SOFTLINES WASTEWATER TESTING
TEST REPORT
Number:SHAT08035565

Date of sampling	24 Jun, 2024
Reporting Date	27 Jun, 2024

Audit ID	174638	Audit firm	INTERTEK - CHINA NORTH
Company name	WUJIANG YONGQIAN TEXTILE PRINTING AND DYEING CO., LTD.		
Contact person	WANG MENGXUE		
Type of tax - tax ID no	91320509628461910R		
Address	XINGQIAO VILLAGE SHENGZE TOWN,WUJIANG DISTRIC, SUZHOU CITY		
Region state province	Jiangsu Province		
Town city / village	WUJIANG		
Zip/Post code	215200		
Country	MAINLAND CHINA		

Type of wastewater discharge				
Type of wastewater discharge:	Indirect discharge			
On-site effluent treatment plant (ETP):	YES			
Pre - treatment:	YES			
	Preliminary	Primary	Secondary/Biological	Tertiary
	☐ Screening/ ☑ Homogenization tank ☐ pH correction ☐ Other ☐ None	☐ Coagulation/Flocculation ☑ Dissolved air flotation ☑ Sedimentation tanks or ☐ Other	☑ Activated sludge ☐ Biological Biofilm ☐ BSequencing batch reactor (SBR) ☐ Other	☐ Absorption with activated ☐ High rate filtration ☐ Advanced oxidation techniques (Ozone, Fenton reaction, photo catalytic degradation...) ☐ Other
Description of discharge:	The water is discharged into the sewage system for further treatment on External ETP (receiving ETP name: 吴江市盛泽水处理发展有限公司第五分公司)			
[If direct discharge] ambient temperature of receiving water body (ºC):	-			
Average total industrial wastewater generated (m3/day):	4500 m3/day			

Sludge Disposal Pathway	A

Sampler accreditation certification number (ZDHC):		C74D106817399	
Sample description	**Simple**	**Composite**	**Comments**
(1) Untreated wastewater (BT)	Blue, grab sample at 13:50 Sampling location: Latitude 30°53'33''N, Longitude 120° 40'55''E		
(2) Effluent (AT)	Yellow, grab sample at 14:01 Sampling location: Latitude 30°53'38''N, Longitude 120° 40'59''E		
(3) Sludge		Grey, composite sample at 14:19 Sampling location: Latitude 30°53'36''N, Longitude 120°4'57''E	

Local Legal Data	
Local Legal Standard name [a]	Discharge standards of water pollutants for dyeing and finishing of textile industry; Discharge Standard of Antimony Pollutants in Wastewater for Textile Dyeing and Finishing
Local legal standard no. [a]:	GB 4287-2012; DB 32/3432-2018
Parameters (ZDHC WWSG V2.1, Table 2-3) exceeded local regulation:	-
Discharge permit provided:	Yes

Internal description – Intertek Lab Issuing Final Test Report	
Sampling laboratory	Intertek Testing Services Ltd., Shanghai
Testing laboratory	Intertek Testing Services Ltd., Shanghai
Date received sample	25 Jun, 2024
Date and time of the beginning of sampling	24 Jun, 2024 13:50
Date and time of the end of sampling	24 Jun, 2024 14:19
Testing period	25 Jun, 2024 to 27 Jun, 2024
Reporting date	27 Jun, 2024
Arrival Temperature at Lab	7.7°C
Internal codification number	
Reference sample number	SHAT08035565
Comments	-

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Summary of test results		
Wastewater/ MRSL - Test items	**Testing period**	**Sample 1 (untreated)**
Alkylphenols (APs) & Alkylphenol ethoxylates (APEOs)	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Anti - Microbials & Biocides	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Chlorinated parafins	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Chlorobenzenes and Chlorotoluenes	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Chlorophenols	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Dimethyl Formamide (DMFa) (*)	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Dyes – Carcinogenic or Equivalent Concern	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Dyes – Disperse (Allergenic)	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Dyes-Navy Blue Colourant	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Flame retardants	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Glycols	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Halogenated solvents	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Organotin compounds	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Other/Miscellaneous Chemicals (^)	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Perfluorinated chemicals (PFCs)	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Phthalates	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Polycyclic aromatic hydrocarbons (PAHs)	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Restricted Aromatic Amines (Cleavable from Azo- colourants) Azo dyes	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
UV Absorbers	From 25 Jun, 2024 to 27 Jun, 2024	**ND**
Volatile organic compounds (VOCs)	From 25 Jun, 2024 to 27 Jun, 2024	**ND**

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Wastewater / Heavy metals - Test items	Testing period	Sample 2 (effluent)		
		Foundational	Progressive	Aspirational
Antimony	N/A	N/A		
Chromium (VI)	From 25 Jun, 2024 to 27 Jun, 2024			Meet
Barium	N/A	N/A		
Selenium	N/A	N/A		
Tin	N/A	N/A		
Arsenic	From 25 Jun, 2024 to 27 Jun, 2024			Meet
Chromium (total)	N/A	N/A		
Cobalt	N/A	N/A		
Cadmium	From 25 Jun, 2024 to 27 Jun, 2024			Meet
Copper	N/A	N/A		
Lead	From 25 Jun, 2024 to 27 Jun, 2024			Meet
Nickel	N/A	N/A		
Silver	N/A	N/A		
Zinc	N/A	N/A		
Mercury	From 25 Jun, 2024 to 27 Jun, 2024			Meet

Wastewater / Conventional parameters - Test items	Testing period	Sample 2 (effluent)		
		Foundational	Progressive	Aspirational
pH[f]	N/A	N/A		
Temperature difference[f]	N/A	N/A		
E.coli	N/A	N/A		
Colour	N/A	N/A		
Persistent foam[f]	N/A	N/A		
Wastewater flowrate[f]	N/A	N/A		
Ammonium-Nitrogen	N/A	N/A		
AOX	N/A	N/A		
Biochemical Oxygen Demand (BOD_5)	N/A	N/A		
Chemical Oxygen Demand (COD)	N/A	N/A		
Dissolved Oxygen (DO)[f]	N/A	N/A		
Oil & Grease	N/A	N/A		
Total Phenols / Phenol Index	N/A	N/A		
Total Chlorine[f]	N/A	N/A		
Total Dissolved Solids (TDS)	N/A	N/A		
Total Nitrogen	N/A	N/A		
Total Phosphorus	N/A	N/A		
Total Suspended Solids (TSS)	N/A	N/A		

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Wastewater / Anions - Test items	Testing period	Sample 2 (effluent)		
		Foundational	Progressive	Aspirational
Chloride	N/A	N/A		
Cyanide, total	N/A	N/A		
Sulfate	N/A	N/A		
Sulfide	N/A	N/A		
Sulfite	N/A	N/A		

Sludge / Heavy metals - Test items	Testing period	Sample 3: Sludge (Total)	Sample 3: Sludge (Leachate)
Antimony	From 25 Jun, 2024 to 26 Jun, 2024		Report only, refer data
Arsenic	From 25 Jun, 2024 to 26 Jun, 2024	Meet	
Barium	From 25 Jun, 2024 to 26 Jun, 2024	Meet	
Cadmium	From 25 Jun, 2024 to 26 Jun, 2024	Meet	
Cobalt	From 25 Jun, 2024 to 26 Jun, 2024	Meet	
Copper	From 25 Jun, 2024 to 26 Jun, 2024	Meet	
Lead	From 25 Jun, 2024 to 26 Jun, 2024	Meet	
Nickel	From 25 Jun, 2024 to 26 Jun, 2024		Report only, refer data
Selenium	From 25 Jun, 2024 to 26 Jun, 2024	Meet	
Silver	From 25 Jun, 2024 to 26 Jun, 2024	Meet	
Chromium (total)	From 25 Jun, 2024 to 26 Jun, 2024		Report only, refer data
Zinc	From 25 Jun, 2024 to 26 Jun, 2024	Meet	
Chromium VI	From 25 Jun, 2024 to 26 Jun, 2024	Meet	
Mercury	From 25 Jun, 2024 to 26 Jun, 2024	Meet	

Sludge / Anion - Test items	Testing period	Sample 3: Sludge
Cyanide	From 27 Jun, 2024 to 27 Jun, 2024	Report only, refer data

Sludge / Conventional parameters - Test items	Testing period	Sample 3: Sludge
pH [f]	From 24 Jun, 2024 to 24 Jun, 2024	Report only, refer data
% Solids	From 25 Jun, 2024 to 25 Jun, 2024	Report only, refer data
Paint filter test	From 25 Jun, 2024 to 25 Jun, 2024	Report only, refer data
Faecal coliform	From 25 Jun, 2024 to 27 Jun, 2024	Report only, refer data

Sludge / MRSL - Test items	Testing period	Sample 3: Sludge
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	From 25 Jun, 2024 to 27 Jun, 2024	Report only, refer data
Polycyclic Aromatic Hydrocarbons (PAHs)	From 25 Jun, 2024 to 27 Jun, 2024	Report only, refer data
Chlorotoluenes	From 25 Jun, 2024 to 27 Jun, 2024	Report only, refer data

Remark (Indicated in each parameter)
ND = Not detected (less than lab reporting limit)
D = Detected
N/A = Not applicable (Out of scope according to ZDHC WWSG v2.1)
NT = Not tested (Did not test according to applicant's request)
(S) = The samples were subcontracted to Intertek [xxxxx] for testing.
(T) = If sample temperature is greater than 8°C and less than 10°C when received from the laboratory.
(TT) = If sample temperature is exceeded 10°C when received from the laboratory.
@ = Maximum holding time exceeded.
(*) = Sample and report for mock leather.
(^) = Borate, zinc salt would report ND when total boron or total zinc less than 100 µg/L.
[f] = On-site test by sampler.
[a] = The local legal standard name and legal standard no. is referenced to discharge permit (or contractual agree by CETP) that provided by applicant.

This report shown the test result of the environment samples of above factory which collected on specific date and time. The results of this report shall not be used for any regulatory compliance purposes.

For and on behalf of
Intertek Testing Service Ltd., Shanghai

Nina Hu

Nina Hu, Technical Manager

Test results

1. Conventional parameters

Wastewater/ Conventional parameters - Test items	Test method (Please refer only to the SM used in the lab)	Limit			Lab Reporting Limit (Please refer to your RL)	Result Sample 2	Unit
		Foundational	Progressive	Aspirational		Effluent	
Temperature	GB/T 13195	35°C	30°C	25°C	N/A	N/A	[f] °C
Temperature difference [°C]	GB/T 13195	Δ+15°C	Δ+10°C	Δ+5°C	N/A	N/A	[f] °C
TSS	GB/T 11901	50 mg/L	15 mg/L	5 mg/L	5 mg/L	N/A	mg/L
Chemical Oxygen Demand (COD)	HJ 828	150 mg/L	80 mg/L	40 mg/L	40 mg/L	N/A	mg/L
Total-N	HJ 636	20 mg/L	10 mg/L	5 mg/L	5 mg/L	N/A	mg/L
pH	HJ 1147	6-9			N/A	N/A	[f] pH
Colour (436 nm ; 525 nm ; 620nm)	ISO 7887-B	7;5;3	5;3;2	2;1;1	N/A	N/A	[m-1]
Biochemical Oxygen Demand (BOD5)	HJ 505	30 mg/L	15 mg/L	8 mg/L	8 mg/L	N/A	mg/L
Ammonium-Nitrogen	HJ 535	10 mg/L	1 mg/L	0.5 mg/L	0.5 mg/L	N/A	mg/L
Total-P	GB/T 11893	3 mg/L	0.5 mg/L	0.1 mg/L	0.1 mg/L	N/A	mg/L
AOX	HJ/T 83	3 mg/L	0.5 mg/L	0.1 mg/L	0.1 mg/L	N/A	mg/L
Oil and grease	HJ 637	10 mg/L	2 mg/L	0.5 mg/L	0.5 mg/L	N/A	mg/L
Phenol	HJ 503	0.5 mg/L	0.01 mg/L	0.001 mg/L	0.001 mg/L	N/A	mg/L
E. Coli	SM 9221B presumtive, confirm positive with SM9221F	126 [MPN/100-ml]			1.8 MPN/100-ml	N/A	[MPN/100-ml]
Foam	/	Not visible	Not visible	Not visible	N/A	N/A	[f]
Cyanide	HJ 484	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	N/A	mg/L
Sulfide	HJ 1226	0.5 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	N/A	mg/L
Sulphite	HJ 84-2016	2 mg/L	0.5 mg/L	0.2 mg/L	0.2 mg/L	N/A	mg/L

Dissolved Oxygen (DO)	HJ 506	Sample and report only	Sample and report only	Sample and report only	N/A	N/A	[f] mg/L
Total Chlorine	HJ 586	Sample and report only	Sample and report only	Sample and report only	0.2 mg/L	N/A	[f] mg/L
Total Dissolved Solids (TDS)	GB/T 5750.4-2006 (180 °C)	Sample and report only	Sample and report only	Sample and report only	10 mg/L	N/A	mg/L
Chloride	HJ 84-2016	Sample and report only	Sample and report only	Sample and report only	10 mg/L	N/A	mg/L
Sulfate	HJ 84-2016	Sample and report only	Sample and report only	Sample and report only	10 mg/L	N/A	mg/L
Wastewater Flowrate	/	N/A	N/A	N/A	N/A	N/A	[f] m3/day

△ is the degree above ambient temperature of receiving water body.

2. Heavy metals

Chromium (VI): GB 7467 (UV/VIS analysis). Mercury: HJ 694 (AFS analysis). Other heavy metals: HJ 700 (ICP-MS analysis).

Heavy metals	CAS no.	Limit			Lab Reporting limit (mg/L) (Please refer only to the RL in your lab.)	Result	Unit
		Foundational	Progressive	Aspirational		Sample 1 (untreated)	
Arsenic (As)	Various	0.05 mg/L	0.01 mg/L	0.005 mg/L	0.005 mg/L	ND	mg/L
Cadmium (Cd)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	ND	mg/L
Mercury (Hg)	Various	0.01 mg/L	0.005 mg/L	0.001 mg/L	0.001 mg/L	ND	mg/L
Lead (Pb)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	ND	mg/L
Antimony (Sb)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.01 mg/L	N/A	mg/L
Cobalt (Co)	Various	0.05 mg/L	0.02 mg/L	0.01 mg/L	0.01 mg/L	N/A	mg/L
Nickel (Ni)	Various	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	N/A	mg/L
Silver (Ag)	Various	0.1 mg/L	0.05 mg/L	0.005 mg/L	0.005 mg/L	N/A	mg/L
Copper (Cu)	Various	1 mg/L	0.5 mg/L	0.25 mg/L	0.25 mg/L	N/A	mg/L
Zinc (Zn)	Various	5.0 mg/L	1.0 mg/L	0.5 mg/L	0.5 mg/L	N/A	mg/L
Total Chromium (Cr)	Various	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	N/A	mg/L
Chromium VI (Cr VI)	Various	0.05 mg/L	0.005 mg/L	0.001 mg/L	0.001 mg/L	ND	mg/L
Barium	Various	Sample and Report only	Sample and Report only	Sample and Report only	0.01 mg/L	N/A	mg/L
Selenium	Various	Sample and Report only	Sample and Report only	Sample and Report only	0.01 mg/L	N/A	mg/L
Tin	Various	Sample and Report only	Sample and Report only	Sample and Report only	0.01 mg/L	N/A	mg/L

3.Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers.
NP/OP: modified from ISO 21084:2019 (LC-MS analysis). OPEO/NPEO (n>2): modified from ISO 18254-1:2016 (GC-MS and LC-MS analysis).

Alkylphenols (APs) & Alkylphenolethoxylates (APEOs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Octylphenol (OP), mixed isomers	140-66-9/ 1806-26-4/ 27193-28-8	5	5	ND	µg/L
Nonylphenol (NP), mixed isomers	104-40-5/ 11066-49-2/ 25154-52-3/84852-15-3	5	5	ND	µg/L
Octylphenolethoxylates (OPEOs)	9002-93-1; 9036-19-5; 68987-90-6	5	5	ND	µg/L
Nonylphenolethoxylates (NPEOs)	9016-45-9/26027-38-3/ 37205-87-1/68412-54-4/127087-87-0	5	5	ND	µg/L

4. Chlorobenzenes & Chlorotoluenes
Modified from EN 17137:2018 (GC-MS analysis).

Chlorobenzenes & Chlorotoluenes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Chlorobenzene	108-90-7	0.2	0.2	ND	µg/L
1,2-Dichlorobenzene	95-50-1	0.2	0.2	ND	µg/L
1,3-Dichlorobenzene	541-73-1	0.2	0.2	ND	µg/L
1,4-Dichlorobezene	106-46-7	0.2	0.2	ND	µg/L
1,2,3-Trichlorobenzene	87-61-6	0.2	0.2	ND	µg/L
1,2,4-Trichlorobenzene	120-82-1	0.2	0.2	ND	µg/L
1,3,5-Trichlorobenzene	108-70-3	0.2	0.2	ND	µg/L
1,2,3,4-Tetrachlorobenzene	634-66-2	0.2	0.2	ND	µg/L
1,2,3,5-Tetrachlorobenzene	634-90-2	0.2	0.2	ND	µg/L
1,2,4,5-Tetrachlorobenzene	95-94-3	0.2	0.2	ND	µg/L
Pentachlorobenzene	608-93-5	0.2	0.2	ND	µg/L
Hexachlorobenzene	118-74-1	0.2	0.2	ND	µg/L
2-Chlorotoluene	95-49-8	0.2	0.2	ND	µg/L
3-Chlorotoluene	108-41-8	0.2	0.2	ND	µg/L
4-Chlorotoluene	106-43-4	0.2	0.2	ND	µg/L
2,3-Dichlorotoluene	32768-54-0	0.2	0.2	ND	µg/L
2,4-Dichlorotoluene	95-73-8	0.2	0.2	ND	µg/L
2,5-Dichlorotoluene	19398-61-9	0.2	0.2	ND	µg/L
2,6-Dichlorotoluene	118-69-4	0.2	0.2	ND	µg/L
3,4-Dichlorotoluene	95-75-0	0.2	0.2	ND	µg/L

3,5-Dichlorotoluene	25186-47-4	0.2	0.2	ND	µg/L
2,3,4-Trichlorotoluene	7359-72-0	0.2	0.2	ND	µg/L
2,3,6-Trichlorotoluene	2077-46-5	0.2	0.2	ND	µg/L
2,4,5-Trichlorotoluene	6639-30-1	0.2	0.2	ND	µg/L
2,4,6-Trichlorotoluene	23749-65-7	0.2	0.2	ND	µg/L
3,4,5-Trichlorotoluene	21472-86-6	0.2	0.2	ND	µg/L
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	0.2	ND	µg/L
2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	0.2	ND	µg/L
2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	0.2	ND	µg/L
Pentachlorotoluene	877-11-2	0.2	0.2	ND	µg/L

5. Chlorophenols
Modified from DIN 50009:2021 (GC-MS analysis).

Chlorophenols	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
2-Chlorophenol	95-57-8	0.5	0.5	ND	µg/L
3-Chlorophenol	108-43-0	0.5	0.5	ND	µg/L
4-Chlorophenol	106-48-9	0.5	0.5	ND	µg/L
2,3-Dichlorophenol	576-24-9	0.5	0.5	ND	µg/L
2,4-Dichlorophenol	120-83-2	0.5	0.5	ND	µg/L
2,5-Dichlorophenol	583-78-8	0.5	0.5	ND	µg/L
2,6-Dichlorophenol	87-65-0	0.5	0.5	ND	µg/L
3,4-Dichlorophenol	95-77-2	0.5	0.5	ND	µg/L
3,5-Dichlorophenol	591-35-5	0.5	0.5	ND	µg/L
2,3,4-Trichlorophenol	15950-66-0	0.5	0.5	ND	µg/L
2,3,5-Trichlorophenol	933-78-8	0.5	0.5	ND	µg/L
2,3,6-Trichlorophenol	933-75-5	0.5	0.5	ND	µg/L
2,4,5-Trichlorophenol	95-95-4	0.5	0.5	ND	µg/L
2,4,6-Trichlorophenol	88-06-2	0.5	0.5	ND	µg/L

3,4,5-Trichlorophenol	609-19-8	0.5	0.5	ND	µg/L
2,3,4,5-Tetrachlorophenol	4901-51-3	0.5	0.5	ND	µg/L
2,3,4,6-Tetrachlorophenol	58-90-2	0.5	0.5	ND	µg/L
2,3,5,6-Tetrachlorophenol	935-95-5	0.5	0.5	ND	µg/L
Pentachlorophenol (PCP)	87-86-5	0.5	0.5	ND	µg/L

6. Restricted Aromatic Amines (Cleavable from Azo-colourants)
Modified from ISO 14362-1:2017 and ISO 14362-3:2017 (GC-MS and LC-MS-MS analysis).

Azo Dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	0.1	0.1	ND	µg/L
4,4'-Diaminodiphenylmethane	101-77-9	0.1	0.1	ND	µg/L
4,4'-Oxydianiline	101-80-4	0.1	0.1	ND	µg/L
4-Chloroaniline	106-47-8	0.1	0.1	ND	µg/L
3,3'-Dimethoxybenzidine	119-90-4	0.1	0.1	ND	µg/L
3,3'-Dimethylbenzidine	119-93-7	0.1	0.1	ND	µg/L
p-Cresidine	120-71-8	0.1	0.1	ND	µg/L
2,4,5-Trimethylaniline	137-17-7	0.1	0.1	ND	µg/L
4,4'-Thiodianiline	139-65-1	0.1	0.1	ND	µg/L
4-Aminoazobenzene	60-09-3	0.1	0.1	ND	µg/L
4-methoxy-m-phenylenediamine	615-05-4	0.1	0.1	ND	µg/L
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.1	0.1	ND	µg/L
2,6-Xylidine	87-62-7	0.1	0.1	ND	µg/L
o-Anisidine	90-04-0	0.1	0.1	ND	µg/L
2-Naphthylamine	91-59-8	0.1	0.1	ND	µg/L
3,3'-Dichlorobenzidine	91-94-1	0.1	0.1	ND	µg/L
4-Aminobiphenyl	92-67-1	0.1	0.1	ND	µg/L
Benzidine	92-87-5	0.1	0.1	ND	µg/L
o-Toluidine	95-53-4	0.1	0.1	ND	µg/L
2,4-Xylidine	95-68-1	0.1	0.1	ND	µg/L
4-Chloro-o-toluidine	95-69-2	0.1	0.1	ND	µg/L
4-Methyl-m-phenylenediamine	95-80-7	0.1	0.1	ND	µg/L
o-Aminoazotoluene	97-56-3	0.1	0.1	ND	µg/L
5-Nitro-o-toluidine	99-55-8	0.1	0.1	ND	µg/L
2-Naphthylammoniumacetate	553-00-4	0.1	0.1	ND	µg/L

2,4,5-trimethylaniline hydrochloride	21436-97-5	0.1	0.1	ND	µg/L
4-chloro-o-toluidinium chloride	3165-93-3	0.1	0.1	ND	µg/L
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	0.1	0.1	ND	µg/L

7. Dyes – Carcinogenic or Equivalent Concern
Modified from DIN 54231:2005 (LC-MS-MS analysis).

Carcinogenic dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
C.I. Direct Black 38	1937-37-7	500	500	ND	µg/L
C.I. Direct Blue 6	2602-46-2	500	500	ND	µg/L
C.I. Acid Red 26	3761-53-3	500	500	ND	µg/L
C.I. Basic Red 9	569-61-9	500	500	ND	µg/L
C.I. Direct Red 28	573-58-0	500	500	ND	µg/L
C.I. Basic Violet 14	632-99-5	500	500	ND	µg/L
C.I. Disperse Blue 1	2475-45-8	500	500	ND	µg/L
C.I. Disperse Blue 3	2475-46-9	500	500	ND	µg/L
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	500	500	ND	µg/L
C.I. Basic Green 4 (malachite green chloride)	569-64-2	500	500	ND	µg/L
C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	500	500	ND	µg/L
C.I. Basic Green 4 (malachite green)	10309-95-2	500	500	ND	µg/L
Disperse Orange 11	82-28-0	500	500	ND	µg/L
Basic violet 3 with >0.1% of Michler´s Ket	548-62-9	500	500	ND	µg/L
C.I. Acid Violet 49	1694-09-3	500	500	ND	µg/L

8. Dyes – Disperse (Allergenic)
Modified from DIN 54231:2005 (LC-MS-MS analysis).

Disperse dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Disperse Yellow 1	119-15-3	50	50	ND	µg/L
Disperse Blue 102	12222-97-8	50	50	ND	µg/L
Disperse Blue 106	12223-01-7	50	50	ND	µg/L

Disperse Yellow 39	12236-29-2	50	50	ND	µg/L
Disperse Orange 37/59/76	13301-61-6	50	50	ND	µg/L
Disperse Brown 1	23355-64-8	50	50	ND	µg/L
Disperse Orange 1	2581-69-3	50	50	ND	µg/L
Disperse Yellow 3	2832-40-8	50	50	ND	µg/L
Disperse Red 11	2872-48-2	50	50	ND	µg/L
Disperse Red 1	2872-52-8	50	50	ND	µg/L
Disperse Red 17	3179-89-3	50	50	ND	µg/L
Disperse Blue 7	3179-90-6	50	50	ND	µg/L
Disperse Blue 26	3860-63-7	50	50	ND	µg/L
Disperse Yellow 49	54824-37-2	50	50	ND	µg/L
Disperse Blue 35	12222-75-2	50	50	ND	µg/L
Disperse Blue 124	61951-51-7	50	50	ND	µg/L
Disperse Yellow 9	6373-73-5	50	50	ND	µg/L
Disperse Orange 3	730-40-5	50	50	ND	µg/L
Disperse Blue 35	56524-77-7	50	50	ND	µg/L

9. Flame retardants

Other flame retardant substances: modified from ISO 17881-1:2016 & ISO 17881-2:2016 (GC-MS and LC-MS-MS analysis).
Borate salt: Modified from HJ 700-2014 (ICP-MS analysis)

Flame retardants	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	25	25	ND	µg/L
Decabromodiphenyl ether (DecaBDE)	1163-19-5	25	25	ND	µg/L
Tris(2,3-dibromopropyl) phosphate (TRIS	126-72-7	25	25	ND	µg/L
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	25	25	ND	µg/L
Octabromodiphenyl ether (OctaBDE)	32536-52-0	25	25	ND	µg/L
Bis(2,3-dibromopropyl) phosphate	5412-25-9	25	25	ND	µg/L
Tris(1-aziridinyl)phosphine oxide) (TEPA)	545-55-1	25	25	ND	µg/L
Polybromobiphenyls (PBBs)	59536-65-1	25	25	ND	µg/L

Tetrabromobisphenol A (TBBPA)	79-94-7	25	25	ND	µg/L
Hexabromocyclododecane (HBCDD)	3194-55-6	25	25	ND	µg/L
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	25	25	ND	µg/L
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	25	25	ND	µg/L
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	25	25	ND	µg/L
Decabromobiphenyl (DecaBB)	13654-09-6	25	25	ND	µg/L
Dibromobiphenyls (DiBB)	Various	25	25	ND	µg/L
Octabromobiphenyls (OctaBB)	Various	25	25	ND	µg/L
Dibromopropylether	21850-44-2	25	25	ND	µg/L
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	25	25	ND	µg/L
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	25	25	ND	µg/L
Monobromobiphenyls (MonoBB)	Various	25	25	ND	µg/L
Monobromodiphenylethers (MonoBDEs)	Various	25	25	ND	µg/L
Nonabromobiphenyls (NonaBB)	Various	25	25	ND	µg/L
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	25	25	ND	µg/L
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	25	25	ND	µg/L
Tribromodiphenylethers (TriBDEs)	Various	25	25	ND	µg/L
Boric acid**	10043-35-3 / 11113-50-1	100 in Boron	100 in Boron	ND	µg/L
Diboron trioxide**	1303-86-2	100 in Boron	100 in Boron	ND	µg/L
Disodium octaborate**	12008-41-2	100 in Boron	100 in Boron	ND	µg/L
Disodium tetraborate anhydrous**	1303-96-4 / 1330-43-4	100 in Boron	100 in Boron	ND	µg/L
Tetraboron disodium heptaoxide, hydrate**	12267-73-1	100 in Boron	100 in Boron	ND	µg/L

** Report total boron directly, no conversion from Boron salt.

10. Glycols
Modified from T/CNTAC 66 Annex B.6 (GC-MS analysis).

Glycols	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Bis(2-methoxyethyl)-ether	111-96-6	50	50	ND	µg/L
2-ethoxyethanol	110-80-5	50	50	ND	µg/L
2-ethoxyethyl acetate	111-15-9	50	50	ND	µg/L
Ethylene glycol dimethyl ether	110-71-4	50	50	ND	µg/L
2-methoxyethanol	109-86-4	50	50	ND	µg/L
2-methoxyethylacetate	110-49-6	50	50	ND	µg/L
2-methoxypropylacetate	70657-70-4	50	50	ND	µg/L
Triethylene glycol dimethyl ether	112-49-2	50	50	ND	µg/L

11.Halogenated solvents
Modified from USEPA 8260D (GC-MS analysis).

Chlorinated solvents	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
1,2-Dichloroethane	107-06-2	1	1	ND	µg/L
Methylene chloride	75-09-2	1	1	ND	µg/L
Trichloroethene	79-01-6	1	1	ND	µg/L
Tetrachloroethene	127-18-4	1	1	ND	µg/L

12. Organotin compounds
Modified from ISO/TS 16179:2012 (GC-MS analysis).

Organotin compounds	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Mono-, di-and tri-methyltin derivatives	Various	0.01	0.01	ND	µg/L
Mono-, di-and tri-butyltin derivatives	Various	0.01	0.01	ND	µg/L
Mono-, di-and tri-phenyltin derivatives	Various	0.01	0.01	ND	µg/L
Mono-, di-and tri-octyltin derivatives	Various	0.01	0.01	ND	µg/L
Triclyclohexyltin (TCyHT)	Various	0.01	0.01	ND	µg/L
Dipropyltin compounds (DPT)	Various	0.01	0.01	ND	µg/L
Tetrabutyltin compounds (TeBT)	Various	0.01	0.01	ND	µg/L
Tripropyltin Compounds (TPT)	Various	0.01	0.01	ND	µg/L
Tetraoctyltin compounds (TeOT)	Various	0.01	0.01	ND	µg/L
Tetraethyltin Compounds (TeET)	Various	0.01	0.01	ND	µg/L

13. Phthalates
Modified from ISO 18856-2004 (GC-MS analysis).

Phthalates	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	10	10	ND	µg/L
Dimethoxyethyl phthalate (DMEP)	117-82-8	10	10	ND	µg/L
Di-n-octyl phthalate (DNOP)	117-84-0	10	10	ND	µg/L
Di-iso-decyl phthalate (DIDP)	26761-40-0/68515-49-1	10	10	ND	µg/L
Di-iso-nonyl phthalate (DINP)	28553-12-0/68515-48-0	10	10	ND	µg/L
Di-n-hexyl phthalate (DnHP)	84-75-3	10	10	ND	µg/L
Dibutyl phthalate (DBP)	84-74-2	10	10	ND	µg/L
Butyl benzyl phthalate (BBP)	85-68-7	10	10	ND	µg/L
Diethyl phthalate (DEP)	84-66-2	10	10	ND	µg/L
Di-n-propyl phthalate (DPRP)	131-16-8	10	10	ND	µg/L
Di-iso-butyl phthalate (DIBP)	84-69-5	10	10	ND	µg/L
Di-cyclohexyl phthalate (DCHP)	84-61-7	10	10	ND	µg/L
Di-iso-octyl phthalate (DIOP)	27554-26-3	10	10	ND	µg/L
1,2-benzenedicarboxylic acid, di-C7-11-branched and linearakyl esters (DHNUP)	68515-42-4	10	10	ND	µg/L
1,2-benzenedicarboxylic acid, di-C6-11-branched alkyl esters, C7-rich (DIHP)	71888-89-6	10	10	ND	µg/L
Di-n-pentylphthalates	131-18-0	10	10	ND	µg/L
Diisopentylphthalates	605-50-5	10	10	ND	µg/L
Dinonyl phthalate (DNP)	84-76-4	10	10	ND	µg/L

14. Perfluorinated chemicals (PFCs)
Modified from GB/T 29493.2-2021 (GC-MS and LC-MS-MS analysis).

Perfluorinated chemicals (PFCs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Perfluoro-octanoic acid (PFOA)	335-67-1	0.01	0.01	ND	µg/L
Perfluoro-octane-sulfonic acid (L-PFOS)	1763-23-1	0.01	0.01	ND	µg/L
Perfluoro-octane-sulfon-amide (PFOSA)	754-91-6	0.01	0.01	ND	µg/L
N-Methyl-perfluoro-octane-sulfon-amide (N-Me-FOSA)	31506-32-8	0.01	0.01	ND	µg/L
N-Ethyl-perfluoro-octane-sulfon-amide (N-Et-FOSA)	4151-50-2	0.01	0.01	ND	µg/L
N-Methyl-perfluoro-octane-sulfon-amido-ethanol (N-Me-FOSE alcohol)	24448-09-7	0.01	0.01	ND	µg/L
N-Ethyl-Perfluoro-octane-sulfon-amido-ethanol (N-Et-FOSE alcohol)	1691-99-2	0.01	0.01	ND	µg/L
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4	1	1	ND	µg/L
2-Perfluorooctylethanol (8:2 FTOH)	678-39-7	1	1	ND	µg/L
1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)	27905-45-9	1	1	ND	µg/L
1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA)	1996-88-9	1	1	ND	µg/L
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	1	1	ND	µg/L
Ethyl perfluorooctanoate Et-PFOA	3108-24-5	1	1	ND	µg/L

15. Polycyclic aromatic hydrocarbons (PAHs)
Modified from HJ 478-2009 (GC-MS analysis).

Polycyclic aromatic hydrocarbons (PAHs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Benzo(a)pyrene (BaP)	50-32-8	1	1	ND	µg/L
Anthracene	120-12-7	1	1	ND	µg/L
Pyrene	129-00-0	1	1	ND	µg/L
Benzo(ghi)perylene	191-24-2	1	1	ND	µg/L
Benzo(e)pyrene	192-97-2	1	1	ND	µg/L
Indeno (1,2,3-cd)pyrene	193-39-5	1	1	ND	µg/L
Benzo(j)fluoranthene	205-82-3	1	1	ND	µg/L
Benzo(b)fluoranthene	205-99-2	1	1	ND	µg/L
Fluoranthene	206-44-0	1	1	ND	µg/L
Benzo(k)fluoranthene	207-08-09	1	1	ND	µg/L
Acenaphthylene	208-96-8	1	1	ND	µg/L
Chrysene	218-01-9	1	1	ND	µg/L
Dibenz(a,h)anthracene	53-70-3	1	1	ND	µg/L
Benzo(a)anthracene	56-55-3	1	1	ND	µg/L
Acenaphthene	83-32-9	1	1	ND	µg/L
Phenanthrene	85-01-8	1	1	ND	µg/L

Fluorene	86-73-7	1	1	ND	µg/L
Naphthalene	91-20-3	1	1	ND	µg/L

16. Volatile organic compounds (VOCs)
m, o, p-cresol: modified from DIN 50009:2021 (GC-MS analysis).
Benzene ,Xylene and Toluene: HJ 639-2012 (GC-MS analysis).

Volatile organic compounds (VOCs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Benzene	71-43-2	1	1	ND	µg/L
Xylene	1330-20-7	1	1	ND	µg/L
o-cresol	95-48-7	1	1	ND	µg/L
p-cresol	106-44-5	1	1	ND	µg/L
m-cresol	108-39-4	1	1	ND	µg/L
Toluene*	108-88-3	1	1	ND	µg/L

(*) = Sample and report for mock leather.

17. Anti - Microbials & Biocides
o-Phenylphenol (+salts): modified from GB/T 20386-2006 (GC-MS analysis). Triclosan: modified from GB/T 35380-2018 (GC-MS analysis).
Permethrin: modified from EN71-9/10/11 (GC-MS analysis).

Anti - Microbials & Biocides	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
o-Phenylphenol (+salts)	90-43-7	100	100	ND	µg/L
Triclosan	3380-34-5	100	100	ND	µg/L
Permethrin	Multiple	500	500	ND	µg/L

18. Chlorinated paraffins

For MCCP: modified from ISO18219-2:2021 (GC-MS analysis). For SCCP: modified from ISO18219-1:2021 (GC-MS analysis).

Chlorinated paraffins	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Short-chain Chlorinated paraffin (C10 – C13)	85535-84-8	25	25	ND	µg/L
Medium-chain Chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	500	500	ND	µg/L

19. Dimethyl Formamide (DMFa) (*)

Modified from ISO 16189:2021 (GC-MS analysis).

N,N-di-methylformamide (DMFa)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Dimethyl formamide; N,N-dimethylformamide	68-12-2	1000	1000	ND	µg/L

(*) = Sample and report for mock leather.

20. Dyes-Navy Blue Colourant

Modified from DIN 54231:2005 (LC-MS-MS analysis).

Dyes-Navy Blue Colourant	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	500	500	ND	µg/L
Component 2: C46H-30CrN10O20S2 3Na	Not Allocated	500	500	ND	µg/L

21. Other/Miscellaneous Chemicals (^)

AEEA: modified from T/CNTAC 66 Annex B.9 (GC-MS analysis). Bisphenol A: modified from EN71-10/11 (LC-MS-MS analysis).
Thiourea: modified from T/CNTAC 66 Annex B.8 (LC-MS-MS analysis). Quinoline: modified from GB/T 31531-2015 (GC-MS analysis).
Borate, zinc salt (^): modified from HJ 700-2014 (ICP-MS analysis)

Other/Miscellaneous Chemicals	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
AEEA [2-(2-aminoethylamino)ethanol]	111-41-1	500	500	ND	µg/L
Bisphenol A	80-05-7	10	10	ND	µg/L
Thiourea	62-56-6	50	50	ND	µg/L
Quinoline	91-22-5	50	50	ND	µg/L
Borate, zinc salt (^^)	12767-90-7	100 in Boron & 100 in Zinc	100 in Boron & 100 in Zinc	Boron:ND Zinc:ND	µg/L

^^ = Report total boron & total zinc individually, and no conversion from boron / zinc salt.

22. UV Absorbers

Modified from ISO 24040:2022 (GC-MS analysis).

UV Absorbers	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Untreated wastewater)	Unit
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec- butyl) phenol(UV-350)	36437-37-3	100	100	ND	µg/L
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	100	100	ND	µg/L
2-benzotriazol-2-yl-4,6-di-tertbutylphe	3846-71-7	100	100	ND	µg/L
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	100	100	ND	µg/L

23. Sludge Parameters – Step 1 - Metals

Barium, Selenium, Silver: modified from T/CNTAC 66 Annex B.3 (ICP/OES analysis). Chromium VI: HJ 1082-2019 (AAS analysis). Mercury: modified from EPA 3051a & 6020b (ICP-MS analysis). Other heavy metals: HJ 803-2016 (ICP-MS analysis).

Sludge Parameters – Step 1 - Metals	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg) (mg/kg)	Result Sample 3 (Sludge - Dry weight)	Unit
Antimony	5	5	535	mg/kg
Arsenic	5	5	ND	mg/kg
Barium	200	200	ND	mg/kg
Cadmium	1	1	ND	mg/kg
Cobalt	400	400	ND	mg/kg
Copper	50	50	97	mg/kg
Lead	5	5	ND	mg/kg
Nickel	20	20	95	mg/kg
Selenium	5	5	ND	mg/kg
Silver	50	50	ND	mg/kg
Total Chromium	50	50	301	mg/kg
Zinc	400	400	1041	mg/kg
Chromium (VI)	20	20	ND	mg/kg
Mercury	1	1	ND	mg/kg

24. Sludge Parameters – Step 1 - Anions
Modified from HJ 745 (UV/VIS analysis).

Sludge Parameters – Step 1 - Anions	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight)	Unit
Cyanide	20	20	ND	mg/kg

25. Sludge Parameteres - Step 1 – Conventional

Sludge Parameters – Step 1 - Convent	Test method	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight)	Unit
pH	HJ962	N/A	6.04	[f] N/A
% Solids	HJ613	N/A	55.5	%
Paint Filter	USEPA 9095B	N/A	Pass	N/A
Fecal Coliform	USEPA 1681	10	ND	MPN/g

^ - Report “Pass” when Paint Filter Test does not contain free liquid; Report “Fail” when Paint Filter Test does contain free liquid.

26. Sludge Parameteres - Step 1 - MRSL - Alkylphenol (AP)and Alkylphenol Ethoxylates (APEOs): including all isomers.
NP/OP: modified from ISO 21084:2019 (LC-MS analysis).
OPEO/NPEO (n>2): Modified from ISO 18254-1:2016 (GC-MS and LC-MS analysis).

Sludge Parameters - Step 1 - MRSL - Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	CAS no.	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight)	Unit
Nonylphenol ethoxylates (NPEO)	9016-45-9; 26027-38-3; 37205-87-1; 68412-54-4; 127087-87-0	0.4	0.4	ND	mg/kg
Nonylphenol (NP), mixed isomers	104-40-5; 11066-49-2; 25154-52-3; 84852-15-3	0.4	0.4	ND	mg/kg
Octylphenol ethoxylates (OPEO)	9002-93-1; 9036-19-5; 68987-90-6	0.4	0.4	ND	mg/kg
Octylphenol (OP), mixed isomers	140-66-9; 1806-26-4; 27193-28-8	0.4	0.4	ND	mg/kg

27. Sludge Parameteres - Step 1 - MRSL - PolycyclicAromatic Hydrocarbons (PAHs)
Modified from HJ 805-2016 (GC-MS analysis).

Sludge Parameteres - Step 1 - MRSL - Polycyclic Aromatic Hydrocarbons (PAHs)	CAS no.	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight)	Unit
Acenaphthene	83-32-9	0.2	0.2	ND	mg/kg
Acenaphthylene	208-96-8	0.2	0.2	ND	mg/kg
Anthracene	120-12-7	0.2	0.2	ND	mg/kg
Benzo[a]anthracene	56-55-3	0.2	0.2	ND	mg/kg
Benzo[a]pyrene (BaP)	50-32-8	0.2	0.2	ND	mg/kg
Benzo[b]fluoranthene	205-99-2	0.2	0.2	ND	mg/kg
Benzo[e]pyrene	192-97-2	0.2	0.2	ND	mg/kg
Benzo[ghi]perylene	191-24-2	0.2	0.2	ND	mg/kg
Benzo[j]fluoranthene	205-82-3	0.2	0.2	ND	mg/kg
Benzo[k]fluoranthene	207-08-9	0.2	0.2	ND	mg/kg
Chrysene	218-01-9	0.2	0.2	ND	mg/kg
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	ND	mg/kg
Fluoranthene	206-44-0	0.2	0.2	ND	mg/kg
Fluorene	86-73-7	0.2	0.2	ND	mg/kg
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	0.2	ND	mg/kg
Naphthalene	91-20-3	0.2	0.2	ND	mg/kg
Phenanthrene	85-01-8	0.2	0.2	ND	mg/kg
Pyrene	129-00-0	0.2	0.2	ND	mg/kg

28. Sludge Parameteres - Step 1 - MRSL – Chlorotoluenes
Modified from EN 17137:2018 (GC-MS analysis).

Sludge Parameteres - Step 1 - MRSL – Chlorotoluenes	CAS no.	ZDHC reporting limit (Dry weight) (mg/kg)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight)	Unit
2-Chlorotoluene	95-49-8	0.2	0.2	ND	mg/kg
3-Chlorotoluene	108-41-8	0.2	0.2	ND	mg/kg
4-Chlorotoluene	106-43-4	0.2	0.2	ND	mg/kg
2,3-Dichlorotoluene	32768-54-0	0.2	0.2	ND	mg/kg

2,4-Dichlorotoluene	95-73-8	0.2	0.2	ND	mg/kg
2,5-Dichlorotoluene	19398-61-9	0.2	0.2	ND	mg/kg
2,6-Dichlorotoluene	118-69-4	0.2	0.2	ND	mg/kg
3,4-Dichlorotoluene	95-75-0	0.2	0.2	ND	mg/kg
3,5-Dichlorotoluene	25186-47-4	0.2	0.2	ND	mg/kg
2,3,4-Trichlorotoluene	7359-72-0	0.2	0.2	ND	mg/kg
2,3,6-Trichlorotoluene	2077-46-5	0.2	0.2	ND	mg/kg
2,4,5-Trichlorotoluene	6639-30-1	0.2	0.2	ND	mg/kg
2,4,6-Trichlorotoluene	23749-65-7	0.2	0.2	ND	mg/kg
3,4,5-Trichlorotoluene	21472-86-6	0.2	0.2	ND	mg/kg
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	0.2	ND	mg/kg
2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	0.2	ND	mg/kg
2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	0.2	ND	mg/kg
Pentachlorotoluene	877-11-2	0.2	0.2	ND	mg/kg

29. Sludge Parameteres - Step 2 – Metals
Chromium VI: modified from USEPA 3060B and USEPA 7196 (UV/VIS analysis).
Other heavy metals: Modified from ISO 16711-2 ((ICP-MS analysis).

Sludge Parameteres - Step 2 – Metals	Lab Reporting limit (mg/L)	Result Sample 3 (Sludge)	Unit
Antimony	0.6	ND	mg/L
Arsenic	0.5	N/A	mg/L
Barium	35	N/A	mg/L
Cadmium	0.15	N/A	mg/L
Cobalt	80	N/A	mg/L
Copper	10	N/A	mg/L
Lead	0.5	N/A	mg/L
Nickel	3.5	ND	mg/L
Selenium	0.5	N/A	mg/L
Silver	5	N/A	mg/L
Total Chromium	5	ND	mg/L

Zinc	50	ND	mg/L
Chromium (VI)	2.5	N/A	mg/L
Mercury	0.05	N/A	mg/L

Appendix 1: Reference to ZDHC WWSG v2.1 Table 4B

Parameters		Disposal pathways						
	Total metals and anions threshold values (mg/kg)	A and B (Leachate result in mg/L)	C (Leachate result in mg/L)	D (Leachate result in mg/L)	E (Leachate result in mg/L)	F (Leachate result in mg/L)	G (Leachate result in mg/L)	G (Total metals limit in mg/kg)
Arsenic	10	Report only if required to test	5	2.75	0.5	0.5	0.5	75
Cadmium	3		1	0.58	0.15	0.15	0.15	85
Total Chromium	100		15	10	5	5	5	3000
Lead	10		5	2.75	0.5	0.5	0.5	840
Antimony	12		15	7.8	0.6	0.6	0.6	Sample and report only
Barium	700		100	67.5	35	35	35	
Cobalt	1600		80	80	80	80	80	
Copper	200		25	17.5	10	10	10	4300
Nickel	70		20	11.75	3.5	3.5	3.5	420
Selenium	10		1	0.75	0.5	0.5	0.5	100
Silver	100		5	5	5	5	5	Sample and report only
Zinc	1000		250	150	50	50	50	7500
Chromium VI	50		5	3.75	2.5	2.5	2.5	50
Mercury	1		0.2	0.125	0.05	0.05	0.05	57

Appendix 2: reference to ZDHC WWSG v2.1 Table 4C

Parameters	Disposal pathways					
	A and B	C	D	E	F	G
pH	Sample and report only	5 – 11 s.u.	5 – 11 s.u.	5 – 11 s.u.	6.5 – 9 s.u.	6.5 – 9 s.u.
% Solids		Sample and report only	Sample and report only	Sample and report only	Sample and report only	Sample and report only
Fecal Coliform					< 1000 (MPN/g)	
Paint Filter Test			Pass Paint filter test			Sample and report only
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers			< 0.4 mg/kg			
Polycyclic Aromatic Hydrocarbons (PAHs)			< 0.2 mg/kg			
Chlorotoluenes						

Appendix 2: reference to ZDHC WWSG v2.1 Table 4D

Parameters	Disposal pathways					
	A and B	C	D	E	F	G
Cyanide	Report only if required to test	100 mg/kg	85 mg/kg	70 mg/kg	70 mg/kg	70 mg/kg

Photo of sampling points:

	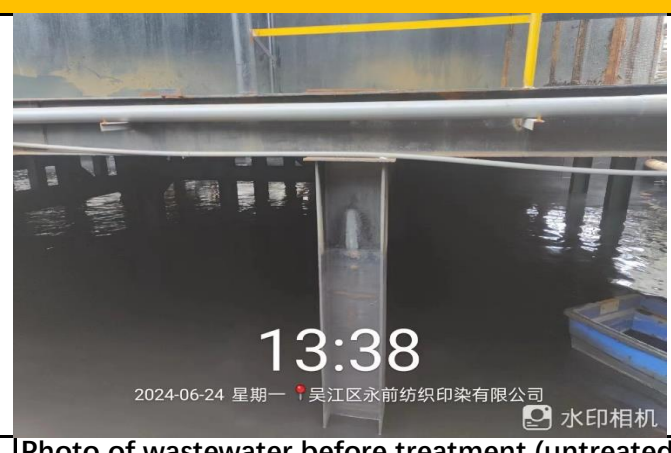
Photo of Incoming water	**Photo of wastewater before treatment (untreated)**
	
Photo of effluent	**Photo of sludge**

Photo of samples:

	
Photo of Incoming water	**Photo of untreated wastewater**
	
Photo of effluent	**Photo of sludge**

SAMPLING PROTOCOL (PAGE 1 OF 3)

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ZDHC Monitoring

Sampling Protocol for Wastewater and Sludge acc. ZDHC SAP 2.1 incl. Apdx. E

Facility Name 吴江市永前纺织印染有限公司

Address and Contact: 吴江区盛泽镇云桥村

Facility type : (tick all applicable) ☑ Dyeing and Finishing ☐ Fabric Mill ☐ Laundry, Washing and Finishing ☐ Natural Leather processing ☐ Printing ☐ Synthetic Leather processing

Date of sampling: 2024.6.24

Sample General ID (if applicable): STJ80355565

☐ direct discharge ☑ indirect discharge ☐ Zero Liquid Discharge (ZLD) ☐ MMCF ☐ with pre-treatment ☐ without treatment ☑ with own ETP discharge to:

Discharge description: 吴江市盛泽水处理发展有限公司等五方公司 lulu.2024.6.24

Weather conditions: on sampling day: 阴 on day before: 阴

Fill in all above information as applicable.

Sample Type and Details (see also page 2)

☐ Effluent Discharge ○ direct: Enter sampling times in Sample Details (page 2), and measure field parameters. or ☑ indirect: Enter sampling time(s) for indirect discharge. Field parameters are not required, except on client's request. ○ Facility has WWTP ○ Plant is in operating condition

☑ with Equalisation Tank (EQT) present: Hydraulic Retention Time (HRT): 13 h (= Volume of tank [m³] / Flow rate [m³/h]) If HRT > 12h, grab sampling from EQT is allowed.

☐ Pre-treated WW without sludge ☑ Untreated WW ◇ with Equalisation Tank (EQT) present: HRT: 18 h (= Volume of tank [m³] / Flow rate [m³/h]) If HRT > 12h, grab sampling from EQT is allowed ☐ Incoming Water ☐ MMCF

☑ Sludge with below disposal pathway*): age of sludge : 7 days / weeks

☑ A	○ B	○ C	○ D	○ E	○ F	○ G
>1000 °C offsite incineration	Landfill with significant control	Building products processed >1000 °C	Landfill with limited control	Incineration / Building products processed <1000 °C	Landfill with no control	Land application

*) if supplier cannot provide information, pathway "F" shall be assumed.

Sludge volume generated: 20 ○ m³/h ○ L/sec ○ other unit (specify): t/天 ○ per facility info ○ measured ☑ estimated

☐ Process Chemical ○ liquid ○ solid (powder/granulate/pieces) ◇ from running process ◇ from warehouse/storage

Times of sampling (if applicable)								
	Untreated:	1	2	3	4	5	6	7	or Grab (HRT>12h): 13:50
	Effluent (indirect) 1):	1	2	3	4	5	6	7	or Grab (HRT>12h): 14:01
	Incoming: 2)	1	2	3	4	5	6	7	or Grab 2) (HRT>12h):
	Sludge (liquid):	1	2	3	4	5	6	7	Solid sludge: 14:19

1) for direct discharge, see p. 2
2) take grab sample for tap water, river water, and industrial treated river water without EQT; recycled water from EQT <12h must be composite.

- Picture ID (or Date & Time / Interval): 20240624 -132604 -133811 -135742 -141911 -133849 -135810 -141952 -134907 -135841 -142008 -135057 -140122 -142104 -135108 -140157

GPS coordinates of sampling points:

Incoming W.:	Lat.: ON OS		Long.: OE OW	
Untreated WW:	Lat.: ON OS	30°53'33"	Long.: OE OW	120°40' 55"
Effluent:	Lat.: ON OS	30°53'38"	Long.: OE OW	120°40' 59"
Sludge:	Lat.: ON OS	30°53'36"	Long.: OE OW	120°4'57"

SAMPLING PROTOCOL (PAGE 2 OF 3)

ZDHC Monitoring

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Sample Details 2) Field parameters usually are only required for **direct discharge**. If client requests also for indirect discharge, use below fields.

☐ Composite Sample ☐ **Grab Sample (only allowed from EQT of Effluent with HRT>12h)** (enter data in column for **Averaged Readings** and in field at right) Volume of aliquot(s): mL

Time of discrete effluent sample **	1	2	3	4	5	6	7	**Averaged Readings** or Grab Sample readings:
pH:								
Temp. of WW discharge	°C	°C	°C	°C	°C	°C	°C	°C
receiving water	°C	°C	°C	°C	°C	°C	°C	°C
Flow rate:	L/s	L/s	L/s	L/s	L/s	L/s	L/s	m³/d avg.
Dissolved Oxygen:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Total Chlorine:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Persistent foam:	O yes O no	O yes O no	O yes O no	O yes O no	O yes O no	O yes O no	O yes O no	

**) time when discrete sample for composite was taken. Use comment field if number of samples is greater than seven, or if above fields are otherwise not sufficient.
Note: 1.0 m³/h = 0.27 L/s ; 1.0 L/s = 86.4 m³/d; 1 m³/h = 0.042 m³/d; *multiply the flow rate in m³/h by the daily operation time of the ETP to get flow rate in m³/d;*

Sampling procedure: O automated sampling ✓ with beaker/bowl O other:

Wastewater Flow Data (Effluent/Discharge)

System:	☐ Flow meter (in facility)	☐ Pipe (O)	☐ Flume (U)	☐ Wier (V)
Diameter [cm]				
Water Depth [cm]				
Flow Speed [cm/sec]				

General Field Parameters and Sensory Data (enter as far as applicable)

Type	T ambient air [°C]	Odour	Colour	Foaming	Floating matter
Incoming				O yes O no	O yes O no
Untreated	27	微臭	蓝色	O yes ✓ no	O yes ✓ no
Effluent	27	无	黄色	O yes ✓ no	O yes ✓ no
Sludge	27	无	灰色		

Field Testing QA/QC

Parameter	Lab Control Sample target value	Lab Control Sample measured value	Accuracy [%]
pH			
Total Chlorine			

Other observations: 废水流量 4500 m³/天 . 污泥 pH=6.04

Additional notes (e.g., alternatively measured flow and readings, abbreviations used, etc):

SAMPLING PROTOCOL (PAGE 3 OF 3)

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ZDHC Wastewater Sampling - Facility Confirmation

The Wastewater samples have been collected under the facility's normal production scale and wastewater flow rate. The sampler listed below was on-site and collected the samples.

Sampling person (name & email address):
lulu.guo@intertek.com

Facility Name: 吴江市永新纺织印染有限公司

Sampler's ZDHC accreditation no.:
C74D106817399

Facility's Representative name:
王[illegible]勇

Sampler's Signature: lulu

Facility's Representative Signature and Stamp:
王[illegible]勇

污泥处理协议

甲方：盛虹集团有限公司热电分厂

乙方：吴江市永前纺织印染有限公司

因　永前纺织　污泥交由　盛虹热电　处理，就此双方针对今后运作方式进行友好协商，协商如下（以下以甲乙方称呼）：

1、乙方负责将污泥运送至甲方指定场地（污泥阳光棚），运输工具工况良好，装运时无漏点，运输途中无抛洒，同时要做好污泥车辆防雨措施；

2、考虑到污泥运输的特殊性，明确乙方对污泥运输途中的环保密封及道路行驶安全负责；

3、运输车辆进入甲方厂区后，须按甲方规定的线路、厂区行驶速度及堆放，遵从甲方的厂纪厂规，违规者按甲方的厂规处理；

4、污泥重量计算原则上需要每车称重，出具码单；称重后乙方签名认可，汇总结算；

5、运输时间规定在上午 8：00~11：00，下午 1：00~4：00；

6、处理污泥价格根据目前市场价：300 元/吨（含税价），283.02 元/吨（不含税价），税额 16.98 元/吨。

a、污泥处理价格调整机制首先根据目前市场价执行；如市场行情变化结算价格做相应调整；

b、上述价格指污泥含水率在 60%以下；

7、因对排放环保有要求，为确保排放指标达标，甲方不定期对污泥进行抽查，如重金属超标，甲方对本月已接收的污泥价格按超标量1~5 倍收取，同时对再送的污泥跟踪抽查，不达标拒收。

8、由于污泥水份对电厂处理成本影响很大，因此对水份的要求必须严格控制，乙方对所送污泥严格把关，甲方对乙方污泥采取每天化验方式，发现超水份的即刻通知乙方，无异议的以甲方化验报告为结算依据；如甲方对所送污泥水份在视觉上感到超量的，甲方有权提出对该车立即进行取样化验，取样时通知乙方到场共同采样，并做好分样保存。如确证水份超过 60%以上的，甲方有权拒收。

9、考虑到热电厂掺烧污泥的安全性，来的污泥内不能掺杂其他杂物，一经发现，终止合同；

10、由于环保及热电厂来煤潮湿等因素，如热电厂污泥棚堆泥过多，要求乙方在自己的堆场内堆放，困难缓解后再运至甲方污泥棚内；

11、费用结算日为每月 20 号，甲方汇总重量后根据化验报告的实际数据结算，并由乙方负责人签字确认后开具发票，每月 23 号后的第一个工作日发票送达乙方，乙方按照发生额在每月月底前的最后一个工作日付至甲方账户，注明承兑票据不收，款未到的甲方有权拒收乙方下月污泥；

12、合同自签订之日起执行，本合同有效期一年；

13、协议未尽之处，经双方协商后按补充协议执行；

14、本协议一式二份，签字生效，双方各执一份。

甲方：　　乙方：

签订日期：2023 年 12 月 21 日

****
End of report