [m ⁻¹] (436nm; 525nm; 620nm)/色度			N/A
BOD ₅ /五日生化需氧量			□
Ammonium-N/氨态氮			□
Total-P/总磷			□
AOX/可吸附有机卤化物			N/A
Oil and Grease/油和油脂			N/A
Phenol/苯酚			N/A
Coliform/大肠菌群			N/A
Persistent Foam/持久性泡沫			N/A
ANIONS – Cyanide/阴离子 – 氰化物			N/A
ANIONS – Sulfide/阴离子 – 硫化物			N/A
ANIONS – Sulfite/阴离子 – 亚硫酸盐			N/A
1B) Conventional Parameters – METALS /常规参数 – 金属	N/A	N/A	N/A

Note / Key 备注

- – Meet Foundational Limit/满足基本限值/Meet discharge license criteria/满足排放许可标准
- – Exceeding Foundational Limit/超过基本限值/Exceeding discharge License criteria/超过排放许可标准
- NR – Not Requested / Not required/没有要求/不需要
- N/A – Not Applicable/不适用

ZDHC MRSLS Substances/ZDHC 生产限用物质	I001	I002	I003
2A) APs and APEOs/烷基酚及烷基酚聚氧乙烯醚	NR	o	o
2B) Chlorobenzenes and Chlorotoluenes/ 氯化苯和氯甲苯	NR	o	o
2C) Chlorophenols/氯酚	NR	o	o
2D) Azo Dyes/偶氮染料	NR	o	o
2E) Carcinogenic Dyes/致癌染料	NR	o	o
2F) Disperse Dyes/分散染料	NR	o	o
2G) Flame Retardants/阻燃剂	NR	o	o
2H) Glycols/乙二醇	NR	o	o
2I) Halogenated Solvents/卤化溶剂	NR	o	o
2J) Organotin Compounds/有机锡化合物	NR	o	o
2K) Perfluorinated and Polyfluorinated Chemicals/ 全氟化合物和多氟化合物	•	•	•
2L) Phthalates/邻苯二甲酸盐	NR	o	o
2M) Poly Aromatic Hydrocarbons/多环芳香烃	NR	o	o
2N) Volatile Organic Compounds/挥发性有机化合	NR	o	o

Note / Key 备注:

- – Detected 有检出
- o – Not Detected 未检出
- NR – Not Requested / Not required/未要求测试



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 4 of 30

Objective/目标

The environment samples were tested for below parameters.

环境样品按照下列参数检测

1A) Conventional Parameters/常规参数

1B) Conventional Parameters – METALS/常规参数-重金属

2A) APs and APEOs/烷基酚及烷基酚聚氧乙烯醚

2B) Chlorobenzenes and Chlorotoluenes/氯化苯和氯甲苯

2C) Chlorophenols/氯酚

2D) Azo Dyes/偶氮染料

2E) Carcinogenic Dyes/致癌染料

2F) Disperse Dyes/分散染料

2G) Flame Retardants/阻燃剂

2H) Glycols/乙二醇

2I) Halogenated Solvents/卤化溶剂

2J) Organotin Compounds/有机锡化合物

2K) Perfluorinated and Polyfluorinated Chemicals/全氟化合物和多氟化合物

2L) Phthalates/邻苯二甲酸盐

2M) Poly Aromatic Hydrocarbons/多环芳香烃

2N) Volatile Organic Compounds/挥发性有机化合物

Sampling Procedure/采样程序

Total number of sample collected is based on the actual factory facilities and manufacturing processes. Three environment samples were sampled per factory, including 1) Incoming water; 2) Raw Wastewater and 3) Discharged Wastewater

具体每种样品的采集数量由工厂实际的生产设施和生产流程来决定。每个工厂采集的样品主要有三种 1)进水; 2)原始废水和 3)排放废水。

Method of sampling used is time-weighted composite samples based on the ZDHC Wastewater Guidelines. Composite sampling is performed for no less than six hours, with no more than one hour between discrete samples. Each discrete sample is of equal volume. Wastewater and freshwater samples is, as much as possible, collected simultaneously, during the time that PU is in normal operation. The sampling aims to analyse the snapshot of water quality characteristics of the operating PU. Under no circumstance shall samples be taken during times when the production process is not running or the wastewater is diluted due to heavy rainfall, etc.

采样方法是时间加权复合抓取采样方法(根据 ZDHC 废水指南)。混合采样时间应不低于 6 小时,且每次取样的间隔不超过 1 小时。每次取样应保持在同一体积。污水和进水样品应尽可能同时采集,在此期间工厂应处于正常运行状态。采样的目的是为了看到工厂在实际运行状态下水质的特点。而当处于生产流程没有运行或废水被大雨所稀释等情况下时不应采集样品

Remark/注:

- Sampling procedure is with reference to below standards/采样根据以下标准::
 - 1) South Australia EPA Guidelines (June 2007), Regulatory Monitoring and Testing Water and Wastewater Sampling.
 - 2) Australia EPA (Victoria) Guideline (June 2009), Sampling and Analysis of Waters, Wastewaters, Soils and Wastes.
 - 3) ISO 5667-3:2003, Water Quality - Sampling - Part 3: Guidance on the Preservation and Handling of Water Samples.
 - 4) ASTM D3976-92 (Reapproved 2010), Standard Practice for Preparation of Sediment Samples for Chemical Analysis.
- Field on-site photos are attached in Appendix A and field data records are attached in Appendix C.
现场照片见附录 A, 采样现场记录见附录 C



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 5 of 30

Test Result/测试结果

1A) Conventional Parameters/常规参数

Temperature/温度

Test Method : Measurement by thermometer
测试方法 : 由温度计测量

Tested Item(s)	Result	Unit	Conclusion
I003	25.6	deg. C/ 摄氏度	DATA/数据

Note/注释:

deg. C = degree Celsius (°C)/摄氏度
Discharge License Criteria/排放标准: N/A

Total Suspended Solids (TSS)/总悬浮固体

Test Method : Reference to GB/T 11901
测试方法 : 参考 GB/T 11901

Tested Item(s)	Result	Unit	Conclusion
I003	9 Comply with discharge license 符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤400

Chemical Oxygen Demand (COD)/化学需氧量

Test Method : Reference to HJ 828-2017
测试方法 : 参考 HJ 828-2017

Tested Item(s)	Result	Unit	Conclusion
I003	82 Comply with discharge license 符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤500



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 6 of 30

Total Nitrogen (Total-N)/总氮

Test Method : Reference to HJ 636
测试方法 : 参考 HJ 636

Tested Item(s)	Result	Unit	Conclusion
I003	0.90 Comply with discharge license 符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤70

pH Value/酸碱值

Test Method : Reference to GB/T 6920
测试方法 : 参考 GB/T 6920

-	Unit	Result
Test Item(s)	-	I003
Parameter	-	-
Temp. of sample	deg. C	18.9
pH value of sample	-	6.9 Comply with discharge license 符合排放许可
Conclusion	-	DATA/数据

Note 注释:

Temp. = Temperature/温度 deg. C = degree Celsius (°C)/摄氏度
Discharge License Criteria/排放标准: 6-9

Color [m⁻¹] (436nm; 525nm; 620nm) /色度

Test Method : With reference to ISO 7887-B
测试方法 : 参考 ISO 7887-B

Tested Item(s)	Result	Unit	Conclusion
I003	2.3;0.5;0.1	m ⁻¹	DATA/数据

Note 注释:

Discharge License Criteria/排放标准: N/A



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 7 of 30

Biochemical Oxygen Demand (BOD₅)/五日生化需氧量

Test Method : Reference to HJ 505
测试方法 : 参考 HJ 505

Tested Item(s)	Result	Unit	Conclusion
I003	13.8 Comply with discharge license 符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤300

Ammonium Nitrogen/氨态氮

Test Method : Reference to HJ 535
测试方法 : 参考 HJ 535

Tested Item(s)	Result	Unit	Conclusion
I003	0.47 Comply with discharge license 符合排放许可	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤35

Total Phosphorus (Total-P)/总磷

Test Method : Reference to GB/T 11893
测试方法 : 参考 GB/T 11893

Tested Item(s)	Result	Unit	Conclusion
I003	0.11 Comply with discharge license 符合排放许可	mg/L/ 毫克/升	DATA/数据

Note/注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: ≤8



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 8 of 30

Adsorbable Organic Halogen (AOX)/可吸附有机卤素

Test Method : Reference to HJ/T 83
测试方法 : 参考 HJ/T 83

Tested Item(s)	Result	Unit	Conclusion
I003	0.12	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: N/A

Oil and Grease/油和油脂

Test Method : Reference to HJ 637
测试方法 : 参考 HJ 637

Tested Item(s)	Result	Unit	Conclusion
I003	<0.06	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: N/A

Phenol/苯酚

Test Method : Reference to HJ 503
测试方法 : 参考 HJ 503

Tested Item(s)	Result	Unit	Conclusion
I003	<0.0003	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: N/A

Coliform/大肠菌群

Test Method : Reference to GB/T 5750.12
测试方法 : 参考 GB/T 5750.12

Tested Item(s)	Result	Unit	Conclusion
I003	17	bacteria/ 100 mL/细菌数/100 毫升	DATA/数据

Note 注释:

bacteria/100 mL = bacteria per 100 milliliters/每 100 毫升细菌数
Discharge License Criteria/排放标准: N/A



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 9 of 30

Persistent Foam/泡沫

Test Method : Visual
测试方法 : 目测

Tested Item(s)	Result	Unit	Conclusion
I003	No foam/无泡沫	-	DATA/数据

ANIONS - Cyanide/阴离子-氰化物

Test Method : Reference to HJ 484
测试方法 : 参考 HJ484

Tested Item(s)	Result	Unit	Conclusion
I003	<0.02	mg/L/ 毫克/升	DATA/数据

Note:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: N/A

ANIONS – Sulfide/阴离子-硫化物

Test Method : Reference to GB/T 16489
测试方法 : 参考 GB/T 16489

Tested Item(s)	Result	Unit	Conclusion
I003	0.03	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: N/A

ANIONS – Sulfite/阴离子-亚硫酸盐

Test Method : Reference to ISO 10304-3
测试方法 : 参考 ISO 10304-3

Tested Item(s)	Result	Unit	Conclusion
I003	<0.2	mg/L/ 毫克/升	DATA/数据

Note 注释:

mg/L = milligram per liter/毫克每升
Discharge License Criteria/排放标准: N/A



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 10 of 30

1B) Conventional Parameters – METALS 常规参数-重金属

Heavy Metals/重金属	I001 (mg/L)毫克/升	I002 (mg/L)毫克/升	I003 (mg/L)毫克/升
Antimony(Sb)/ 锑 Discharge License Criteria/排放标准: N/A	0.003	0.137	0.015
Chromium(Cr), total/总铬 Discharge License Criteria/排放标准: N/A	0.003	0.006	0.005
Cobalt(Co)/钴 Discharge License Criteria/排放标准: N/A	0.002	0.005	0.015
Copper(Cu)/铜 Discharge License Criteria/排放标准: N/A	0.002	0.004	0.004
Nickel (Ni)/镍 Discharge License Criteria/排放标准: N/A	0.004	0.017	0.025
Silver (Ag)/银 Discharge License Criteria/排放标准: N/A	ND	0.001	ND
Zinc(Zn)/锌 Discharge License Criteria/排放标准: N/A	0.798	0.111	0.451
Arsenic (As)/砷 Discharge License Criteria/排放标准: N/A	ND	0.002	ND
Cadmium(Cd)/镉 Discharge License Criteria/排放标准: N/A	ND	0.0002	0.0001
Chromium VI(CrVI)/六价铬 Discharge License Criteria/排放标准: N/A	ND	ND	ND
Lead(Pb)/铅 Discharge License Criteria/排放标准: N/A	ND	0.002	ND
Mercury (Hg)/汞 Discharge License Criteria/排放标准: N/A	ND	0.00231	0.00008

2K) Perfluorinated and Polyfluorinated Chemicals/全氟化合物和多氟化合物

Perfluorinated and Polyfluorinated Chemicals/全氟化合物和多氟化合物	I001 (µg/L/微克/升)	I002 (µg/L/ 微克/升)	I003 (µg/L/ 微克/升)
Perfluorooctanesulfonic acid (PFOS)/ 全氟辛烷磺酸	ND	ND	ND
Perfluoro-n-octanoic acid (PFOA)/ 全氟辛酸	0.19	0.52	0.49
Perfluorobutanesulfonic acid (PFBS)/ 全氟丁基磺酸	ND	ND	ND
Perfluoro-n-hexanoic acid (PFHxA)/ 全氟己酸	ND	ND	ND
8:2 FTOH/8:2-全氟辛基乙醇	ND	ND	ND
6:2 FTOH/6: 2-全氟乙醇	ND	ND	ND



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 11 of 30

Others Priority Chemical Groups/其他优先化学物质

	I001 (µg/L/微克/升)	I002 (µg/L/ 微克/升)	I003 (µg/L/ 微克/升)
2A) APs and APEOs/ 烷基酚及烷基酚聚氧乙烯醚	NR	ND	ND
2B) Chlorobenzenes and Chlorotoluenes/ 氯化苯和氯甲苯	NR	ND	ND
2C) Chlorophenols/氯酚	NR	ND	ND
2D) Azo Dyes/偶氮染料	NR	ND	ND
2E) Carcinogenic Dyes/致癌染料	NR	ND	ND
2F) Disperse Dyes/分散染料	NR	ND	ND
2G) Flame Retardants/阻燃剂	NR	ND	ND
2H) Glycols/乙二醇	NR	ND	ND
2I) Halogenated Solvents/卤化溶剂	NR	ND	ND
2J) Organotin Compounds/有机锡化合物	NR	ND	ND
2L) Phthalates/邻苯二甲酸盐	NR	ND	ND
2M) Poly Aromatic Hydrocarbons/多环芳香烃	NR	ND	ND
2N) Volatile Organic Compounds /挥发性有机化合物	NR	ND	ND

Remark/备注:

- Test method, reporting limit and list of chemical are summarized in tables of Appendix A./测试方法, 限量值和化学列表在附录 A 中
- ND = Not detected (Please refer to reporting limit shown in Appendix B.)./ND=未检出(请参考附录 B 中的报告限量值)
- All results are in ppb as unit./所有结果以 ppb 为单位
- NR = Not Required / Not Requested./NR=不要求

APPENDIX A - Photo of the Sample/ Sampling Location/样品照片/采样点照片

I001) Sampling Point
取样点
N 30°14'50"
E 120°28'59"



I001) Sampling Point Surrounding Environment
取样点周围环境
N 30°14'50"
E 120°28'59"



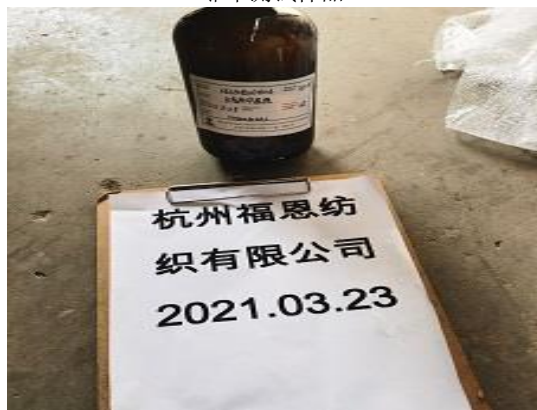
I001) All sampled bottles with label
全部带标签的取样瓶



I001) pH value
pH 值



I001) Sample for Phthalate Testing
邻苯测试样品



I001) Packaging
包装



I002) Sampling Point
取样点
N 30°14'52"
E 120°29'00"



I002) Sampling Point Surrounding Environment
取样点周围环境
N 30°14'52"
E 120°29'00"



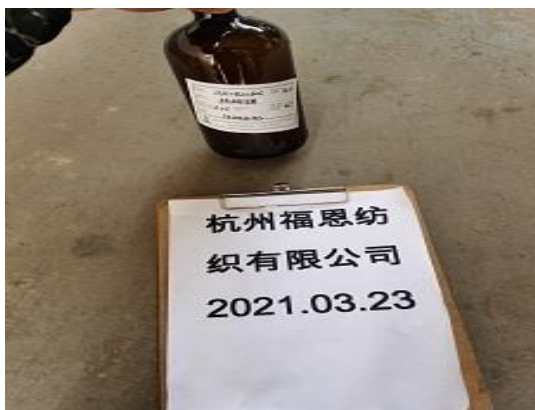
I002) All sampled bottles with label
全部带标签的取样瓶



I002) pH value
pH 值



I002) Sample for Phthalate Testing
邻苯测试样品



I002) Packaging
包装



I003) Sampling Point
取样点
N 30°14'51"
E 120°29'00"



I003) Sampling Point Surrounding Environment
取样点周围环境
N 30°14'51"
E 120°29'00"



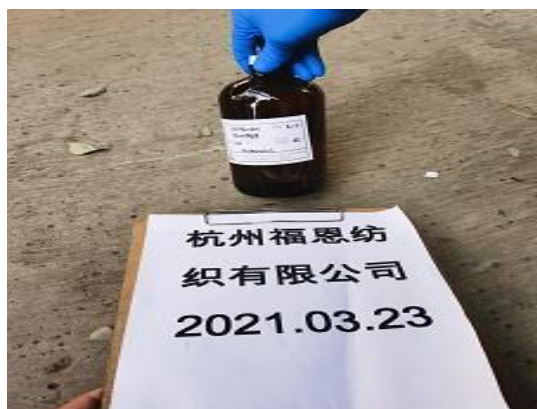
I003) All sampled bottles with label
全部带标签的取样瓶



I003) pH value
pH 值



I003) Sample for Phthalate Testing
邻苯测试样品



I003) Packaging
包装



APPENDIX B

Parameters, limits and testing method aligned with the ZDHC Wastewater Guidelines

参数, 限值和测试方法与 ZDHC 废水指南保持一致

Group/组别	Substance (analytes)/分析物质	CAS No./化学物质登记号	Detection Limit (µg/L)/检出限 (微克/升)	Testing method/测试方法
2A. Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers/烷基酚及烷基酚聚氧乙烯醚包括同分异构体	Octylphenol OP, mixed isomers/辛基苯酚及同分异构体	Various (incl. 140-66-9, 1806-26-4, 27193-28-8)	5	NP/OP: ISO 18857-2 (modified dichloromethane extraction) or ASTM D7065 (GC/MS or LC/MS(-MS)) OPEO/NPEO (n>2): ISO 18254-1 OPEO/NPEO: ISO18857-2 or ASTM D7065(LC/MS; GC/MS or LC/MSMS for n=1,2)
	Nonylphenol NP/壬基苯酚	Various (incl. 104-40-5, 11066-49-2, 25154-52-3, 84852-15-3)		
	Octylphenol Ethoxylates (OPEO)/辛基酚乙烯醚	Various (incl. 9002-93-1, 9036-19-5, 68987-90-6)		
	Nonylphenol Ethoxylates (NPEO)/壬基酚乙烯醚	Various (incl. 9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0)		
2B. Chlorobenzenes and Chlorotoluenes/氯化苯和氯甲苯	Monochlorobenzene/一氯苯	108-90-7	0.2	USEPA 8260B,8270D. Dichloromethane extraction followed by GC/MS
	1,2-Dichlorobenzene/1,2-二氯苯	95-50-1		
	1,3-Dichlorobenzene / 1,3-二氯苯	541-73-1		
	1,4-Dichlorobenzene / 1,4-二氯苯	106-46-7		
	1,2,3-Trichlorobenzene / 1,2,3-三氯苯	87-61-6		
	1,2,4-Trichlorobenzene / 1,2,4-三氯苯	120-82-1		
	1,3,5-Trichlorobenzene / 1,3,5-三氯苯	108-70-3		
	1,2,3,4-Tetrachlorobenzene/ 1,2,3,4-四氯苯	634-66-2		
	1,2,3,5-Tetrachlorobenzene/ 1,2,3,5-四氯苯	634-90-2		
	1,2,4,5-Tetrachlorobenzene/ 1,2,4,5-四氯苯	95-94-3		
	Pentachlorobenzene 五氯苯	608-93-5		
	Hexachlorobenzene/ 六氯苯	118-74-1		
	2-Chlorotoluene /2-氯甲苯	95-49-8		
	3-Chlorotoluene /3-氯甲苯	108-41-8		
	4-Chlorotoluene /4-氯甲苯	106-43-4		
	2,3-Dichlorotoluene / 2,3-二氯甲苯	32768-54-0		
	2,4-Dichlorotoluene / 2,4-二氯甲苯	95-73-8		
	2,5-Dichlorotoluene/ 2,5-二氯甲苯	19398-61-9		
	2,6-Dichlorotoluene /	118-69-4		



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 17 of 30

Group/组别	Substance (analytes)/分析物质	CAS No./化学物质登记号	Detection Limit (µg/L)/检出限 (微克/升)	Testing method/测试方法
	2,6-二氯甲苯			
	3,4-Dichlorotoluene / 3,4-二氯甲苯	95-75-0		
	3,5-Dichlorotoluene / 3,5-二氯甲苯	25186-47-4		
	2,3,4-Trichlorotoluene / 2,3,4-三氯甲苯	7359-72-0		
	2,3,6-Trichlorotoluene / 2,3,6-三氯甲苯	2077-46-5		
	2,4,5-Trichlorotoluene / 2,4,5-三氯甲苯	6639-30-1		
	2,4,6-Trichlorotoluene / 2,4,6-三氯甲苯	23749-65-7		
	3,4,5-Trichlorotoluene / 3,4,5-三氯甲苯	21472-86-6		
	2,3,4,5-Tetrachlorotoluene / 2,3,4,5-四氯甲苯	76057-12-0		
	2,3,5,6-Tetrachlorotoluene / 2,3,5,6-四氯甲苯	29733-70-8		
	2,3,4,6-Tetrachlorotoluene / 2,3,4,6-四氯甲苯	875-40-1		
	Pentachlorotoluene / 五氯甲苯	877-11-2		
2C. Chlorophenols/ 氯酚	Pentachlorophenol (PCP) / 五氯苯酚	87-86-5	0.5	USEPA 8270 D Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC/MS ISO 14154:2005
	2,3,4,5-Tetrachlorophenol / 2,3,4,5-四氯苯酚	4901-51-3		
	2,3,4,6-Tetrachlorophenol / 2,3,4,6-四氯苯酚	58-90-2		
	2,3,5,6-Tetrachlorophenol / 2,3,5,6-四氯苯酚	935-95-5		
	2,4,6-Trichlorophenol / 2,4,6-三氯苯酚	88-06-2		
	2,3,5-Trichlorophenol / 2,3,5-三氯苯酚	933-78-8		
	2,4,5-Trichlorophenol / 2,4,5-三氯苯酚	95-95-4		
	3,4,5-Trichlorophenol / 3,4,5-三氯苯酚	609-19-8		
	2,3,4-Trichlorophenol / 2,3,4-三氯苯酚	15950-66-0		
	2,3,6-Trichlorophenol / 2,3,6-三氯苯酚	933-75-5		
	2,3-Dichlorophenol / 2,3-二氯苯酚	576-24-9		
	3,4-Dichlorophenol / 3,4-二氯苯酚	95-77-2		
	2,4-Dichlorophenol / 2,4-二氯苯酚	120-83-2		
	2,5-Dichlorophenol / 2,5-二氯苯酚	583-78-8		
	2,6-Dichlorophenol / 2,6-二氯苯酚	87-65-0		
	3,5-Dichlorophenol / 3,5-二氯苯酚	591-35-5		



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 18 of 30

Group/组别	Substance (analytes)/分析物质	CAS No./化学物质登记号	Detection Limit (µg/L)/检出限 (微克/升)	Testing method/测试方法
	2-Chlorophenol/2-氯苯酚	95-57-8		
	3-Chlorophenol/3-氯苯酚	108-43-0		
	4-Chlorophenol/4-氯苯酚	106-48-9		
2D. Dyes - Azo (Forming Restricted Amines)/ 偶氮染料 (形成限制胺类)	4-Aminodiphenyl/ 4-氨基联苯	92-67-1	0.1	EN 14362-1 EN 14362-3 Reduction step with Sodiumdithionite, solvent extraction, GC/MS or LC/MS
	Benzidine/联苯胺	92-87-5		
	4-Chloro-o-toluidine/ 4-氯邻甲苯胺	95-69-2		
	2-Naphthylamine/2-萘胺	91-59-8		
	o-Aminoazotoluene/ 邻氨基偶氮甲苯	97-56-3		
	5-nitro-o-toluidine/ 5-硝基-邻甲苯胺	99-55-8		
	4-Chloroaniline/4-氯苯胺	106-47-8		
	4-Methoxy-m-phenylenediamine/ 4-甲氧-间苯二胺	615-05-4		
	4,4'-methylenedianiline/ 4,4'-二氨基二苯甲烷	101-77-9		
	3,3'-Dichlorobenzidine/ 3,3'-二氯联苯胺	91-94-1		
	3,3'-Dimethoxybenzidine/ 3,3'-二甲氧基联苯胺	119-90-4		
	3,3'-Dimethylbenzidine/ 3,3'-二甲基联苯胺	119-93-7		
	4,4'-Methylene-di-o-toluidine/ 4,4'-二甲基-邻甲苯胺	838-88-0		
	6-methoxy-m-toluidine (p-Cresidine)/ 6-甲氧基间甲苯胺	120-71-8		
	4,4'-Methylene-bis-(2-chloro-aniline)/ 4,4'-亚甲基-二-(2-氯苯胺)	101-14-4		
	4,4'-Oxydianiline/ 4,4'-二氨基二苯醚	101-80-4		
	4,4'-Thiodianiline/ 4,4'-二氨基二苯硫醚	139-65-1		
	o-Toluidine/邻甲苯胺	95-53-4		
	4-Methyl-m-phenylenediamine/ 4-甲基间苯二胺	95-80-7		
	2,4,5-Trimethylaniline/ 2,4,5-三甲基苯胺	137-17-7		
	o-Anisidine/邻氨基苯甲醚	90-04-0		
	4-Aminoazobenzene/ 4-氨基偶氮苯	60-09-3		
	2,4-Xylidine/ 2,4-二甲基苯胺	95-68-1		
	2,6-Xylidine/ 2,6-二甲基苯胺	87-62-7		
2E. Dyes-Carcinogenic or Equivalent Concern/ 致癌染料或涉及的同类	C.I. Direct Black 38/ C.I.直接黑 38	1937-37-7	500	Liquid Extraction LC/MS
	C.I. Direct Blue 6/ C.I.直接蓝 6	2602-46-2		
	C.I. Acid Red 26/	3761-53-3		



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 19 of 30

Group/组别	Substance (analytes)/分析物质	CAS No./化学物质登记号	Detection Limit (µg/L)/检出限 (微克/升)	Testing method/测试方法
	C.I.酸性红 26			
	C.I. Basic Red 9/ C.I.碱性红 9	569-61-9		
	C.I. Direct Red 28/ C.I.直接红 28	573-58-0		
	C.I. Basic Violet 14/ C.I.碱性紫 14	632-99-5		
	C.I. Disperse Blue 1 / C.I.分散蓝 1	2475-45-8		
	C.I. Disperse Blue 3 / C.I.分散蓝 3	2475-46-9		
	C.I. Basic Blue 26 (with Michler's Ketone > 0.1%) / C.I. 碱性蓝 26 (米氏酮 > 0.1%)	2580-56-5		
	C.I. Basic Green 4 (malachite green chloride)/ C.I. 碱性绿 4 (孔雀石 绿氯化物)	569-64-2		
	C.I. Basic Green 4 (malachite green oxalate)/ C.I. 碱性绿 4 (孔雀石绿 草酸盐)	2437-29-8		
	C.I. Basic Green 4 (malachite green)/ C.I. 碱性绿 4 (孔雀石绿)	10309-95-2		
	Disperse Orange 11/分散橙 11	82-28-0		
2F. Dyes-disperse (sensitizing)/ 分散染料 (致敏)	Disperse Yellow 1 / 分散黄 1	119-15-3	50	Liquid Extraction LC/MS
	Disperse Blue 102 / 分散蓝 102	12222-97-8		
	Disperse Blue 106 / 分散蓝 106	12223-01-7		
	Disperse Yellow 39 / 分散黄 39	12236-29-2		
	Disperse Orange 37/59/76 / 分散橙 37/59/76	13301-61-6		
	Disperse Brown 1 / 分散棕 1	23355-64-8		
	Disperse Orange 1/ 分散橙 1	2581-69-3		
	Disperse Yellow 3/ 分散黄 3	2832-40-8		
	Disperse Red 11/分散红 11	2872-48-2		
	Disperse Red 1/分散红 1	2872-52-8		
	Disperse Red 17 / 分散红 17	3179-89-3		
	Disperse Blue 7 /分散蓝 7	3179-90-6		
	Disperse Blue 26 / 分散蓝 26	3860-63-7		
	Disperse Yellow 49 / 分散黄 49	54824-37-2		
	Disperse Blue 35 / 分散蓝 35	12222-75-2		
	Disperse Blue 124 / 分散蓝 124	61951-51-7		
	Disperse Yellow 9 / 分散黄 9	6373-73-5		



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 20 of 30

Group/组别	Substance (analytes)/分析物质	CAS No./化学物质登记号	Detection Limit (µg/L)/检出限 (微克/升)	Testing method/测试方法
2G. Flame Retardants/ 阻燃剂	Disperse Orange 3 / 分散橙 3	730-40-5	5	USEPA 8270 ISO 22032, USEPA 527 and USEPA 8321B. Dichloromethane extraction GC/MS or LC/MS(-MS)
	Disperse Blue 35 / 分散蓝 35	56524-77-7		
	Polybromobiphenyls (PBBs)/多溴联苯	59536-65-1		
	Pentabromodiphenyl ether (PentaBDE)/ 五溴联苯醚	32534-81-9		
	Octabromodiphenyl ether (OctaBDE)/ 八溴联苯醚	32536-52-0		
	Decabromodiphenyl ether (DecaBDE)/ 十溴联苯醚	1163-19-5		
	Tris(2,3-dibromopropyl) phosphate (TRIS/TDBPP)/ 三(2, 3-二溴丙基)磷酸酯	126-72-7		
	Tetrabromobisphenol A (TBBPA)/ 四溴双酚 A	79-94-7		
	Bis(2,3-dibromopropyl) phosphate (BIS/BDBPP)/ 二(2, 3-二溴丙基)磷酸酯	5412-25-9		
	Hexabromocyclododecane (HBCDD)/ 六溴环十二烷	3194-55-6		
	2,2-Bis(bromomethyl)-1,3- propanediol (BBMP)/ 2,2-二(溴甲基)-1,3-丙二醇	3296-90-0		
	Tris(aziridinyl)-phosphineoxide (TEPA)/ 三-(氮环丙基)-磷化氧	545-55-1		
	Tris(2-chloroethyl) phosphate (TCEP)/ 三(2-氯乙基)磷酸酯	115-96-8		
	Tris(1,3-dichloro-isopropyl) phosphate (TDCP)/ 三(1,3-二氯异丙基)磷酸酯	13674-87-8		
	Short chain chlorinated paraffins (SCCPs) (C10-C13)/ 短链氯化石蜡	85535-84-8		
2H. Glycols/乙二醇	Bis(2-methoxyethyl)-ether / 二甘醇二甲醚	111-96-6	50	US EPA 8270 Liquid Extraction LC/MS GC-MS
	2-ethoxyethanol / 乙二醇单乙醚	110-80-5		
	2-ethoxyethyl acetate / 乙二醇乙醚醋酸酯	111-15-9		
	Ethylene glycol dimethyl ether/ 乙二醇二甲醚	110-71-4		
	2-methoxyethanol / 乙二醇甲醚	109-86-4		
	2-methoxyethylacetate / 乙二醇甲醚乙酸酯	110-49-6		
	2-methoxypropylacetate/ 2-甲基丙醇乙酸酯	70657-70-4		
	Triethylene glycol dimethyl ether/ 三乙二醇二甲醚	112-49-2		



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 21 of 30

Group/组别	Substance (analytes)/分析物质	CAS No./化学物质登记号	Detection Limit (µg/L)/检出限（微克/升）	Testing method/测试方法
2I. Halogenated Solvents/卤化溶剂	1,2-Dichloroethane/ 1,2-二氯乙烷	107-06-2	1	USEPA 8260B Headspace GC/MS or Purge-and-Trap-GC/MS
	Methylene Chloride/ 二氯甲烷	75-09-2		
	Trichloroethylene/ 三氯乙烯	79-01-6		
	Tetrachloroethylene /四氯乙烯	127-18-4		
2J. Organotin Compounds/ 有机锡化合物	Mono-, di- and tri-methyltin derivatives/ 一,二,三-甲基锡衍生物	Various	0.01	
	Mono-, di- and tri-butyltin derivatives/ 一,二,三-丁基锡衍生物	Various		
	Mono-, di- and tri-phenyltin derivatives/ 一,二,三-苯基锡衍生物	Various		
	Mono-, di- and tri-octyltin derivatives/ 一,二,三-辛基锡衍生物	Various		
2K. Perfluorinated and Polyfluorinated Chemicals (PFCs)/ 全氟化合物和多氟化合物	Perfluoro-n-octanoic acid (PFOA)/ 全氟辛酸	335-67-1	0.01	DIN 38407-42 (modified) Ionic PFC: Concentration or direct injection, LC/MS(-MS); Non-ionic PFC (FTOH): derivatisation with acetic anhydride, followed by GC/MS
	Perfluorobutanesulfonic acid (PFBS)/ 全氟丁基磺酸	29420-49-3, 29420-43-3		
	Perfluorooctanesulfonic acid (PFOS)/ 全氟辛烷磺酸	355-46-4 ,432-50-7		
	Perfluoro-n-hexanoic acid (PFHxA)/ 全氟己酸	307-24-4		
	8:2 FTOH/8:2-全氟辛基乙醇	678-39-7	1	
	6:2 FTOH/6: 2-全氟乙醇	647-42-7		
2L. Phthalates (including all other esters of phthalic acid)/ 苯二甲酸盐（包括其他邻苯而甲酸醚类）	Butyl benzyl phthalate (BBP)/ 邻苯二甲酸丁苄酯	85-68-7	10	US EPA 8270D, ISO 18856 Dichloromethane extraction GC/MS
	Dibutyl phthalate (DBP)/ 邻苯二甲酸二丁酯	84-74-2		
	Di-2-ethylhexyl phthalate (DEHP)/ 邻苯二甲酸二（2-乙基己基酯）	117-81-7		
	Di-n-octyl phthalate (DNOP)/ 邻苯二甲酸二辛酯	117-84-0		
	Di-iso-nonyl phthalate (DINP)/ 邻苯二甲酸二异壬酯	28553-12-0		
	Di-iso-decyl phthalate (DIDP)/ 邻苯二甲酸二异癸酯	26761-40-0		
	Diethyl phthalate (DEP)/ 邻苯二甲酸二乙酯	84-66-2		
	Di-n-propyl phthalate (DPRP)/ 邻苯二甲酸二丙酯	131-16-8		
	Di-iso-butyl phthalate (DIBP)/ 邻苯二甲酸二异丁酯	84-69-5		
	Di-cyclohexyl phthalate (DCHP)/ 邻苯二甲酸二环己酯	84-61-7		
	Di-n-hexyl phthalate (DnHP)/	84-75-3		



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 22 of 30

Group/组别	Substance (analytes)/分析物质	CAS No./化学物质登记号	Detection Limit (µg/L)/检出限 (微克/升)	Testing method/测试方法
	邻苯二甲酸二己酯			
	Dinonyl phthalate (DNP)/ 邻苯二甲酸二壬酯	84-76-4		
	Di-iso-octyl phthalate (DIOP)/ 邻苯二甲酸二异辛酯	27554-26-3		
	Dimethoxyethyl phthalate (DMEP)/ 邻苯二甲酸二甲氧基乙酯	117-82-8		
	1,2-benzenedicarboxylic acid, di- C7-11-branched and linearalkyl esters (DHNUP)/ 邻苯二甲酸-二(C7-C11 支链与直 链)	68515-42-4		
	1,2-benzenedicarboxylic acid, di- C6-8-branched alkyl esters, C7-rich (DIHP)/ 邻苯二甲酸二支链烷基酯	71888-89-6		
2M. Poly Aromatic Hydrocarbons (PaHs)/ 多环芳香烃	Benzo[a]pyrene (BaP) / 苯并[a]芘	50-32-8	1	US EPA 8270 DIN 38407-39 Solvent extraction GC/MS
	Anthracene /蒽	120-12-7		
	Pyrene /芘	129-00-0		
	Benzo[ghi]perylene / 苯并[ghi]芘	191-24-2		
	Benzo[e]pyrene / 苯并[e]芘	192-97-2		
	Indeno[1,2,3-cd]pyrene / 茚并[1,2,3-cd]芘	193-39-5		
	Benzo[j]fluoranthene / 苯并[j]荧蒽	205-82-3		
	Benzo[b]fluoranthene / 苯并[b]荧蒽	205-99-2		
	Fluoranthene /荧蒽	206-44-0		
	Benzo[k]fluoranthene / 并[k]荧蒽	207-08-9		
	Acenaphthylene /苊	208-96-8		
	Chrysene /屈	218-01-9		
	Dibenz[a,h]anthracene / 二苯并[a,h]蒽	53-70-3		
	Benzo[a]anthracene/ 苯并[a]蒽	56-55-3		
	Acenaphthene /二氢苊	83-32-9		
	Phenanthrene /菲	85-01-8		
	Fluorene /芴	86-73-7		
	Naphthalene /萘	91-20-3		
2N. Volatile Organic Compound (VOCs)/ 挥发性有机化合物	Benzene /苯	71-43-2	1	ISO 11423-1 Headspace- or Purge- and-Trap-GC/MS US EPA 8260
	Xylene /二甲苯	1330-20-7		
	o-cresol /邻甲苯酚	95-48-7		
	p-cresol /对甲苯酚	106-44-5		
	m-cresol /间甲苯酚	108-39-4		



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 23 of 30

Group/组别	Parameter/substance/参数/物质	CAS No. 化学物质登记号		Limits (mg/L) or otherwise specified 检出限或其他规定			Testing method/测试方法
				A	P	F	
1A. Conventional Parameters (sum parameters)/常规参数	Temperature/温度	—		▲5/ max. 25°C	▲10/ max. 30°C	▲15/ max. 35°C	Apply the standard methods that best apply to the region (ISO, EU, US, China), please refer to ZDHC Wastewater Guidelines for more details on the testing method
	TSS/总悬浮固体	—		5	15	50	
	COD/化学需氧量	—		40	80	150	
	Total-N/总氮	—		5	10	20	
	pH/酸碱值	—		6 - 9			
	Color [m ⁻¹] (436nm; 525nm; 620nm)/色度	—		2;1;1	5;3;2	7;5;3	
	BOD ₅ /五日生化需氧量	—		5	15	30	
	Ammonium-N/氨态氮	—		0.5	1	10	
	Total-P/总磷	—		0.1	0.5	3	
	AOX/可吸附有机卤化物	—		0.1	1	5	
	Oil and Grease/油和油脂	—		0.5	2	10	
	Phenol/苯酚	—		0.001	0.01	0.5	
	Coliform(bacteria/100ml)/大肠菌群	—		25/100 ml	100/100 ml	400/100 ml	
	Persistent Foam/泡沫持久性	—		No foam/ Dissipating/ Persistent			
	ANIONS/阴离子						
Cyanide(CN-)/氰化物	Various (incl. 57-12-5)		0.05	0.1	0.2		
Sulfide/硫化物	—		0.01	0.05	0.5		
Sulfite/亚硫酸盐	—		0.2	0.5	2		
Group /组别	Parameter/substance/参数/物质	CAS No. 化学物质登记号	Detection Limit (mg/L)/(ppb)/检出限（毫克/升）	Limits (mg/L)			Testing method/测试方法
				A	P	F	
1B. Conventional Parameters – METALS/常规参数-重金属	Antimony(Sb)/锑	7440-36-0	0.001	0.01	0.05	0.1	Apply the standard methods that best apply to the region (ISO, EU, US, China), please refer to ZDHC Wastewater Guidelines for more details on the testing method
	Chromium(Cr), total/总铬	7440-47-3	0.001	0.05	0.1	0.2	
	Cobalt(Co)/钴	7440-48-4	0.001	0.01	0.02	0.05	
	Copper(Cu)/铜	7440-50-8	0.001	0.25	0.5	1	
	Nickel(Ni)/镍	7440-02-0	0.001	0.05	0.1	0.2	
	Silver(Ag)/银	7440-22-4	0.001	0.005	0.05	0.1	
	Zinc(Zn)/锌	7440-66-6	0.001	0.5	1.0	5.0	
	Arsenic(As)/砷	7440-38-2	0.001	0.005	0.01	0.05	
	Cadmium(Cd)/镉	7440-43-9	0.0001	0.01	0.05	0.1	
	Chromium VI(CrVI)/六价铬	18540-29-9	0.001	0.001	0.005	0.05	
	Lead(Pb)/铅	7439-92-1	0.001	0.01	0.05	0.1	
	Mercury (Hg)/汞	7439-97-6	0.00005	0.001	0.005	0.01	

A: Aspirational P: Progressive F: Foundational

A: 最佳水平 P: 良好水平 F: 基础水平

Note / Key :

注释/要点:

ppm = part(s) per million/百万分之一

U. S. EPA = United States Environmental Protection Agency/美国环境保护署

APHA = American Public Health Association/美国公共卫生协会



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 24 of 30

APPENDIX C – Onsite Field Data Record Sheet 采样现场记录

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04
		Issue Date:
		Version No.: 11
		Business Line: Analytical

General Data

Laboratory Sample Number: 66210820606

Client Name: 徐伟国

Field Contact Person: 徐伟国 Phone No: 135 8872 9305

Project (Facility Name and Address): 杭州京昆纺织有限公司 / 杭州萧山区党湾镇兴乐东路688号

Sampling Location / Description: 进水管接口

Sample Identification: Zero discharge with sampling plan

Sample Type: Composite Sample / Grab sample (Please delete as appropriate)

Name of Sampler: 殷明月

Discharge mode: Direct discharge to environment (Specify destination: River, Sea, Stream...) OR Indirect discharge to sewage treatment plant

Date of collection: 2021.3.23

Factory Type: Dyeing / Printing / Washing / Finishing / Others (please specify):

*Note: It would be selected more than one

Field Data for Wastewater

Arrival Time:	<u>9:50</u>	Departure Time:	<u>16:20</u>
Field Parameters	pH: <u>7.18</u>	Temp: <u>21.0</u> °C	Color: <u>无色</u>
Control No. of field equipment	<u>CA-002MI</u>	<u>CA-002MI</u>	
Factory with effluent treatment plant:	<u>Yes</u>	No	
Sample matrix:	<u>✓</u>	Incoming water (If required)	
		Wastewater before treatment	
		Wastewater after treatment – water at discharge point	
Sampler container number	<u>A1</u>		
	1	2	3
	4	5	6
	7	8	
Recording time	ID		
	Time		
pH:	<u>7.18</u>		
Temp (°C):	<u>21.0</u>		
Color:	<u>无色</u>		
Flow rate (volume/time)	<u>4.8L</u>		
Volume collected, mL	<u>4.8L</u>		
Total volume collected	<u>4.8L</u>	Remark: Total volume collected must be greater than total of sample size required	

Analysis Required and Preservation Method

Tests (ZDHC MRSL Parameters)	Test required (v)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4)	1. Phthalate	1000 mL total or 1000 mL each	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
	2. Chlorobenzenes, Chlorotoluene & PAH			
	3. SCCPs			
	4. APS			
5. APEOs	✓	100 mL		
6. Chlorophenols & Cresols	✓	100 mL		
7. Flame retardant	✓	500 mL		
8. Dyes	✓	10 mL		
9. Glycol	✓	50 mL		
10. *Pesticides		1000 mL		
11. *Nitrosamine		10 mL		
12. Banned Azodyes		2000 mL		
13. *Free primary aromatic amines		500 mL		
14. Organotin Compounds	✓	500 mL	Amber Glass, washed with nitric acid; Pre-add 6.5 mL of 2M HCl	Acidity to pH 2 with HCl and store sample at 6°C
15. VOC & Halogenated Solvents (Remark 6)	✓	10 mL		Fill to full container without air gap; acidity to pH 2 with HCl and store sample at 6°C
16. PFCs	✓	2 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 6°C
Tests (Conventional Parameters)	Test required (v)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4)	17. Total suspended solids (TSS)	2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and	Without adding acid Store sample at 6°C
	18. *Total dissolved solids (TDS)			



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 25 of 30

19. 5-day Biochemical Oxygen Demand (BOD5)		1000 mL	lined before use	
20. Heavy Metals except Cr(VI) & Total-P (Remark 5)	✓	9 mL	PE, washed with nitric acid, pre-add 6.5 mL of 2M HNO ₃	Acidify to pH 2 with HNO ₃ and store at 6°C
21. Cr(VI)	✓	95 mL	Amber Glass, washed with pesticide grade acetone	Filter by 0.45µm filter in field, fill to full container without air gap; adjust pH to 9.0-9.5 by adding ammonium buffer. Store sample at 6°C
22. Cyanide	✓	500 mL		Adjust pH 12 with 50% NaOH, add 0.05 mL of 10% Na ₂ S ₂ O ₃ , and store sample at 6°C
23. Chemical oxygen demand (COD)		150 mL	Amber Glass; washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	Acidify to pH 2 with H ₂ SO ₄ Store sample at 6°C
24. Phenols		500 mL		
25. *Formaldehyde		25 mL		Fill to full container without air gap; acidify to pH 2 with H ₂ SO ₄ and store sample at 6°C
26. Sulfide (Remark 5)		50 mL	PE, washed with pesticide grade Acetone;	Fill to full container without air gap; add 2 drops of 2M zinc acetate, adjust pH to 9 with 6M NaOH Store sample at 6°C
27. Adsorbable organically bound halogens (AOX)		100 mL	Amber Glass, washed with nitric acid, pre-add 6.5 mL of 2M HNO ₃	Add 0.05 mL of 10% Na ₂ S ₂ O ₃ , acidify to pH 2 with H ₂ SO ₄ , Store sample at 6°C
28. Total Coliform (Remark 6)		125 mL	PE, clean, sterile, non-reactive	
29. Persistent foam		N.A.	Foam higher than 45 cm (visual estimation): <u>Yes / No</u>	
30. Sulfite		100 mL	Amber Glass, washed with pesticide grade acetone	Add 1 mL of 2.5% EDTA, 0.5g zinc acetate Store sample at 6°C
31. Total-N		100 mL	Amber Glass with wide-mouth PTFE lid; washed with nitric acid;	Acidify to pH 2 with H ₂ SO ₄ Store sample at 6°C
32. Ammonium-N		500 mL	Pre-add 6.5 mL of 2M H ₂ SO ₄	
33. Oil and Grease		1000 mL	Amber Glass; washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	
34. Total Hydrocarbon		1000 mL		
35. Luminous Bacteria Toxicity		1000 mL	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
36. Sulphate		100 mL		
37. Chloride		100 mL		
38. Others:				
Observation/ Remark:				

*Remarks:

- Individual sampling can be performed upon request
- The minimum sampling time for 2016 ZDHC guideline is 6 hours with no more than one hour between discrete samples. Sampling time could be adjusted upon request.
- Scope of ZDHC guideline: Parameter 1, 2, 4-9, 12, 14-17, 19-24, 26-33
Scope of synthetic leather industry: Parameter 1, 2, 4-9, 12, 14-17, 19-33
Scope of MMCF: Parameter 4, 5, 17, 19-24, 26, 27, 31-37
Free primary aromatic amine, pesticides, nitrosamine and TDS are not in the scope of ZDHC Guideline, they are tested upon request.
- Refer to CPD-AN-G00019-STIP01, locations with those CPD test capability inside TCD matrix can perform the combined test.
- Refer to CPD-AN-000570-MTHD for additional pretreatment of sulfide if only dissolved sulfide is required to be tested
- Refer to CPD-AN-00613-MTHD for preparation of field blank for specific parameter

Recorded by: 殷明飞
Full name:

Date: 2021.3.23

Comment from factory: 进水: 北纬: 30°14'50" 东经: 120°28'59"

Acknowledgement by factory

I hereby confirmed that Bureau Veritas has completed the stated sampling activity at specified date, time and location. All sample(s) is/are collected in designated container(s) and without any observation in leakage. Sample(s) collected by Bureau Veritas is/are stored in portable freezer / fridge that is maintained in 1-6°C

Signatory of Factory Representative:

Full Name:

Date: 2021.3.23

Field Data for Sludge

Arrival Time:		Departure Time:	
Field Parameters	pH:	Temp:	°C
Control No. of field equipment			



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 26 of 30

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04
		Issue Date:
		Version No.: 11
		Business Line: Analytical

General Data

Laboratory Sample Number: 66210820606

Client Name: 徐丰恩

Field Contact Person: 徐丰恩 Phone No: 13588729305

Project (Facility Name and Address): 杭州福恩纺织有限公司 / 杭州萧山区党湾镇, 吴东村路688号

Sampling Location / Description: 处理前取水口

Sample Identification: Zero discharge with sampling plan

Sample Type: Composite Sample / Grab sample (Please delete as appropriate)

Name of Sampler: 殷明月

Discharge mode: Direct discharge to environment (Specify destination: River, Sea, Stream...) OR Indirect discharge to sewage treatment plant

Date of collection: 2021.3.23

Factory Type: Dyeing / Printing / Washing / Finishing / Others (please specify):

*Note: It would be selected more than one

Field Data for Wastewater

Arrival Time:	<u>9:50</u>		Departure Time:	<u>16:20</u>	
Field Parameters	pH:	<u>7.72</u>	Temp:	°C	<u>35.2</u>
Control No. of field equipment	<u>CA-002M1</u>		Color:		<u>浅灰</u>
Factory with effluent treatment plant:	<u>Yes</u>				
Sample matrix:	Incoming water (If required)				
	<u>Wastewater before treatment</u>				
	<u>Wastewater after treatment - water at discharge point</u>				
Sampler container number	<u>A2</u>	<u>A2</u>	<u>A2</u>	<u>A2</u>	<u>A2</u>
Recording time	ID	<u>A2</u>	<u>A2</u>	<u>A2</u>	<u>A2</u>
	Time	<u>10:06</u>	<u>11:06</u>	<u>12:06</u>	<u>13:06</u>
pH:	<u>7.72</u>	<u>7.71</u>	<u>7.73</u>	<u>7.70</u>	<u>7.75</u>
Temp (°C):	<u>35.2</u>	<u>35.4</u>	<u>35.3</u>	<u>35.6</u>	<u>35.7</u>
Color:	<u>浅灰</u>	<u>浅灰</u>	<u>浅灰</u>	<u>浅灰</u>	<u>浅灰</u>
Flow rate (volume/time)	<u>0.92L</u>	<u>0.92L</u>	<u>0.92L</u>	<u>0.92L</u>	<u>0.92L</u>
Volume collected, mL	<u>0.92L</u>	<u>0.92L</u>	<u>0.92L</u>	<u>0.92L</u>	<u>0.92L</u>
Total volume collected	<u>6.8L</u>	Remark: Total volume collected must be greater than total of sample size required			

Analysis Required and Preservation Method

Tests (ZDHC MRSL Parameters)		Test required (V)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4)	1. Phthalate	✓	1000 mL total or 1000 mL each	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
	2. Chlorobenzenes, Chlorotoluene & PAH	✓			
	3. SCCPs	✓			
	4. APS	✓			
5. APEOs		✓	100 mL		
6. Chlorophenols & Cresols		✓	100 mL		
7. Flame retardant		✓	500 mL		
8. Dyes		✓	10 mL		
9. Glycol		✓	50 mL		
10. *Pesticides			1000 mL		
11. *Nitrosamine			10 mL		
12. Banned Azodyes		✓	2000 mL		
13. *Free primary aromatic amines			500 mL		
14. Organotin Compounds		✓	500 mL	Amber Glass, washed with nitric acid; Pre-add 6.5 mL of 2M HCl	Acidify to pH 2 with HCl and store sample at 6°C
15. VOC & Halogenated Solvents (Remark 6)		✓	10 mL		Fill to full container without air gap; acidify to pH 2 with HCl and store sample at 6°C
16. PFCs		✓	2 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 6°C
Tests (Conventional Parameters)		Test required (V)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4)	17. Total suspended solids (TSS)		2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and	Without adding acid Store sample at 6°C
	18. *Total dissolved solids (TDS)				

CPSD-AN-00613-DATA 04-FIELD DATA RECORD FOR ZERO DISCHARGE SAMPLE INDIVIDUAL SAMPLING-V11.xls

Page 1 of 3



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 27 of 30

19. 5-day Biochemical Oxygen Demand (BOD5)		1000 mL	Amber Glass, washed with nitric acid, pre-add 6.5 mL of 2M HNO ₃	Acidify to pH 2 with HNO ₃ and store at 6°C
20. Heavy Metals except Cr(VI) & Total-P (Remark 6)	✓	9 mL	PE, washed with nitric acid, pre-add 6.5 mL of 2M HNO ₃	Acidify to pH 2 with HNO ₃ and store at 6°C
21. Cr(VI)	✓	95 mL	Amber Glass, washed with pesticide grade acetone	Filter by 0.45µm filter in field, fill to full container without air gap; adjust pH to 9.0-9.5 by adding ammonium buffer. Store sample at 6°C
22. Cyanide	✓	500 mL		Adjust pH 12 with 50% NaOH, add 0.05 mL of 10% Na ₂ S ₂ O ₃ , and store sample at 6°C
23. Chemical oxygen demand (COD)		150 mL		Acidify to pH 2 with H ₂ SO ₄ , Store sample at 6°C
24. Phenols		500 mL	Amber Glass, washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	Fill to full container without air gap; acidify to pH 2 with H ₂ SO ₄ and store sample at 6°C
25. *Formaldehyde		25 mL		Fill to full container without air gap; add 2 drops of 2M zinc acetate, adjust pH to 9 with 6M NaOH. Store sample at 6°C
26. Sulfide (Remark 5)		50 mL	PE, washed with pesticide grade Acetone;	Add 0.05 mL of 10% Na ₂ S ₂ O ₃ , acidify to pH 2 with H ₂ SO ₄ , Store sample at 6°C
27. Adsorbable organically bound halogens (AOX)		100 mL	Amber Glass, washed with nitric acid, pre-add 6.5 mL of 2M HNO ₃	
28. Total Coliform (Remark 6)		125 mL	PE, clean, sterile, non-reactive	
29. Persistent foam		N.A.	Foam higher than 45 cm (visual estimation): Yes / No	
30. Sulfite		100 mL	Amber Glass, washed with pesticide grade acetone	Add 1 mL of 2.5% EDTA, 0.5g zinc acetate. Store sample at 6°C
31. Total-N		100 mL	Amber Glass with wide-mouth PTFE lid; washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	Acidify to pH 2 with H ₂ SO ₄ . Store sample at 6°C
32. Ammonium-N		500 mL		
33. Oil and Grease		1000 mL	Amber Glass; washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	
34. Total Hydrocarbon		1000 mL		
35. Lumines Bacteria Toxicity		1000 mL		
36. Sulphate		100 mL	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid. Store sample at 6°C
37. Chloride		100 mL		
38. Others:				
Observation/ Remark:				

*Remarks:

- Individual sampling can be performed upon request
- The minimum sampling time for 2016 ZDHC guideline is 6 hours with no more than one hour between discrete samples. Sampling time could be adjusted upon request.
- Scope of ZDHC guideline: Parameter 1, 2, 4-9, 12, 14-17, 19-24, 26-33
Scope of synthetic leather industry: Parameter 1, 2, 4-9, 12, 14-17, 19-33
Scope of MMCF: Parameter 4, 5, 17, 19-24, 26, 27, 31-37
Free primary aromatic amine, pesticides, nitrosamine and TDS are not in the scope of ZDHC Guideline, they are tested upon request.
- Refer to CPD-AN-G00019-STIP01, locations with those CPD test capability inside TCD matrix can perform the combined test.
- Refer to CPD-AN-000570-MTHD for additional pretreatment of sulfide if only dissolved sulfide is required to be tested
- Refer to CPD-AN-00613-MTHD for preparation of field blank for specific parameter

Recorded by: 殷明飞
Full name:

Date: 2021.3.23

Comment from factory

处理前: 北纬: 30°14'52" 东经: 120°29'0"

Acknowledgement by factory

I hereby confirmed that Bureau Veritas has completed the stated sampling activity on captioned date, time and location. All sample(s) is/are collected in designated container(s) and without any observation in leakage. Sample(s) is/are stored by Bureau Veritas in portable freezer / fridge that is maintained in 1-6°C

Signatory of Factory Representative:

Full Name

Date: 2021.3.23

Field Data for Sludge

Arrival Time:		Departure Time:	
Field Parameters	pH:	Temp:	°C
Control No. of field equipment			



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 28 of 30

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04
		Issue Date:
		Version No.: 11
		Business Line: Analytical

General Data

Laboratory Sample Number: 66210820606
Client Name: 徐丰恩
Field Contact Person: 杭州永恩纺织有限公司 / 杭州半山罗越路兴东里688号
Project (Facility Name and Address): 处理6取水口
Sampling Location / Description: Zero discharge with sampling plan
Sample Type: Composite Sample / Grab sample (Please delete as appropriate)
Name of Sampler: 段明江
Discharge mode: Direct discharge to environment (Specify destination: River, Sea, Stream...) OR Indirect discharge to sewage treatment plant
Date of collection: 2021.3.23
Factory Type: Dyeing / Printing / Washing / Finishing / Others (please specify):
*Note: It would be selected more than one

Field Data for Wastewater

Field data for wastewater									
Arrival Time:		9:50			Departure Time:		16:20		
Field Parameters		pH:			Temp: °C		Color:		Flow rate: (volume/min)
Control No. of field equipment		CA-002MI			CA-002MI		✓		✓
Factory with effluent treatment plant:		Yes					No		
Sample matrix:		Incoming water (If required)							
		Wastewater before treatment							
		✓ Wastewater after treatment – water at discharge point							
Sampler container number		A3	A3	A3	A3	A3	A3	A3	
		1	2	3	4	5	6	7	8
Recording time	ID	A3	A3	A3	A3	A3	A3	A3	
	Time	10:12	11:12	12:12	13:12	14:12	15:12	16:12	
pH:		6.95	7.11	7.20	7.06	7.18	7.21	7.18	
Temp (°C):		25.5	25.2	26.0	25.6	25.8	26.0	25.9	
Color:		浅黄	浅黄	浅黄	浅黄	浅黄	浅黄	浅黄	
Flow rate (volume/time)									
Volume collected, mL		1.15L	1.15L	1.15L	1.15L	1.15L	1.15L	3.50L	
Total volume collected		10.4L	Remark: Total volume collected must be greater than total of sample size required						

Analysis Required and Preservation Method

Tests (ZDHC MRSL Parameters)		Test required (Y)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4)	1. Phthalate	✓	1000 mL total or 1000 mL each	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
	2. Chlorobenzenes, Chlorotoluene & PAH	✓			
	3. SCCPs	✓			
	4. APS	✓			
5. APEOs		✓	100 mL		
6. Chlorophenols & Cresols		✓	100 mL		
7. Flame retardant		✓	500 mL		
8. Dyes		✓	10 mL		
9. Glycol		✓	50 mL		
10. *Pesticides			1000 mL		
11. *Nitrosamine			10 mL		
12. Banned Azodyes		✓	2000 mL		
13. *Free primary aromatic amines			500 mL		
14. Organotin Compounds		✓	500 mL	Amber Glass, washed with nitric acid; Pre-add 6.5 mL of 2M HCl	Acidity to pH 2 with HCl and store sample at 6°C
15. VOC & Halogenated Solvents (Remark 6)		✓	10 mL		Fill to full container without air gap; acidity to pH 2 with HCl and store sample at 6°C
16. PFCs		✓	2 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 6°C
Tests (Conventional Parameters)		Test required (Y)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4)	17. Total suspended solids (TSS)		2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and	Without adding acid Store sample at 6°C
	18. *Total dissolved solids (TDS)				



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 29 of 30

19. 5-day Biochemical Oxygen Demand (BOD ₅)	✓	1000 mL	undisturbed before use	
20. Heavy Metals except Cr(VI) & Total-P (Remark 9)	✓	9 mL	PE, washed with nitric acid, pre-add 6.5 mL of 2M HNO ₃	Acidify to pH 2 with HNO ₃ and store at 6°C
21. Cr(VI)	✓	95 mL	Amber Glass, washed with pesticide grade acetone	Filter by 0.45µm filter in field, fill to full container without air gap; adjust pH to 9.0-9.5 by adding ammonium buffer. Store sample at 6°C
22. Cyanide	✓	500 mL		Adjust pH 12 with 50% NaOH, add 0.05 ml of 10% Na ₂ S ₂ O ₃ , and store sample at 6°C
23. Chemical oxygen demand (COD)	✓	150 mL	Amber Glass; washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	Acidify to pH 2 with H ₂ SO ₄ Store sample at 6°C
24. Phenols	✓	500 mL		Fill to full container without air gap; acidify to pH 2 with H ₂ SO ₄ and store sample at 6°C
25. *Formaldehyde		25 mL		Fill to full container without air gap; add 2 drops of 2M zinc acetate, adjust pH to 9 with 6M NaOH Store sample at 6°C
26. Sulfide (Remark 5)	✓	50 mL	PE, washed with pesticide grade Acetone;	Fill to full container without air gap; add 2 drops of 2M zinc acetate, adjust pH to 9 with 6M NaOH Store sample at 6°C
27. Adsorbable organically bound halogens (AOX)	✓	100 mL	Amber Glass, washed with nitric acid, pre-add 6.5 mL of 2M HNO ₃	Add 0.05 ml of 10% Na ₂ S ₂ O ₃ , acidify to pH 2 with H ₂ SO ₄ Store sample at 6°C
28. Total Coliform (Remark 6)	✓	125 mL	PE, clean, sterile, non-reactive	
29. Persistent foam	✓	N.A.	Foam higher than 45 cm (visual estimation): <u>Yes / No</u>	
30. Sulfite	✓	100 mL	Amber Glass, washed with pesticide grade acetone	Add 1 mL of 2.5% EDTA, 0.5g zinc acetate Store sample at 6°C
31. Total-N	✓	100 mL	Amber Glass with wide-mouth PTFE lid; washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	Acidify to pH 2 with H ₂ SO ₄ Store sample at 6°C
32. Ammonium-N	✓	500 mL		
33. Oil and Grease	✓	1000 mL	Amber Glass; washed with nitric acid; Pre-add 6.5 mL of 2M H ₂ SO ₄	
34. Total Hydrocarbon		1000 mL		
35. Luminous Bacteria Toxicity		1000 mL	Amber Glass, washed with nitric acid, rinsed thoroughly with distilled water and dried before use	Without adding acid Store sample at 6°C
36. Sulphate		100 mL		
37. Chloride		100 mL		
38. Others:				
Observation/ Remark:				

*Remarks:

- Individual sampling can be performed upon request
- The minimum sampling time for 2016 ZDHC guideline is 6 hours with no more than one hour between discrete samples. Sampling time could be adjusted upon request.
- Scope of ZDHC guideline: Parameter 1, 2, 4-9, 12, 14-17, 19-24, 26-33
Scope of synthetic leather industry: Parameter 1, 2, 4-9, 12, 14-17, 19-33
Scope of MMCP: Parameter 4, 5, 17, 19-24, 26, 27, 31-37
Free primary aromatic amine, pesticides, nitrosamine and TDS are not in the scope of ZDHC Guideline, they are tested upon request.
- Refer to CPSD-AN-G00019-STIP01, locations with those CPSD test capability inside TCD matrix can perform the combined test.
- Refer to CPSD-AN-000570-MTHD for additional pretreatment of sulfide if only dissolved sulfide is required to be tested
- Refer to CPSD-AN-00613-MTHD for preparation of field blank for specific parameter

Recorded by: 殷明飞
Full name:

Date: 2021.3.23

Comment from factory: 处理后: 北纬: 30°14'51" 东经: 120°29'0"

Acknowledgement by factory

I hereby confirmed that Bureau Veritas has completed the stated sampling activity at captioned date, time and location. All sample(s) is/are collected in designated container(s) and without any observation in leakage. Sample(s) collected by Bureau Veritas is/are stored in portable freezer / fridge that is maintained in 1-6°C

Signatory of Factory Representative:

Full Name

Date: 2021.3.23

Field Data for Sludge

Arrival Time:		Departure Time:	
Field Parameters	pH:	Temp:	°C
Control No. of field equipment			



Technical Report:
技术报告

(6621)082-0606

April 8, 2021

Page 30 of 30

APPENDIX D 附录 D

(2) 一般排放口

排放口编号	排放口名称	污染物种类	许可排放浓度限值 (mg/L)	
DW001	废水总排放口	pH值	6-9	
DW001	废水总排放口	总氮 (以N计)	70mg/L	
DW001	废水总排放口	化学需氧量	500mg/L	
DW001	废水总排放口	悬浮物	400mg/L	
DW001	废水总排放口	总磷 (以P计)	8mg/L	
DW001	废水总排放口	色度	/	
DW001	废水总排放口	五日生化需氧量	300mg/L	
DW001	废水总排放口	氨氮 (NH ₃ -N)	35mg/L	
一般排放口合计			CODcr	
			氨氮	