TEST REPORT

Technical Report	**(6721)155-0205**	June 16, 2021
Date Received	June 04, 2021	Page 1 of 21

Factory Company Name：	SHAHI EXPORTS (A UNIT OF SARLA FABRICS)
Factory Address:	30/2, LONI ROAD, MOHAN NAGAR-201007, GHAZIABAD (U.P)
Project No.:	/
Client Reference No.:	/
Sampling Method:	I001) Raw Wastewater – Time- weighted Composite I002) Discharged Wastewater – Time- weighted Composite
Sample Pick Up Date:	June 03, 2021
Wastewater Discharge to:	Direct Discharge
On-Site Effluent Treatment Plant (ETP):	YES
Discharge Type:	Direct Discharge
Off-site ETP name (if applicable):	/
Local Regulation: / Ordinance requirements related to wastewater discharged are followed:	/
Permit Validation Date:	/
Parameters Exceeded Local Regulation	N/A
Legal compliance:	N/A
Conventional Parameters Overall Category:	Exceed Foundational Limit
Test Period:	June 04, 2021 to June 16, 2021
Sample Description:	
	I001) Bluish liquid – Raw Wastewater I002) Colorless liquid – Discharged After treatment Wastewater
Parameters exceeded holding Time:	N/A

Bureau Veritas Consumer Products Services (India) Pvt. Ltd.,
C-19, Sec – 7 Noida (U.P.) 201301 PH: 4368283/205

ULR -TC631221000073740P

REMARK

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

PLEASE CONTACT:
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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.

BUREAU VERITAS CONSUMER PRODUCTS SERVICES (INDIA) PVT. LTD.

SIGNATORIES

RAHUL SRIVASTAVA
(Manager – Analytical)

1A) Conventional Parameters	**I001**	**I002**
Temperature	NR	☐
TSS		☐
COD		☐
Total-N		☐
pH Value		☐
Color [m^{-1}] (436nm; 525nm; 620nm)		☐
BOD_5		☐
Ammonium-N		☐
Total-P		☐
AOX		☐
Oil and Grease		☐
Phenol		☐
Coliform		☐
Persistent Foam		☐
ANIONS - Cyanide	☐	☐
ANIONS - Sulfide	NR	☐
ANIONS - Sulfite	NR	☐
1B) Conventional Parameters – METALS	■	☐

Note / Key :

- ☐ – Meet Foundational Limit / Meet discharge license criteria/ Meet Reporting Limit
- ■ – Exceeding Foundational Limit / Exceeding discharge license criteria/Exceeding Reporting Limit
- NR – Not Requested / Not required

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ZDHC MRSL Substances	**I001**	**I002**
2A) APs and APEOs	o	o
2B) Chlorobenzenes and Chlorotoluenes	o	o
2C) Chlorophenols	o	o
2D) Azo Dyes	o	o
2E) Carcinogenic Dyes	o	o
2F) Disperse Dyes	o	o
2G) Flame Retardants	o	o
2H) Glycols	o	o
2I) Halogenated Solvents	o	o
2J) Organotin Compounds	o	o
2K) Perfluorinated and Polyfluorinated Chemicals	o	o
2L) Phthalates	o	o
2M) Poly Aromatic Hydrocarbons	o	o
2N) Volatile Organic Compounds	o	o

Note / Key :

- ● – Detected

- o – Not Detected
- N/A – Not Applicable

Objective

The environment samples were tested for below parameters.

1A) Conventional 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 Plan

Basically, two environment samples were sampled per factory, including 1) Discharged Wastewater (Raw wastewater) and 2) Discharged Wastewater (Treated wastewater). Total number of sample collected will be depended on the actual factory facilities and manufacturing processes.

Method of sampling used is time-weighted composite grab samples (agreed with client.). Composite sampling shall be performed for no less than six hours, with no more than one hour between discrete samples. Each discrete sample shall be of equal volume. Wastewater and freshwater samples should, as much as possible, be collected simultaneously, during the time that PU is in normal operation. The sampling shall aim 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 data records are attached in Appendix B.

Test Result

1A) Conventional Parameters

Temperature

Test Method : Measurement by thermometer

Tested Item(s)	Result	Unit	Conclusion
I002	34 (Foundational)	deg. C	DATA

Note:

deg. C = degree Celsius (°C)
Foundational Limit: ▲15 / max. 35°C; Progressive Limit: ▲10 / max. 30°C; Aspirational Limit: ▲5 / max. 25°C

Total Suspended Solids (TSS)

Test Method : APHA 2540D

Tested Item(s)	Result	Unit	Conclusion
I002	9 (Progressive)	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 50 mg/L; Progressive Limit: 15 mg/L; Aspirational Limit: 5 mg/L

Chemical Oxygen Demand (COD)

Test Method : APHA 5220D

Tested Item(s)	Result	Unit	Conclusion
I002	56 (Progressive)	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 150 mg/L; Progressive Limit: 80 mg/L; Aspirational Limit: 40 mg/L

Total Nitrogen (Total-N)

Test Method : APHA 4500-Norg-B

Tested Item(s)	Result	Unit	Conclusion
I002	1.12 (Aspirational)	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 20 mg/L; Progressive Limit: 10 mg/L; Aspirational Limit: 5 mg/L

pH Value

Test Method : Reference to ISO 10523

-	Unit	Result
Test Item(s)	-	I002
Parameter	-	-
Temp. of sample	deg. C	34
pH value of sample		7.5 (Comply with ZDHC WWG requirements)
Conclusion	-	DATA

Note:

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

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

Test Method : With reference to ISO 7887-B

Tested Item(s)	Result	Unit	Conclusion
I002	0.9;0.7;0.7 (Aspirational)	m^{-1}	DATA

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

Biochemical Oxygen Demand (BOD_5)

Test Method : APHA 5210B

Tested Item(s)	Result	Unit	Conclusion
I002	12 (Progressive)	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 30 mg/L; Progressive Limit: 15 mg/L; Aspirational Limit: 5 mg/L

Ammonia Nitrogen

Test Method : APHA 4500 NH_3-C

Tested Item(s)	Result	Unit	Conclusion
I002	< 1.0 (Aspirational)	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 10 mg/L; Progressive Limit: 1 mg/L; Aspirational Limit: 0.5 mg/L

Total Phosphorus (Total-P)

Test Method **:** APHA 4500P-D

Tested Item(s)	Result	Unit	Conclusion
I002	<0.05 (Aspirational)	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 3 mg/L; Progressive Limit: 0.5 mg/L; Aspirational Limit: 0.1 mg/L

Adsorbable Organic Halogen (AOX)

Test Method **:** Reference to ISO 9562

Tested Item(s)	Result	Unit	Conclusion
I002	0.61 (Progressive)	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 5 mg/L; Progressive Limit: 1 mg/L; Aspirational Limit: 0.1 mg/L

Oil and Grease

Test Method **:** Reference to ISO 9377-2/ APHA 5520-B

Tested Item(s)	Result	Unit	Conclusion
I002	< 2.0 (Aspirational)	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 10 mg/L; Progressive Limit: 2 mg/L; Aspirational Limit: 0.5 mg/L

Phenol

Test Method **:** APHA 5530 C

Tested Item(s)	Result	Unit	Conclusion
I002	< 0.01 (Aspirational)	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 0.5 mg/L; Progressive Limit: 0.01 mg/L; Aspirational Limit: 0.001 mg/L

Coliform

Test Method : Reference to ISO 9308-1

Tested Item(s)	Result	Unit	Conclusion
I002	Absent (Aspirational)	bacteria/ 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
I002	No foam (Comply with ZDHC WWG requirements)	-	DATA

ANIONS - Sulfide

Test Method : APHA 4500 S^{2-}F

Tested Item(s)	Result	Unit	Conclusion
I002	< 2.0	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 0.5 mg/L; Progressive Limit: 0.05 mg/L; Aspirational Limit: 0.01 mg/L

ANIONS - Sulfite

Test Method : Reference to ISO 10304-3/ APHA 4500 $SO3^{2-}$B

Tested Item(s)	Result	Unit	Conclusion
I002	< 2.0 (Progressive)	mg/L	DATA

Note:

mg/L = milligram per liter
Foundational Limit: 2 mg/L; Progressive Limit: 0.5 mg/L; Aspirational Limit: 0.2 mg/L

1B) Conventional Parameters – METALS

Heavy Metals	**I001 *(µg/L)***	**I002 *(µg/L)***
Antimony(Sb) *Foundational Limit: 100 ug/L; Progressive Limit: 50 ug/L; Aspirational Limit: 10 ug/L*	ND (Aspirational)	ND (Aspirational)
Chromium(Cr), total *Foundational Limit: 200 ug/L; Progressive Limit: 100 ug/L; Aspirational Limit: 50 ug/L*	**1124** **(Exceed Foundational Limit)**	ND (Aspirational)
Cobalt(Co) *Foundational Limit: 50 ug/L; Progressive Limit: 10 ug/L; Aspirational Limit: 5 ug/L*	ND (Aspirational)	ND (Aspirational)
Copper(Cu) *Foundational Limit: 2000 ug/L; Progressive Limit: 100 ug/L; Aspirational Limit: 50 ug/L*	797 (Progressive)	ND (Aspirational)
Nickel (Ni) *Foundational Limit: 200 ug/L; Progressive Limit: 20 ug/L; Aspirational Limit: 5 ug/L*	190 (Progressive)	ND (Aspirational)
Silver (Ag) *Foundational Limit: 100 ug/L; Progressive Limit: 10 ug/L; Aspirational Limit: 1 ug/L*	ND (Aspirational)	ND (Aspirational)
Zinc(Zn) *Foundational Limit: 5000 ug/L; Progressive Limit: 1000 ug/L; Aspirational Limit: 100 ug/L*	639 (*Progressive*)	ND (Aspirational)
Arsenic (As) *Foundational Limit: 50 ug/L; Progressive Limit: 10 ug/L; Aspirational Limit: 5 ug/L*	2 (Aspirational)	2 (Aspirational)
Cadmium(Cd) *Foundational Limit: 100 ug/L; Progressive Limit: 5 ug/L; Aspirational Limit: 1 ug/L*	ND (Aspirational)	ND (Aspirational)
Lead(Pb) *Foundational Limit:100 ug/L; Progressive Limit: 10 ug/L; Aspirational Limit: 5 ug/L*	7 (Progressive)	ND (Aspirational)
Mercury (Hg) *Foundational Limit: 10 ug/L; Progressive Limit: 1 ug/L; Aspirational Limit: 0.5 ug/L*	ND (Aspirational)	ND (Aspirational)
Chromium VI(CrVI) *Foundational Limit: 50 ug/L; Progressive Limit: 5 ug/L; Aspirational Limit: 1 ug/L*	ND (Aspirational)	ND (Aspirational)
Cyanide(CN-) *Foundational Limit: 200 ug/L; Progressive Limit: 100 ug/L; Aspirational Limit: 50 ug/L*	ND (Aspirational)	ND (Aspirational)

Others Priority Chemical Groups

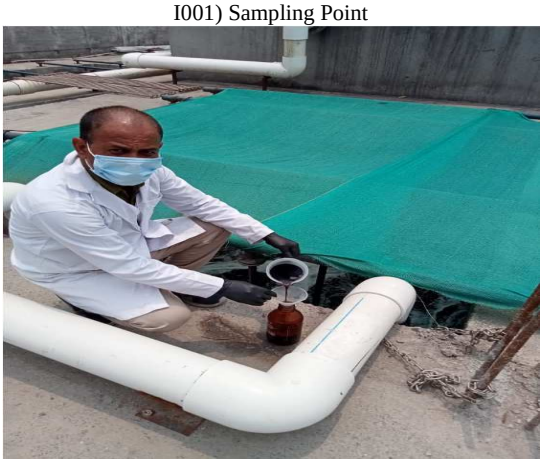
	I001 *(µg/L)*	**I002 *(µg/L)***
2A) APs and APEOs	ND	ND
2B) Chlorobenzenes and Chlorotoluenes	ND	ND
2C) Chlorophenols	ND	ND
2D) Azo Dyes	ND	ND
2E) Carcinogenic Dyes	ND	ND
2F) Disperse Dyes	ND	ND
2G) Flame Retardants	ND	ND
2H) Glycols	ND	ND
2I) Halogenated Solvents	ND	ND
2J) Organotin Compounds	ND	ND
2K) Perfluorinated and Polyfluorinated Chemicals	ND	ND
2L) Phthalates	ND	ND
2M) Poly Aromatic Hydrocarbons	ND	ND
2N) Volatile Organic Compounds	ND	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.
- NR – Not Requested / Not required

APPENDIX A - Photo of the Sample/ Sampling Location

I001) Sampling Point



Sampling location as per GPS
(North 28.6430668, East77.2890102)

I001) Sampling Point Surrounding Environment

Sampling location as per GPS
(North 28.6430668, East77.2890102)

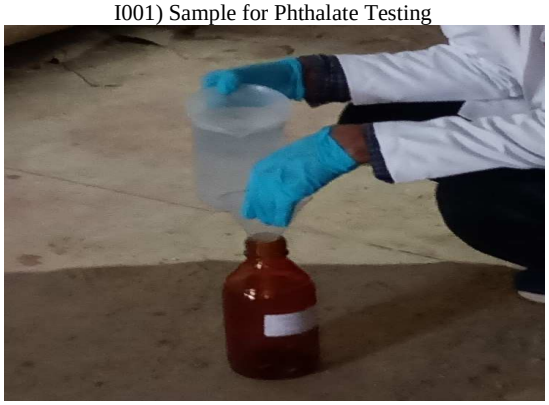
I001) pH Value

Sampling location as per GPS
(North 28.6430668, East77.2890102)

I001) All sampled bottles with label

Sampling location as per GPS
(North 28.6430668, East77.2890102)

I001) Sample for Phthalate Testing



Sampling location as per GPS
(North 28.6430668, East77.2890102)

I001) Packaging

Sampling location as per GPS
(North 28.6430668, East77.2890102)

I002) Sampling Point

Sampling location as per GPS
(North 28.6430668, East77.2890102)

I002) Sampling Point Surrounding Environment

Sampling location as per GPS
(North 28.6430668, East77.2890102)

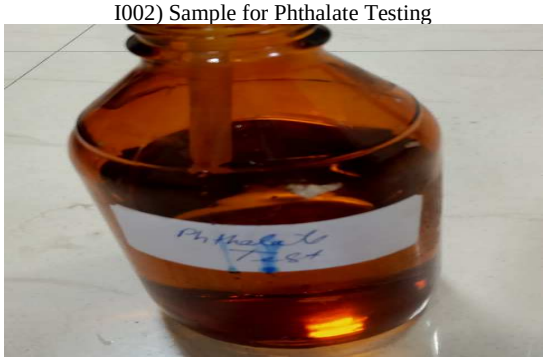
I002) pH Value

Sampling location as per GPS
(North 28.6430668, East77.2890102)

I002) All sampled bottles with label

Sampling location as per GPS
(North 28.6430668, East77.2890102)

I002) Sample for Phthalate Testing



Sampling location as per GPS
(North 28.6430668, East77.2890102)

I002) Packaging

Sampling location as per GPS
(North 28.6430668, East77.2890102)

APPENDIX B

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg)/(ppm)	
2A. Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	Nonylphenol NP, mixed isomers	Various (incl. 104-40-5, 11066-49-2, 25154-52-3, 84852-15-3)	5	0.4	NP/OP: ISO 18857-2 (modified dichloromethane extraction) or ASTM D7065 (GC/MS or LC/MS(-MS) OPEO/NPEO: ISO18857-2 or ASTM D7065(LC/MS; GC/MS or LC/MSMS for n=1,2) APEO 1-18
	Octylphenol OP, mixed isomers	Various (incl. 140-66-9, 1806-26-4, 27193-28-8)	5	0.4	
	Octylphenol ethoxylates (OPEO)	Various (incl. 9002-93-1, 9036-19-5, 68987-90-6)	5	0.4	
	Nonylphenol ethoxylates (NPEO)	Various (inc. 9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0)	5	0.4	
2B. Chlorobenzenes and Chlorotoluenes	Monochlorobenzene	108-90-7	0.2	0.2	USEPA 8260B,8270D. Dichloromethane extraction followed by GC/MS
	1,2-Dichlorobenzene	95-50-1	0.2	0.2	
	1,3-Dichlorobenzene	541-73-1	0.2	0.2	
	1,4-Dichlorobenzene	106-46-7	0.2	0.2	
	1,2,3-Trichlorobenzene	87-61-6	0.2	0.2	
	1,2,4-Trichlorobenzene	120-82-1	0.2	0.2	
	1,3,5-Trichlorobenzene	108-70-3	0.2	0.2	
	1,2,3,4-Tetrachlorobenzene	634-66-2	0.2	0.2	
	1,2,3,5-Tetraclorobenzene	634-90-2	0.2	0.2	
	1,2,4,5-Tetrachlorobenzene	95-94-3	0.2	0.2	
	Pentachlorobenzene	608-93-5	0.2	0.2	
	Hexachlorobenzene	118-74-1	0.2	0.2	
	2-Chlorotoluene	95-49-8	0.2	0.2	
	3-Chlorotoluene	108-41-8	0.2	0.2	
	4-Chlorotoluene	106-43-4	0.2	0.2	
	2,3-Dichlorotoluene	32768-54-0	0.2	0.2	
	2,4-Dichlorotoluene	95-73-8	0.2	0.2	
	2,5-Dichlorotoluene	19398-61-9	0.2	0.2	
	2,6-Dichlorotoluene	118-69-4	0.2	0.2	
	3,4-Dichlorotoluene	95-75-0	0.2	0.2	
	3,5-Dichlorotoluene	25186-47-4	0.2	0.2	
	2,3,4-Trichlorotoluene	7359-72-0	0.2	0.2	
	2,3,6-Trichlorotoluene	2077-46-5	0.2	0.2	
	2,4,5-Trichlorotoluene	6639-30-1	0.2	0.2	
	2,4,6-Trichlorotoluene	23749-65-7	0.2	0.2	
	3,4,5-Trichlorotoluene	21472-86-6	0.2	0.2	
	2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	0.2	
	2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	0.2	
	2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	0.2	
	Pentachlorotoluene	877-11-2	0.2	0.2	
2C. Chlorophenols	2-Chlorophenol	95-57-8	0.5	0.05	USEPA 8270 D Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC/MS
	3-Chlorophenol	108-43-0	0.5	0.05	
	4-Chlorophenol	106-48-9	0.5	0.05	
	2,3-Dichlorophenol	576-24-9	0.5	0.05	
	2,4-Dichlorophenol	120-83-2	0.5	0.05	
	2,5-Dichlorophenol	583-78-8	0.5	0.05	
	2,6-Dichlorophenol	87-65-0	0.5	0.05	
	3,4-Dichlorophenol	95-77-2	0.5	0.05	

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg) /(ppm)	
	3,5-Dichlorophenol	591-35-5	0.5	0.05	
	2,3,4-Trichlorophenol	15950-66-0	0.5	0.05	
	2,3,5-Trichlorophenol	933-78-8	0.5	0.05	
	2,3,6-Trichlorophenol	933-75-5	0.5	0.05	
	2,4,5-Trichlorophenol	95-95-4	0.5	0.05	
	2,4,6-Trichlorophenol	88-06-2	0.5	0.05	
	3,4,5-Trichlorophenol	609-19-8	0.5	0.05	
	2,3,4,5-Tetrachlorophenol	4901-51-3	0.5	0.05	
	2,3,4,6-Tetrachlorophenol	58-90-2	0.5	0.05	
	2,3,5,6-Tetrachlorophenol	935-95-5	0.5	0.05	
	Pentachlorophenol (PCP)	87-86-5	0.5	0.05	
2D. Dyes - Azo (Forming Restricted Amines)	4,4`-Methylene-bis-(2-chloro-aniline)	101-14-4	0.1	0.2	EN 14362. Reduction step with Sodiumdithionite, solvent extraction, GC/MS or LC/MS
	4,4'-methylenedianiline	101-77-9	0.1	0.2	
	4,4`-Oxydianiline	101-80-4	0.1	0.2	
	4-Chloroaniline	106-47-8	0.1	0.2	
	3,3`-Dimethoxybenzidine	119-90-4	0.1	0.2	
	3,3`-Dimethylbenzidine	119-93-7	0.1	0.2	
	6-methoxy-m-toluidine (p-Cresidine)	120-71-8	0.1	0.2	
	2,4,5-Trimethylaniline	137-17-7	0.1	0.2	
	4,4`-Thiodianiline	139-65-1	0.1	0.2	
	4-Aminoazobenzene	60-09-3	0.1	0.2	
	4-Methoxy-m-phenylenediamine	615-05-4	0.1	0.2	
	4,4`-Methylene-di-o-toluidine	838-88-0	0.1	0.2	
	2,6-Xylidine	87-62-7	0.1	0.2	
	o-Anisidine	90-04-0	0.1	0.2	
	2-Naphthylamine	91-59-8	0.1	0.2	
	3,3`-Dichlorobenzidine	91-94-1	0.1	0.2	
	4-Aminodiphenyl	92-67-1	0.1	0.2	
	Benzidine	92-87-5	0.1	0.2	
	o-Toluidine	95-53-4	0.1	0.2	
	2,4-Xylidine	95-68-1	0.1	0.2	
	4-Chloro-o-toluidine	95-69-2	0.1	0.2	
	4-Methyl-m-phenylenediamine	95-80-7	0.1	0.2	
	o-Aminoazotoluene	97-56-3	0.1	0.2	
	5-nitro-o-toluidine	99-55-8	0.1	0.2	
2E. Dyes-Carcionogenic or Equivalent Concern	C.I. Direct Black 38	1937-37-7	500	10	Liquid Extraction LC/MS
	C.I. Direct Blue 6	2602-46-2	500	10	
	C.I. Acid Red 26	3761-53-3	500	10	
	C.I. Basic Red 9	569-61-9	500	10	
	C.I. Direct Red 28	573-58-0	500	10	
	C.I. Basic Violet 14	632-99-5	500	10	
	C.I. Disperse Blue 1	2475-45-8	500	10	
	C.I. Disperse Blue 3	2475-46-9	500	10	
	C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	500	10	
	C.I. Basic Green 4 (malachite green chloride)	569-64-2	500	10	
	C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	500	10	
	C.I. Basic Green 4(malachite green)	10309-95-2	500	10	
	Disperse Orange 11	82-28-0	500	10	
2F. Dyes-disperse	Disperse Yellow 1	119-15-3	50	2	Liquid Extraction

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg)/(ppm)	
(sensitizing)	Disperse Blue 102	12222-97-8	50	2	LC/MS
	Disperse Blue 106	12223-01-7	50	2	
	Disperse Yellow 39	12236-29-2	50	2	
	Disperse Orange 37/59/76	13301-61-6	50	2	
	Disperse Brown 1	23355-64-8	50	2	
	Disperse Orange 1	2581-69-3	50	2	
	Disperse Yellow 3	2832-40-8	50	2	
	Disperse Red 11	2872-48-2	50	2	
	Disperse Red 1	2872-52-8	50	2	
	Disperse Red 17	3179-89-3	50	2	
	Disperse Blue 7	3179-90-6	50	2	
	Disperse Blue 26	3860-63-7	50	2	
	Disperse Yellow 49	54824-37-2	50	2	
	Disperse Blue 35	12222-75-2	50	2	
	Disperse Blue 124	61951-51-7	50	2	
	Disperse Yellow 9	6373-73-5	50	2	
	Disperse Orange 3	730-40-5	50	2	
	Disperse Blue 35	56524-77-7	50	2	
2G. Flame Retardants	Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	5	1	ISO 22032, USEPA527 and USEPA8321B. Dichloromethane extraction GC/MS or LC/MS(-MS)
	Decabromodiphenyl ether (DecaBDE)	1163-19-5	5	1	
	Tris(2,3-dibromopropyl) phosphate (TRIS/TDBPP)	126-72-7	5	1	
	Pentabromodiphenyl ether (PentaBDE)	32534-81-9	5	1	
	Octabromodiphenyl ether (OctaBDE)	32536-52-0	5	1	
	Bis(2,3-dibromopropyl) phosphate (BIS/BDBPP)	5412-25-9	5	1	
	Tris(aziridinyl)-phosphineoxide (TEPA)	545-55-1	5	1	
	Polybromobiphenyls (PBBs)	59536-65-1	5	1	
	Tetrabromobisphenol A (TBBPA)	79-94-7	5	1	
	Hexabromocyclododecane (HBCDD)	3194-55-6	5	1	
	2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	5	1	
	Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	5	1	
	Short chain chlorinated paraffins (SCCPs) (C10-C13)	85535-84-8	5	1	
2H. Glycols	Bis(2-methoxyethyl)-ether	111-96-6	50	10	US EPA 8270 Liquid Extraction LC/MS
	2-ethoxyethanol	110-80-5	50	10	
	2-ethoxyethyl acetate	111-15-9	50	10	
	Ethylene glycol dimethyl ether	110-71-4	50	10	
	2-methoxyethanol	109-86-4	50	10	
	2-methoxyethylacetate	110-49-6	50	10	
	2-methoxypropylacetate	70657-70-4	50	10	
	Triethylene glycol dimethyl ether	112-49-2	50	10	
2I. Halogenated Solvents	1,2-Dichloroethane	107-06-2	1	2	USEPA 8260B Headspace GC/MS or Purgeand-Trap-GC/MS
	Methylene Chloride	75-09-2	1	2	
	Trichloroethylene	79-01-6	1	2	

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg)/(ppm)	
	Tetrachloroethylene	127-18-4	1	2	
2J. Organotin Compounds	Mono-, di- and tri-methyltin derivatives	Multiple	0.01	0.2	ISO 17353 Derivatisation with NaB(C2H5) GC/MS
	Mono-, di- and tri-butyltin derivatives	Multiple	0.01	0.2	
	Mono-, di- and tri-phenyltin derivatives	Multiple	0.01	0.2	
	Mono-, di- and tri-octyltin derivatives	Multiple	0.01	0.2	
	Monomethyltin	Multiple	0.01	0.2	
	Dimethyltin	Multiple	0.01	0.2	
	Trimethyltin	Multiple	0.01	0.2	
	Monobutyltin	Multiple	0.01	0.2	
	Dibutyltin	Multiple	0.01	0.2	
	Tributyltin	Multiple	0.01	0.2	
	Monophenyltin	Multiple	0.01	0.2	
	Diphenyltin	Multiple	0.01	0.2	
	Triphenyltin	Multiple	0.01	0.2	
	Monooctyltin	Multiple	0.01	0.2	
	Dioctyltin	Multiple	0.01	0.2	
	Trioctyltin	Multiple	0.01	0.2	
2K. Perfluorinated and Polyfluorinated Chemicals (PFCs)	Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.01	0.10	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
	Perfluoro-n-octanoic acid (PFOA)	335-67-1	0.01	0.10	
	Perfluorobutanesulfonic acid (PFBS)	29420-49-3, 29420-43-3	0.01	0.10	
	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	0.01	0.10	
	8:2 FTOH	678-39-7	1	1	
	6:2 FTOH	647-42-7	1	1	
2L. Phthalates (including all other esthers of phthalic acid)	Di-2-ethylhexyl phthalate (DEHP)	117-81-7	10	2	US EPA 8270D, ISO 18856 Dichloromethane extraction GC/MS
	Dimethoxyethyl phthalate (DMEP)	117-82-8	10	2	
	Di-n-octyl phthalate (DNOP)	117-84-0	10	2	
	Di-iso-decyl phthalate (DIDP)	26761-40-0	10	2	
	Di-iso-nonyl phthalate (DINP)	28553-12-0	10	2	
	Di-n-hexyl phthalate (DnHP)	84-75-3	10	2	
	Dibutyl phthalate (DBP)	84-74-2	10	2	
	Butyl benzyl phthalate (BBP)	85-68-7	10	2	
	Dinonyl phthalate (DNP)	84-76-4	10	2	
	Diethyl phthalate (DEP)	84-66-2	10	2	
	Di-n-propyl phthalate (DPRP)	131-16-8	10	2	
	Di-iso-butyl phthalate (DIBP)	84-69-5	10	2	
	Di-cyclohexyl phthalate (DCHP)	84-61-7	10	2	
	Di-iso-octyl phthalate (DIOP)	27554-26-3	10	2	
	1,2-benzenedicarboxylic acid, di-C7-11-branched and linearalkyl esters	68515-42-4	10	2	

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg) /(ppm)	
	(DHNUP)				
	1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	10	2	
2M. Poly Aromatic Hydrocarbons (PaHs)	Benzo[a]pyrene (BaP)	50-32-8	1	0.2	DIN 38407-39 Solvent extraction GC/MS
	Anthracene	120-12-7	1	0.2	
	Pyrene	129-00-0	1	0.2	
	Benzo[ghi]perylene	191-24-2	1	0.2	
	Benzo[e]pyrene	192-97-2	1	0.2	
	Indeno[1,2,3-cd]pyrene	193-39-5	1	0.2	
	Benzo[j]fluoranthene	205-82-3	1	0.2	
	Benzo[b]fluoranthene	205-99-2	1	0.2	
	Fluoranthene	206-44-0	1	0.2	
	Benzo[k]fluoranthene	207-08-9	1	0.2	
	Acenaphthylene	208-96-8	1	0.2	
	Chrysene	218-01-9	1	0.2	
	Dibenz[a,h]anthracene	53-70-3	1	0.2	
	Benzo[a]anthracene	56-55-3	1	0.2	
	Acenaphthene	83-32-9	1	0.2	
	Phenanthrene	85-01-8	1	0.2	
	Fluorene	86-73-7	1	0.2	
	Naphthalene	91-20-3	1	0.2	
2N. Volatile Organic Compound (VOCs)	Benzene	71-43-2	1	2	ISO 11423-1 Headspace- or Purge-and-Trap-GC/MS
	Xylene	1330-20-7	1	2	
	o-cresol	95-48-7	1	2	
	p-cresol	106-44-5	1	2	
	m-cresol	108-39-4	1	2	
1A. Conventional Parameters	Temperature	—	N/A	N/A	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 and the levels (Foundational, Progressive, and Aspirational). Cyanide: With reference to APHA 4500 CN—B,C&E and followed by UV analysis
	TSS	—	N/A	N/A	
	COD	—	N/A	N/A	
	Total-N	—	N/A	N/A	
	pH	—	N/A	N/A	
	Color [m^{-1}] (436nm; 525nm; 620nm)	—	N/A	N/A	
	BOD5	—	N/A	N/A	
	Ammonium-N	—	N/A	N/A	
	Total-P	—	N/A	N/A	
	AoX	—	N/A	N/A	
	Oil and Grease	—	N/A	N/A	
	Phenol	—	N/A	N/A	
	Coliform(bacteria/100ml)	—	N/A	N/A	
	Persistent Foam	—	Not visible	Not visible	
	ANIONS				
	Cyanide(CN-)	Various (incl. 57-12-5)	0.02	1	
	Sulfide	—	N/A	N/A	
	Sulfite	—	N/A	N/A	

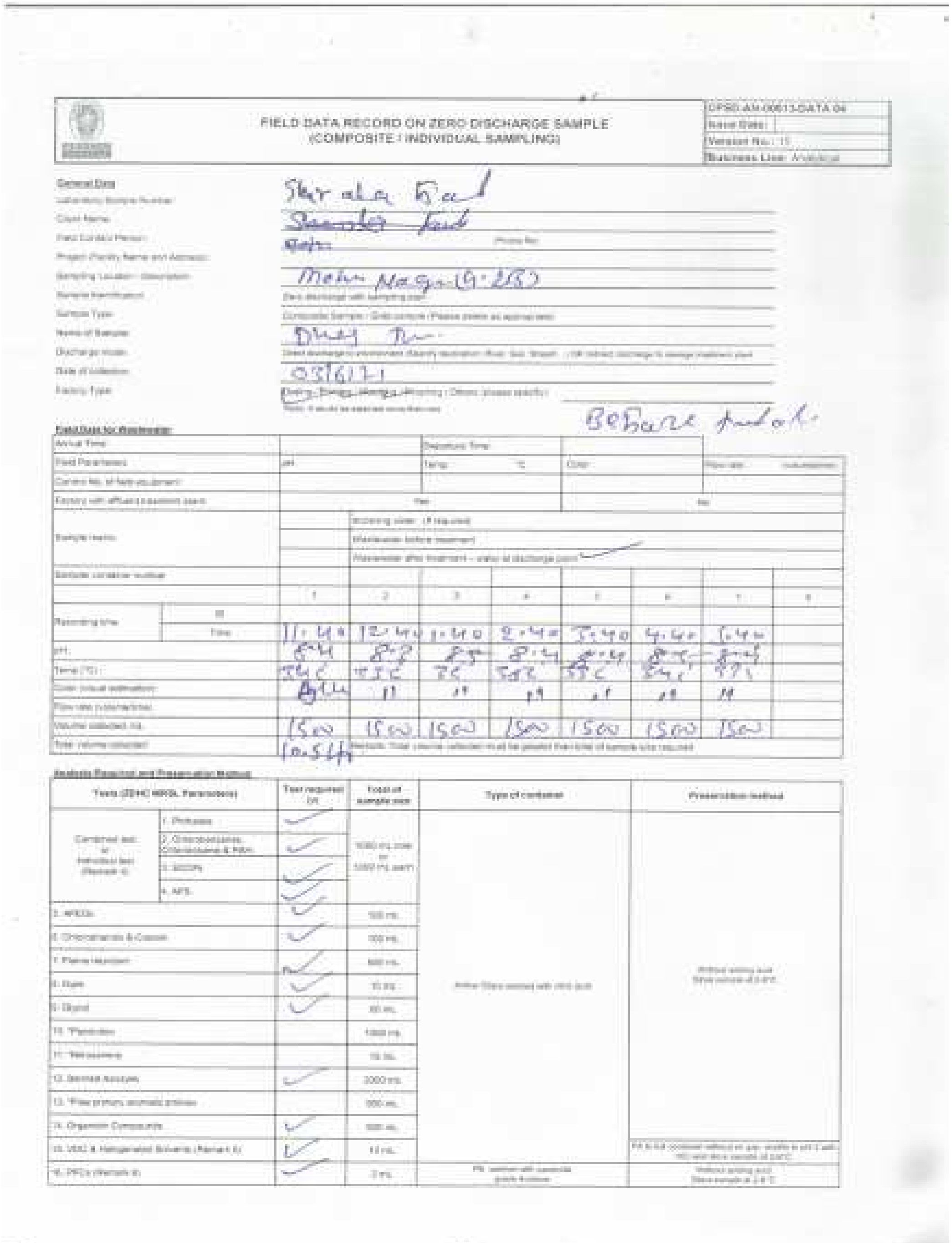
Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (mg/L) / (ppm)	Sludge (mg/kg) / (ppm)	
1B. Conventional Parameters - **METALS**	Antimony(Sb)	7440-36-0	0.001	N/A	Various Acid Digestion with ICP analysis please refer to ZDHC
	Chromium(Cr), total	7440-47-3	0.001	N/A	
	Cobalt(Co)	7440-48-4	0.001	N/A	
	Copper(Cu)	7440-50-8	0.001	N/A	
	Nickel (Ni)	7440-02-0	0.001	N/A	

Group	Substance (Testing parameter)	CAS No.	Report Limit		Name of the testing method
			Wastewater (ug/L)/(ppb)	Sludge (mg/kg) /(ppm)	
	Silver (Ag)	7440-22-4	0.001	N/A	Wastewater Guidelines for more details on the testing method and the levels (Foundational, Progressive, and Aspirational). Cr(VI): Various Solvent extraction and derivatisation followed by UV analysis
	Zinc(Zn)	7440-66-6	0.001	N/A	
	Arsenic (As)	7440-38-2	0.001	2	
	Cadmium(Cd)	7440-43-9	0.0001	2	
	Chromium VI(CrVI)	18540-29-9	0.001	2	
	Lead(Pb)	7439-92-1	0.001	2	
	Mercury (Hg)	7439-97-6	0.00005	0.2	
3. Conventional Parameters	Dry mass (total solids)	—	N/A	N/A	US EPA 160.3 / 209A

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

APPENDIX C – Onsite Field Data Record Sheet



FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE
(COMPOSITE / INDIVIDUAL SAMPLING)

Version No.: 11
Business Line: Analytical

General Data

	1	2	3	4	5	6	7	8
Time	11:40	12:40	1:40	2:40	3:40	4:40	5:40	
pH	8.4	8.2	8.5	8.4	8.4	8.5	8.4	
Temp (°C)	34 C	35 C	35	33	33 C	34	33	
Volume collected, mL	1500	1500	1500	1500	1500	1500	1500	
Total volume collected	10.5 Lt							

Analysis Required and Preservation Method

FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-[illegible]-DATA [illegible]
	Issue Date:
	Version No.: [illegible]
	Business Line: Analytical

General Data

Laboratory Sample Number:	(6721) – 155 0205
Client Name:	Shanta [illegible]
Field Contact Person:	Phone No:
Project (Facility Name and Address):	30/2 Mohammadpur [illegible] (4 Z B)
Sampling Location / Description:	Mohammadpur
Sample Identification:	Zero discharge with sampling plan
Sample Type:	Composite Sample / Grab Sample (Please delete as appropriate)
Name of Sampler:	[illegible]
Discharge mode:	Direct discharge to environment [illegible] / Indirect discharge to sewage treatment plant
Date of collection:	07/6/13
Factory Type:	Dyeing/Printing / Washing / Finishing / Others (please specify):

AF

Field Data for Wastewater

Arrival Time:	11:20		Departure Time:					
Field Parameters:	pH: 7.5		Temp: °C		Color:		Flow rate:	[illegible]
Control No. of field equipment:								
Factory with effluent treatment plant:	Yes				No			
Sample matrix:		Incoming water (Pre-course)						
		Wastewater before treatment						
		Wastewater after treatment – water at discharge point ✓						
Sample container number:								
	1	2	3	4	5	6	7	8
Recording time – ID								
Recording time – Time	11:30	12:30	1:50	2:50	3:70	4:50	5:30	
pH:	7.8	7.6	7.5	7.6	7.5	7.4	7.5	
Temp (°C):	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Color (visual description):	Treated		11	11	11	11	11	
Flow rate (volume/time):								
Volume collected: mL	2000	2000	2000	2000	2000	2000	2000	
Total volume collected:	14L	Remarks: Total volume collected must be greater than total of sample size required						

Analysis Required and Preservation Method

Tests (ZDHC MRSL Parameters)		Test required (✓)	Total of sample size	Type of container	Preservation method
Combined test or individual test (Remark A)	1. Phthalates	✓	1000 mL total or 1000 mL each	Amber Glass washed with nitric acid	Without adding acid; Store sample at 2-8°C
	2. Chlorobenzenes, Chlorotoluene & PAH	✓			
	3. SCCPs	✓			
	4. APR	✓			
5. APEOs		✓	100 mL		
6. Chlorophenols & Cresols		✓	100 mL		
7. Flame retardant		✓	500 mL		
8. Dyes		✓	10 mL		
9. Glycol		✓	60 mL		
10. [illegible]			1000 mL		
11. [illegible]		—	10 mL		
12. Banned Azo dyes		—	1000 mL		
13. [illegible] primary aromatic amines			500 mL		
14. Organotin Compounds		—	500 mL		
15. VOC & Halogenated Solvent (Remark E)		—	50 mL		Fill to full container without air gap [illegible]
16. PFCs (Remark B)		—	2 mL	PE washed with [illegible]	Without adding acid; Store sample at 2-8°C

CPSD-AN-00613-DATA 04
Issue Date:
Version No.: 13
Business Line: Analytical

FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)

Tests (Conventional Parameters)		Tick required (✓)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4)	17. Total suspended solids (TSS)	✓	2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid	Without adding acid. Store sample at 2-8°C
	18. Total dissolved solids (TDS)				
19. 5-day Biochemical Oxygen Demand (BOD5)		✓	1000 mL		
20. Colour		✓	100 mL		
21. Heavy Metals [illegible] & Total P (Remark 5)		✓	[illegible] mL	PE, washed with nitric acid	Acidify to pH 2 with HNO_3 and store at 2-8°C
22. Cyanide		✓	500 mL	Amber Glass, washed with pesticide grade acetone	[illegible]
23. Cr(VI)		✓	25 mL	Amber Glass washed with nitric acid	[illegible] Store sample at 2-8°C
24. Chemical oxygen demand (COD)		✓	100 mL		Acidify to pH 2 with H_2SO_4, Store sample at 2-8°C
25. Phenols		✓	500 mL		
26. Oil and Grease & Total Hydrocarbon		✓	1000 mL		
27. Formaldehyde			25 mL		[illegible]
28. Sulfide (Remark 5)		✓	50 mL	PE, washed with pesticide grade acetone	[illegible] Store sample at 2-8°C
29. Total Coliform (Remark 6)		✓	125 mL	PE, glass, sterile [illegible]	[illegible] Store sample at 2-8°C
30. Faecal Coliform (Remark 6)			125 mL		
31. Persistent foam		✓	N.A.	[illegible] Yes / No	
32. Sulfite		✓	100 mL	Amber Glass, washed with pesticide grade acetone	[illegible] Store sample at 2-8°C
33. Total-N		✓	100 mL	Amber Glass washed with nitric acid	Acidify to pH 2 with H_2SO_4, Store sample at 2-8°C
34. Ammonium-N		✓	500 mL		
35. Adsorbable organically bound halogens (AOX)		✓	100 mL		[illegible]
36. Acute aquatic toxicity: Luminous Bacteria, Fish Egg, Daphnia, Algae			1000 mL		Without adding acid. Store sample at 2-8°C
37. Sulphate			100 mL		
38. Chloride			100 mL		
39. Others					
Observation/ Remark					

Remarks:
1. Individual sampling can be performed upon request.
2. [illegible]
3. Scope of ZDHC guideline: Parameter [illegible]
Scope of [illegible] Parameter [illegible]
Scope of MMCP Parameter [illegible]
[illegible]
4. Refer to CPSD-AN-[illegible]
5. Refer to CPSD-AN-[illegible]
6. Refer to CPSD-AN-[illegible]

Recorded by: [signature] Full name: Date: 03/06/21

Comment from factory:

Acknowledgement by factory
[illegible]

Signature of Factory Representative: Neeraj Kumar Full Name: Date: 03/06/21