



# TEST REPORT

**Technical Report:** (7221)056-0033

March 12<sup>th</sup>,2021

Date Received: March 3<sup>rd</sup>,2021

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PU No. 10090  
Production Unit Name: GAMATEKS TEKSTIL SAN. VE TIC. A.S  
Production Unit Address: ORGANIZE SANAYI BOLGESI AHMET UZ CADDESİ NO:14-16 20330 HONAZ-DENİZLİ/TURKEY  
Project No.: SCM 2021  
Client Reference No.: 10090  
Sample Method: I001) Raw Wastewater – 6 hours Time – weighted Composite

Sample Pick Up Date: March 2<sup>nd</sup>,2021  
Discharge Type: Indirect Discharge  
On-Site Effluent Treatment Plant (ETP): No

Wastewater Discharge to: Centralized ETP

Off-site ETP name (if applicable): Denizli Organized Industrial Zone

Off-site ETP address (if applicable): OSB Yasar Oncan Caddesi No: 1 20330 Honaz-Denizli

Test Period: March 3<sup>rd</sup>,2021- March 12<sup>th</sup>,2021

Sample Description:  
I001) Blurry blue/Blue/Red/Purple/Pink liquid – Raw Wastewater



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**REMARK1:** Please refer to Discharge Permission Letter and discharge criteria attached at the end of this report.

**REMARK**

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

General enquiry and invoicing

Kerem Can [Kerem.can@bureauveritas.com](mailto:Kerem.can@bureauveritas.com)

Technical enquiry-Chemical

Ayca Cevikus [Ayca.cevikus@bureauveritas.com](mailto:Ayca.cevikus@bureauveritas.com)

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

\* The sampling is agreed with client.

PREPARED BY: **Ayca Cevikus**  
**MEA CDM Manager**  
**Zero Discharge & Higg**  
**Verification &**  
**Environmental**

**Kerem Can**  
**Operation Manager**



**Executive Summary**

<b>1A) Conventional Parameters</b>	<b>I001</b>
Temperature	N/A
TSS	
COD	
Total-N	
pH Value	
Color [m <sup>-1</sup> ] (436nm; 525nm; 620nm)	
BOD <sub>5</sub>	
Ammonium-N	
Total-P	
AOX	
Oil and Grease	
Phenol	
Coliform	
Foam	
ANIONS – Cyanide	
ANIONS - Sulfide	
ANIONS - Sulfite	
<b>1B) Conventional Parameters –METALS</b>	<input type="checkbox"/>

Note / Key :

- –Meet discharge license criteria
- –Exceeding discharge license criteria
- NR – Not Requested / Not required
- N/A – Not Applicable

<b>ZDHC MRSL Substances</b>	<b>I001</b>
2A) APs and APEOs	o
2B) Chlorobenzenes and Chlorotoluenes	o
2C) Chlorophenols	o
2D) Azo Dyes	o
2E) Carcinogenic Dyes	o
2F) Disperse Dyes	o
2G) Flame Retardants	o
2H) Glycols	o
2I) Halogenated Solvents	o
2J) Organotin Compounds	o
2K) Perfluorinated and Polyfluorinated Chemicals	o
2L) Phthalates	o
2M) Poly Aromatic Hydrocarbons	●
2N) Volatile Organic Compounds	o

Note / Key :

- ● – Detected
- o – Not Detected
- NR – Not Requested
- N/A – Not Applicable



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## **Objective**

The environment samples were tested for below parameters.

- 1B) Conventional Parameters – METALS
- 2A) APs and APEOs
- 2B) Chlorobenzenes and Chlorotoluenes
- 2C) Chlorophenols
- 2D) Azo Dyes
- 2E) Carcinogenic Dyes
- 2F) Disperse Dyes
- 2G) Flame Retardants
- 2H) Glycols
- 2I) Halogenated Solvents
- 2J) Organotin Compounds
- 2K) Perfluorinated and Polyfluorinated Chemicals
- 2L) Phthalates
- 2M) Poly Aromatic Hydrocarbons
- 2N) Volatile Organic Compounds

## **Sampling Procedure**

Total number of sample collected is based on the actual factory facilities and manufacturing processes. One environment samples was sampled per factory, including 1) Raw Wastewater

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

Remark :

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



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1B) Conventional Parameters – METALS

<b>Heavy Metals</b>	<b>I001 (mg/L)</b>
Antimony( Sb ) Discharge License Criteria: Not applicable	0.022
Chromium( Cr ), total Discharge License Criteria: 1 mg/L	0.0496 (Comply with discharge license)
Cobalt( Co ) Discharge License Criteria: Not applicable	0.0021
Copper( Cu ) Discharge License Criteria: 15 mg/L	0.0514 (Comply with discharge license)
Nickel (Ni) Discharge License Criteria: Not applicable	0.0078
Silver (Ag) Discharge License Criteria: Not applicable	ND
Zinc( Zn ) Discharge License Criteria: 3 mg/L	2.1925 (Comply with discharge license)
Arsenic (As) Discharge License Criteria: Not applicable	0.0029
Cadmium( Cd ) Discharge License Criteria: 0.1 mg/L	ND (Comply with discharge license)
Lead( Pb ) Discharge License Criteria: 1 mg/L	0.0037 (Comply with discharge license)
Mercury (Hg) Discharge License Criteria: 0.1 mg/L	ND (Comply with discharge license)
Chromium VI( CrVI ) Discharge License Criteria: 0.5 mg/L	ND (Comply with discharge license)



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## 2M) Poly Aromatic Hydrocarbons

<b>Poly Aromatic Hydrocarbons</b>	<b>I001 (<math>\mu\text{g/L}</math>)</b>
Benzo[a]pyrene (BaP)	ND
Anthracene	ND
Pyrene	ND
Benzo[ghi]perylene	ND
Benzo[e]pyrene	ND
Indeno[1,2,3-cd]pyrene	ND
Benzo[j]fluoranthene	ND
Benzo[b]fluoranthene	ND
Fluoranthene	ND
Benzo[k]fluoranthene	ND
Acenaphthylene	ND
Chrysene	ND
Dibenz[a,h]anthracene	ND
Benzo[a]anthracene	ND
Acenaphthene	ND
Phenanthrene	ND
Fluorene	ND
Naphthalene	5.6

## Others Priority Chemical Groups

	<b>I001 (<math>\mu\text{g/L}</math>)</b>
2A) APs and APEOs	ND
2B) Chlorobenzenes and Chlorotoluenes	ND
2C) Chlorophenols	ND
2D) Azo Dyes	ND
2E) Carcinogenic Dyes	ND
2F) Disperse Dyes	ND
2G) Flame Retardants	ND
2H) Glycols	ND
2I) Halogenated Solvents	ND
2J) Organotin Compounds	ND
2K) Perfluorinated and Polyfluorinated Chemicals	ND
2L) Phthalates	ND
2N) Volatile Organic Compounds	ND

### Remark :

- Test method, reporting limit and list of chemical are summarized in tables of Appendix A.
- ND = Not detected (Please refer to reporting limit shown in Appendix A.).
- All results are in ppb as unit.
- ppm = part(s) per million; ppb = part(s) per billion.

**APPENDIX A - Photo of the Sample/ Sampling Location**

<p>I001) Sampling Point N/S 37° 48' 10.53" E/W 29° 14' 23.96"</p> 	<p>I001) Sampling Point Surrounding Environment N/S 37° 48' 10.53" E/W 29° 14' 23.96"</p> 
<p>I001) All sampled bottles with label</p> 	<p>I001) pH value</p> 
<p>I001) Sample for Phthalate Testing</p> 	<p>I001) Packaging</p> 



**APPENDIX B**

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

Group	Substance (analytes)	CAS No.	Detection Limit (µg/L)	Testing method
2A. Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	Octylphenol OP, mixed isomers	Various (incl. 140-66-9, 1806-26-4, 27193-28-8)	5	NP/OP: ISO 18857-2 (modified dichloromethane extraction) or ASTM D7065 (GC/MS or LC/MS(-MS))  OPEO/NPEO (n>2): ISO 18254-1 OPEO/NPEO: ISO18857-2 or ASTM D7065(LC/MS; GC/MS or LC/MSMS for n=1,2)
	Nonylphenol NP	Various (incl. 104-40-5, 11066-49-2, 25154-52-3, 84852-15-3)		
	Octylphenol ethoxylates (OPEO)	Various (incl. 9002-93-1, 9036-19-5, 68987-90-6)		
	Nonylphenol ethoxylates (NPEO)	Various (inc. 9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0)		
2B. Chlorobenzenes and Chlorotoluenes	Monochlorobenzene	108-90-7	0.2	USEPA 8260B,8270D. Dichloromethane extraction followed by GC/MS
	1,2-Dichlorobenzene	95-50-1		
	1,3-Dichlorobenzene	541-73-1		
	1,4-Dichlorobenzene	106-46-7		
	1,2,3-Trichlorobenzene	87-61-6		
	1,2,4-Trichlorobenzene	120-82-1		
	1,3,5-Trichlorobenzene	108-70-3		
	1,2,3,4-Tetrachlorobenzene	634-66-2		
	1,2,3,5-Tetraclorobenzene	634-90-2		
	1,2,4,5-Tetrachlorobenzene	95-94-3		
	Pentachlorobenzene	608-93-5		
	Hexachlorobenzene	118-74-1		
	2-Chlorotoluene	95-49-8		
	3-Chlorotoluene	108-41-8		
	4-Chlorotoluene	106-43-4		
	2,3-Dichlorotoluene	32768-54-0		
	2,4-Dichlorotoluene	95-73-8		
	2,5-Dichlorotoluene	19398-61-9		
	2,6-Dichlorotoluene	118-69-4		
	3,4-Dichlorotoluene	95-75-0		
	3,5-Dichlorotoluene	25186-47-4		
2,3,4-Trichlorotoluene	7359-72-0			
2,3,6-Trichlorotoluene	2077-46-5			
2,4,5-Trichlorotoluene	6639-30-1			
2,4,6-Trichlorotoluene	23749-65-7			
3,4,5-Trichlorotoluene	21472-86-6			
2,3,4,5-Tetrachlorotoluene	76057-12-0			
2,3,5,6-Tetrachlorotoluene	29733-70-8			
2,3,4,6-Tetrachlorotoluene	875-40-1			
Pentachlorotoluene	877-11-2			
2C. Chlorophenols	Pentachlorophenol (PCP)	87-86-5	0.5	USEPA 8270 D Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC/MS  ISO 14154:2005
	2,3,4,5-Tetrachlorophenol	4901-51-3		
	2,3,4,6-Tetrachlorophenol	58-90-2		
	2,3,5,6-Tetrachlorophenol	935-95-5		
	2,4,6-Trichlorophenol	88-06-2		
	2,3,5-Trichlorophenol	933-78-8		
	2,4,5-Trichlorophenol	95-95-4		
3,4,5-Trichlorophenol	609-19-8			





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Group	Substance (analytes)	CAS No.	Detection Limit (µg/L)	Testing method
	2,3,4-Trichlorophenol	15950-66-0		
	2,3,6-Trichlorophenol	933-75-5		
	2,3-Dichlorophenol	576-24-9		
	3,4-Dichlorophenol	95-77-2		
	2,4-Dichlorophenol	120-83-2		
	2,5-Dichlorophenol	583-78-8		
	2,6-Dichlorophenol	87-65-0		
	3,5-Dichlorophenol	591-35-5		
	2-Chlorophenol	95-57-8		
	3-Chlorophenol	108-43-0		
4-Chlorophenol	106-48-9			
2D. Dyes - Azo (Forming Restricted Amines)	4-Aminodiphenyl	92-67-1	0.1	EN 14362-1 EN 14362-3 Reduction step with Sodiumdithionite, solvent extraction, GC/MS or LC/MS
	Benzidine	92-87-5		
	4-Chloro-o-toluidine	95-69-2		
	2-Naphthylamine	91-59-8		
	o-Aminoazotoluene	97-56-3		
	5-nitro-o-toluidine	99-55-8		
	4-Chloroaniline	106-47-8		
	4-Methoxy-m-phenylenediamine	615-05-4		
	4,4'-methylenedianiline	101-77-9		
	3,3'-Dichlorobenzidine	91-94-1		
	3,3'-Dimethoxybenzidine	119-90-4		
	3,3'-Dimethylbenzidine	119-93-7		
	4,4'-Methylene-di-o-toluidine	838-88-0		
	6-methoxy-m-toluidine (p-Cresidine)	120-71-8		
	4,4'-Methylene-bis-(2-chloro-aniline)	101-14-4		
	4,4'-Oxydianiline	101-80-4		
	4,4'-Thiodianiline	139-65-1		
	o-Toluidine	95-53-4		
	4-Methyl-m-phenylenediamine	95-80-7		
	2,4,5-Trimethylaniline	137-17-7		
o-Anisidine	90-04-0			
4-Aminoazobenzene	60-09-3			
2,4-Xylidine	95-68-1			
2,6-Xylidine	87-62-7			
2E. Dyes- Carcinogenic or Equivalent Concern	C.I. Direct Black 38	1937-37-7	500	Liquid Extraction LC/MS
	C.I. Direct Blue 6	2602-46-2		
	C.I. Acid Red 26	3761-53-3		
	C.I. Basic Red 9	569-61-9		
	C.I. Direct Red 28	573-58-0		
	C.I. Basic Violet 14	632-99-5		
	C.I. Disperse Blue 1	2475-45-8		
	C.I. Disperse Blue 3	2475-46-9		
	C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5		
	C.I. Basic Green 4 (malachite green chloride)	569-64-2		
	C.I. Basic Green 4 (malachite green oxalate)	2437-29-8		
	C.I. Basic Green 4(malachite green)	10309-95-2		
	Disperse Orange 11	82-28-0		
2F. Dyes-disperse	Disperse Yellow 1	119-15-3	50	Liquid Extraction



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Group	Substance (analytes)	CAS No.	Detection Limit (µg/L)	Testing method
(sensitizing)	Disperse Blue 102	12222-97-8		LC/MS
	Disperse Blue 106	12223-01-7		
	Disperse Yellow 39	12236-29-2		
	Disperse Orange 37/59/76	13301-61-6		
	Disperse Brown 1	23355-64-8		
	Disperse Orange 1	2581-69-3		
	Disperse Yellow 3	2832-40-8		
	Disperse Red 11	2872-48-2		
	Disperse Red 1	2872-52-8		
	Disperse Red 17	3179-89-3		
	Disperse Blue 7	3179-90-6		
	Disperse Blue 26	3860-63-7		
	Disperse Yellow 49	54824-37-2		
	Disperse Blue 35	12222-75-2		
	Disperse Blue 124	61951-51-7		
	Disperse Yellow 9	6373-73-5		
Disperse Orange 3	730-40-5			
Disperse Blue 35	56524-77-7			
2G. Flame Retardants	Polybromobiphenyls (PBBs)	59536-65-1	5	USEPA 8270 ISO 22032, USEPA 527 and USEPA 8321B. Dichloromethane extraction GC/MS or LC/MS(-MS)
	Pentabromodiphenyl ether (PentaBDE)	32534-81-9		
	Octabromodiphenyl ether (OctaBDE)	32536-52-0		
	Decabromodiphenyl ether (DecaBDE)	1163-19-5		
	Tris(2,3-dibromopropyl) phosphate (TRIS/TDBPP)	126-72-7		
	Tetrabromobisphenol A (TBBPA)	79-94-7		
	Bis(2,3-dibromopropyl) phosphate (BIS/DBBP)	5412-25-9		
	Hexabromocyclododecane (HBCDD)	3194-55-6		
	2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0		
	Tris(aziridinyl)-phosphineoxide (TEPA)	545-55-1		
	Tris(2-chloroethyl) phosphate (TCEP)	115-96-8		
	Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8		
Short chain chlorinated paraffins (SCCPs) (C10-C13)	85535-84-8			
2H. Glycols	Bis(2-methoxyethyl)-ether	111-96-6	50	US EPA 8270 Liquid Extraction LC/MS GC-MS
	2-ethoxyethanol	110-80-5		
	2-ethoxyethyl acetate	111-15-9		
	Ethylene glycol dimethyl ether	110-71-4		
	2-methoxyethanol	109-86-4		
	2-methoxyethylacetate	110-49-6		
	2-methoxypropylacetate	70657-70-4		
Triethylene glycol dimethyl ether	112-49-2			
2I. Halogenated Solvents	1,2-Dichloroethane	107-06-2	1	USEPA 8260B Headspace GC/MS or Purge-and-Trap-GC/MS
	Methylene Chloride	75-09-2		
	Trichloroethylene	79-01-6		
	Tetrachloroethylene	127-18-4		



Group	Substance (analytes)	CAS No.	Detection Limit (µg/L)	Testing method
2J. Organotin Compounds	Monobutyltin (MBT)	Multiple	0.01	ISO 17353 Derivatisation with NaB(C <sub>2</sub> H <sub>5</sub> ) GC/MS
	Dibutyltin (DBT)	Multiple		
	Diocetyl tin (DOT)	Multiple		
	Tributyltin (TBT)	Multiple		
	Triphenyltin (TPhT)	Multiple		
	Tricyclohexyltin (TCyT)	Multiple		
	Triocetyl tin (TOT)	Multiple		
	Tripropyltin (TPT)	Multiple		
	Monooctyltin (MOT)	Multiple		
	Diphenyltin (DPhT)	Multiple		
	Tetrabutyltin (TeBT)	Multiple		
	Mono-, di- and tri-methyltin derivatives	Various		
	Mono-, di- and tri-butyltin derivatives	Various		
Mono-, di- and tri-phenyltin derivatives	Various			
Mono-, di- and tri-octyltin derivatives	Various			
2K. Perfluorinated and Polyfluorinated Chemicals (PFCs)	Perfluoro-n-octanoic acid (PFOA)	335-67-1	0.01	DIN 38407-42 (modified)  Ionic PFC: Concentration or direct injection, LC/MS(-MS);
	Perfluorobutanesulfonic acid (PFBS)	29420-49-3, 29420-43-3		
	Perfluorooctanesulfonic acid (PFOS)	355-46-4, 432-50-7		
	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4		
	8:2 FTOH	678-39-7	1	Non-ionic PFC (FTOH): derivatisation with acetic anhydride, followed by GC/MS
	6:2 FTOH	647-42-7		
2L. Phthalates (including all other esters of phthalic acid)	Butyl benzyl phthalate (BBP)	85-68-7	10	US EPA 8270D, ISO 18856 Dichloromethane extraction GC/MS
	Dibutyl phthalate (DBP)	84-74-2		
	Di-2-ethylhexyl phthalate (DEHP)	117-81-7		
	Di-n-octyl phthalate (DNOP)	117-84-0		
	Di-iso-nonyl phthalate (DINP)	28553-12-0		
	Di-iso-decyl phthalate (DIDP)	26761-40-0		
	Diethyl phthalate (DEP)	84-66-2		
	Di-n-propyl phthalate (DPRP)	131-16-8		
	Di-iso-butyl phthalate (DIBP)	84-69-5		
	Di-cyclohexyl phthalate (DCHP)	84-61-7		
	Di-n-hexyl phthalate (DnHP)	84-75-3		
	Dinonyl phthalate (DNP)	84-76-4		
	Di-iso-octyl phthalate (DIOP)	27554-26-3		
	Dimethoxyethyl phthalate (DMEP)	117-82-8		
1,2-benzenedicarboxylic acid, di-C7-11-branched and linearalkyl esters (DHNUP)	68515-42-4			
1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6			
2M. Poly Aromatic Hydrocarbons (PaHs)	Benzo[a]pyrene (BaP)	50-32-8	1	US EPA 8270 DIN 38407-39 Solvent extraction GC/MS
	Anthracene	120-12-7		
	Pyrene	129-00-0		
	Benzo[ghi]perylene	191-24-2		
	Benzo[e]pyrene	192-97-2		



Group	Substance (analytes)	CAS No.	Detection Limit (µg/L)			Testing method	
	Indeno[1,2,3-cd]pyrene	193-39-5					
	Benzo[j]fluoranthene	205-82-3					
	Benzo[b]fluoranthene	205-99-2					
	Fluoranthene	206-44-0					
	Benzo[k]fluoranthene	207-08-9					
	Acenaphthylene	208-96-8					
	Chrysene	218-01-9					
	Dibenz[a,h]anthracene	53-70-3					
	Benzo[a]anthracene	56-55-3					
	Acenaphthene	83-32-9					
	Phenanthrene	85-01-8					
	Fluorene	86-73-7					
Naphthalene	91-20-3						
2N. Volatile Organic Compound (VOCs)	Benzene	71-43-2	1			ISO 11423-1 Headspace- or Purge-and-Trap-GC/MS US EPA 8260	
	Xylene	1330-20-7					
	o-cresol	95-48-7					
	p-cresol	106-44-5					
	m-cresol	108-39-4					
Group	Parameter/substance	CAS No.	Limits (mg/L) or otherwise specified			Testing method	
1A. Conventional Parameters (sum parameters)	Temperature	—	▲5/ max. 25°C	▲10/ max. 30°C	▲15/ max. 35°C	Apply the standard methods that best apply to the region (ISO, EU, US, China), please refer to ZDHC Wastewater Guidelines for more details on the testing method	
	TSS	—	5	15	50		
	COD	—	40	80	150		
	Total-N	—	5	10	20		
	pH	—	6 - 9				
	Color [m-1] (436nm; 525nm; 620nm)	—	2;1;1	5;3;2	7;5;3		
	BOD5	—	5	15	30		
	Ammonium-N	—	0.5	1	10		
	Total-P	—	0.1	0.5	3		
	AoX	—	0.1	1	5		
	Oil and Grease	—	0.5	2	10		
	Phenol	—	0.001	0.01	0.5		
	Coliform(bacteria/100ml)	—	25/100 ml	100/100 ml	400/100 ml		
	Persistent Foam	—	No foam/ Dissipating/ Persistent				
	<b>ANIONS</b>						
Cyanide( CN-)	Various (incl. 57-12-5)	0.05	0.1	0.2			
Sulfide	—	0.01	0.05	0.5			
Sulfite	—	0.2	0.5	2			
Group	Parameter/substance	CAS No.	Detection Limit (mg/L)/ (ppm)	Limits (mg/L)			Testing method
1B. Conventional Parameters - METALS	Cadmium( Cd )	7440-43-9	0.0001	0.01	0.05	0.1	Apply the standard methods that best apply to the region (ISO, EU, US, China), please refer to ZDHC Wastewater Guidelines for more details on the testing method
	Lead( Pb )	7439-92-1	0.001	0.01	0.05	0.1	
	Mercury (Hg)	7439-97-6	0.00005	0.001	0.005	0.01	
	Silver (Ag)	7440-22-4	0.001	0.005	0.05	0.1	
	Cobalt( Co )	7440-48-4	0.001	0.01	0.02	0.05	
	Nickel (Ni)	7440-02-0	0.001	0.05	0.1	0.2	
	Antimony( Sb )	7440-36-0	0.001	0.01	0.05	0.1	
	Arsenic (As)	7440-38-2	0.001	0.005	0.01	0.05	
	Copper( Cu )	7440-50-8	0.001	0.25	0.5	1	
Zinc( Zn )	7440-66-6	0.001	0.5	1	5		



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Group	Substance (analytes)	CAS No.		Detection Limit (µg/L)			Testing method
	Chromium( Cr ), total	7440-47-3	0.001	0.05	0.1	0.2	
	Chromium VI( CrVI )	18540-29-9	0.001	0.001	0.005	0.05	

A: Aspirational P: Progressive F: Foundational

Note / Key :

ppm = part(s) per million; ppb = part(s) per billion  
U. S. EPA = United States Environmental Protection Agency  
APHA = American Public Health Association



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APPENDIX C – Onsite Field Data Record Sheet

FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE SAMPLING)		CPSD-AN-00613-DATA 05			
General Data		Issue Date:			
Laboratory Sample Number: 72210060033		Version No.:	0		
Client Name: GAMATEKS TEKSTİL SAN. VE TİC. A.Ş.		Business Line:	Analytical		
Field Contact Person: Güzem Nur Asri		Phone No: 90(255) 269 16 04			
Project (Facility Name and Address): Organize Sanayi Bölgesi, Ahmet Uz Caddesi, No:14-16 Denizli					
Sampling Location / Description: BEFORE TREATMENT					
Sample Identification: Zero discharge with sampling plan					
Sample Type: Composite sample					
Name of Sampler: T. İdris HANZA					
Discharge mode: Direct discharge to environment (Specify destination: River, Sea, Stream...)		DR <input checked="" type="radio"/> Direct discharge to sewage treatment plant			
Date of collection: 02.03.2021					
Factory Type: Dyeing/ Printing/ Washing/ Finishing/ Other (please specify)					
*Note: It would be selected more than one.					
Field Data for wastewater:					
Arrival Time:	11:30	Departure Time:	17:10		
Factory with effluent treatment plant	Yes		No		
Sample matrix	<input checked="" type="checkbox"/> Incoming water <input checked="" type="checkbox"/> Wastewater before treatment <input type="checkbox"/> Wastewater after treatment - pre-treatment				
Field Parameters	1	2	3		
Recording time	11:55	12:55	13:55		
pH:	9.85	6.70	8.89		
Temp (°C):	18.5	30.5	32.5		
Color:	Dark Blue	Blue	Red		
Flow rate (volume/time)					
Sample container number					
Volume collected, mL					
Total volume collected	Remark: Total volume collected must be greater than total of sample size required				
Analysis Required and Preservation Method					
Tests (MRSL Parameters)	Test required (Y)	Total of sample size	Type of container	Preservation method	
Combined test or Individual test (Remark 3)	1. Phthalate	√	1000 mL, total or 1000 mL, each	Amber Glass, wash with nitric acid, rinse thoroughly with distilled water and dry before use	Without adding acid Store sample at 5°C
	2. Chlorobenzenes, Chlorotoluene & Polynuclear aromatic hydrocarbons (PAHs)	√			
	3. SCCPs	√			
	4. APS	√			
5. APEDs	√	100 mL			
6. Chlorophenols & Cresols	√	100 mL			
7. Brominated and chlorinated Flame retardant	√	1000 mL			
8. Flame retardant	√	500 mL			
9. Dyes	√	10 mL			
10. Glycol	√	50 mL			
11. *Pesticides		1000 mL			
12. *Nitrosamine		10 mL			
13. Banned Azodyes	√	2000 mL			
14. *Free primary aromatic amines		500mL			



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15. Organotin Compounds	✓	500 mL	Amber Glass, wash with nitric acid; Pre-add 6.5 mL of 2M HCl	Acidity to pH 2 with HCl and store sample at 6°C
16. Chlorinated solvent / Volatile organic compounds (VOCs)	✓	10 mL		Fill to full container without air gap; acidity to pH 2 with HCl and store sample at 6°C
17. PPCs	✓	2 mL	PE, wash with pesticide grade Acetone;	Without adding acid Store sample at 6°C
<b>Tests (Conventional Parameters)</b>				
<b>Combined test or individual test (Remark 3)</b>		<b>Total of sample size</b>	<b>Type of container</b>	<b>Preservation method</b>
16. Total suspended solids (TSS)	16. Total suspended solids (TSS)	2000 mL total or 3000 mL each	Amber Glass, wash with nitric acid, rinse thoroughly with distilled water and dry before use	Without adding acid Store sample at 6°C
	16. Total dissolved solids (TDS)			
20. 5-day Biochemical Oxygen Demand (BOD5)		1000 mL		
21. Heavy Metals except Cr(VI)	✓	9 mL	PE, wash with nitric acid, pre-add 0.5mL of 2M HNO3	Acidity to pH 2 with HNO3 and store at 6°C
22. Cr(VI)	✓	95 mL	Amber Glass, wash with pesticide grade acetone	Fill to 0.45µm filter in basic; fill to full container without air gap; adjust pH to 5.0-9.5 by adding ammonium buffer Store sample at 6°C
23. Cyanide		500 mL		Adjust pH 13 with 50% NaOH, add 0.05 mL of 10% Na2S2O3, and store sample at 6°C
24. Chemical oxygen demand (COD)		150 mL	Amber Glass, wash with nitric acid, Pre-add 0.5 mL of 2M H2SO4	Acidity to pH 2 with H2SO4 Store sample at 6°C
25. Phenols		600 mL		
26. Adsorbable organically bound halogens (AOX)		100 mL	Amber Glass, wash with nitric acid, pre-add 0.5mL of 2M HNO3	Add 0.05 mL of 10% Na2SO3, acidity to pH 2 with H2SO4, Store sample at 6°C
28. Sulfide (Remark 4)		50 mL	PE, wash with pesticide grade Acetone;	Fill to full container without air gap; add 2 drops of 2M zinc acetate, adjust pH to 8 with 6M NaOH Store sample at 6°C
Observation/ Remark:				

**Remarks:**

- The minimum sampling time for 2016 ZDCH guideline is 6 hours with no more than one hour between discrete samples. Sampling time could be adjusted upon request.
- Free primary aromatic amine, pesticides, nitrosamine and TDS are not in the scope of ZDCH Guideline 2016, they are tested upon request.
- Refer to CPBD-AN-G00010-STP01, Isotations with those CPBD test capability inside TGD matrix can perform the combined test.
- Refer to CPBD-AN-G00070-MTHD for additional pretreatment of sulfide if only dissolved sulfide is required to be tested.

**Comment from factory:**

Recorded by: Pudon HANZA  
Full name:

Date: 02.03.2021

**Acknowledgment by factory:**

I hereby confirmed that Bureau Veritas has completed the stated sampling activity at captioned date, time and location. All sample(s) is/are collected in designated container(s) and without any observation in leakage. Sample(s) collected by Bureau Veritas is/are stored in portable freezer / fridge that is maintained in 1-4°C.

**Signature of Factory Representative:**

Gidem Nur Asri  
Full Name:

Date: 02.03.2021

**Field Data for Sludge**

Field Parameters	pH:	Temp:	°C	Color:
Control No. of field equipment				

**GAMATEKS**  
TESTIL SAN. ve TIC. A.Ş.  
Ticaret Sicil No:10141  
Tic. Sicil No:1900  
Barayir V.D. 388 005 4104 DENİZLİ

**Analysis Required and Preservation Method**

Factory with effluent treatment plant:	Yes	No
Sample matrix	Sludge in clarifier (sedimentation tank)	

## APPENDIX D – Limitation Value of Legal Requirements



**DENİZLİ  
ORGANİZE SANAYİ BÖLGESİ  
MÜDÜRLÜĞÜ**



### DOSB MERKEZİ ATIKSU ARITMA TESİSİ GİRİŞ PARAMETRE DEĞERLERİ

SIRA NO	PARAMETRE	BİRİM	MİKTAR(*)
1	Kimyasal Oksijen İhtiyacı (KOİ)	mg/L	1.500
2	Biyokimyasal Oksijen İhtiyacı (BOİ <sub>5</sub> )(**)	mg/L	350
3	Askıda Katı Madde (AKM)	mg/L	320
4	Yağ ve Gres	mg/L	60
5	Toplam Fosfor	mg/L	7
6	Toplam Krom	mg/L	1
7	Krom (Cr <sup>+6</sup> )	mg/L	0,5
8	Kurşun (Pb)	mg/L	1
9	Toplam Siyanür (CN <sup>-</sup> )	mg/L	0,5
10	Kadmiyum (Cd)	mg/L	0,1
11	Demir (Fe)	mg/L	5
12	Florür (F <sup>-</sup> )	mg/L	5
13	Bakır (Cu)	mg/L	15
14	Çinko (Zn)	mg/L	3
15	Cıva (Hg)	mg/L	0,10
16	Sülfat (SO <sub>4</sub> )	mg/L	2.000
17	Toplam Kjeldahl Azotu	mg/L	40
18	Balık Biyodeneyi ( ZSF)	---	---
19	Sıcaklık	°C	40
20	pH	---	8,5-10,5