

Date of sampling	30/01/2024
Reporting Date	12/02/2024

Audit ID	161873	Audit firm	INTERTEK ITALY
Company name	FILIDEA SRL		
Contact person	DAVIDE ROSSETTI		
Type of tax - tax ID no	Partita IVA - 02391660020		
Address	Via Alcide De Gasperi, 26		
Region state province	BIELLA		
Town city / village	Cerrione		
Zip/Post code	13882		
Country	ITALIA		

Type of wastewater discharge				
Type of wastewater discharge:	Direct discharge			
On-site effluent treatment plant (ETP):	YES			
Pre - treatment:	YES			
	Preliminary	Primary	Secondary/Biological	Tertiary
	<input checked="" type="checkbox"/> Screening/ Sieving/Grit Remover <input type="checkbox"/> Homogenization tank <input type="checkbox"/> pH correction <input type="checkbox"/> Other <input type="checkbox"/> None	<input type="checkbox"/> Coagulation/Flocculation <input type="checkbox"/> Dissolved air flotation (DAF) <input type="checkbox"/> Sedimentation tanks or Settler/Clarifier <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Activated sludge process Aerobic reactor <input type="checkbox"/> Biological Biofilm reactor (MBBR, SAF, RBC...) <input type="checkbox"/> Sequencing batch reactor (SBR) <input type="checkbox"/> Other	<input type="checkbox"/> Absorption with activated carbon <input type="checkbox"/> High rate filtration <input type="checkbox"/> Advanced oxidation techniques (Ozone, Fenton reaction, photo catalytic degradation...) <input type="checkbox"/> Other
Description of discharge:	RIO COGNA (river)			
[If direct discharge] ambient temperature of receiving water body (°C):	8°C			
Average total industrial wastewater generated (m3/day):	384 m3/day			

Sludge Disposal Pathway	B
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Sampler accreditation certification number (ZDHC):		ZDHC-A-21-E-C0050-R-115E-E919C	
Sample description	Simple	Composite	Comments
(1) Untreated wastewater (BT)		[Colour pink/red, composite sample at 10:20, 11:20, 12:20, 13:20, 14:20, 15:20, 16:20] [Sampling location: Latitude 4.5468016, Longitude 8.094432]	
(2) Effluent (AT)		[Colour pink/red, composite sample at 10:30, 11:30, 12:30, 13:30, 14:30, 15:30, 16:30] [Sampling location: Latitude 4.5468016, Longitude 8.094432]	[No foam]

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(3) Sludge	[Colour black grab sample at 10:35] [Sampling location: Latitude 4.5468016, Longitude 8.094432]		
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Local Legal Data	
Local Legal Standard name [a]	D.LGS. 152/06
Local legal standard no. [a]:	NA
Parameters (ZDHC WWSG V2.1, Table 2-3) exceeded local regulation:	No exceeded
Discharge permit provided:	Yes

Internal description – Intertek Lab Issuing Final Test Report	
Sampling laboratory	INTERTEK ITALY
Testing laboratory	INTERTEK IBÉRICA SPAIN S.L.U.
Date received sample	31/01/2024
Date and time of the beginning of sampling	31/01/2024, 10:20
Date and time of the end of sampling	31/01/2024, 16:30
Testing period	31/01/2024 to 12/02/2024
Reporting date	12/02/2024
Arrival Temperature at Lab	5.3°C
Internal codification number	LAM-240039
Reference sample number	FILIDEA
Comments	Sample received in good conditions within 24hrs after collection (overnight delivery).



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Summary of test results		
Wastewater/ MRSL - Test items	Testing period	Sample 1 (Before treatment)
Alkylphenols (APs) & Alkylphenol ethoxylates (APEOs)	From 31/01/2024 to 02/02/2024	ND
Anti - Microbials & Biocides	From 01/02/2024 to 06/02/2024	ND
Chlorinated parafins	From 31/01/2024 to 02/02/2024	ND
Chlorobenzenes and Chlorotoluenes	From 31/01/2024 to 02/02/2024	ND
Chlorophenols	From 02/02/2024 to 06/02/2024	ND
Dimethyl Formamide (DMFa) (*)	From 02/02/2024 to 06/02/2024	ND
Dyes – Carcinogenic or Equivalent Concern	From 01/02/2024 to 06/02/2024	ND
Dyes – Disperse (Allergenic)	From 01/02/2024 to 06/02/2024	ND
Dyes-Navy Blue Colourant	From 01/02/2024 to 06/02/2024	ND
Flame retardants	From 05/02/2024 to 07/02/2024	ND
Glycols	From 05/02/2024 to 07/02/2024	ND
Halogenated solvents	From 31/01/2024 to 02/02/2024	ND
Organotin compounds	From 31/01/2024 to 02/02/2024	ND
Other/Miscellaneous Chemicals (^)	From 05/02/2024 to 07/02/2024	ND
Perfluorinated chemicals (PFCs)	From 31/01/2024 to 02/02/2024	ND
Phthalates	From 31/01/2024 to 02/02/2024	ND
Polycyclic aromatic hydrocarbons (PAHs)	From 31/01/2024 to 02/02/2024	ND
Restricted Aromatic Amines (Cleavable from Azo- colourants) Azo dyes	From 01/02/2024 to 06/02/2024	ND
UV Absorbers	From 02/02/2024 to 06/02/2024	ND
Volatile organic compounds (VOCs)	From 31/01/2024 to 02/02/2024	ND



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Wastewater / Heavy metals - Test items	Testing period	Sample 2 (After treatmet)		
		Foundational	Progressive	Aspirational
Antimony	From 02/02/2024 to 06/02/2024		Meet	
Chromium (VI)	From 01/02/2024 to 01/02/2024	Meet		
Barium	From 02/02/2024 to 06/02/2024	0.008 mg/L		
Selenium	From 02/02/2024 to 06/02/2024	ND		
Tin	From 02/02/2024 to 06/02/2024	ND		
Arsenic	From 02/02/2024 to 06/02/2024		Meet	
Chromium (total)	From 02/02/2024 to 06/02/2024			Meet
Cobalt	From 02/02/2024 to 06/02/2024			Meet
Cadmium	From 02/02/2024 to 06/02/2024			Meet
Copper	From 02/02/2024 to 06/02/2024			Meet
Lead	From 02/02/2024 to 06/02/2024			Meet
Nickel	From 02/02/2024 to 06/02/2024			Meet
Silver	From 02/02/2024 to 06/02/2024			Meet
Zinc	From 02/02/2024 to 06/02/2024			Meet
Mercury	From 02/02/2024 to 06/02/2024			Meet

Wastewater / Conventional parameters - Test items	Testing period	Sample 2 (After treatmet)		
		Foundational	Progressive	Aspirational
pH ^[f]	From 31/01/2024 to 31/01/2024	Meet		
Temperature difference ^[f]	From 30/01/2024 to 30/01/2024			Meet
E.coli	From 01/02/2024 to 02/02/2024	Meet		
Colour	From 31/01/2024 to 31/01/2024			Meet
Persistent foam ^[f]	From 30/01/2024 to 30/01/2024	Meet		
Wastewater flowrate ^[f]	From 30/01/2024 to 30/01/2024	480 mg/L		
Ammonium-Nitrogen	From 06/02/2024 to 06/02/2024		Meet	
AOX	From 06/02/2024 to 07/02/2024			Meet
Biochemical Oxygen Demand (BOD ₅)	From 31/01/2024 to 05/02/2024			Meet
Chemical Oxygen Demand (COD)	From 31/01/2024 to 31/01/2024			Meet
Dissolved Oxygen (DO) ^[f]	From 31/01/2024 to 31/01/2024	ND		
Oil & Grease	From 08/02/2024 to 09/02/2023			Meet
Total Phenols / Phenol Index	From 02/02/2024 to 02/02/2024			Meet
Total Chlorine ^[f]	From 31/01/2024 to 31/01/2024	ND		
Total Dissolved Solids (TDS)	From 01/02/2024 to 01/02/2024	1200 mg/L		



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Total Nitrogen	From 06/02/2024 to 06/02/2024	Meet		
Total Phosphorus	From 02/02/2024 to 06/02/2024	Not meet		
Total Suspended Solids (TSS)	From 01/02/2024 to 01/02/2024	Meet		

Wastewater / Anions - Test items	Testing period	Sample 2 (After treatment)		
		Foundational	Progressive	Aspirational
Chloride	From 08/02/2024 to 09/02/2024	195 mg/L		
Cyanide, total	From 07/02/2024 to 07/02/2024			Meet
Sulfate	From 08/02/2024 to 08/02/2024	281 mg/L		
Sulfide	From 07/02/2024 to 07/02/2024	Meet		
Sulfite	From 08/02/2024 to 12/02/2024			Meet

Sludge / Heavy metals - Test items	Testing period	Sample 3: Sludge (Total)	Sample 3: Sludge (Leachate)
Antimony	From 02/02/2024 to 06/02/2024	Meet	Meet
Arsenic	From 02/02/2024 to 06/02/2024	Meet	NA
Barium	From 02/02/2024 to 06/02/2024	Meet	NA
Cadmium	From 02/02/2024 to 06/02/2024	Meet	NA
Cobalt	From 02/02/2024 to 06/02/2024	Meet	NA
Copper	From 02/02/2024 to 06/02/2024	Meet	Meet
Lead	From 02/02/2024 to 06/02/2024	Meet	NA
Nickel	From 02/02/2024 to 06/02/2024	Meet	NA
Selenium	From 02/02/2024 to 06/02/2024	Meet	NA
Silver	From 02/02/2024 to 06/02/2024	Meet	NA
Chromium (total)	From 02/02/2024 to 06/02/2024	Meet	Meet
Zinc	From 02/02/2024 to 06/02/2024	Meet	NA
Chromium VI	From 31/01/2024 to 31/01/2024	Meet	NA
Mercury	From 02/02/2024 to 06/02/2024	Meet	NA

Sludge / Anion - Test items	Testing period	Sample 3: Sludge
Cyanide	From 07/02/2024 to 07/02/2024	ND



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Sludge / Conventional parameters - Test items	Testing period	Sample 3: Sludge
pH	From 31/01/2024 to 31/01/2024	Meet
% Solids	From 08/02/2024 to 09/02/2024	3.8
Paint filter test	From 07/02/2024 to 07/02/2024	Not meet
Faecal coliform	From 31/01/2024 to 01/02/2024	ND

Sludge / MRSL - Test items	Testing period	Sample 3: Sludge
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	From 05/02/2024 to 07/02/2024	ND
Polycyclic Aromatic Hydrocarbons (PAHs)	From 31/01/2024 to 02/02/2024	ND
Chlorotoluenes	From 05/02/2024 to 07/02/2024	ND

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.

^[1] = 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 Ibérica Spain S.L.U.



Miriam Laca , Environmental Manager

Test results

1. Conventional parameters

Wastewater/ Conventional parameters - Test items	Test method	Limit			Lab Reporting Limit	Result sample 2 (After treatment)	Unit
		Foundational	Progressive	Aspirational			
Temperature	EPA 170.1	35°C	30°C	25°C	NA	14.9	°C
Temperature difference [°C]	EPA 170.1	Δ+15°C	Δ+10°C	Δ+5°C	NA	0.3	[f] °C
TSS	EPA 160.2	50 mg/L	15 mg/L	5 mg/L	4 mg/L	20	mg/L
Chemical Oxygen Demand (COD)	ISO 6060	150 mg/L	80 mg/L	40 mg/L	30 mg/L	38.4	mg/L
Total-N	ISO11905-01/DIN 38405-9	20 mg/L	10 mg/L	5 mg/L	0.5 mg/L	9.8	mg/L
pH	EPA 150.1	6-9			3-13	7.4 [f]	[f] pH
Colour (436 nm ; 525 nm ; 620nm)	ISO 7887-B	7;5;3	5;3;2	2;1;1	NA	2;1;0	[m-1]
Biochemical Oxygen Demand (BOD5)	EPA 5210	30 mg/L	15 mg/L	8 mg/L	3 mg/L	4	mg/L
Ammonium- Nitrogen	EPA 350.1	10 mg/L	1 mg/L	0.5 mg/L	0.5 mg/L	1.0	mg/L
Total-P	EPA200.8	3 mg/L	0.5 mg/L	0.1 mg/L	0.05 mg/L	4.0	mg/L
AOX	ISO 9562	3 mg/L	0.5 mg/L	0.1 mg/L	0.05 mg/L	ND	mg/L
Oil and grease	EPA1664-B	10 mg/L	2 mg/L	0.5 mg/L	5 mg/L	ND	mg/L
Phenol	SM5530	0.5 mg/L	0.01 mg/L	0.001 mg/L	0.1 mg/L	0.26	mg/L
E. Coli	SM 9221B / SM 9221F&G	126 [MPN/100-ml]			126 [MPN/100- ml]	ND	[MPN/100- ml]
Foam	/	Not visible	Not visible	Not visible	NA	Not visible	[f]
Cyanide	ISO 6703	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.01 mg/L	ND	mg/L
Sulfide	SM 4500-S2-D	0.5 mg/L	0.05 mg/L	0.01 mg/L	0.1 mg/L	ND	mg/L
Sulphite	UNE ISO 10304-3	2 mg/L	0.5 mg/L	0.2 mg/L	0.2 mg/L	ND	mg/L
Dissolved Oxygen (DO)	ISO 5814	Sample and report only	Sample and report only	Sample and report only	1 mg/L	ND	[f] mg/L
Total Chlorine	USEPA 330.5	Sample and report only	Sample and report only	Sample and report only	0.05 mg/L	ND	[f] mg/L
Total Dissolved Solids (TDS)	SM 2540-C	Sample and report only	Sample and report only	Sample and report only	10 mg/L	1200	mg/L
Chloride	SM 4110-C	Sample and report only	Sample and report only	Sample and report only	1 mg/L	195	mg/L
Sulfate	SM 4110-C	Sample and report only	Sample and report only	Sample and report only	5 mg/L	281	mg/L
Wastewater Flowrate	/				NA	480	[f] m3/day

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

2. Heavy metals

With reference to ISO 11885, ISO 12846, ISO 17852, US EPA 200.7, US EPA 200.8, US EPA 6010c, US EPA 6020a, US EPA 218.6 and by Inductively Coupled Argon Plasma-Mass Spectrometry (ICP-MS) analysis.

Chromium VI: With reference to ISO 18412, Colourimetric UV/VIS.

Heavy metals	CAS no.	Limit			Lab Reporting limit (mg/L)	Result sample 2 (After treatment)	Unit
		Foundational	Progressive	Aspirational			
Arsenic (As)	Various	0.05 mg/L	0.01 mg/L	0.005 mg/L	0.0005	0.0012	mg/L
Cadmium (Cd)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.0002	ND	mg/L
Mercury (Hg)	Various	0.01 mg/L	0.005 mg/L	0.001 mg/L	0.0003	ND	mg/L
Lead (Pb)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.0005	ND	mg/L
Antimony (Sb)	Various	0.1 mg/L	0.05 mg/L	0.01 mg/L	0.0005	0.0494	mg/L
Cobalt (Co)	Various	0.05 mg/L	0.02 mg/L	0.01 mg/L	0.001	0.003	mg/L
Nickel (Ni)	Various	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.001	ND	mg/L
Silver (Ag)	Various	0.1 mg/L	0.05 mg/L	0.005 mg/L	0.005	ND	mg/L
Copper (Cu)	Various	1 mg/L	0.5 mg/L	0.25 mg/L	0.001	0.005	mg/L
Zinc (Zn)	Various	5.0 mg/L	1.0 mg/L	0.5 mg/L	0.01	0.15	mg/L
Total Chromium (Cr)	Various	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.001	0.025	mg/L
Chromium VI (Cr VI)	Various	0.05 mg/L	0.005 mg/L	0.001 mg/L	0.05	ND	mg/L
Barium	Various	Sample and Report only	Sample and Report only	Sample and Report only	0.001	0.008	mg/L
Selenium	Various	Sample and Report only	Sample and Report only	Sample and Report only	0.002	ND	mg/L
Tin	Various	Sample and Report only	Sample and Report only	Sample and Report only	0.001	ND	mg/L

3. Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers.

P/OP: With reference to ISO 18857-2 with LC-MS-MS analysis.

OPEO/NPEO (n>2): With reference to ISO 18857-2.

Alkylphenols (APs) & Alkylphenoethoxylates (APEOs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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
Octylphenoethoxylates (OPEOs)	9002-93-1; 9036-19-5; 68987-90-6	5	5	ND	µg/L
Nonylphenoethoxylates (NPEOs)	9016-45-9/26027-38-3/ 37205-87- 1/68412-54-4/127087-87-0	5	5	ND	µg/L

4. Chlorobenzenes & Chlorotoluenes

With reference to USEPA 8260D, USEPA 8270E, Purge and Trap, Head Space, Dichloromethane extraction followed by GC-MS analysis.

Chlorobenzenes & Chlorotoluenes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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-Dichlorobenzene	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

With reference to US EPA 8270E solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS.

Chlorophenols	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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)

With reference to reduction step with sodium dithionite, solvent extraction, ISO 14362-1/3 with LC-MS/MS analysis.

Azo Dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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-diaminoanisoole sulphate	39156-41-7	0.1	0.1	ND	µg/L

7. Dyes – Carcinogenic or Equivalent Concern

With reference to DIN 54231:2022-09 by Liquid Chromatography-tandem Mass Spectrometry (LC-MS/MS) analysis.

Carcinogenic dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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 K	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)

With reference to DIN 54231:2022-09 by Liquid Chromatography-tandem Mass Spectrometry (LC-MS/MS) analysis.

Disperse dyes	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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: With reference to USEPA 8270E, ISO 22032, USEPA 527 and USEPA 8321B, Dichloromethane extraction.

GC-MS or LC-MS-MS analysis.

Borate salt: determined as total boron via ICP analysis.

Flame retardants	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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 (TR)	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 (MonoBDE)	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

With reference to US EPA 8270E, Liquid extraction, LC-MS or GC-MS analysis.

Glycols	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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

With reference to US EPA 8260B, and by Headspace Gas Chromatography Mass Spectrometric (HS-GC/MS) analysis.

Chlorinated solvents	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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

With reference to ISO 17353, Derivatisation with NaB (C₂H₅)₄, with GC-MS analysis.

Organotin compounds	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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
Tricyclohexyltin (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

With reference to USEPA 8270E, ISO 18856, Dichloromethane extraction GC-MS analysis.

Phthalates	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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 linear alkyl esters	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)

PFCs: With reference to EPA 537:2020 with LC-MSMS

FTOH: With reference to BS EN 12673-1999, EPA 8270, GC-MS, Derivatization with acetic anhydride followed by GC-MS

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)

With reference to US EPA 8270E, solvent extraction 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

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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)

With reference to USEPA 8260D Headspace, GC-MS analysis.

With reference to EPA 8270.

Volatile organic compounds (VOCs)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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

OPP, Triclosan: With reference to USEPA 8270E Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS analysis.

Permethrin: With reference to USEPA 8270E Solvent extraction, followed by GC-MS analysis; With reference to ISO 14154:2005 without derivatization and determination by LC-MS or LC-MS-MS analysis.

Anti - Microbials & Biocides	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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

With reference to EPA 3510, analysis by ISO 12010:2020 with GC-MS.

Chlorinated paraffins	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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) (*)

With reference to EPA 8015, EPA 8270E.

N,N-di-methylformamide (DMFa)	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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

By Liquid extraction, LC-MS analysis.

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

21. Other/Miscellaneous Chemicals (^^)

Others: With reference to Liquid extraction, LC-MS-MS analysis.

Borate salt: determined as total boron and total zinc via ICP analysis.

Other/Miscellaneous Chemicals	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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: 938	µg/L

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

22. UV Absorbers

With reference to USEPA 8270, ISO 22032, USEPA 527 and USEPA 8321B, dichloromethane extraction GC-MS or LC-MS-MS analysis.

UV Absorbers	CAS no.	Lab Reporting limit (µg/L)	ZDHC Reporting limit (µg/L)	Result Sample 1 (Before treatment)	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-tertbutylphenol (UV-327)	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

Other heavy metals: With reference to acid/peroxide digestion EPA 3050, EPA 3051A, EPA 6010D, EPA 200.8 or EPA 6020B, HJ 803 with ICP/OES, or ICP-MS analysis.

Chromium VI: With reference to alkaline digestion SEPA 200.8 or USEPA 7199, HJ 1082 with Colourimetric UV/VIS, or Colourimetric IC analysis.

Mercury: With reference to Dissolution, USEPA 3060a, USEPA 3051A, USEPA 7196, cid digestion USEPA 7473, USEPA 7471 b, USEPA 3051A or USEPA 3051a, USEPA 7471b, USEPA 200.8 or USEPA 6020b, GB/T 22105.1, HJ 923 with CVAA or ICP MS analysis.

Sludge Parameters – Step 1 - Metals	ZDHC reporting limit (Dry weight)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight)	Unit
Antimony	5	0.25	32.7	mg/kg
Arsenic	5	0.25	0.62	mg/kg
Barium	200	0.25	20.8	mg/kg
Cadmium	1	0.1	0.26	mg/kg
Cobalt	400	0.25	19.8	mg/kg
Copper	50	0.25	784	mg/kg
Lead	5	0.25	3.67	mg/kg
Nickel	20	0.25	8.35	mg/kg
Selenium	5	0.5	ND	mg/kg
Silver	50	2.5	0.63	mg/kg
Total Chromium	50	0.25	164	mg/kg
Zinc	400	2.5	1740	mg/kg
Chromium (VI)	20	5	ND	mg/kg
Mercury	1	0.1	0.06	mg/kg

SOFTLINES WASTEWATER TESTING

TEST REPORT LAM-240039

Number: FILIDEA

Remark (Indicated in each parameter)

ND = Not detected

D = Detected

* = See remark

@ = Maximum holding time exceeded

1 µg/L = 0.001 ppm

1ppm = 1000 µg/L

1 mg/kg = 1 ppm

NA = Not applicable

- = Did not perform

(f)= parameter tested in field

(T)= handling temperature exceeded

(S) = The analysis was subcontracted to Intertek [xxxxx] for testing.

(^)= Borate, zinc salt would report ND when total boron or total zinc less than 100 µg/L.

= Non accredited parameter

[a] = The local legal standard name and legal standard no. is referenced to discharge permit (or contractual agree by CETP) that provided by company.

24. Sludge Parameters – Step 1 - Anions

With reference to USEPA 9013, USEPA 9014, USEPA 9213, HJ745 with Colourimetry or ISE 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 - Conventio	Test method	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry weight)	Unit
pH	USEPA SW 9045D	N/A	7.62	N/A
% Solids	USEPA 160.3	N/A	3.8	%
Paint Filter Test	USEPA 9095B	N/A	Fail	N/A
Fecal Coliform	USEPA 1681	10 MPN/g	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 Parameters - Step 1 - MRSL - Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers.

With reference to USEPA 3550, ISO 18857-2, ISO 18254-1, with GC-MS and LC-MS-MS analysis.

Sludge Parameters - Step 1 - MRSL - Alkylphenol (AP) and Alkylphenol	CAS no.	ZDHC reporting limit (Dry)	Lab reporting limit (Dry weight) (mg/kg)	Result Sample 3 (Sludge - Dry)	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 Parameters - Step 1 - MRSL - Polycyclic Aromatic Hydrocarbons (PAHs)

With reference to USEPA 3550, ISO 18857-2, ISO 18254-1, with GC-MS and LC-MS-MS analysis.

Sludge Parameters - Step 1 - MRSL - Polycyclic Aromatic Hydrocarbons	CAS no.	Lab reporting limit (Dry weight) (mg/kg)	ZDHC reporting limit (Dry)	Result Sample 3 (Sludge - Dry)	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 Parameters - Step 1 - MRSL – Chlorotoluenes

With reference to US EPA 3550, US EPA 8270 with GC-MS analysis.

Sludge Parameters - 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 Parameters - Step 2 – Metals

With reference to toxicity leachate extraction procedure EPA 1311 followed by Acid digestion, EPA 3051A, , with ICP-OES, ICP-MS or ISO 11885, ISO 17294-2, USEPA 200.7, USEPA 200.8, USEPA 6010c, USEPA 6020a analysis.

Chromium VI: With reference to toxicity leachate extraction procedure EPA 1311 followed by ISO 18412, USEPA 7196 or USEPA 7199 Colourimetric UV/VIS, or Colourimetric IC analysis.

Mercury: With reference to toxicity leachate extraction procedure EPA 1311 followed by acid digestion EPA 7471b , EPA 3051a with ISO 12846 or ISO

Sludge Parameters - Step 2 – Metals	Lab Reporting limit	Result Sample 3 (Sludge)	Unit
Antimony	0.0005	0.4308	mg/L
Arsenic	0.0005	NA	mg/L
Barium	0.001	NA	mg/L
Cadmium	0.0002	NA	mg/L
Cobalt	0.001	NA	mg/L
Copper	0.001	0.02	mg/L
Lead	0.0005	NA	mg/L
Nickel	0.001	NA	mg/L

Number: FILIDEA

Selenium	0.002	NA	mg/L
Silver	0.005	NA	mg/L
Total Chromium	0.001	0.087	mg/L
Zinc	0.01	NA	mg/L
Chromium (VI)	0.05	NA	mg/L
Mercury	0.0003	NA	mg/L

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

Parameters	Total metals and anions threshold values (mg/kg)	Disposal pathways A and B (Leachate result in mg/L)	C	D	E	F	G	G
			(Leachate result in mg/L)	(Leachate result in mg/L)	(Leachate result in mg/L)	(Leachate result in mg/L)	(Leachate result in mg/L)	(Total metals)
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	4300
Copper	200		25	17.5	10	10	10	
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	2		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		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	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 wastewater before treatment (untreated)

[30/01/2024, 10:20]



Photo of effluent

[30/01/2024, 10:30]



Photo of sludge

[30/01/2024, 10:35]

Photo of samples:



[30/01/2024, 10:20]



Photo of effluent

[30/01/2024, 10:30]



Photo of sludge

[30/01/2024, 10:35]

SAMPLING PROTOCOL (PAGE 1 OF 3)

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

Customer:	INDITEX		
Address:	SPAIN		
Facility type & name:	DYEING YARN - FILIDEA SRL		
Facility location / address:	VIA ALCIDE DE GASPERI, 26, 13882 CERDIONE (BI) ITALY		
Operator of facility:	DAVIDE ROSSETTI		
Cause of sampling:			Date of sampling: 30/01/2024
Sample General ID (if available):	161873	<input checked="" type="checkbox"/> direct discharge <input type="checkbox"/> Indirect discharge <input type="checkbox"/> Zero Liquid Discharge (ZLD) <input type="checkbox"/> MMCF	<input type="checkbox"/> without treatment <input type="checkbox"/> with pre-treatment <input checked="" type="checkbox"/> with own ETP Discharge to: RIO COGNA
Discharge description:	RIVER		
Weather conditions:	on sampling day: SUNNY	on day before: SUNNY	

Sample Type and Details (also see page 2)									
<input type="checkbox"/> Effluent Discharge	<input checked="" type="checkbox"/> direct:	or <input type="checkbox"/> indirect		<input checked="" type="checkbox"/> with Homogenisation / Equalisation Tank (HT) present:					
Enter sampling times in Sample Details (page 2), and measure field parameters.		Enter sampling time(s) for indirect discharge. Field parameters are not required, except on client's request.		Hydraulic Retention Time (HRT): h (= Volume of tank [m ³] / Flow rate [m ³ /h]) If HRT > 12h, grab sampling for both untreated and treated wastewater from a point after the HT could be applied.					
<input type="checkbox"/> Untreated Wastewater	<input type="checkbox"/> Incoming Water	<input type="checkbox"/> MMCF							
<input checked="" type="checkbox"/> Sludge with below disposal pathway:			Age of sludge: 0 days / weeks						
<input type="checkbox"/> A >1000 °C offsite incineration	<input checked="" type="checkbox"/> B Landfill with significant control	<input type="checkbox"/> C Building products processed >1000 °C	<input type="checkbox"/> D Landfill with limited control	<input type="checkbox"/> E Incineration / Building products processed <1000 °C	<input type="checkbox"/> F Landfill with no control	<input type="checkbox"/> G Land application			
Sludge volume produced:			O m ³ /h O l/sec O other unit (specify): 10 ton		<input type="checkbox"/> per facility info		<input type="checkbox"/> measured <input checked="" type="checkbox"/> estimated		
<input type="checkbox"/> Process Chemical	<input checked="" type="checkbox"/> liquid	<input type="checkbox"/> solid (powder/granulate/pieces)		<input type="checkbox"/> 'in process'		<input type="checkbox"/> from warehouse/storage			
Times of sampling (if applicable)	Untreated Wastewater:	1 10:20	2 11:20	3 12:20	4 13:20	5 14:20	6 15:20	or Grab: 7 16:20	Sludge: 10:35
	Indirect Discharge:	1 10:50	2	3	4	5	6	or Grab:	
	Incoming Water:	1	2	3	4	5	6	or Grab:	
(for direct discharge, see page 2)		Picture ID (or Date & Time / Interval):							
		GPS coordinates of sampling points:							
		Incoming W.:		Lat.: ON OS		Long.: OE OW			
		Untreated WW:		Lat.: ON OS 45468016		Long.: OE OW 80944032			
		Effluent:		Lat.: ON OS 45468016		Long.: OE OW 80944032			
		Sludge:		Lat.: ON OS		Long.: OE OW 80944032			



SAMPLING PROTOCOL (PAGE 2 OF 3)



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

Composite Sample Grab Sample
(Use column for Averaged Readings and fields at right) Volume of aliquot(s):

Time of taking discrete sample	1 10:30	2 11:30	3 12:30	4 13:30	5 14:30	6 15:30	Averaged Readings or Grab Sample:
pH:	7.4	7.5	7.4	7.4	7.4	7.3	7.4
Temp. WW discharge of receiving water	14.6 °C	15.0 °C	14.6 °C	14.7 °C	14.9 °C	14.9 °C	14.7 °C
Flow rate:	m³/h	m³/h	m³/h	m³/h	m³/h	m³/h	m³/d avg.
Dissolved Oxygen:	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
Persistent foam:	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	

Use comment field if number of samples is greater than six, or if above fields are otherwise not sufficient.

Sampling technique: automated sampling with beaker/bowl 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 (as far as applicable)

Type	T ambient air [°C]	Odour	Colour	Foaming	Floating matter
Incoming				<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no
Untreated	8 °C	strong chemical smell	Red / Pink	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Effluent	8 °C	No smell	Nearly Transparent	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no


Field Testing QA/QC

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

Other observations:

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

Rev 10b-2 - use with Guideline CS009.TP (Issue 10b) Page 2 of 3 Effective Date: 08-Mar-2023
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SAMPLING PROTOCOL (PAGE 3 OF 3)


ZDHC Monitoring

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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):

KIMBERLY ATTOLICO

kimberly.attolico@intertek.com

Facility Name:

FILIDEA SRL

Sampler's ZDHC accreditation no.:

ZDHC-A-21-E-0050-E-115E-E313C

Facility's Representative name:

DAVIDE ROSETTI

Sampler's Signature:

Kimberly Attolico

Facility's Representative Signature and Stamp:
 FILIDEA s.r.l.



Document on sludge disposal or licensed third-party waste contractor for sludge disposal.

NA



SOFTLINES WASTEWATER TESTING

TEST REPORT LAM-240039

Number: FILIDEA

Testing period: From 31/01/2024 to 12/02/2024

Testing period Subcontracted Lab (if applicable): NA

End of report

This report is made solely on the basis of your instructions and/or information and materials supplied. Results refer only to samples received in the lab. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the Review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct.

