

| Date of sampling | 16/06/2023 |
|------------------|------------|
| Reporting date | 22/06/2023 |

| Audit ID | 144721 | Audit firm | SGS - TURKEY | | |
|-------------------------|--|-------------|--------------|--|--|
| Company name | YAGMUR BOYAMA YIKAMA | | | | |
| Contact person | KEMAL ÇAKAN | (EMAL ÇAKAN | | | |
| Type of tax – tax ID no | 9280437929 | | | | |
| Address | SANAYI BOL. TALATPASA MAH. PAZARYOLU SK. NO.12/1 | | | | |
| Region state province | ISTANBUL | | | | |
| Town city / village | ESENYURT | | | | |
| Zip / Post code | / | | | | |

| Type of wastewater discharge | | | | | |
|--|---|--|--|--|--|
| Type of wastewater discharge | Indirect Discharge with Pretreatment | | | | |
| Description of the discharge | Indirect Discharge to İski Ambarlı İleri Biyolojik Atıksu Arıtma Tesisi | | | | |
| [If direct discharge] Temperature of receiving water body: | N/A | | | | |
| | | | | | |

| Type of sludge disposal pathway | |
|---------------------------------|---|
| Type of sludge disposal pathway | A |



| Sampler accreditation certification nu | ımber (ZDHC): | 8F1465016715 | 8F1465016715 | | | | |
|--|--------------------|-------------------|--------------|--|--|--|--|
| Sampling affiliate | | SGS TURKEY | SGS TURKEY | | | | |
| Sample description | Sample description | | | | | | |
| | Simple | Composite | Comments | | | | |
| (1) Untreated wastewater | NO | YES - 09:45-15:45 | NO | | | | |
| (2) Effluent | NO | YES – 09:30-15:30 | NO | | | | |
| (3) Sludge | YES – 16:00 | NO | NO | | | | |
| (4) Leachate | NO | NO | NO | | | | |



| Internal description – Final Test Report | | | |
|--|--------------------------|--|--|
| Testing laboratory | SGS Turkey | | |
| Internal codification number (report number) | TR2323574 | | |
| Reference sample number (sample ID) | / | | |
| Received on | 17/06/2023 | | |
| Analysis carried out from | 17/06/2023 to 22/06/2023 | | |
| Arrival temperature at lab | 7,6 ºC | | |
| Comments | / | | |
| Reporting date | 22/06/2023 | | |



The test results relate to the tested items only. Test reports without SGS seal and authorized signatures are invalid.

> Issued in Istanbul Signed for and on behalf of SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.

Mesut Akpolat Customer Services Supervisor Murat Öztaş Customer Services Team Leader

Notes

SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.-Tüketici ve Perakende Laboratuvarı (Consumer and Retail) operating as ZDHC tests is accredited by TÜRKAK according to AB-690-T and ISO/IEC 17025:2017 standard.

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SGS applied shared risk decision rule.

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In this Test Report tests marked (1) are included in the TURKAK Accreditation Scope of this Laboratory.



| Summary of test results | | | | |
|---|-------------------------|-------------------------------|--|----------|
| Test items | Untreated wastewater | Effluent | Sludge | Leachate |
| Conventional Parameters and Anions | - | - | Please refer to the information in TEST RESULTS [@] | - |
| Heavy Metals | | Fulfill aspirational limit | Please refer to the information in TEST RESULTS | - |
| Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers | ND | - | ND | - |
| Anti- Microbials & Biocides | ND | - | - | - |
| Chlorinated Paraffins | ND | - | - | - |
| Chlorobenzenes & Chlorotoluenes | ND | - | ND | - |
| Chlorophenols | ND | - | - | - |
| N,N-di-methylformamide (DMFa) | ND | - | - | - |
| Dyes – Carcinogenic or Equivalent Concern | ND | - | - | - |
| Dyes – Disperse (Allergenic) | ND | - | - | - |
| Dyes – Navy Blue Colourant | ND | - | - | - |
| Flame Retardants | ND | - | - | - |
| Glycols / Glycol Ethers | ND | - | - | - |
| Halogenated Solvents | ND | - | - | - |
| Organotin Compounds | ND | - | - | - |
| Other / Miscellaneous Chemicals | ND | - | - | - |
| Perfluorinated and Polyfluorinated Chemicals (PFCs) | ND | - | - | - |
| Phthalates – including all other esters of ortho-phthalic acid | ND | - | - | - |
| Polycyclic Aromatic Hydrocarbons (PAHs) | ND | - | ND | - |
| Restricted Aromatic Amines (Cleavable from Azo-colourants) | D | - | - | - |
| UV Absorbers | ND | - | - | - |
| VOCs | ND | - | - | - |

Remark (Indicated in each parameter)

ND = Not detected

D = Detected

NA = Not applicable

- = Not required to be tested

@ = Maximum holding time exceeded

(T) = handling temperature exceeded



Test results

Wastewater

1. Conventional Parameters and Anions

| | Limit | | | | Result | | |
|------------------------|-------------|--------------|-------------|--------------|-----------------|----------|--------|
| Test Items | Test method | Foundational | Progressive | Aspirational | Reporting Limit | Effluent | Unit |
| Wastewater Flowrate | - | | - | | NA | 271 (f) | m³/day |

Remark

ND = Not detected

NA = Not applicable - = Not required to be tested

(f) = Parameter tested in field

(f) = The analysis was subcontracted to xxxxx lab for testing.
= Non accredited parameter
* sampling location of receiving body of water upstream is inaccessible due to the safety issue



2. Heavy Metals

Cr (VI): ISO 18412, USEPA 218.6, GB 7467 or IS 3025 (Part 52)

Ba, Se, Sn: USEPA 200.8, USEPA 6010 C, USEPA 6020 A or HJ 700

Sb, As, Cr, Co: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, HJ 700 or IS 3025 (Part 65)

Cd: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 41) – AAS instrumental method Cu: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 42) – AAS instrumental method Pb: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 47) – AAS instrumental method Ni: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 11912, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 47) – AAS instrumental method Ag: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 11912, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 54) – AAS instrumental method

Zn: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7472, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 49) – AAS instrumental method Hg: ISO 17294, USEPA 200.8 – SIM, USEPA 245.1, USEPA 245.7, USEPA 6020 A – SIM, HJ 597, HJ 694, IS 3025 (Part 48) – Cold vapour AAS only or IS 3025 (Part 65) – SI

| Test items | CAS no. | Foundational | Progressive | Aspirational | Reporting Limit | Effluent | Unit |
|------------------------|---------|--------------------------------|---------------------------------|---------------------------------|-----------------|----------|------|
| Arsenic (As) | Various | Textile and Leather: 0.05 | Textile and Leather: 0.01 | Textile and Leather: 0.005 | 0.005 | ND | mg/L |
| Cadmium (Cd) | Various | Textile and Leather: 0.1 | Textile and Leather: 0.05 | Textile and Leather: 0.01 | 0.01 | ND | mg/L |
| Mercury (Hg) | Various | Textile and Leather: 0.01 | Textile and Leather: 0.005 | Textile and Leather: 0.001 | 0.001 | ND | mg/L |
| Lead (Pb) | Various | Textile and Leather: 0.1 | Textile and Leather: 0.05 | Textile and Leather: 0.01 | 0.01 | ND | mg/L |
| Chromium VI (Cr VI) | Various | Textile: 0.05 Leather: 0.15 | Textile: 0.005 Leather: 0.05 | Textile: 0.001 Leather: 0.02 | 0.001 | ND | mg/L |

Remark

ND = Not detected

NA = Not applicable - = Not required to be tested

(S) = The analysis was subcontracted to xxxxx lab for testing.

= Non accredited parameter

*= Sample and report only for polyester wet processing facilities

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

NP/OP: With reference to ISO 18857-2 (Modified dichloromethane extraction) or ASTM D7065 (GC-MS or LC-MS(-MS)) NPEO / OPEO: With reference to ISO 18857-2 or ASTM D7742

| Test items | CAS no. | CAS no. (Textile and Leather) | | Unit |
|--------------------------------|---|----------------------------------|----|------|
| | | | | |
| Octylphenol (OP) | 140-66-9/ 1806-26-4/ 27193-28-8 | 5 | ND | μg/L |
| Nonylphenol (NP) | 104-40-5/ 11066-49-2/ 25154- 52- 3/84852-15-3 | 5 | ND | μg/L |
| Octylphenolethoxylates (OPEOs) | 9002-93-1/9036-19-5/68987-90- 6 | 5 | ND | μg/L |
| Nonylphenolethoxylates (NPEOs) | 9016-45-9/26027-38-3/ 37205- 87- 1/68412-54-4/127087-87-0 | 5 | ND | μg/L |



4. Anti- Microbials & Biocides

o-Phenylphenol (+salts): With reference to BS EN 12673-1999, USEPA 8270 E or Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS

Triclosan: With reference to BS EN 12673-1999, USEPA 8270 E or Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS Permethrin: With reference to ISO 14154:2005, USEPA 8270 E, Solvent extraction followed by GC-MS or An alternative method, without derivatization and determination by LC-MS / LC-MS/MS

| Test items | CAS no. | Reporting Limit | Result Untreated wastewater | Unit |
|-------------------------|-----------|-----------------|--------------------------------|------|
| o-Phenylphenol (+salts) | 90-43-7 | 100 | ND | μg/L |
| Triclosan | 3380-34-5 | 100 | ND | μg/L |
| Permethrin | Various | 500 | ND | µg/L |



5. Chlorinated Paraffins

MCCPs: Preparation: With reference to USEPA 3510. Analysis: With reference to ISO 18219-2:2021 or Method for MCCP with GC-MS(NCI) or LC-MS/MS.

SCCPs: Preparation: With reference to USEPA 3510. Analysis: With reference to ISO 12010:2019, ISO 18219-1:2021 or Method for SCCP with GC-MS(NCI) or LC-MS/MS

| Test items | CAS no. | Reporting Limit | Result Untreated wastewater | Unit |
|--|------------|-----------------|-----------------------------------|------|
| Short chain chlorinated paraffins (C10-C13) | 85535-84-8 | 25 | ND | µg/L |
| Medium-chain Chlorinated Paraffins (MCCPs) (C14-C17) | 85535-85-9 | 500 | ND | μg/L |

6. Chlorobenzenes & Chlorotoluenes

With reference to USEPA 8260 D, USEPA 8270 E, Purge and Trap, Headspace or Dichloromethane extraction followed by GC-MS

| | | | Result | |
|----------------------------|------------|--|----------------------|------|
| Test items | CAS no. | Reporting Limit (Textile and Leather) | Untreated wastewater | Unit |
| Monochlorobenzenes | 108-90-7 | 0.2 | ND | μg/L |
| 1,2-Dichlorobenzene | 95-50-1 | 0.2 | ND | µg/L |
| 1,3-Dichlorobenzene | 541-73-1 | 0.2 | ND | μg/L |
| 1,4-Dichlorobezene | 106-46-7 | 0.2 | ND | μg/L |
| 1,2,3-Trichlorobenzene | 87-61-6 | 0.2 | ND | μg/L |
| 1,2,4-Trichlorobenzene | 120-82-1 | 0.2 | ND | μg/L |
| 1,3,5-Trichlorobenzene | 108-70-3 | 0.2 | ND | µg/L |
| 1,2,3,4-Tetrachlorobenzene | 634-66-2 | 0.2 | ND | µg/L |
| 1,2,3,5-Tetrachlorobenzene | 634-90-2 | 0.2 | ND | µg/L |
| 1,2,4,5-Tetrachlorobenzene | 95-94-3 | 0.2 | ND | µg/L |
| Pentachlorobenzene | 608-93-5 | 0.2 | ND | µg/L |
| Hexachlorobenzene | 118-74-1 | 0.2 | ND | µg/L |
| 2-Chlorotoluene | 95-49-8 | 0.2 | ND | µg/L |
| 3-Chlorotoluene | 108-41-8 | 0.2 | ND | µg/L |
| 4-Chlorotoluene | 106-43-4 | 0.2 | ND | µg/L |
| 2,3-Dichlorotoluene | 32768-54-0 | 0.2 | ND | µg/L |
| 2,4-Dichlorotoluene | 95-73-8 | 0.2 | ND | µg/L |
| 2,5-Dichlorotoluene | 19398-61-9 | 0.2 | ND | µg/L |
| 2,6-Dichlorotoluene | 118-69-4 | 0.2 | ND | µg/L |
| 3,4-Dichlorotoluene | 95-75-0 | 0.2 | ND | µg/L |



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



7. Chlorophenols

With reference to BS EN 12673-1999, USEPA 8270 E or Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS

| | | Reporting Limit | Result | |
|---------------------------|------------|-----------------------|----------------------|------|
| Test items | CAS no. | (Textile and Leather) | Untreated wastewater | Unit |
| 2-Chlorophenol | 95-57-8 | 0.5 | ND | μg/L |
| 3-Chlorophenol | 108-43-0 | 0.5 | ND | μg/L |
| 4-Chlorophenol | 106-48-9 | 0.5 | ND | μg/L |
| 2,3-Dichlorophenol | 576-24-9 | 0.5 | ND | μg/L |
| 2,4-Dichlorophenol | 120-83-2 | 0.5 | ND | μg/L |
| 2,5-Dichlorophenol | 583-78-8 | 0.5 | ND | μg/L |
| 2,6-Dichlorophenol | 87-65-0 | 0.5 | ND | μg/L |
| 3,4-Dichlorophenol | 95-77-2 | 0.5 | ND | µg/L |
| 3,5-Dichlorophenol | 591-35-5 | 0.5 | ND | μg/L |
| 2,3,4-Trichlorophenol | 15950-66-0 | 0.5 | ND | μg/L |
| 2,3,5-Trichlorophenol | 933-78-8 | 0.5 | ND | μg/L |
| 2,3,6-Trichlorophenol | 933-75-5 | 0.5 | ND | μg/L |
| 2,4,5-Trichlorophenol | 95-95-4 | 0.5 | ND | μg/L |
| 2,4,6-Trichlorophenol | 88-06-2 | 0.5 | ND | μg/L |
| 3,4,5-Trichlorophenol | 609-19-8 | 0.5 | ND | μg/L |
| 2,3,5,6-Tetrachlorophenol | 935-95-5 | 0.5 | ND | µg/L |
| 2,3,4,6-Tetrachlorophenol | 58-90-2 | 0.5 | ND | µg/L |
| 2,3,4,5-Tetrachlorophenol | 4901-51-3 | 0.5 | ND | µg/L |
| Pentachlorophenol PCP | 87-86-5 | 0.5 | ND | μg/L |

8. N,N-di-methylformamide (DMFa)

With reference to USEPA 8015 or USEPA 8270 E

| Test item | CAS no. | Reporting Limit (Textile) | Result Untreated wastewater | Unit |
|-------------------------------|---------|------------------------------|--------------------------------|------|
| N,N-di-methylformamide (DMFa) | 68-12-2 | 1000 | ND | μg/L |



9. Dyes - Carcinogenic or Equivalent Concern

With reference to Liquid extraction followed by LC-MS

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

*Reported concentration refers to the dye part only



10. Dyes - Disperse (Allergenic)

With reference to Liquid extraction followed by LC-MS

| | | | Result | |
|--------------------------|------------|------------------------------|----------------------|------|
| Test Items | CAS no. | Reporting Limit (Textile) | Untreated wastewater | Unit |
| Disperse Yellow 1 | 119-15-3 | 50 | ND | µg/L |
| Disperse Blue 102 | 12222-97-8 | 50 | ND | µg/L |
| Disperse Blue 106 | 12223-01-7 | 50 | ND | μg/L |
| Disperse Yellow 39 | 12236-29-2 | 50 | ND | μg/L |
| Disperse Orange 37/59/76 | 13301-61-6 | 50 | ND | µg/L |
| Disperse Brown 1 | 23355-64-8 | 50 | ND | µg/L |
| Disperse Orange 1 | 2581-69-3 | 50 | ND | µg/L |
| Disperse Yellow 3 | 2832-40-8 | 50 | ND | µg/L |
| Disperse Red 11 | 2872-48-2 | 50 | ND | µg/L |
| Disperse Red 1 | 2872-52-8 | 50 | ND | µg/L |
| Disperse Red 17 | 3179-89-3 | 50 | ND | µg/L |
| Disperse Blue 7 | 3179-90-6 | 50 | ND | μg/L |
| Disperse Blue 26 | 3860-63-7 | 50 | ND | μg/L |
| Disperse Yellow 49 | 54824-37-2 | 50 | ND | µg/L |
| Disperse Blue 35 | 12222-75-2 | 50 | ND | µg/L |
| Disperse Blue 124 | 61951-51-7 | 50 | ND | μg/L |
| Disperse Yellow 9 | 6373-73-5 | 50 | ND | µg/L |
| Disperse Orange 3 | 730-40-5 | 50 | ND | μg/L |
| Disperse Blue 35 | 56524-77-7 | 50 | ND | µg/L |

11. Dyes - Navy Blue Colourant

With reference to Liquid extraction followed by LC-MS

| Test Items | CAS no. | Reporting Limit (Textile and Leather) | Result Untreated wastewater | Unit |
|---------------------------------------|---------------|--|--------------------------------|------|
| Component 1: C39H23Cl-CrN7O12S 2Na | 118685-33-9 | 500 | ND | μg/L |
| Component 2: C46H-30CrN10O20S2 3Na | Not Allocated | 500 | ND | μg/L |



12. Flame retardants

Boric acid, Diboron trioxide, Disodium octaborate, Disodium tetraborate anhydrous, Tetraboron disodium heptaoxide, hydrate: ISO 17294, USEPA 6010 C, USEPA 6020 A, HJ 700 or IS 3025 (Part 65)

Others: With reference to ISO 22032, USEPA 527, USEPA 8270 E, USEPA 8321 B or Dichloromethane extraction followed by GC-MS or LC-MS(-MS)

| | | | Result | |
|--|--------------------------|-----------------|----------------------|------|
| Test Items | CAS no. | Reporting Limit | Untreated wastewater | Unit |
| Decabromodiphenyl ether (DecaBDE) | 1163-19-5 | 25 | ND | μg/L |
| Pentabromodiphenyl ether (PentaBDE) | 32534-81-9 | 25 | ND | μg/L |
| Octabromodiphenyl ether (OctaBDE) | 32536-52-0 | 25 | ND | μg/L |
| Tris(1-aziridinylphosphine oxide) (TEPA) | 545-55-1 | 25 | ND | μg/L |
| Polybromobiphenyls (PBBs) | 59536-65-1 | 25 | ND | μg/L |
| Tris(2,3-dibromopropyl phosphate) (TRIS) | 126-72-7 | 25 | ND | μg/L |
| Tetrabromobisphenol A (TBBPA) | 79-94-7 | 25 | ND | μg/L |
| Bis(2,3-dibromopropyl) phosphate | 5412-25-9 | 25 | ND | μg/L |
| Hexabromocyclododecane (HBCDD) | 3194-55-6 | 25 | ND | μg/L |
| 2,2-Bis(bromomethyl)-1,3-propanediol (BBMP) | 3296-90-0 | 25 | ND | μg/L |
| Tris-(2-chloro-1-methylethyl) phosphate (TCPP) | 13674-84-5 | 25 | ND | μg/L |
| Decabromobiphenyl (DecaBB) | 13654-09-6 | 25 | ND | μg/L |
| Dibromobiphenyls (DiBB) | Multiple | 25 | ND | μg/L |
| Octabromobiphenyls (OctaBB) | Multiple | 25 | ND | μg/L |
| Dibromopropylether | 21850-44-2 | 25 | ND | μg/L |
| Heptabromodiphenyl ether (HeptaBDE) | 68928-80-3 | 25 | ND | μg/L |
| Hexabromodiphenyl ether (HexaBDE) | 36483-60-0 | 25 | ND | μg/L |
| Monobromobiphenyls (MonoBB) | Multiple | 25 | ND | μg/L |
| Monobromodiphenylethers (MonoBDEs) | Multiple | 25 | ND | μg/L |
| Nonabromobiphenyls (NonaBB) | Multiple | 25 | ND | μg/L |
| Nonabromodiphenyl ether (NonaBDE) | 63936-56-1 | 25 | ND | μg/L |
| Tetrabromodiphenyl ether (TetraBDE) | 40088-47-9 | 25 | ND | μg/L |
| Tribromodiphenylethers (TriBDEs) | Multiple | 25 | ND | μg/L |
| Boric acid | 10043-35-3 11113-50-1 | 100* | ND (ND)** | μg/L |
| Diboron trioxide | 1303-86-2 | 100* | ND (ND)** | μg/L |
| Disodium octaborate | 12008-41-2 | 100* | ND (ND)** | μg/L |



| Disodium tetraborate anhydrous | 1303-96-4 1330-43-4 | 100* | ND (ND)** | μg/L |
|---|------------------------|------|-----------|------|
| Tetraboron disodium heptaoxide, hydrate | 12267-73-1 | 100* | ND (ND)** | μg/L |
| Tris(2-chloroethyl) phosphate (TCEP) | 115-96-8 | 25 | ND | μg/L |
| Tris(1,3-dichloro-isopropyl) phosphate (TDCP) | 13674-87-8 | 25 | ND | μg/L |

* Limit refers to elemental boron, not the salt.

**Result in term of elemental boron (Result in term of the corresponding boron salt)

13. Glycols/Glycol Ethers

With reference to USEPA 8270 E or Liquid extraction followed by LC-MS or GC-MS

| | | | Result | |
|-----------------------------------|------------|--|----------------------|------|
| Test Items | CAS no. | Reporting Limit (Textile and Leather) | Untreated wastewater | Unit |
| Bis(2-methoxyethyl)-ether | 111-96-6 | 50 | ND | μg/L |
| 2-ethoxyethanol | 110-80-5 | 50 | ND | μg/L |
| 2-ethoxyethyl acetate | 111-15-9 | 50 | ND | μg/L |
| Ethylene glycol dimethyl ether | 110-71-4 | 50 | ND | μg/L |
| 2-methoxyethanol | 109-86-4 | 50 | ND | μg/L |
| 2-methoxyethylacetate | 110-49-6 | 50 | ND | μg/L |
| 2-methoxypropylacetate | 70657-70-4 | 50 | ND | μg/L |
| Triethylene glycol dimethyl ether | 112-49-2 | 50 | ND | μg/L |

14. Halogenated solvents

With reference to USEPA 8260 D, Purge and Trap or Headspace followed by GC-MS

| | | | Result | |
|--------------------|----------|--|----------------------|------|
| Test Items | CAS no. | Reporting Limit (Textile and Leather) | Untreated wastewater | Unit |
| 1,2-Dichloroethane | 107-06-2 | 1 | ND | μg/L |
| Methylene chloride | 75-09-2 | 1 | ND | μg/L |
| Trichloroethene | 79-01-6 | 1 | ND | μg/L |
| Tetrachloroethene | 127-18-4 | 1 | ND | μg/L |



15. Organotin compounds TeET:

With reference to ISO 17353

Others: With reference to ISO 17353 or Derivatization with $NaB(C_2H_5)_4$ followed by GC-MS

| Test Items | C AS no. | Reporting Limit (Textile and Leather) | Result Untreated wastewater | Unit |
|---|---------------------------|--|-----------------------------|------|
| | | | | |
| Triclyclohexyltin (TCyHT) | Various | 0.01 | ND | μg/L |
| Tripropyltin (TPT) | Various | 0.01 | ND | μg/L |
| Dipropyltin compounds (DPT) | Various | 0.01 | ND | μg/L |
| Tetrabutyltin compounds (TeBT) | Various | 0.01 | ND | μg/L |
| Tetraoctyltin compounds (TeOT) | Various | 0.01 | ND | μg/L |
| Tetraethyltin Compounds (TeET) | Various | 0.01 | ND | μg/L |
| Mono-, di-and tri-octyltin derivatives | Various | 0.01 | ND | μg/L |
| Monooctyltin (MOT) | 15231-57-9 | 0.01 | ND | μg/L |
| Dioctyltin (DOT) | 94410-05-6, 12531-44-4 | 0.01 | ND | µg/L |
| Trioctyltin (TOT) | Various | 0.01 | ND | µg/L |
| Mono-, di-and tri-methyltin derivatives | Various | 0.01 | ND | μg/L |
| Monomethyltin (MMT) | Various | 0.01 | ND | μg/L |
| Dimethyltin (DMT) | Various | 0.01 | ND | μg/L |
| Trimethyltin (TMT) | Various | 0.01 | ND | μg/L |
| Mono-, di-and tri-butyltin derivatives | Various | 0.01 | ND | μg/L |
| Monobutyltin (MBT) | 1118-46-3, 78763-54-9 | 0.01 | ND | μg/L |
| Dibutyltin (DBT) | 1002-53-5 | 0.01 | ND | μg/L |
| Tributyltin (TBT) | 56573-85-4 | 0.01 | ND | μg/L |
| Mono-, di-and tri-phenyltin derivatives | Various | 0.01 | ND | μg/L |
| Monophenyltin (MPhT) | Various | 0.01 | ND | μg/L |
| Diphenyltin (DPhT) | Various | 0.01 | ND | μg/L |
| Triphenyltin (TPhT) | 892-20-6, 668-34-8 | 0.01 | ND | μg/L |



16. Other/Miscellaneous Chemicals

AEEA [2-(2-aminoethylamino) ethanol]: With reference to Liquid extraction followed by LC-MS/MS

Bisphenol A: With reference to Liquid extraction followed by LC-MS

Thiourea: With reference to Liquid extraction followed by LC-MS

Quinoline: With reference to Liquid extraction followed by LC-MS

Borate, zinc salt: ISO 17294, USEPA 6010 C, USEPA 6020 A, HJ 700 or IS 3025 (Part 65)

| Test Items | CAS no. | Reporting Limit (Textile) | Result Untreated wastewater | Unit |
|---|------------|------------------------------|----------------------------------|------|
| AEEA [2-(2-aminoethylamino) ethanol] | 111-41-1 | 500 | ND | μg/L |
| Bisphenol A | 80-05-7 | 10 | ND | μg/L |
| Thiourea | 62-56-6 | 50 | ND | μg/L |
| Quinoline | 91-22-5 | 50 | ND | μg/L |
| Borate, zinc salt | 12767-90-7 | 100* | B: ND (ND)** Zn: 400 (1258)** | μg/L |

* Limit refers to boron and zinc individually, not the salt.

** Result in term of elemental boron / zinc (Result in term of the corresponding boron / zinc salt)



17. Perfluorinated and Polyfluorinated Chemicals (PFCs)

PFCs:

With reference to USEPA 537:2020 followed by LC-MS(-MS)

FTOH:

With reference to BS EN 12673-1999, USEPA 8270 E or Derivatization with acetic anhydride followed by GC-MS

| | | | Result | |
|---|------------|--|----------------------|------|
| Test Items | CAS no. | Reporting Limit (Textile and Leather) | Untreated wastewater | Unit |
| Perfluoro-octane-sulfonic acid (PFOS)* | 1763-23-1 | 0.01 | ND | μg/L |
| Perfluoro-octanoic acid (PFOA)** | 335-67-1 | 0.01 | ND | μg/L |
| Perfluoro-octane-sulfon-amide (PFOSA) | 754-91-6 | 0.01 | ND | μg/L |
| 1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA) | 27905-45-9 | 1 | ND | μg/L |
| 1H,1H,2H,2H-Perfluorodecanol (8:2 FTOH) | 678-39-7 | 1 | ND | μg/L |
| N-Methyl-perfluoro-octane-sulfon-amido-ethanol (N-Me-FOSE) | 24448-09-7 | 0.01 | ND | μg/L |
| N-Ethyl-Perfluoro-octane-sulfon-amido-ethanol (N-Et-FOSE) | 1691-99-2 | 0.01 | ND | μg/L |
| N-Methyl-perfluoro-octane-sulfon-amide (N-Me-FOSA) | 31506-32-8 | 0.01 | ND | μg/L |
| N-Ethyl-perfluoro-octane-sulfon-amide (N-Et-FOSA) | 4151-50-2 | 0.01 | ND | μg/L |
| 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 39108-34-4 | 1 | ND | μg/L |
| Methyl Perfluorooctanoate (Me-PFOA) | 376-27-2 | 1 | ND | μg/L |
| Ethyl Perfluorooctanoate (Et-PFOA) | 3108-24-5 | 1 | ND | μg/L |
| 8:2 Fluorotelomer methacrylate (8:2 FTMA) | 1996-88-9 | 1 | ND | μg/L |

* PFOS refer to its salts/derivative including PFOS-K (CAS No.: 2795-39-3), PFOS-Li (CAS No.: 29457-72-5), PFOS-NH₄ (CAS No.: 29081-56-9), PFOS-NH(OH)₂ (CAS No.: 70225-14-8), PFOS-N(C₂H₅)₄ (CAS No.: 56773-42-3) and POSF (CAS No.: 307-35-7)



** PFOA refer to its salts including PFOA-Na (CAS No.: 335-95-5), PFOA-K (CAS No.: 2395-00-8), PFOA-Ag (CAS No.: 335-93-3), PFOA-F (CAS No.: 335-66-0) and APFO (CAS No.: 3825-26-1)

18. Phthalates – including all other esters of ortho-phthalic acid

With reference to USEPA 8270 E, ISO 18856 or Dichloromethane extraction followed by GC-MS

| | | | Result | |
|--|-----------------------------------|--|----------------------|------|
| Test Items | CAS no. | Reporting Limit (Textile and Leather) | Untreated wastewater | Unit |
| Di-2-ethylhexyl phthalate (DEHP) | 117-81-7 | 10 | ND | μg/L |
| Dimethoxyethyl phthalate (DMEP) | 117-82-8 | 10 | ND | μg/L |
| Di-n-octyl phthalate (DNOP) | 117-84-0 | 10 | ND | μg/L |
| Di-iso-decyl phthalate (DIDP) | 26761-40-0 | 10 | ND | μg/L |
| Di-iso-nonyl phthalate (DINP) | 28553-12-0 | 10 | ND | µg/L |
| Di-n-hexyl phthalate (DnHP) | 84-75-3 | 10 | ND | μg/L |
| Dibutyl phthalate (DBP) | 84-74-2 | 10 | ND | µg/L |
| Butyl benzyl phthalate (BBP) | 85-68-7 | 10 | ND | µg/L |
| Dinonyl phthalate (DNP) | 84-76-4 | 10 | ND | μg/L |
| Diethyl phthalate (DEP) | 84-66-2 | 10 | ND | µg/L |
| Di-n-propyl phthalate (DPRP) | 131-16-8 | 10 | ND | µg/L |
| Di-iso-butyl phthalate (DIBP) | 84-69-5 | 10 | ND | µg/L |
| Di-cyclohexyl phthalate (DCHP) | 84-61-7 | 10 | ND | μg/L |
| Di-iso-octyl phthalate (DIOP) | 27554-26-3 | 10 | ND | µg/L |
| 1,2-benzenedicarboxylic acid, di-C7-11- branched and linearakyl esters (DHNUP) | 68515-42-4, 68515-50-4 | 10 | ND | μg/L |
| 1,2-benzenedicarboxylic acid, di-C6-8 branched and linearalkyl esters , C7-rich (DIHP) | 71888-89-6 <i>,</i> 84777-06-0 | 10 | ND | μg/L |
| Di-n-pentylphthalates | 131-18-0 | 10 | ND | μg/L |
| Diisopentylphthalates | 605-50-5 | 10 | ND | μg/L |



19. Polycyclic aromatic hydrocarbons (PAHs)

With reference to DIN 38407-39, USEPA 8270 E or Solvent extraction followed by GC-MS

| Test Items | CAS no. | Reporting Limit (Textile and Leather) | Result Untreated wastewater | Unit |
|-------------------------|-----------|--|--------------------------------|------|
| Benzo(a)pyrene (BaP) | 50-32-8 | 1 | ND | μg/L |
| Anthracene | 120-12-7 | 1 | ND | μg/L |
| Pyrene | 129-00-0 | 1 | ND | µg/L |
| Benzo(ghi)perylene | 191-24-2 | 1 | ND | µg/L |
| Benzo(e)pyrene | 192-97-2 | 1 | ND | μg/L |
| Indeno (1,2,3-cd)pyrene | 193-39-5 | 1 | ND | μg/L |
| Benzo(j)fluoranthene | 205-82-3 | 1 | ND | μg/L |
| Benzo(b)fluoranthene | 205-99-2 | 1 | ND | μg/L |
| Fluoranthene | 206-44-0 | 1 | ND | μg/L |
| Benzo(k)fluoranthene | 207-08-09 | 1 | ND | μg/L |
| Acenaphthylene | 208-96-8 | 1 | ND | μg/L |
| Chrysene | 218-01-9 | 1 | ND | μg/L |
| Dibenz(a,h)anthracene | 53-70-3 | 1 | ND | μg/L |
| Benzo(a)anthracene | 56-55-3 | 1 | ND | μg/L |
| Acenaphthene | 83-32-9 | 1 | ND | μg/L |
| Phenanthrene | 85-01-8 | 1 | ND | μg/L |
| Fluorene | 86-73-7 | 1 | ND | μg/L |
| Naphthalene | 91-20-3 | 1 | ND | μg/L |

20. Restricted Aromatic Amines (Cleavable from Azo-colourants)

With reference to USEPA 8270 E or Reduction step with sodium dithionite, solvent extraction followed by GC-MS and LC-MS/MS

| | i step with sodium dithionite, | | Result | | |
|--|--------------------------------|--|----------------------|------|--|
| Test Items | CAS no. | Reporting Limit (Textile and Leather) | Untreated wastewater | Unit | |
| 4,4'-Methylene-bis(2-chloroaniline) | 101-14-4 | 0.1 | ND | μg/L | |
| 4,4'-Diaminodiphenylmethane | 101-77-9 | 0.1 | ND | μg/L | |
| 4,4'-Oxydianiline | 101-80-4 | 0.1 | ND | μg/L | |
| 4-Chloroaniline | 106-47-8 | 0.1 | 0,7 | μg/L | |
| 3,3'-Dimethoxybenzidine | 119-90-4 | 0.1 | ND | μg/L | |
| 3,3'-Dimethylbenzidine | 119-93-7 | 0.1 | ND | μg/L | |
| p-Cresidine | 120-71-8 | 120-71-8 0.1 | | | |
| 2,4,5-Trimethylaniline | 137-17-7 | 0.1 | ND | μg/L | |
| 4,4'-Thiodianiline | 139-65-1 | 0.1 | ND | μg/L | |
| 4-Aminoazobenzene | 60-09-3 | 0.1 | ND | μg/L | |
| 2,4-Diaminoanisole | 615-05-4 | 0.1 | ND | μg/L | |
| 3,3'-Dimethyl-4,4'-diaminodiphenylmethane | 838-88-0 | 0.1 | ND | μg/L | |
| 2,6-Xylidine | 87-62-7 | 0.1 | ND | μg/L | |
| o-Anisidine | 90-04-0 | 0.1 | ND | μg/L | |
| 2-Naphthylamine | 91-59-8 | 0.1 | ND | μg/L | |
| 3,3'-Dichlorobenzidine | 91-94-1 | 0.1 | ND | μg/L | |
| 4-Aminobiphenyl | 92-67-1 | 0.1 | ND | μg/L | |
| Benzidine | 92-87-5 | 0.1 | ND | μg/L | |
| o-Toluidine | 95-53-4 | 0.1 | ND | μg/L | |
| 2,4-Xylidine | 95-68-1 | 0.1 | ND | μg/L | |
| 4-Chloro-o-toluidine | 95-69-2 | 0.1 | ND | μg/L | |
| 2,4-Diaminotoluene | 95-80-7 | 0.1 | ND | μg/L | |
| o-Aminoazotoluene | 97-56-3 | 0.1 | ND | µg/L | |
| 5-Nitro-o-toluidine | 99-55-8 | 0.1 | ND | μg/L | |
| 2-Naphthylammoniumacetate | 553-00-4 | 0.1 | ND | μg/L | |
| 2,4,5-trimethylaniline hydrochloride | 21436-97-5 | 0.1 | ND | μg/L | |
| 4-chloro-o-toluidinium chloride | 3165-93-3 | 0.1 | ND | μg/L | |
| 4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate | 39156-41-7 | 0.1 | ND | μg/L | |



21. UV Absorbers

With reference to ISO 22032, USEPA 527, USEPA 8270 E, USEPA 8321 B or Dichloromethane extraction followed by GC-MS or LC-MS(-MS)

| Test Items | CAS no. | | | Unit |
|--|------------|-----|----|------|
| 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6- (sec- butyl) phenol (UV-350) | 36437-37-3 | 100 | ND | μg/L |
| 2-(2H-benzotriazol-2-yl)-4,6- ditertpentylphenol (UV-328) | 25973-55-1 | 100 | ND | μg/L |
| 2-benzotriazol-2-yl-4,6-di-tertbutylphenol (UV-320) | 3846-71-7 | 100 | ND | μg/L |
| 2,4-Di-tert-butyl-6-(5-chlorobenzotriazole- 2-yl) phenol (UV-327) | 3864-99-1 | 100 | ND | μg/L |

22. Volatile organic compounds (VOCs)

Benzene: With reference to ISO 11423-1, ISO 20595, USEPA 8260 D, Purge and Trap or Headspace followed by GC-MS

m-cresol / o-cresol / p-cresol: With reference to BS EN 12637-1999, ISO 11423-1, USEPA 8270 E, Purge and Trap or Headspace followed by GC-MS Xylene: With reference to ISO 11423-1, USEPA 8260 D, Purge and Trap or Headspace followed by GC-MS

Toluene: With reference to ISO 11423-1, USEPA 8260 D or HJ 1067

| Test Items | CAS no. | Reporting Limit | Result Untreated wastewater | Unit |
|------------|-----------|--|--------------------------------|------|
| Benzene | 71-43-2 | Textile and Leather: 1 | ND | μg/L |
| Xylene | 1330-20-7 | Textile: 1 | ND | μg/L |
| o-cresol | 95-48-7 | Textile and Leather: 1 | ND | μg/L |
| p-cresol | 106-44-5 | Textile and Leather: 1 | ND | μg/L |
| m-cresol | 108-39-4 | Textile and Leather: 1 | ND | μg/L |
| Toluene | 108-88-3 | Textile: 1 (Sample and Report only for mock leather) | ND | μg/L |

Remark

ND = Not detected

NA = Not applicable

= Not required to be tested

(S) = The analysis was subcontracted to xxxxx lab for testing.

= Non accredited parameter



SLUDGE

23. Sludge Parameters - Step 1 – Conventional

pH: USEPA 9045 D or HJ 962

% Solids: USEPA 160.3 or HJ 613 at 105°C

Paint Filter Test: USEPA SW-846 or USEPA 9095 B

Fecal Coliform: USEPA 1681

| | | | | | Limit | | | | | Result | |
|-------------------|---------|-----------|---------------------------------|-----------|-----------|---------------------------------|-----------|---------------------------------|-----------------|--------------|-------|
| Test Items | CAS no. | Pathway A | Pathway B | Pathway C | Pathway D | Pathway E | Pathway F | Pathway G | Reporting Limit | Sludge | Unit |
| рН | - | and | Sample and Report Only | 5-11 | 5-11 | 5-11 | 6.5-9 | 6.5-9 | - | 8,4 | s.u. |
| % Solids | - | and | and | and | and | and | and | Sample and Report Only | - | 33,2 | % |
| Paint Filter Test | - | and | Sample and Report Only | and | Pass | Pass | Pass | Sample and Report Only | - | Not Observed | - |
| Fecal Coliform | - | and | and | and | and | Sample and Report Only | 1000 | 1000 | 1000 | 2120 | MPN/g |

24. Sludge Parameters – Step 1 – Anions

Preparation: USEPA 9013

Analysis: USEPA 9014, USEPA 9213 or HJ 745

| | | | Limit – Dry weight | | | | | | | Result | |
|------------|---------|---------------------------------|--------------------|-----------|-----------|-----------|-----------|-----------|------------------------------|--------|-------|
| Test Items | CAS no. | Pathway A | Pathway B | Pathway C | Pathway D | Pathway E | Pathway F | Pathway G | Reporting Limit (Textile) | Sludge | Unit |
| Cyanide | - | Sample and Report Only | and | 100 | 85 | 70 | 70 | 70 | 20 | ND | mg/kg |



25. Sludge Parameters – Step 1 – Metals

Sb, As, Cr, Co, Cd, Cu, Pb, Ni, Zn: Preparation: USEPA 3050 Analysis: USEPA 6010 D, USEPA 6020 B or HJ 803

Cr VI: Preparation: USEPA 3060 A Analysis: USEPA 7196 or USEPA 7199

Ba, Se, Ag: Preparation: USEPA 3050 Analysis: USEPA 6010 D or USEPA 6020 B

Hg: Preparation: option 1: USEPA 7471 B option 2: USEPA 3051 A Analysis: option 1: USEPA 7471 B, option 2: USEPA 6020 B or GB/T 22105.1 or HJ 923

| | | Limit – Dry weight | | Reporting Limit | Result | |
|------------------------|---------|--------------------------------------|---|-----------------|--------|-------|
| Test Items | CAS no. | Total Metals Threshold Values* | Max Total Metals limit for Pathway G | | Sludge | Unit |
| Arsenic (As) | Various | 10 | 75 | 5 | ND | mg/kg |
| Cadmium (Cd) | Various | 3 | 85 | 1 | ND | mg/kg |
| Mercury (Hg) | Various | 1 | 57 | 1 | ND | mg/kg |
| Lead (Pb) | Various | 10 | 840 | 5 | ND | mg/kg |
| Antimony (Sb) | Various | 12 | Sample and Report Only | 5 | ND | mg/kg |
| Cobalt (Co) | Various | 1600 | Sample and Report Only | 400 | ND | mg/kg |
| Nickel (Ni) | Various | 70 | 420 | 20 | 34 | mg/kg |
| Silver (Ag) | Various | 100 | Sample and Report Only | 50 | ND | mg/kg |
| Copper (Cu) | Various | 200 | 4300 | 50 | 174 | mg/kg |
| Zinc (Zn) | Various | 1000 | 7500 | 400 | 415 | mg/kg |
| Total Chromium (Cr) | Various | 100 | 3000 | 50 | 82 | mg/kg |
| Chromium VI (Cr VI) | Various | 50 | 50 | 20 | ND | mg/kg |
| Barium (Ba) | Various | 700 | Sample and Report Only | 200 | ND | mg/kg |
| Selenium (Se) | Various | 10 | 100 | 5 | ND | mg/kg |

st Leachate should be tested if Total Metals Threshold Values is exceeded in sludge.



26. Sludge Parameters - Step 1 - MRSL - Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers

NP/OP: Preparation: With reference to USEPA 3540 / 3541 - Soxhlet or USEPA 3550 - Ultrasonic

Analysis: With reference to ISO 18857-2 or ASTM D7065

NPEO/OPEO: Preparation: With reference to USEPA 3540 / 3541 - Soxhlet or USEPA 3550 - Ultrasonic

Analysis: With reference to ISO 18254-1, ISO 18857-2 or ASTM D7065

| | | | | Limit – | Dry we | eight | | | | Result | |
|-----------------------------------|---|-----------|---------------------------------|---------------------------------|-----------|-----------|-----------|-----------|---|--------|-------|
| Test Items | CAS no. | Pathway A | Pathway B | Pathway C | Pathway D | Pathway E | Pathway F | Pathway G | Reporting Limit (Textile and Leather) | Sludge | Unit |
| Octylphenol (OP) | 140-66-9/ 1806-26-4/ 27193-28-8 | and | Sample and Report Only | Sample and Report Only | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | ND | mg/kg |
| Nonylphenol (NP) | 104-40-5/ 11066-49- 2/ 25154-52- 3/84852-15-3 | and | Sample and Report Only | Sample and Report Only | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | ND | mg/kg |
| Octylphenolethoxylates (OPEOs) | 9002-93-1/9036-19- 5/68987-90-6 | and | Sample and Report Only | Sample and Report Only | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | ND | mg/kg |
| Nonylphenolethoxylates (NPEOs) | 2/27205 07 | and | Sample and Report Only | Sample and Report Only | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | ND | mg/kg |



27. Sludge Parameters - Step 1 - MRSL – Polycyclic Aromatic Hydrocarbons (PAHs)

Preparation: With reference to USEPA 3540 / 3541 - Soxhlet or USEPA 3550 - Ultrasonic

Clean-up: With reference to USEPA 3640

Analysis: With reference to USEPA 8270 E or HJ 805-2016

| | | | Limit - | - Dry we | eight | | | | Result | |
|-------------------------|-----------|---|----------------|-----------|-----------|-----------|-----------|------------------------------|--------|-------|
| Test Items | CAS no. | Pathway A Pathway B | Pathway C | Pathway D | Pathway E | Pathway F | Pathway G | Reporting Limit (Textile) | Sludge | Unit |
| Benzo(a)pyrene (BaP) | 50-32-8 | Sample Sample and and Report Repor Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Anthracene | 120-12-7 | Sample Sample and and Report Repor Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Pyrene | 129-00-0 | Sample Sample and and Report Repor Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Benzo(ghi)perylene | 191-24-2 | Sample Sample and and Report Repor Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Benzo(e)pyrene | 192-97-2 | Sample Sample and and Report Repor Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Indeno (1,2,3-cd)pyrene | 193-39-5 | Sample Sample and and Report Repor Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Benzo(j)fluoranthene | 205-82-3 | Sample Sample and and Report Repor Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Benzo(b)fluoranthene | 205-99-2 | Sample Sample and and Report Repor Only Only | and Report | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Fluoranthene | 206-44-0 | Sample Sample and and Report Repor Only Only | and Report | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Benzo(k)fluoranthene | 207-08-09 | Sample Sample and and Report Repor Only Only | and Report | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Acenaphthylene | 208-96-8 | Sample Sample and and Report Repor Only Only | and Report | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Chrysene | 218-01-9 | SampleSample and and | eSample and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |



| | | | - · | - · | | | | 1 | | | |
|-----------------------|--------|----------------|---------------------------------|---------------------------------|-----|-----|-----|-----|-----|----|-------|
| | | Report Only | Report Only | Report Only | | | | | | | |
| Dibenz(a,h)anthracene | 53-70- | | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Benzo(a)anthracene | 56-55- | and 3 | Sample and Report Only | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Acenaphthene | 83-32- | 9 and | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Phenanthrene | 85-01- | | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Fluorene | 86-73- | 7 and | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Naphthalene | 91-20- | and 3 | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |



28. Sludge Parameters - Step 1 - MRSL – Chlorotoluenes

Preparation: With reference to USEPA 3540 / 3541 - Soxhlet or USEPA 3550 - Ultrasonic

Clean-up: With reference to USEPA 3640

Analysis: With reference to USEPA 8270 E or HJ 605

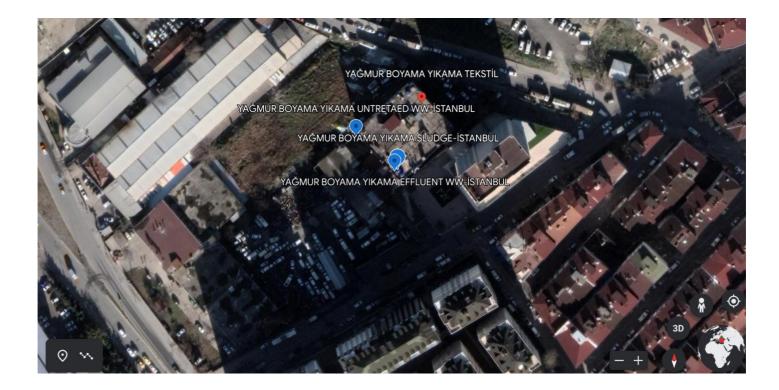
| | | | | Limit – | - Dry we | eight | | | Result | | |
|------------------------|------------|---------------------------------|-----------|---------------------------------|-----------|-----------|-----------|-----------|---|--------|-------|
| Test Items | CAS no. | Pathway A | Pathway B | Pathway C | Pathway D | Pathway E | Pathway F | Pathway G | Reporting Limit (Textile and Leather) | Sludge | Unit |
| 2-Chlorotoluene | 95-49-8 | and | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 3-Chlorotoluene | 108-41-8 | Sample and Report Only | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 4-Chlorotoluene | 106-43-4 | Sample and Report Only | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 2,3-Dichlorotoluene | 32768-54-0 | and | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 2,4-Dichlorotoluene | 95-73-8 | Sample and Report Only | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 2,5-Dichlorotoluene | 19398-61-9 | and | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 2,6-Dichlorotoluene | 118-69-4 | and | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 3,4-Dichlorotoluene | 95-75-0 | and | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 3,5-Dichlorotoluene | 25186-47-4 | Sample and Report Only | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 2,3,4-Trichlorotoluene | 7359-72-0 | Sample and Report Only | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 2,3,6-Trichlorotoluene | 2077-46-5 | and | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 2,4,5-Trichlorotoluene | 6639-30-1 | and | and | Sample and Report Only | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |



| | | - I - I - I | | | | | | | | |
|--------------------------------|------------|--|-----|-----|-----|-----|-----|-----|----|-------|
| 2,4,6-Trichlorotoluene | 23749-65-7 | SampleSample and and ReportReport Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 3,4,5-Trichlorotoluene | 21472-86-6 | SampleSample and and ReportReport Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 2,3,4,5- Tetrachlorotoluene | 76057-12-0 | SampleSample and and ReportReport Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 2,3,5,6- Tetrachlorotoluene | 29733-70-8 | SampleSample and and ReportReport Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| 2,3,4,6- Tetrachlorotoluene | 875-40-1 | SampleSample and and ReportReport Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |
| Pentachlorotoluene | 877-11-2 | SampleSample and and ReportReport Only Only | and | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ND | mg/kg |



PIPING PLAN







UNTREATED WASTEWATER

GPS Data: 41°01'38" N, 28°40'10" E

SAMPLING LOCATION, CLOSE-UP VIEW



SAMPLING LOCATION, FAR VIEW



EFFLUENT

GPS Data: 41°01'37" N, 28°40'10" E

SAMPLING LOCATION, CLOSE-UP VIEW

SAMPLING LOCATION, FAR VIEW





SLUDGE

GPS Data: 41°01'37" N, 28°40'11" E

SAMPLING LOCATION, CLOSE-UP VIEW





REGULATORY REQUIREMENTS TURKEY LOCAL DISCHARGE REGULATION TEXTILE INDUSTRY WASTEWATER DISCHARGE STANDARDS OF THE RECEIVING ENVIRONMENT

| Table 4: Textile Industry (Wool Washing, Finishing, weaving and etc.) | | | |
|---|---------|------------------|------------------|
| PARAMETER | | | |
| | | COMPOSITE SAMPLE | COMPOSITE SAMPLE |
| | UNIT | 2 HOURS | 24 HOURS |
| CHEMICAL OXYGEN DEMAND (COD) | (mg/L) | 400 | 300 |
| SUSPENDED SOLIDS | (mg/L) | 400 | 300 |
| AMMONIUM NITROGEN (NH4-N) | (mg/L) | 5 | - |
| FREE CHLORINE | (mg/L) | 0.3 | - |
| TOTAL CHROMIUM | (mg/L) | 2 | 1 |
| SULFUR (S ⁻ 2) | (mg/L) | 0.1 | - |
| SULPHITE | (mg/L) | 1 | - |
| OIL AND GREASE | (mg/L) | 200 | 100 |
| FISH BIOTEST | | 4 | 3 |
| рН | | 69 | 69 |
| COLOR | (Pt-Co) | 280 | 260 |

*** End of Report ***