Test Report No.:	**222332865**

Factory Company Name	Denitex Limited
Factory Address	9/1 Karnapara, Savar, Dhaka-1340
Buyer's Name	Self-Reference
Client Reference No.:	/
Person in charge of sampling:	Mr. Md. Rasheduzzaman (ZDHC Certificate Number-8F146507478)
Discharge Type:	Direct Discharge
Sample Type:	1) ETP Outlet Water(After Treatment) 2) ETP Sludge
Sample Pick Up Date:	05-10-2022
Test Period:	05-10-2022 to 19-10-2022
Reference Sample Handling Method:	ZDHC Sampling and Analysis Plan (SAP) Version 1.3
Reference Testing Protocol:	Analysis of wastewater according to the ZDHC Wastewater Guidelines (Version 1.1, July 2019)
Service Type:	Regular

For and on behalf of
TÜV Rheinland Bangladesh Pvt. Ltd.

19-10-2022	Hasem Ali/ Director, Technical & Laboratories
Date	*Name/Position*

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.
The laboratory apply decision rule for giving statement of conformity considering measurement of uncertainty at 95% confidence levelThis test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

Executive Summary:	**Test result:**	
1A) Conventional Parameters	**M001**	**M002**
Temperature	See result in page 08-11	N/A
Total Suspended Solids (TSS)		
Chemical Oxygen Demand (COD)		
Total Nitrogen		
pH Value		
Colour[m-1](436 nm; 525nm;620 nm)		
Biochemical Oxygen Demand (BOD5)		
Ammonium Nitrogen		
Total Phosphorous		
Absorbable Organic Halogens (AOX)		
Oil and Grease		
Phenol		
Coliform		
Foam		
Sulfide		
Sulfite		
Cyanide	See result in page 11	See result in page 11
Dry Mass (Total Solid)	N/A	See result in page 11
1B) Conventional Parameters–METALS	Not Detected	Detected

ZDHC Manufacturing Restricted Substances List (MRSL)	**M001**	**M002**
2A) Alkylphenol(AP)and Alkylphenol Ethoxylates (APEOs)	Not Detected	Not Detected
2B) Chlorobenzenes and Chlorotoluenes	Not Detected	Not Detected
2C) Chlorophenols	Not Detected	Not Detected
2D) Azo Dyes	Not Detected	Not Detected
2E) Carcinogenic Dyes	Not Detected	Not Detected
2F) Disperse Dyes	Not Detected	Not Detected
2G) Flame Retardants	Not Detected	Not Detected
2H) Glycols	Not Detected	Not Detected
2I) Halogenated Solvents	Not Detected	Not Detected
2J) Organotin Compounds	Not Detected	Not Detected
2K) Perfluorinated and Polyfluorinated Chemicals (PFCs)	Not Detected	Not Detected
2L) Phthalates	Not Detected	Not Detected
2M) Polycyclic Aromatic Hydrocarbons (PAHs)	Not Detected	Not Detected
2N) Volatile Organic Compounds (VOC)	Not Detected	Not Detected

N/A=Not Applicable

Sample Protocol:

Wet Process Description:

Sampling point indication (Map)

Wastewater after Treatment: 23°49'23.1"N 90°15'25.3"E

Sludge collection point: 23°49'23.1"N 90°15'25.3"E

Sampling Time

After Treatment water: Total Sample Volume : 19L							
	1	**2**	**3**	**4**	**5**	**6**	**Remark**
Sampling Time	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	

Sludge: Total Sample Size; 2.0 Kg		
	1	**Remark**
Sampling Time	12:30 PM	

Sample storage condition: ≤8.0°C

Photo of the Sample/Sampling Location

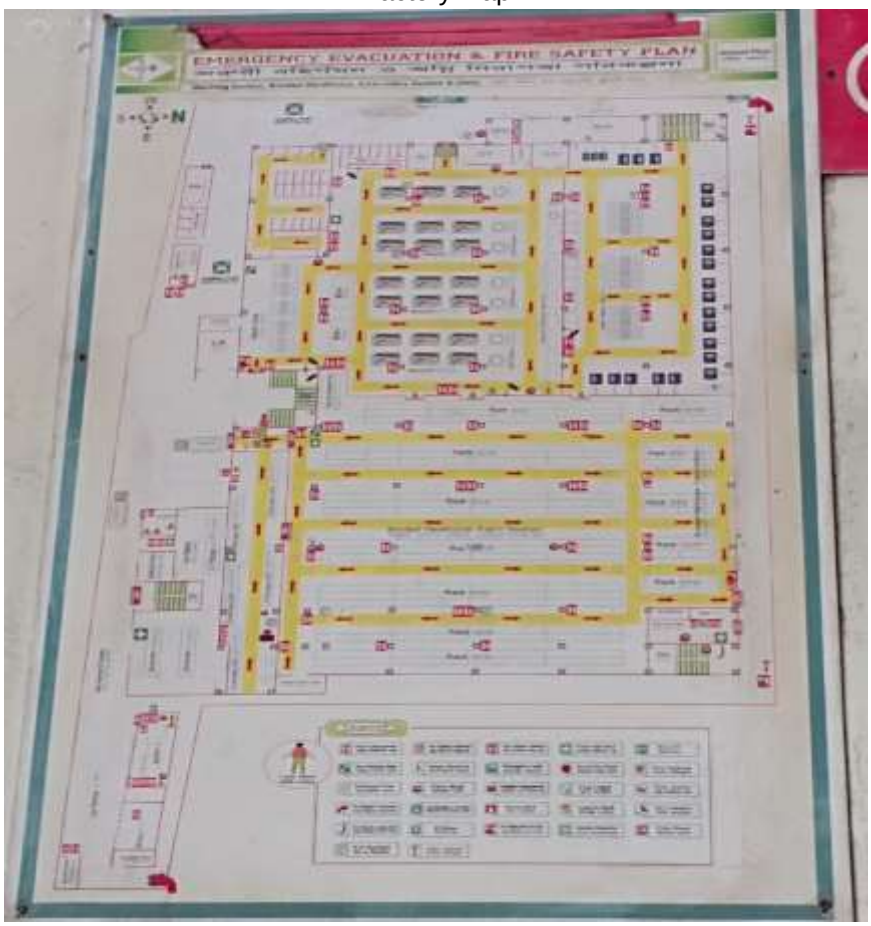
M001- ETP outlet water (After Treatment)

M002- ETP Sludge

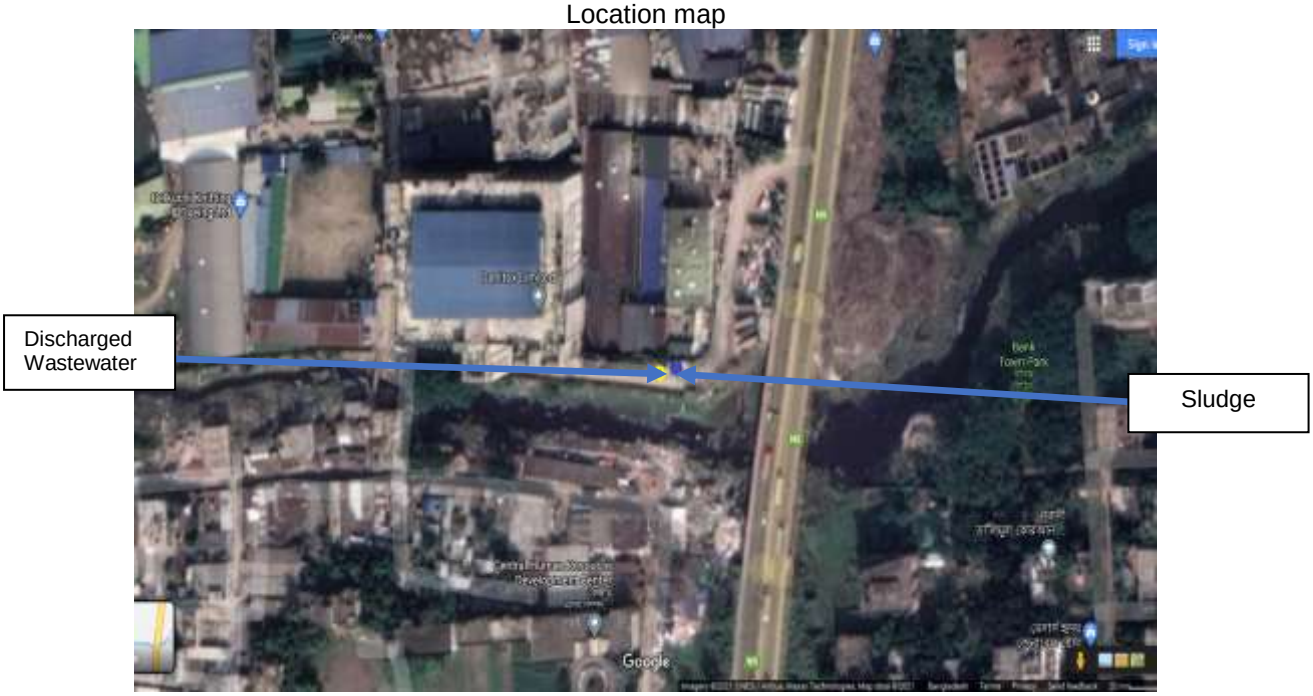
Pic- Foam in Aeration Tank

Factory Entrance

Factory Map



Location map



Material list

Material No.	Material
M001	ETP Outlet Water(After Treatment)
M002	ETP Treated Sludge

Test result

1A) Conventional Parameters

Temperature
Test Method : USEPA 170.1 (1994), Analysis by thermometer

Tested Item(s)	Result	Unit	Conclusion
M001	32.0 (Foundational)	deg.C	DATA

Note:
deg. C = degree Celsius (°C)
Foundational Limit: Δ 15 / max. 35°C; Progressive Limit: Δ 10 / max. 30°C; Aspirational Limit: Δ5 / max. 25°C

Total Suspended Solids (TSS)
Test Method : USEPA 160.2 (1971)

Tested Item(s)	Result	Unit	Conclusion
M001	18 (Foundational)	mg/L	DATA

Note:
mg/L = milligram per liter
n.d. = Not Detected (< Reporting Limit)
Foundational Limit: 50 mg/L; Progressive Limit: 15 mg/L; Aspirational Limit: 5 mg/L

Chemical Oxygen Demand (COD)
Test Method : Reference to USEPA 410.4 (1993)

Tested Item(s)	Result	Unit	Conclusion
M001	88 (Foundational)	mg/L	DATA

Note:
mg/L = milligram per liter
n.d. = Not Detected (< Reporting Limit)
Foundational Limit: 150 mg/L; Progressive Limit: 80 mg/L; Aspirational Limit: 40 mg/L

Total Nitrogen (Total-N)
Test Method : Reference to APHA 4500 N-C

Tested Item(s)	Result	Unit	Conclusion
M001	8.7 (Progressive)	mg/L	DATA

Note:
mg/L = milligram per liter
n.d. = Not Detected (< Reporting Limit)
Foundational Limit: 20 mg/L; Progressive Limit: 10 mg/L; Aspirational Limit: 5 mg/L

pH Value

Test Method : Reference to USEPA150.1

-	Unit	Result
Tested Item(s)	-	M001
Parameter	-	-
Temp. of sample	Deg. C	23.4
pH value of Sample	-	8.10
Conclusion	-	DATA

Note:
Temp. = Temperature
deg. C = degree Celsius (°C)
Limit: 6-9

Color [m^{-1}] (436nm: 525nm: 620nm)

Test Method : ISO 7887-B: 2011

Tested Item(s)	Result	Unit	Conclusion
M001	5.21; 4.22; 2.12 (Foundational)	m-1	DATA

Note:
Foundational Limit: 7;5;3 m^{-1}; Progressive Limit: 5;3:2 m^{-1}; Aspirational Limit: 2;1;1m^{-1}

Biochemical Oxygen Demand (BOD_5)

Test Method : Reference to USEPA 405.1

Tested Item(s)	Result	Unit	Conclusion
M001	24 (Foundational)	mg/L	DATA

Note:

mg/L = milligram per liter

n.d. = Not Detected (< Reporting Limit)

Foundational Limit: 30 mg/L; Progressive Limit: 15 mg/L; Aspirational Limit: 5 mg/L

Ammonium Nitrogen

Test Method : Reference to HJ536(2009)

Tested Item(s)	Result	Unit	Conclusion
M001	n.d. (Aspirational)	mg/L	DATA

Note:

mg/L = milligram per liter

n.d. = Not Detected (< Reporting Limit)
Foundational Limit: 10 mg/L; Progressive Limit: 1 mg/L; Aspirational Limit: 0.5 mg/L

Total Phosphorous (Total-P)

Test Method : Reference to GB/T 11893

Tested Item(s)	Result	Unit	Conclusion
M001	n.d. (Aspirational)	mg/L	DATA

Note:

mg/L = milligram per liter

n.d. = Not Detected (< Reporting Limit)

Foundational Limit: 3 mg/L; Progressive Limit: 0.5 mg/L; Aspirational Limit: 0.1 mg/L

Adsorbable Organic Halogen (AOX)

Test Method : ISO 9562

Tested Item(s)	Result	Unit	Conclusion
M001	n.d. (Aspirational)	mg/L	DATA

Note:

n.d. = Not Detected (< Reporting Limit)

mg/L = milligram per liter

Foundational Limit: 5 mg/L; Progressive Limit: 1mg/L; Aspirational Limit: 0.1 mg/L

Oil & Grease

Test Method : Reference to USEP 1664

Tested Item(s)	Result	Unit	Conclusion
M001	1.42 (Progressive)	mg/L	DATA

Note:

mg/L = milligram per liter

n.d. = Not Detected (< Reporting Limit)

Foundational Limit: 10 mg/L; Progressive Limit: 2 mg/L; Aspirational Limit: 0.5 mg/L

Phenol

Test Method : Reference to APHA 5330 B,C&D

Tested Item(s)	Result	Unit	Conclusion
M001	n.d. (Aspirational)	mg/L	DATA

Note:

mg/L = milligram per liter

n.d. = Not Detected (< Reporting Limit)

Foundational Limit: 0.5 mg/L; Progressive Limit: 0.01 mg/L; Aspirational Limit: 0.001 mg/L

Coliform

Test Method : Reference to USEPA 9132

Tested Item(s)	Result	Unit	Conclusion
M001	88 (Progressive)	MPN/100 mL	DATA

Note:
bacteria/100 mL = bacteria per 100 milliliters
Foundational Limit: 400 / 100 ml; Progressive Limit: 100 / 100 ml; Aspirational Limit: 25 /100 ml;

Foam

Test Method : Visual

Tested Item(s)	Result	Unit	Conclusion
M001	Absent	-	DATA

1B). ANIONS

Sulfide

Test Method: APHA 4500-S^2-D(23rd edition):2017

Tested Item(s)	Result	Unit	Conclusion
M001	n.d. (Aspirational)	mg/L	DATA

Note:

mg/L = milligram per liter

n.d. = Not Detected (< Reporting Limit)

Foundational Limit: 0.5 mg/L; Progressive Limit: 0.05 mg/L; Aspirational Limit: 0.01 mg/L

Sulfite

Test Method: ISO 10304-3

Tested Item(s)	Result	Unit	Conclusion
M001	n.d. (Aspirational)	mg/L	DATA

Note:

mg/L = milligram per liter

n.d. = Not Detected (< Reporting Limit)

Foundational Limit: 2 mg/L; Progressive Limit: 0.5 mg/L; Aspirational Limit: 0.2 mg/L

Cyanide – (CN-)

Test Method : Reference to APHA:4500 CN/ISO 11262

Tested Item(s)	Result	Unit	Conclusion
M001	n.d. (Aspirational)	mg/L	DATA
M002	n.d. (Aspirational)	mg/kg	DATA

Note:

mg/L = milligram per liter

n.d. = Not Detected (< Reporting Limit)

Foundational Limit: 0.2 mg/L; Progressive Limit: 0.1 mg/L; Aspirational Limit: 0.05 mg/L

Dry Mass (Total Solid)

				Sample No.	M002
Parameter	Parameter Code	Test Method	Unit	RL	Result
Dry Mass (total solids)	-	USEPA 160.3	%	--	67.899
Conclusion				--	DATA

1B). Conventional Parameters – METALS

Wastewater: USEPA 200.8., USEPA 6020a, Cr VI: GB 7467
Sludge: Acid digestion. ICP or ICP/MS, Cr VI: Extraction in buffer solution. Derivatization and UV or IC-ICP/MS

Parameter	Result	
	M001 (µg/L)	M002 (mg/kg)
Antimony (Sb)	n.d. (Aspirational)	NA
Chromium (Cr, total)	n.d. (Aspirational)	NA
Cobalt (Co)	n.d. (Aspirational)	NA
Copper (Cu)	n.d. (Aspirational)	NA
Nickel (Ni)	n.d. (Aspirational)	NA
Silver (Ag)	n.d. (Aspirational)	NA
Zinc (Zn)	n.d. (Aspirational)	NA
Arsenic (As)	n.d. (Aspirational)	n.d.
Cadmium (Cd)	n.d. (Aspirational)	n.d.
Lead (Pb)	n.d. (Aspirational)	1.50
Mercury (Hg)	n.d. (Aspirational)	n.d.
Chromium (Cr VI)	n.d. (Aspirational)	n.d.

Remarks:
The limits of Heavy Metals according to ZDHC limit (Appendix A, Table 1A-1B and Table 3 of ZDHC wastewater guidelines, issued in July 2019)

Parameters	Reporting Limit		ZDHC Limit (µg/L)			ZDHC Limit (mg/kg)
	Wastewater (µg/L)	Sludge (mg/kg)	Foundational	Progressive	Aspirational	Sludge
Antimony (Sb)	1	NA	100	50	10	NA
Chromium (Cr, total)	1	NA	200	100	50	NA
Cobalt (Co)	1	NA	50	20	10	NA
Copper (Cu)	1	NA	1000	500	250	NA
Nickel (Ni)	1	NA	200	100	50	NA
Silver (Ag)	1	NA	100	50	5	NA
Zinc (Zn)	1	NA	5000	1000	500	NA
Arsenic (As)	1	1	50	10	5	2
Cadmium (Cd)	1	1	100	50	10	2
Lead (Pb)	1	1	100	50	10	2
Mercury (Hg)	1	0.1	100	5	1	0.2
Chromium (Cr VI)	1	1	50	5	1	2

Others Priority Chemical Groups:

2A). Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs)

Test Method: NP/OP: ISO 18857-2 (modified dichloromethane extraction) or ASTM D7065 (GC/MS or LC/MS(-MS),NPEO/OPEO (n>2) : ISO 18254-1; NPEO/OPEO: ISO18857-2 or ASTM D7065 (LC/MS ; GC/MS or LC/MSMS for n=1,2)

Parameter	Cas No	Reporting Limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Nonylphenol (NP)	104-40-5 25154-52-3 11066-49-2 84852-15-3	5	0.2	n.d.	n.d.
Octylphenol (OP)	140-66-9 27193-28-8 1806-26-4	5	0.2	n.d.	n.d.
Nonylphenol Ethoxylates (NPEO)	9016-45-9 26027-38-3 68412-54-4 127087-87-0 37205-87-1	5	0.2	n.d.	n.d.
Octylphenol Ethoxylates (OPEO)	9002-93-1 9036-19-5 68987-90-6	5	0.2	n.d.	n.d.

Abbreviation: µg/L = Microgram per liter
RL = Reporting Limit
n.d. = Not detected (< Reporting Limit)

2B). Chlorobenzenes and Chlorotoluenes

Test Method: USEPA 8260B, USEPA 8270D, Dichloromethane extraction GC-MS analysis

Chemical substances	CAS no.	Reporting limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Monochlorobenzene	108-90-7	0.2	0.1	n.d.	n.d.
1,2-Dichlorobenzene	95-50-1	0.2	0.1	n.d.	n.d.
1,3-Dichlorobenzene	541-73-1	0.2	0.1	n.d.	n.d.
1,4-Dichlorobenzene	106-46-7	0.2	0.1	n.d.	n.d.
1,2,4-Trichlorobenzene	120-82-1	0.2	0.1	n.d.	n.d.
1,2,3-Trichlorobenzene	87-61-6	0.2	0.1	n.d.	n.d.
1,3,5-Trichlorobenzene	108-70-3	0.2	0.1	n.d.	n.d.
1,2,3,4-Tetrachlorobenzene	634-66-2	0.2	0.1	n.d.	n.d.
1,2,3,5-Tetrachlorobenzene	634-90-2	0.2	0.1	n.d.	n.d.
1,2,4,5-Tetrachlorobenzene	95-94-3	0.2	0.1	n.d.	n.d.
Pentachlorobenzene	608-93-5	0.2	0.1	n.d.	n.d.
Hexachlorobenzene	118-74-1	0.2	0.1	n.d.	n.d.
2-Chlorotoluene	95-49-8	0.2	0.1	n.d.	n.d.
3-Chlorotoluene	108-41-8	0.2	0.1	n.d.	n.d.
4-Chlorotoluene	106-43-4	0.2	0.1	n.d.	n.d.
2,3-Dichlorotoluene	32768-54-0	0.2	0.1	n.d.	n.d.
2,4-Dichlorotoluene	95-73-8	0.2	0.1	n.d.	n.d.
2,5-Dichlorotoluene	19398-61-9	0.2	0.1	n.d.	n.d.
2,6-Dichlorotoluene	118-69-4	0.2	0.1	n.d.	n.d.
3,4-Dichlorotoluene	95-75-0	0.2	0.1	n.d.	n.d.
3,5-Dichlorotoluene	25186-47-4	0.2	0.1	n.d.	n.d.
2,3,4-Trichlorotoluene	7359-72-0	0.2	0.1	n.d.	n.d.
2,3,6-Trichlorotoluene	2077-46-5	0.2	0.1	n.d.	n.d.
2,4,5-Trichlorotoluene	6639-30-1	0.2	0.1	n.d.	n.d.
2,4,6-Trichlorotoluene	23749-65-7	0.2	0.1	n.d.	n.d.
3,4,5-Trichlorotoluene	21472-86-6	0.2	0.1	n.d.	n.d.
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	0.1	n.d.	n.d.
2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	0.1	n.d.	n.d.
2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	0.1	n.d.	n.d.
Pentachlorotoluene	877-11-2	0.2	0.1	n.d.	n.d.

Abbreviation: µg/L = microgram per litre
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2C). Chlorophenols

Test Method: USEPA 8270D, Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC/MS ISO 14154:2005

Parameter	CAS No.	Reporting limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Pentachlorophenol (PCP)	87-86-5	0.5	0.03	n.d.	n.d.
2,3,4,5-Tetrachlorophenol	4901-51-3	0.5	0.03	n.d.	n.d.
2,3,4,6-Tetrachlorophenol	58-90-2	0.5	0.03	n.d.	n.d.
2,3,5,6-Tetrachlorophenol	935-95-5	0.5	0.03	n.d.	n.d.
2,4,6-Trichlorophenol	88-06-2	0.5	0.03	n.d.	n.d.
2,3,4-Trichlorophenol	15950-66-0	0.5	0.03	n.d.	n.d.
2,3,5-Trichlorophenol	933-78-8	0.5	0.03	n.d.	n.d.
2,3,6-Trichlorophenol	933-75-5	0.5	0.03	n.d.	n.d.
2,4,5-Trichlorophenol	95-95-4	0.5	0.03	n.d.	n.d.
3,4,5-Trichlorophenol	609-19-8	0.5	0.03	n.d.	n.d.
2,3-dichlorophenol	576-24-9	0.5	0.03	n.d.	n.d.
2,4-dichlorophenol	120-83-2	0.5	0.03	n.d.	n.d.
2,5-dichlorophenol	583-78-8	0.5	0.03	n.d.	n.d.
3, 4-dichlorophenol	95-77-2	0.5	0.03	n.d.	n.d.
2,6-dichlorophenol	87-65-0	0.5	0.03	n.d.	n.d.
3, 5-dichlorophenol	591-35-5	0.5	0.03	n.d.	n.d.
2-Chlorophenol	95-57-8	0.5	0.03	n.d.	n.d.
3-Chlorophenol	108-43-0	0.5	0.03	n.d.	n.d.
4-Chlorophenol	106-48-9	0.5	0.03	n.d.	n.d.

Abbreviation: µg/L = microgram per litre
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2D). Azo Dyes

Test Method: EN 14362-1&14362-3, Reduction step with sodiumdithionite, solvent extraction GC/MS or LC-MSMS analysis

Parameter	CAS No.	Reporting limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
4-Aminodiphenyl	92-67-1	0.1	0.2	n.d.	n.d.
Benzidine	92-87-5	0.1	0.2	n.d.	n.d.
4-Chloro-o-Toluidine	95-69-2	0.1	0.2	n.d.	n.d.
2-Naphthylamine	91-59-8	0.1	0.2	n.d.	n.d.
o-Aminoazotoluene	97-56-3	0.1	0.2	n.d.	n.d.
5-Nitro-o-toluidiene	99-55-8	0.1	0.2	n.d.	n.d.
4-Chloroaniline	106-47-8	0.1	0.2	n.d.	n.d.
4-methoxy-m-phenylenediamine	615-05-4	0.1	0.2	n.d.	n.d.
4,4'-Methylenedianiline	101-77-9	0.1	0.2	n.d.	n.d.
3,3'-Dichlorobenzidine	91-94-1	0.1	0.2	n.d.	n.d.
3,3'-Dimethoxybenzidine	119-90-4	0.1	0.2	n.d.	n.d.
3,3'-Dimethylbenzidine	119-93-7	0.1	0.2	n.d.	n.d.
4,4'-Methylene-di-o-toluidine	838-88-0	0.1	0.2	n.d.	n.d.
6-methoxy-m-toluidiene (p-cresidine)	120-71-8	0.1	0.2	n.d.	n.d.
4,4'-Methylene-Bis (2-Chloroaniline)	101-14-4	0.1	0.2	n.d.	n.d.
4,4'-Oxydianiline	101-80-4	0.1	0.2	n.d.	n.d.
4,4'-Thiodianiline	139-65-1	0.1	0.2	n.d.	n.d.
o-Toluidine	95-53-4	0.1	0.2	n.d.	n.d.
4-Methyl-m-phenylenediamine	95-80-7	0.1	0.2	n.d.	n.d.
2,4,5-Trimethylaniline	137-17-7	0.1	0.2	n.d.	n.d.
o-Anisidine	90-04-0	0.1	0.2	n.d.	n.d.
4-Aminoazobenzene	60-09-3	0.1	0.2	n.d.	n.d.
2,4-Xylidine	95-68-1	0.1	0.2	n.d.	n.d.
2,6-Xylidine	87-62-7	0.1	0.2	n.d.	n.d.

Abbreviation: µg/L = microgram per litre
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2E). Carcinogenic Dyes

Test Method: Liquid extraction, LC-MSMS analysis

Parameter	CAS No.	Reporting limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Acid Red 26	3761-53-3	500	1	n.d.	n.d.
Basic Red 9	569-61-9	500	1	n.d.	n.d.
Basic Violet 14	632-99-5	500	1	n.d.	n.d.
Direct Blue 6	2602-46-2	500	1	n.d.	n.d.
Direct Red 28	573-58-0	500	1	n.d.	n.d.
Direct Black 38	1937-37-7	500	1	n.d.	n.d.
Disperse Blue 1	2475-45-8	500	1	n.d.	n.d.
Disperse Blue 3	2475-46-9	500	1	n.d.	n.d.
Disperse Orange 11	82-28-0	500	1	n.d.	n.d.
Basic Blue 26 (With Michler's Ketone>0.1%)	2580-56-5	500	1	n.d.	n.d.
Basic Green 4 (malachite green chloride)	569-64-2	500	1	n.d.	n.d.
Basic Green 4 (malachite green oxalate)	2437-29-8	500	1	n.d.	n.d.
Basic Green 4 (malachite green)	10309-95-2	500	1	n.d.	n.d.

Abbreviation: µg/L = microgram per litre
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2F). Disperse Dyes

Test Method: Liquid extraction, LC-MSMS analysis

Parameter	CAS No.	Reporting limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Disperse Blue 35	56524-77-7	50	1	n.d.	n.d.
Disperse Blue 7	3179-90-6	50	1	n.d.	n.d.
Disperse Blue 26	3860-63-7	50	1	n.d.	n.d.
Disperse Blue 35	12222-75-2	50	1	n.d.	n.d.
Disperse Blue 102	12222-97-8	50	1	n.d.	n.d.
Disperse Blue 106	12223-01-7	50	1	n.d.	n.d.
Disperse Blue 124	61951-51-7	50	1	n.d.	n.d.
Disperse Brown 1	23355-64-8	50	1	n.d.	n.d.
Disperse Orange 1	2581-69-3	50	1	n.d.	n.d.
Disperse Orange 3	730-40-5	50	1	n.d.	n.d.
Disperse Orange 37/76/59	13301-61-6	50	1	n.d.	n.d.
Disperse Red 1	2872-52-8	50	1	n.d.	n.d.
Disperse Red 11	2872-48-2	50	1	n.d.	n.d.
Disperse Red 17	3179-89-3	50	1	n.d.	n.d.
Disperse Yellow 1	119-15-3	50	1	n.d.	n.d.
Disperse Yellow 3	2832-40-8	50	1	n.d.	n.d.
Disperse Yellow 9	6373-73-5	50	1	n.d.	n.d.
Disperse Yellow 39	12236-29-2	50	1	n.d.	n.d.
Disperse Yellow 49	54824-37-2	50	1	n.d.	n.d.

Abbreviation: µg/L = microgram per litre
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2G). Flame Retardants

Test Method: USEPA 8270; ISO 22032; USEPA 527 and USEPA 8321B. Dichloromethane extraction, GC-MS or LC-MS/MS

Parameter	CAS No.	Reporting Limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Tris-(2-chloroethyl)-phosphate (TCEP)	115-96-8	5	0.25	n.d.	n.d.
Decabromodiphenyl ether (DecaBDE)	1163-19-5	5	0.25	n.d.	n.d.
Tri-(2,3-di-bromo-propyl)-phosphate (TRIS/TDBPP)	126-72-7	5	0.25	n.d.	n.d.
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	5	0.25	n.d.	n.d.
Octabromodiphenyl ether (OctaBDE)	32536-52-0	5	0.25	n.d.	n.d.
Bis-(2,3-dibromopropyl)-phosphate (BIS/BDBPP)	5412-25-9	5	0.25	n.d.	n.d.
Tris(aziridinyl)phosphine oxide) (TEPA)	545-55-1	5	0.25	n.d.	n.d.
Polybromobiphenyls (PBBs)	59536-65-1	5	0.25	n.d.	n.d.
Tetrabromobisphenol-A (TBBPA)	79-94-7	5	0.25	n.d.	n.d.
Hexabromocyclododecan (HBCDD)	3194-55-6	5	0.25	n.d.	n.d.
2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	5	0.25	n.d.	n.d.
Tris-(1,3-dichloro-isopropyl)-phosphate (TDCP)	13674-87-8	5	0.25	n.d.	n.d.
Short chain chlorinated paraffins,C10-C13 (SCCP)	85535-84-8	5	0.25	n.d.	n.d.

Abbreviation: µg/L = microgram per litre
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2H). Glycols

Test Method: USEPA 8270, Liquid Extraction, LC/MS, GC/MS

Parameter	CAS No.	Reporting Limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Bis(2-methylethyl)ether	111-96-6	50	1	n.d.	n.d.
2-Ethoxyethanol	110-80-5	50	1	n.d.	n.d.
2-Ethyoxyethyl acetate	111-15-9	50	1	n.d.	n.d.
Ethylene glycol dimethyl ether	110-71-4	50	1	n.d.	n.d.
2-Methoxyethanol	109-86-4	50	1	n.d.	n.d.
2-Methoxyethyl acetate	110-49-6	50	1	n.d.	n.d.
2-Methoxypropyl acetate	70657-70-4	50	1	n.d.	n.d.
Triethylene Glycol Dimethyl Ether	112-49-2	50	1	n.d.	n.d.

Abbreviation: µg/L = microgram per litre
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2I). Halogenated Solvents

Test Method: USEPA 8260B, Headspace GC/MS or Purge-and- GC/MS

Parameter	CAS No.	Reporting Limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
1,2-Dichloroethane	107-06-2	1	0.3	n.d.	n.d.
Methylene chloride	75-09-2	1	0.3	n.d.	n.d.
Tetrachloroethylene	127-18-4	1	0.3	n.d.	n.d.
Trichloroethylene	79-01-6	1	0.3	n.d.	n.d.

Abbreviation: µg/L = microgram per litre
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2J). Organotin Compounds

Test Method: Ref. ISO 17353, Derivatisation with NaB(C2H5) GC-MS analysis

Parameter	CAS No.	Reporting Limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Mono-,di- and tri-methyltin derivatives	Various	0.01	0.01	n.d.	n.d.
Mono-,di- and tri-butyltin derivatives	Various	0.01	0.01	n.d.	n.d.
Mono-,di- and tri-phenyltin derivatives	Various	0.01	0.01	n.d.	n.d.
Mono-,di- and tri-octyltin derivatives	Various	0.01	0.01	n.d.	n.d.

Abbreviation: µg/L = microgram per litre
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2K). Perfluorinated and Polyfluorinated Chemicals (PFCs)

Test Method: 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

Parameter	CAS No.	Reporting Limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Perfluorooctanesulphonic acid (PFOS)	355-46-4, 432-50-7	0.01	0.05	n.d.	n.d.
Perfluoro-n-octanoic acid (PFOA)	335-67-1	0.01	0.05	n.d.	n.d.
Perfluorobutanesulfonic acid (PFBS)	29420-49-3, 29420-43-3	0.01	0.05	n.d.	n.d.
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	0.01	0.05	n.d.	n.d.
6:2 FTOH	647-42-7	1.0	5	n.d.	n.d.
8:2 FTOH	678-39-7	1.0	5	n.d.	n.d.

Abbreviation: µg/L = microgram per litre
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2L). Phthalates

Test Method: USEPA 8270D, ISO 18856 Dichloromethane extraction, GC-MSMS analysis

Parameter	CAS No.	Reporting Limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Di-n-butyl phthalate (DBP)	84-74-2	10	1	n.d.	n.d.
Di(ethylhexyl)phthalate (DEHP)	117-81-7	10	1	n.d.	n.d.
Butyl benzyl phthalate (BBP)	85-68-7	10	1	n.d.	n.d.
Di-isononyl phthalate (DINP)	28553-12-0	10	1	n.d.	n.d.
Di-n-octyl phthalate (DNOP)	117-84-0	10	1	n.d.	n.d.
Di-iso-decyl phthalate (DIDP)	26761-40-0	10	1	n.d.	n.d.
Diethyl Phthalate (DEP)	84-66-2	10	1	n.d.	n.d.
Di-n-propyl Phthalate (DPRP)	131-16-8	10	1	n.d.	n.d.
Di-isobutyl phthalate (DIBP)	84-69-5	10	1	n.d.	n.d.
Di-cyclohexyl Phthalate (DCHP)	84-61-7	10	1	n.d.	n.d.
Di-N-Hexyl Phthalate (DNHP)	84-75-3	10	1	n.d.	n.d.
Dinonyl Phthalate (DNP)	84-76-4	10	1	n.d.	n.d.
Di-isi-octyl Phthalate (DIOP)	27554-26-3	10	1	n.d.	n.d.
Di-methoxyethyl Phthalate(DMEP)	117-82-8	10	1	n.d.	n.d.
1,2-benzenedicarboxylic acid, di-C7- 11-branched and linearalkyl esters (DHNUP)	68515-42-4	10	1	n.d.	n.d.
1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	10	1	n.d.	n.d.

Abbreviation: µg/L = microgram per liter
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2M). Polycyclic Aromatic Hydrocarbons (PAHs)

Test Method: USEPA 8270, DIN 38407-39 Solvent extraction GC-MS/MS

Parameter	CAS No.	Reporting Limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Benzo(a)pyrene (BaP)	50-32-8	1.0	1.0	n.d.	n.d.
Anthracene	120-12-7	1.0	1.0	n.d.	n.d.
Pyrene	129-00-0	1.0	1.0	n.d.	n.d.
Benzo[ghi]perylene	191-24-2	1.0	1.0	n.d.	n.d.
Benzo(e)pyrene	192-97-2	1.0	1.0	n.d.	n.d.
Indeno[1,2,3-cd]pyrene	193-39-5	1.0	1.0	n.d.	n.d.
Benzo(j)fluoranthene	205-82-3	1.0	1.0	n.d.	n.d.
Benzo[b]fluoranthene	205-99-2	1.0	1.0	n.d.	n.d.
Fluoranthene	206-44-0	1.0	1.0	n.d.	n.d.
Benzo[k]fluoranthene	207-08-9	1.0	1.0	n.d.	n.d.
Acenaphthylene	208-96-8	1.0	1.0	n.d.	n.d.
Chrysene	218-01-9	1.0	1.0	n.d.	n.d.
Dibenz(a,h)anthracene	53-70-3	1.0	1.0	n.d.	n.d.
Benzo[a]anthracene	56-55-3	1.0	1.0	n.d.	n.d.
Acenaphthene	83-32-9	1.0	1.0	n.d.	n.d.
Phenanthrene	85-01-8	1.0	1.0	n.d.	n.d.
Fluorene	86-73-7	1.0	1.0	n.d.	n.d.
Naphthalene	91-20-3	1.0	1.0	n.d.	n.d.

Abbreviation: µg/L = microgram per liter
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

2N). Volatile Organic Compounds (VOC)

Test Method: ISO 11423-1, Purge and-Trape-GCMS analysis US EPA 8260

Parameter	CAS No.	Reporting Limit		Result	
		Wastewater (µg/L)	Sludge (mg/kg)	M001 (µg/L)	M002 (mg/kg)
Benzene	71-43-2	1.0	0.1	n.d.	n.d.
Xylene	1330-20-7	1.0	0.1	n.d.	n.d.
o-cresol	95-48-7	1.0	0.1	n.d.	n.d.
p-cresol	106-44-5	1.0	0.1	n.d.	n.d.
m-cresol	108-39-4	1.0	0.1	n.d.	n.d.

Abbreviation: µg/L = microgram per liter
RL = Reporting Limit
n.d. = not detected (< Reporting Limit)

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