

Oct. 02, 2024

Oct. 02, 2024

Effluent: 4.4°C

Sludge: 5.3°C

3.30pm, 4.30pm

3.40pm, 4.40pm

Oct. 02 - 11, 2024

Untreated Wastewater: 4.8°C

Composite: 10.30am, 11.30am,

Composite: 10.40am, 11.40am,

12.30pm, 1.30pm, 2.30pm,

12.40pm, 1.40pm, 2.40pm,

TEST REPORT NO: 1002469715 Oct. 11, 2024

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Factory: DENIMACH WASHING LTD.

Address: KEWA MOUJA, WARD # 5, GORGORIA MASTERBARI,

SREEPUR, GAZIPUR, BANGLADESH

Contact Person: MD. JAHURUL ISLAM

Reference Testing Protocol:

esting ZDHC Wastewater Guidelines Version 2.1

Reference Sample Handling Method:

ZDHC Sampling and Analysis Plan (SAP) Version 2.1

nanding wethou.

Buyer Name: Self-Reference

Sampler accreditation certification number (ZDHC):

fication C74D106817971

Sludge Disposal Pathway:

E - Offsite Incineration and Building Products Processed

at <1000°C

Sample Collected

By:

UL VS Bangladesh Ltd.

Sampling Time Sludge:

Effluent/Treated Wastewater:

Discharge Method:

Sampling Date:

Test Date:

Temperature:

Sampling Time

Sampling Time

Laboratory Received Date:

Laboratory Received

Untreated Wastewater:

Direct Discharge

Grab: 4.10pm

Sample Information:

Sample ID	Description	Equivalent Code / Color
001	Untreated Wastewater	Light Blue
002	Effluent/Treated Wastewater	Light Brown
003	Sludge	Black

For and on behalf of UL VS Bangladesh Limited

Md. Nur Alam - Lab Technical & Operations Manager

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Test Table	Executive Summary		Result		
1A-1T	Untreated Wastewater Parameters:	001	002	003	
1A	Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs)	PASS	/	/	
1B	Anti- Microbials & Biocides	PASS	/	/	
1C	Chlorinated Paraffins	PASS	/	/	
1D	Chlorobenzenes and Chlorotoluenes	PASS	/	/	
1E	Chlorophenols	PASS	/	/	
1F	N,N-di-methyl formamide (DMFa)	PASS	/	/	
1G	Dyes – Carcinogenic or Equivalent Concern	PASS	/	/	
1H	Dyes – Disperse (Allergenic)	PASS	/	/	
1I	Dyes - Navy Blue Colourant	PASS	/	/	
1J	Flame retardants	PASS	/	/	
1K	Glycols / Glycol Ethers	PASS	/	/	
1L	Halogenated Solvents	PASS	/	/	
1M	Organotin Compounds	PASS	/	/	
1N	Other/Miscellaneous Chemicals	PASS	/	/	
10	Perfluorinated and Polyfluorinated Chemicals (PFCs)	PASS	/	/	
1P	Phthalates – including all other esters of ortho-phthalic acid	PASS	/	/	
1Q	Polycyclic Aromatic Hydrocarbons (PAHs)	PASS	/	/	
1R	Restricted Aromatic Amines (Cleavable from Azo colourants)	PASS	/	/	
1S	UV Absorbers	PASS	/	/	
1T	Volatile Organic Compounds (VOC)	PASS	/	/	
2	Heavy Metals (Effluent)	/	PASS	/	
3	Conventional Parameters and Anions for Effluent/ Treated Wastewater:				
	pH Value	/	PASS	/	
	Temperature Deference	/	PASS	/	
	E. coli ♦	/	PASS	/	
	Colour (436nm, 525nm, 620nm)	/	PASS	/	
	Persistent Foam	/	PASS	/	
	Wastewater Flowrate	/	See Result	/	
	Ammonium-Nitrogen	/	PASS	/	
	Absorbable Organic Halogens (AOX)	/	PASS	/	
	Biological Oxygen Demand (BOD) (5-day)	/	PASS	/	
	Chemical Oxygen Demand (COD)	/	PASS	/	
	Dissolved Oxygen (DO)	/	See Result	/	
	Oil & Grease	/	PASS	/	
	Total Phenols / Phenol Index	/	PASS	/	

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	Total Chlorine	/	See Result	/
	Total Dissolved Solids (TDS)	/	See Result	/
	Total Nitrogen	/	PASS	/
	Total Phosphorus	/	PASS	/
	Total Suspended Solids (TSS)	/	PASS	/
	Chloride	/	See Result	/
	Cyanide, total	/	PASS	/
	Sulfate	/	See Result	/
	Sulfide	/	PASS	/
	Sulfite	/	PASS	/
4A	Sludge Parameters:			
	Total Metals	/	/	PASS
	Cyanide	/	/	PASS
	pH Value	/	/	See Result
	% Solids (Dry mass)	/	/	See Result
	Paint Filter Test	/	/	See Result
	Faecal Coliform ◆	/	/	See Result
	Alkylphenol (AP) & Alkylphenol ethoxylates (APEOs)	/	/	PASS
	Polycyclic Aromatic Hydrocarbons (PAHs)	/	/	PASS
	Chloro-Toluene's	/	/	PASS
4B	Sludge Parameters (Total Metals Threshold Values/ Total Metals-TCLP)			
	Total Metals	/	/	PASS
4C	Sludge Parameter (Conventional and Organic MRSL)			
	pH	/	/	See Result
	% Solids	/	/	See Result
	Faecal Coliform	/	/	See Result
	Paint Filter Test	/	/	See Result
	Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	/	/	PASS
	Polycyclic Aromatic Hydrocarbons (PAHs)	1	/	PASS
	Chlorotoluenes (only)	1	/	PASS
4D	Sludge Parameters (Anion)			
	Cyanide	/	/	PASS

Remark:

- 1. The results relate only to the samples tested.
- 2. "ND"=Not Detected, "NA"=Not Applicable,
- 3. ** = test result(s) will be added later
- 4. ♦ Marked test was subcontracted to an ISO 17025 accredited laboratory.
- 5. All collected samples have been tested within the maximum holding time stipulated by the SAP guidelines.

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1A-1T) Wastewater Parameters:

(1A) Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs):

Standard Method for Analysis/Testing: NP/OP: ISO 18857-2(modified dichloromethane extraction) or ASTM D7065 (GC-MS or LC-MS(-MS) OPEO/NPEO (n>2): ASTM D7742 ISO 18857-2

Detection Limit: 5 ug/L

Substance name	CAS No.	Reporting limit, μg/L	Result, µg/L (001)
Nonylphenol ethoxylates (NPEO)	9016-45-9, 26027-38-3 37205-87-1, 68412-54-4 127087-87-0	5	ND
Nonylphenol (NP), mixed isomers	104-40-5, 11066-49-2 25154-52-3, 84852-15-3	5	ND
Octylphenol ethoxylates (OPEO)	9002-93-1, 9036-19-5 68987-90-6	5	ND
Octylphenol (OP), mixed isomers	140-66-9, 1806-26-4 27193-28-8	5	ND
	Conclusion		PASS

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

(1B) Anti- Microbials & Biocides:

Standard Method for Analysis/Testing: Inhouse Method, USEPA 8270E Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC-MS BS EN 12673-1999 an alternative method of solvent extraction and derivatization are included, USEPA 8270E Solvent extraction, followed by GC-MS ISO 14154:2005 An alternate method, without derivatization and determination by LCMS/LCMSMS.

Substance name	CAS No.	Detection limit, µg/L	Reporting limit, μg/L	Result, µg/L (001)
o-Phenylphenol (+salts)	90-43-7	0.5	100	ND
Triclosan	3380-34-5	100	100	ND
Permethrin	Multiple	500	500	ND
	PASS			

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1C) Chlorinated Paraffins:

Standard Method for Analysis/Testing: Preparation: EPA 3510 Analysis: ISO18219-2:2021 Method for MCCP/SCCP with GC-MS(NCI) or LC-MS/MS

Detection Limit: 5 ug/L

Substance name	CAS No.	Reporting limit, µg/L	Result, µg/L (001)
Medium-chain Chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	5	ND
Short-chain Chlorinated paraffin (C10 – C13)	85535-84-8	5	ND
	PASS		

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

(1D) Chlorobenzenes and Chlorotoluenes:

Standard Method for Analysis/Testing: USEPA 8260D, 8270E, Purge and Trap, Head Space Dichloromethane extraction followed by GC-MS

Detection Limit: 0.2 ug/L

Substance name	CAS No.	Reporting limit, μg/L	Result, µg/L (001)
1,2-dichlorobenzene	95-50-1	0.2	ND
Other isomers of mono-, di-, tri-, tetra-, penta- and hexa- Chlorobenzene and mono-, di-, tri-, tetra- and penta- chlorotoluene	Multiple	0.2	ND
·	PASS		

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1E) Chlorophenols:

Standard Method for Analysis/Testing: USEPA 8270D, ISO 14154:2005, In House Method.

Detection Limit: 0.5 ug/L

Substance name	CAS No.	Reporting limit, µg/L	Result, µg/L (001)
Pentachlorophenols (PCP)	87-86-5	0.5	ND
2,3,4,5-Tetrachlorophenol	4901-51-3	0.5	ND
2,3,4,6-Tetrachlorophenol	58-90-2	0.5	ND
2,3,5,6-tetrachlorophenol	935-95-5	0.5	ND
2,4,6-trichlorophenol	88-06-2	0.5	ND
2,3,4-trichlorophenol	15950-66-0	0.5	ND
2,3,5-trichlorophenol	933-78-8	0.5	ND
2,3,6-trichlorophenol	933-75-5	0.5	ND
2,4,5-trichlorophenol	95-95-4	0.5	ND
3,4,5-trichlorophenol	609-19-8	0.5	ND
2,3-dichlorophenol	576-24-9	0.5	ND
2,4-dichlorophenol	120-83-2	0.5	ND
2,5-dichlorophenol	583-78-8	0.5	ND
2,6-dichlorophenol	87-65-0	0.5	ND
3,4-dichlorophenol	95-77-2	0.5	ND
3,5-dichlorophenol	591-35-5	0.5	ND
2-Chlorophenol	95-57-8	0.5	ND
3-Chlorophenol	108-43-0	0.5	ND
4-Chlorophenol	106-48-9	0.5	ND
	Conclusion		PASS

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

(1F) N,N-di-methyl formamide (DMFa):

Standard Method for Analysis/Testing: EPA 8015, EPA 8270E

Detection Limit: 1000 ug/L

Substance name	CAS No.	Reporting limit, µg/L	Result, μg/L (001)	
Dimethyl formamide; N,N-dimethylformamide (DMFa)	68-12-2	1000	ND	
Conclusion PASS				
"<" means "less than" : "ND" means "Not detected" : "ug/l " means "microgram per litro:				

"<" means "less than" ; "ND" means "Not detected" ; "μg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1G) Dyes - Carcinogenic or Equivalent Concern:

Standard Method for Analysis/Testing: Liquid extraction, LC-MS

Detection Limit: 500 ug/L

Substance name	CAS No.	Reporting limit, μg/L	Result, µg/L (001)
Basic violet 3 with >0.1% of Michler's Ketone	548-62-9	500	ND
C.I. Acid Red 26	3761-53-3	500	ND
C.I. Acid Violet 49	1694-09-3	500	ND
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	500	ND
C.I. Basic Green 4 (Malachite Green Chloride)	569-64-2	500	ND
C.I. Basic Green 4 (Malachite Green Oxalate)	2437-29-8	500	ND
C.I. Basic Green 4 (Malachite Green)	10309-95-2	500	ND
C.I. Basic Red 9	569-61-9	500	ND
C.I. Basic Violet 14	632-99-5	500	ND
C.I. Direct Black 38	1937-37-7	500	ND
C.I. Direct Blue 6	2602-46-2	500	ND
C.I. Direct Red 28	573-58-0	500	ND
C.I. Disperse Blue 1	2475-45-8	500	ND
C.I. Disperse Blue 3	2475-46-9	500	ND
Disperse Orange 11	82-28-0	500	ND
Concl	usion		PASS

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1H) Dyes - Disperse (Allergenic):

Standard Method for Analysis/Testing: Liquid extraction, LC-MS

Detection Limit: 50 ug/L

Substance name	CAS No.	Reporting limit, μg/L	Result, μg/L (001)
Disperse Blue 102	12222-97-8	50	ND
Disperse Blue 106	12223-01-7	50	ND
Disperse Blue 124	61951-51-7	50	ND
Disperse Blue 26	3860-63-7	50	ND
Disperse Blue 35	12222-75-2	50	ND
Disperse Blue 35	56524-77-7	50	ND
Disperse Blue 7	3179-90-6	50	ND
Disperse Brown 1	23355-64-8	50	ND
Disperse Orange 1	2581-69-3	50	ND
Disperse Orange 3	730-40-5	50	ND
Disperse Orange 37/59/76	13301-61-6	50	ND
Disperse Red 1	2872-52-8	50	ND
Disperse Red 11	2872-48-2	50	ND
Disperse Red 17	3179-89-3	50	ND
Disperse Yellow 1	119-15-3	50	ND
Disperse Yellow 3	2832-40-8	50	ND
Disperse Yellow 39	12236-29-2	50	ND
Disperse Yellow 49	54824-37-2	50	ND
Disperse Yellow 9	6373-73-5	50	ND
	Conclusion		PASS

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

(11) Dyes – Navy Blue Colourant:

Standard Method for Analysis/Testing: Liquid extraction, LC-MS

Detection Limit: 500 ug/L

Substance name	CAS No.	Reporting limit, µg/L	Result, µg/L (001)
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	500	ND
Component 2: C46H-30CrN10O20S2 3Na	Not Allocated	500	ND
	PASS		

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1J) Flame retardants:

Standard Method for Analysis/Testing: USEPA 8270E, ISO 22032, USEPA 527 and USEPA 8321B Dichloromethane extraction GC-MS or LC-MS(-MS), determined as total boron via ICP

Substance name	CAS No.	Detection limit, µg/L	Reporting limit, μg/L	Result, µg/L (001)
2,2-bis(bromomethyl)- 1,3-propanediol (BBMP)	3296-90-0	25	25	ND
Bis(2,3-dibromopropyl) phosphate (BIS)	5412-25-9	25	25	ND
Decabromodiphenyl ether (DecaBDE)	1163-19-5	25	25	ND
Hexabromocyclodecane (HBCDD)	3194-55-6	25	25	ND
Octabromodiphenyl ether (OctaBDE)	32536-52-0	25	25	ND
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	25	25	ND
Polybromobiphenyls (PBB)	59536-65-1	25	25	ND
Tetrabromobisphenol A (TBBPA)	79-94-7	25	25	ND
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	25	25	ND
Tris(1-aziridinyl)phosphine oxide) (TEPA)	545-55-1	25	25	ND
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	25	25	ND
Tris(2-chloroethyl phosphate (TCEP)	115-96-8	25	25	ND
Tris(2,3,-dibromopropyl)- phosphate (TRIS)	126-72-7	25	25	ND
Decabromobiphenyl (DecaBB)	13654-09-6	25	25	ND
Dibromobiphenyls (DiBB)	Multiple	25	25	ND
Octabromobiphenyls (OctaBB)	Multiple	25	25	ND
Dibromopropylether	21850-44-2	25	25	ND
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	25	25	ND
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	25	25	ND
Monobromobiphenyls (MonoBB)		25	25	ND
Monobromodiphenylethers (MonoBDEs)	Multiple	25	25	ND
Nonabromobiphenyls (NonaBB)		25	25	ND
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	25	25	ND

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Conclusion				
Tetraboron disodium heptaoxide, hydrate	12267-73-1	100	100	ND
Disodium tetraborate anhydrous	1303-96-4 1330-43-4	100	100	ND
Disodium octaborate	12008-41-2	100	100	ND
Diboron trioxide	1303-86-2	100	100	ND
Boric acid	10043-35-3 11113-50-1	100	100	ND
Tribromodiphenylethers (TriBDEs)	Multiple	25	25	ND
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	25	25	ND

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

(1K) Glycols / Glycol Ethers:

Standard Method for Analysis/Testing: In-house Method, USEPA 8270E, Liquid extraction, LC-MS GC-MS Detection Limit: 50 ug/L

Substance name	CAS No.	Reporting limit, µg/L	Result, µg/L (001)
2-ethoxyethanol	110-80-5	50	ND
2-ethoxyethyl acetate	111-15-9	50	ND
2-methoxyethanol	109-86-4	50	ND
2-methoxyethylacetate	110-49-6	50	ND
2-methoxypropylacetate	70657-70-4	50	ND
Bis(2-methoxyethyl)-ether	111-96-6	50	ND
Ethylene glycol dimethyl ether	110-71-4	50	ND
Triethylene glycol dimethyl ether	112-49-2	50	ND
	PASS		

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1L) Halogenated Solvents:

Standard Method for Analysis/Testing: USEPA 8260D Headspace GC-MS or Purge and trap GC-MS

Detection Limit: 1 ug/L

Substance name	CAS No.	Reporting limit, µg/L	Result, µg/L (001)
1,2-dichloroethane	107-06-2	1	ND
Methylene chloride	75-09-2	1	ND
Tetrachloroethylene	127-18-4	1	ND
Trichloroethylene	79-01-6	1	ND
Conclusion			PASS

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: 7-days.

Maximum Holding Time: Extraction: 14-days.

(1M) Organotin Compounds:

Standard Method for Analysis/Testing: ISO 17353 Derivatisation with NaB (C2H5)4 GC-MS/ ISO 17353

Detection Limit: 0.01 ug/L

Substance name	CAS No.	Reporting limit, µg/L	Result, µg/L (001)
Dipropyltin compounds (DPT)		0.01	ND
Mono-, di- and tri-butyltin derivatives		0.01	ND
Mono-, di- and tri-methyltin derivatives		0.01	ND
Mono-, di- and tri-octyltin derivatives		0.01	ND
Mono-, di- and tri-phenyltin derivatives	Modernia	0.01	ND
Tetrabutyltin compounds (TeBT)	Multiple	0.01	ND
Tripropyltin Compounds (TPT)		0.01	ND
Tetraoctyltin compounds (TeOT)		0.01	ND
Tricyclohexyltin (TCyHT)		0.01	ND
Tetraethyltin Compounds (TeET)		0.01	ND
Cor	PASS		

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: 24-Hours.

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1N) Other/Miscellaneous Chemicals:

Standard Method for Analysis/Testing: In-house Method, Liquid extraction, LC-MSMS, Determined as total boron and total zinc via ICP.

Substance name	CAS No.	Detection limit, µg/L	Reporting limit, μg/L	Result, µg/L (001)
AEEA [2-(2-aminoethylamino)ethanol]	111-41-1	500	500	ND
Bisphenol A	80-05-7	10	10	ND
Thiourea	62-56-6	50	50	ND
Quinoline	91-22-5	50	50	ND
Borate, zinc salt	12767-90-7	100	100	ND
	PASS			

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA.

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

(10) Perfluorinated and Polyfluorinated Chemicals (PFCs):

Standard Method for Analysis/Testing: CEN/TS 15968, USEPA 537, In House Method.

Substance name	CAS No.	Detection limit, µg/L	Reporting limit, µg/L	Result, µg/L (001)
Perfluorooctane sulfonate (PFOS) and related substances		0.01	0.01	ND
Perfluorooctanoic acid (PFOA) and related substances	Multiple	1	1	ND
Conclusion				PASS

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1P) Phthalates - including all other esters of ortho-phthalic acid:

Standard Method for Analysis/Testing: USEPA 8270E, ISO 18856 Dichloromethane extraction GC-MS Detection Limit: 10 ug/L

Substance name	CAS No.	Reporting limit, μg/L	Result, µg/L (001)
1,2-benzenedicarboxylic acid, di-C6-8 branched and liearalkyl esters , C7-rich (DIHP)	71888-89-6 84777-06-0	10	ND
1,2-benzenedicarboxylic acid, di-C7-11 branched and liearalkyl esters (DHNUP)	68515-42-4 68515-50-4	10	ND
Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	10	ND
Butyl benzyl phthalate (BBP)	85-68-7	10	ND
Di-cyclohexyl phthalate (DCHP)	84-61-7	10	ND
Di-iso-decyl phthalate (DIDP)	26761-40-0	10	ND
Di-iso-octyl phthalate (DIOP)	27554-26-3	10	ND
Di-isobutyl phthalate (DIBP)	84-69-5	10	ND
Di-isononyl phthalate (DINP)	28553-12-0	10	ND
Di-n-hexyl phthalate (DnHP)	84-75-3	10	ND
Di-n-octyl phthalate (DNOP)	117-84-0	10	ND
Di-n-pentylphthalates	131-18-0	10	ND
Di-n-propyl phthalate (DPRP)	131-16-8	10	ND
Di(ethylhexyl) phthalate (DEHP)	117-81-7	10	ND
Dibutyl phthalate (DBP)	84-74-2	10	ND
Diethyl phthalate (DEP)	84-66-2	10	ND
Diisopentylphthalates	605-50-5	10	ND
Dinonyl phthalate (DNP)	84-76-4	10	ND
C	onclusion		PASS

"<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA.

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1Q) Polycyclic Aromatic Hydrocarbons (PAHs):

Standard Method for Analysis/Testing: USEPA 8270E DIN 38407-39 Solvent extraction GC-MS Detection Limit: 1 ug/L

Substance name	CAS No.	Reporting limit, μg/L	Result, μg/L (001)
Acenaphthene	83-32-9	1	ND
Acenaphthylene	208-96-8	1	ND
Anthracene	120-12-7	1	ND
Benzo[a]anthracene	56-55-3	1	ND
Benzo[a]pyrene (BaP)	50-32-8	1	ND
Benzo[b]fluoranthene	205-99-2	1	ND
Benzo[e]pyrene	192-97-2	1	ND
Benzo[ghi]perylene	191-24-2	1	ND
Benzo[j]fluoranthene	205-82-3	1	ND
Benzo[k]fluoranthene	207-08-9	1	ND
Chrysene	218-01-9	1	ND
Dibenz[a,h]anthracene	53-70-3	1	ND
Fluoranthene	206-44-0	1	ND
Fluorene	86-73-7	1	ND
Indeno[1,2,3-cd]pyrene	193-39-5	1	ND
Naphthalene	91-20-3	1	ND
Phenanthrene	85-01-8	1	ND
Pyrene	129-00-0	1	ND
	Conclusion		PASS

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1R) Restricted Aromatic Amines (Cleavable from Azo-colourants):

Standard Method for Analysis/Testing: Reduction step with sodium dithionite, solvent extraction EPA 8270 Detection Limit: 0.1 ug/L

Substance name	CAS No.	Reporting limit, μg/L	Result, µg/L (001)
2-naphthylamine	91-59-8	0.1	ND
2-Naphthylammoniumacetate	553-00-4	0.1	ND
2,4-xylidine	95-68-1	0.1	ND
2,4,5-trimethylaniline	137-17-7	0.1	ND
2,4,5-trimethylaniline ydrochloride	21436-97-5	0.1	ND
2,6-xylidine	87-62-7	0.1	ND
3,3'-dichlorobenzidine	91-94-1	0.1	ND
3,3-dimethoxylbenzidine	119-90-4	0.1	ND
3,3-dimethylbenzidine	119-93-7	0.1	ND
4-aminoazobenzene	60-09-3	0.1	ND
4-aminodiphenyl	92-67-1	0.1	ND
4-chloro-o-toluidine	95-69-2	0.1	ND
4-chloro-o-toluidinium chloride	3165-93-3	0.1	ND
4-chloroaniline	106-47-8	0.1	ND
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	0.1	ND
4-methoxy-m-phenylenediamine	615-05-4	0.1	ND
4-methyl-m-phenylenediamine	95-80-7	0.1	ND
4,4-methylene- bis-(2-chloro-aniline)	101-14-4	0.1	ND
4,4-methylenedi-o-toluidine	838-88-0	0.1	ND
4,4-methylenedianiline	101-77-9	0.1	ND
4,4-oxydianiline	101-80-4	0.1	ND
4,4-thiodianiline	139-65-1	0.1	ND
5-nitro-o-toluidine	99-55-8	0.1	ND
6-methoxy-m-toluidine	120-71-8	0.1	ND
Benzidine	92-87-5	0.1	ND
o-aminoazotoluene	97-56-3	0.1	ND
o-anisidine	90-04-0	0.1	ND
o-toluidine	95-53-4	0.1	ND
	Conclusion		PASS

"<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(1S) UV Absorbers:

Standard Method for Analysis/Testing: In House Method, DIN EN 62321-6:2016-05 Detection Limit: 100 ug/L

Substance name	CAS No.	Reporting limit, μg/L	Result, µg/L (001)
2-(2H-benzotriazol-2-yl)-4- (tert-butyl)-6-(sec- butyl) phenol (UV-350)	36437-37-3	100	ND
2-(2H-benzotriazol-2-yl)-4,6- ditertpentylphenol (UV-328)	25973-55-1	100	ND
2-benzotriazol-2-yl-4,6-di-tert- butylphenol (UV-320)	3846-71-7	100	ND
2,4-Di-tert-butyl-6-(5- chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	100	ND
Conclu	PASS		

[&]quot;<" means "less than"; "ND" means "Not detected"; "µg/L" means "microgram per litre;

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

(1T) Volatile Organic Compounds (VOC):

Standard Method for Analysis/Testing: ISO 11423-1 Headspace or Purge and trap GC-MS USEPA 8260D Add ISO 20595, EPA 8270 BS EN 12673-1999, HJ 1067 or EPA 8260D or ISO 11423-1

Detection Limit: 1 ug/L

Substance name	CAS No.	Reporting limit, µg/L	Result, µg/L (001)
Benzene	71-43-2	1	ND
m-cresol	108-39-4	1	ND
o-cresol	95-48-7	1	ND
p-cresol	106-44-5	1	ND
Xylene	1330-20-7	1	ND
Toluene	108-88-3	1	ND
Conclusion			PASS

[&]quot;<" means "less than" ; "ND" means "Not detected" ; "µg/L" means "microgram per litre;

Recommended Holding Time: 7-days. Maximum Holding Time: Extraction: 14-days.

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(2) Heavy Metals:

Standard Method for Analysis/Testing: EPA 200.7, USEPA 200.8, USEPA 218.6, USEPA 6010c, USEPA 6020a, ISO 11885, ISO 12846, ISO 18412

Substance name	CAS No.	Detection limit, mg/L	Result, mg/L (002)	Limit, mg/L	Conclusion
Total Antimony (Sb)	7440-36-0	0.01	ND	Foundational 0.1 Progressive 0.05 Aspirational 0.01	
Hexavalent Chromium (Cr-VI)	18540-29-9	0.001	ND	Foundational 0.05 Progressive 0.005 Aspirational 0.001	
Total Arsenic (As)	7440-38-2	0.005	ND	Foundational 0.05 Progressive 0.01 Aspirational 0.005	
Total Chromium (Cr)	7440-47-3	0.05	ND	Foundational 0.2 Progressive 0.1 Aspirational 0.05	
Total Cobalt (Co)	7440-48-4	0.01	ND	Foundational 0.05 Progressive 0.02 Aspirational 0.01	
Total Cadmium (Cd)	7440-43-9	0.01	ND	Foundational 0.1 Progressive 0.05 Aspirational 0.01	
Total Copper (Cu)	7440-50-8	0.25	ND	Foundational 1.0 Progressive 0.5 Aspirational 0.25	PASS
Total Lead (Pb)	7439-92-1	0.01	ND	Foundational 0.1 Progressive 0.05 Aspirational 0.01	
Total Nickel (Ni)	7440-02-0	0.05	ND	Foundational 0.2 Progressive 0.1 Aspirational 0.05	
Total Silver (Ag)	7440-22-4	0.005	ND	Foundational 0.1 Progressive 0.05 Aspirational 0.005	
Total Zinc (Zn)	7440-66-6	0.5	ND	Foundational 5.0 Progressive 1.0 Aspirational 0.5	
Total Mercury (Hg)	7439-97-6	0.001	ND	Foundational 0.01 Progressive 0.005 Aspirational 0.001	
Total Barium (Ba)	7440-39-3	0.5	ND	/	
Total Selenium (Se)	7782-49-2	0.5	ND	/	
Total Tin (Sn)	7440-31-5	0.5	ND	/	

"<" means "less than"; "mg/L" means "milligram per litre;

Recommended Holding Time: Cr-VI: 24-Hours; Mercury: NA; Other Metals: 28-days. Maximum Holding Time: Cr-VI /Mercury: 28-days; Other Metals: 6-Months.

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(3) Conventional Parameters and Anions:

pH Value:

Standard Method for Analysis/Testing: ISO 10523, USEPA 150.1, SM 4500-H+

Sample ID	Result	Limit	Conclusion	
002	7.3	6 - 9	PASS	
Recommended Holding Time: Measured in the field. Maximum Holding Time: 6-hours.				

Temperature difference:

Standard Method for Analysis/Testing: DIN 38 404-4, USEPA 170.1, SM 2550

Sample ID	Detection limit(°C)	Result (°C)		Limit, °C	Conclusion			
		Temperature difference (°C)	3.0	Foundational Δ+15				
002	002 0.1°C	Temperature-Discharge Pipe (°C)	32.5	Progressive Δ+10	PASS			
	Temperature-Receiving Water (°C)	29.5	Aspirational Δ+5					
		"." " " " " " " " " " " " " " " " " " "						

"<" means "less than"; "OC" Means "Degree Celsius"

Recommended Holding Time: Measured in the field.

Maximum Holding Time: 15-Mins.

E. coli:

Standard Method for Analysis/Testing: APHA 23rd 9221.B

Sample ID	Detection limit, MPN/100 ml	Result, MPN/100 ml	Limit, MPN/100 ml	Conclusion	
002	5	<5	126 MPN/100 ml	PASS	
"<" means "less than" ; "MPN" means "Most Probable Number"					

Recommended Holding Time: 6-Hours.

Maximum Holding Time: 24-Hours.

Colour (436nm, 525nm, 620nm):

Standard Method for Analysis/Testing: In-house Method, ISO 7887-B

Sample ID	Detection	limit (m-1)	Result (m-1)	Limit, (m-1)			Conclusion
Sample ID Detection		(111-1 <i>)</i>	Nesult (III-1)	Foundation	Progressive	Aspirational	Conclusion
	436 nm	0.01	1.63	7	5	2	
002	525 nm	0.01	0.57	5	3	1	PASS
	620 nm	0.01	0.23	3	2	1	
			" -"	"I 4I " ·			

"<" means "less than";

Recommended Holding Time: NA Maximum Holding Time: 48-Hours.

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Persistent Foam:

Standard Method for Analysis/Testing: Visual Analysis

Sample ID	Result	Limit	Conclusion		
002	Absent	Absent	PASS		
Recommended Holding Time: Measured in the field. Maximum Holding Time: NA					

Wastewater Flowrate:

In-House with Reference to ZDHC Guideline

Sample ID	Result, 15m ³ per day	Limit, 15m³ per day	Conclusion		
002	4310.7	-	DATA		
"<" means "less than" ;					
Recommended Holding Time: NA					

Maximum Holding Time: NA

Ammonium-Nitrogen:

Standard Method for Analysis/Testing: ISO 11732, ISO 7150, USEPA 350.1, USEPA 350.3, SM 4500 NH3 - D, E, F, G, or H

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion	
002	0.5	<0.5	Foundational 10 Progressive 1 Aspirational 0.5	PASS	
"<" means "less than" ; "mg/L" means "milligram per litre;					

Recommended Holding Time: 7-days. Maximum Holding Time: 28-days.

Absorbable Organic Halogens (AOX):

Standard Method for Analysis/Testing: ISO 9562

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion	
002	0.1	0.23	Foundational 3.0 Progressive 0.5 Aspirational 0.1	PASS	
	"<" means "less than" ; "mg/L" means "milligram per litre;				
Recommended Holding					
Maximum Holding Time	Maximum Holding Time: 6-Months.				

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Biological Oxygen Demand (BOD) (5-day):

Standard Method for Analysis/Testing: ISO 5815-1, USEPA 405.1, SM 5210-B

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion		
002	2	21	Foundational 30 Progressive 15 Aspirational 8	PASS		
	"<" means "less than" ; "mg/L" means "milligram per litre;					
Recommended Holding	Time: 6-Hours					
Maximum Holding Time	: 48-Hours.					

Chemical Oxygen Demand (COD):

Standard Method for Analysis/Testing: APHA/SM 5220D; USEPA 410.4; ISO 6060-1989

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion	
002	5	65	Foundational 150 Progressive 80 Aspirational 40	PASS	
"<" means "less than" ; "mg/L" means "milligram per litre;					

Recommended Holding Time: 7-days. Maximum Holding Time: 28-days.

Dissolved Oxygen (DO):

Standard Method for Analysis/Testing: ISO 5814, EPA 360.1, SM 4500-O-G

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion		
002	1	7.2	1	DATA		
"<" means "less than" ; "mg/L" means "milligram per litre						
Recommended Holding Time: Measured in the field.						
Maximum Holding Time:	Maximum Holding Time: 15-Mins.					

Oil & Grease:

Standard Method for Analysis/Testing: ISO 9377-2, SM 5520-B/C, USEPA 1664 revision B

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion	
002	0.5	<0.5	Foundational 10.0 Progressive 2.0 Aspirational 0.5	PASS	
	"<" means "less than" ; "mg/L" means "milligram per litre;				
Recommended Holding Maximum Holding Time					

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Total Phenols / Phenol Index:

Standard Method for Analysis/Testing: ISO 6439, SM 5530-B/C

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion
002	0.001	<0.001	Foundational 0.5 Progressive 0.01 Aspirational 0.001	PASS
	"<" means "less	than" ; "mg/L" means "m	illigram per litre;	

Recommended Holding Time: 24-Hours. Maximum Holding Time: 28-Days.

Total Chlorine:

Standard Method for Analysis/Testing: DPD Colorimetric Method with reference ISO 7393-2/EPA 330.5/SM4500-CI G

	Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion	
	002	0.1	<0.1	1	DATA	
Г	"<" means "less than" : "mg/L" means "milligram per litre:					

Recommended Holding Time: Measured in the field.

Maximum Holding Time: 15-Mins.

Total Dissolved Solids (TDS):

Standard Method for Analysis/Testing: APHA/SM 2540C; EPA-160.1

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion	
002	5	475	/	DATA	
"<" means "less than" ; "mg/L" means "milligram per litre;					
Recommended Holding	Recommended Holding Time: 24-Hours.				
Maximum Holding Time:	: 7-Days.				

Total Nitrogen:

Standard Method for Analysis/Testing: ISO 11905 - Part 1, ISO 29441, USEPA 351.2, SM 4500P-J, SM 4500N-B, SM 4500N-C

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion
002	5	<5	Foundational 20 Progressive 10 Aspirational 5	PASS

"<" means "less than"; "mg/L" means "milligram per litre;

Recommended Holding Time: NA Maximum Holding Time: 28-Days.

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Total Phosphorus:

Standard Method for Analysis/Testing: ISO 17294, ISO 11885, ISO 6878, USEPA 365.4, SM 4500P-J, USEPA 200.7, USEPA 200.8, USEPA 6010C, USEPA 6020A

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion
002	0.1	<0.1	Foundational 3.0 Progressive 0.5 Aspirational 0.1	PASS
	"<" means "less	than" ; "mg/L" means "m	illigram per litre;	
Recommended Holding	Time: NA			
Maximum Holding Time	e: 28-Days.			

Total Suspended Solids (TSS):

Standard Method for Analysis/Testing: ISO 11923, USEPA 160.2, SM 2540D

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion
002	5	11	Foundational 50 Progressive 15 Aspirational 5	PASS
	"<" means "less	than" ; "mg/L" means "m	illigram per litre;	

Recommended Holding Time: 24-Hours. Maximum Holding Time: 7-Days.

Chloride:

Standard Method for Analysis/Testing: ISO 10304-1, ISO 15923-1, SM 4110-B, SM 4110-C, SM 4500-CI D or E USEPA 300

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion	
002	10	<10	1	DATA	
"<" means "less than" ; "mg/L" means "milligram per litre;					
Recommended Holding Time: NA.					
Maximum Holding Time:	: 28-days.				

Cyanide, total:

Standard Method for Analysis/Testing: ISO 6703-1,-2,-3, ISO 14403-1,-2, USEPA 335.2, APHA 4500-CN

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion
002	0.05	<0.05	Foundational 0.2 Progressive 0.1 Aspirational 0.05	PASS
	"<" means "less	than"; "mg/L" means "m	illigram per litre;	

Recommended Holding Time: 24-Hours Maximum Holding Time: 14-Days.

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Sulfate:

Standard Method for Analysis/Testing: ISO 10304-1, ISO 15923-1, SM 4500 SO4, E, F, G SM 4100 B, C USEPA 300, USEPA 9038

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion		
002	10	<10	/	DATA		
	"<" means "less than" ; "mg/L" means "milligram per litre;					
	Recommended Holding Time: NA Maximum Holding Time: 28-Days.					

Sulfide:

Standard Method for Analysis/Testing: ISO 10530, SM 4500-S2-D, E,G, or I

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion
002	0.01	<0.01	Foundational 0.5 Progressive 0.05 Aspirational 0.01	PASS
	"<" means "less	than" ; "mg/L" means "m	illigram per litre;	
Recommended Holding	Time: NA			
Maximum Holding Time	e: 7-Days.			

Sulfite:

Standard Method for Analysis/Testing: In-house Method, ISO 10304-3, SM 4500-SO32-C

Sample ID	Detection limit, mg/L	Result, mg/L	Limit, mg/L	Conclusion	
002	0.2	1.2	Foundational 2.0 Progressive 0.5 Aspirational 0.2	PASS	
	"<" means "less	than"; "mg/L" means "m	illigram per litre;		
Recommended Holding	Recommended Holding Time: NA				
Maximum Holding Time:	48-Hours.				

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(4A) Sludge Parameters:

Total Metals:

Standard Method for Analysis/Testing: In-house Method, USEPA 3015A; USEPA 3051A; USEPA 3052; USEPA 200.7; USEPA 200.8; USEPA 6010C; USEPA 6010D; USEPA 218.6; USEPA 3060a; USEPA 7196; ISO 18412

Substance name	CAS No.	Detection limit, mg/kg	Result, mg/kg (003)	Reporting limit, mg/kg	Conclusion
Total Antimony (Sb)	7440-36-0	2	ND	5	
Total Arsenic (As)	7440-38-2	2	ND	5	
Total Barium (Ba)	7440-39-3	10	ND	200	
Total Cadmium (Cd)	7440-43-9	0.5	ND	1	
Total Cobalt (Co)	7440-48-4	10	ND	400	
Total Copper (Cu)	7440-50-8	10	ND	50	
Total Lead (Pb)	7439-92-1	2	ND	5	B400
Total Nickel (Ni)	7440-02-0	5	ND	20	PASS
Total Selenium (Se)	7782-49-2	2	ND	5	
Total Silver (Ag)	7440-22-4	10	ND	50	
Total Chromium (Cr)	7440-47-3	2	ND	50	
Total Zinc (Zn)	7440-66-6	10	ND	400	
# Hexavalent Chromium (Cr-VI)	18540-29-9	2	ND	20	
Total Mercury (Hg)	7439-97-6	0.05	ND	1	

[&]quot;<" means "less than"; "ND" means "Not detected"; "mg/kg" means "milligram per kilogram"

Recommended Holding Time: Cr-VI: 24-Hours; Mercury: NA; Other Metals: 28-days.

Maximum Holding Time: Cr-VI /Mercury: 28-days; Other Metals: 6-Months.

Cyanide:

Standard Method for Analysis/Testing: Preparation: CN converted to HCN by reflux-distillation to NaOH Analysis: Colourimetry (EPA 9014) or ISE (EPA 9213), Preparation: USEPA 9013, Analysis: HJ745, EPA 9014 or EPA 9213

Sample ID	Detection limit, mg/kg	Result, mg/kg	Limit, mg/kg	Conclusion
003	1	<1	20	PASS

"<" means "less than" "mg/kg" means "milligram per kilogram"

Recommended Holding Time: 24-Hours. Maximum Holding Time: 14-Days.

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[#] Hexavalent Chromium (Cr-VI) is reported as Total Chromium Content. Hexavalent Chromium (Cr-VI) value will not exceed Total Chromium Content.



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pH Value:

Standard Method for Analysis/Testing: Preparation & Analysis: Suspension with Water & ISE/ EPA SW 9045D or HJ962

Sample ID	Result	Limit	Conclusion			
003	7.1	1	DATA			
Recommended Holding Time: 15-Mins. Maximum Holding Time: 24-Hours.						

% Solids (Dry Mass):

Standard Method for Analysis/Testing: Dry at 105°C/ EPA 160.3, HJ613 at 105°C

Sample ID	Result (%)	Limit, (%)	Conclusion
003	38.83	1	DATA
Recommended Holding	· · · · · · · · · · · · · · · · · · ·		

Paint Filter Test:

Standard Method for Analysis/Testing: EPA SW-846 or EPA 9095B

Sample ID	Result	Limit	Conclusion		
003	Absent	1	DATA		
Recommended Holding Time: 2-Days. Maximum Holding Time: 7-Days.					

Faecal Coliform

Standard Method for Analysis/Testing: Blended suspension, Multiple Tube Fermentation/ EPA 1681

Sample ID	Detection Limit (MPN/g)	Result (MPN/g)	Limit (MPN/g)	Conclusion			
003 5		<5	1	DATA			
"<" means "less than" "MPN/g" means "Most Probable Number per gram"							
Recommended Holding Time: 6-Hours. Maximum Holding Time: 24-Hours.							

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Alkylphenol (AP) & Alkylphenol Ethoxylates (APEOs)

Standard Method for Analysis/Testing: In-house Method, Modified dichloromethane extraction with mechanical agitation, soxhlet, or ultrasonic, NP/OP, GC-MS, LC-MS, OPEO/NPEO (n>2): GC-MS, LC-MS, OPEO/NPEO (n=1,2), GC-MS, LC-MS/NP/OP ISO 18857-2; ASTM D7065 OPEO/NPEO n>2 ISO 18254-1 OPEO/NPEO n=1,2 ISO 18857-2; ASTM D7065

Detection Limit: 0.4 mg/kg

Substance name	CAS No.	Reporting limit, mg/kg	Result, mg/kg (003)
Nonylphenol ethoxylates (NPEO)	9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0	0.4	ND
Nonylphenol (NP), mixed isomers	104-40-5, 11066-49-2 25154-52-3, 84852-15-3	0.4	ND
Octylphenol ethoxylates (OPEO)	9002-93-1, 9036-19-5, 68987-90-6	0.4	ND
Octylphenol (OP), mixed isomers	140-66-9, 1806-26-4, 27193-28-8	0.4	ND
	PASS		

[&]quot;<" means "less than"; "ND" means "Not detected"; "mg/kg" means "milligram per kilogram"

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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Polycyclic Aromatic Hydrocarbons (PAHs)

Standard Method for Analysis/Testing: Preparation: Dichloromethane extraction with mechanical agitation, soxhlet, or unltrasonic, Clean up: GPC, Analysis: GC-MS/ Preparation: USEPA 3540/3541, soxhlet USEPA 3550, ultrasonic Clean up: USEPA 3650, Analysis: USEPA 827

Detection Limit: 0.2 mg/kg

Substance name	CAS No.	Reporting limit, mg/kg	Result, mg/kg (003)
Bezno[a]pyrene (BaP)	50-32-8	0.2	ND
Anthracene	120-12-7	0.2	ND
Pyrene	129-00-0	0.2	ND
Benzo[ghi]perylene	191-24-2	0.2	ND
Benzo[e]pyrene	192-97-2	0.2	ND
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	ND
Benzo[j]fluoranthene	205-82-3	0.2	ND
Benzo[b]fluoranthene	205-99-2	0.2	ND
Fluoranthene	206-44-0	0.2	ND
Benzo[k]fluoranthene	207-08-9	0.2	ND
Acenaphthylene	208-96-8	0.2	ND
Chrysene	218-01-9	0.2	ND
Dibenz[a,h]anthracene	53-70-3	0.2	ND
Benzo[a]anthracene	56-55-3	0.2	ND
Acenaphthene	83-32-9	0.2	ND
Phenanthrene	85-01-8	0.2	ND
Fluorene	86-73-7	0.2	ND
Naphthalene	91-20-3	0.2	ND
	PASS		

"<" means "less than"; "ND" means "Not detected"; "mg/kg" means "milligram per kilogram"

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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Chloro-Toluene's

Standard Method for Analysis/Testing: Preparation: Dichloromethane extraction with mechanical agitation, soxhlet, or unltrasonic, Clean up: GPC, Analysis: GC-MS/ Preparation: USEPA 3540/3541, soxhlet USEPA 3550, ultrasonic Clean up: USEPA 3650, Analysis: USEPA 827

Detection Limit: 0.2 mg/kg

Substance name	CAS No.	Reporting limit, mg/kg	Result, mg/kg (003)
Monochlorobenzene	108-90-7	0.2	ND
1,2-Dichlorobenzene	95-50-1	0.2	ND
1,3-Dichlorobenzene	541-73-1	0.2	ND
1,4-Dichlorobenzene	106-46-7	0.2	ND
1,2,3-Trichlorobenzene	87-61-6	0.2	ND
1,2,4-Trichlorobenzene	120-82-1	0.2	ND
1,3,5-Trichlorobenzene	108-70-3	0.2	ND
1,2,3,4-Tetrachlorobenzene	634-66-2	0.2	ND
1,2,3,5-Tetrachlorobenzene	634-90-2	0.2	ND
1,2,4,5-Tetrachlorobenzene	95-94-3	0.2	ND
Pentachlorobenzene	608-93-5	0.2	ND
Hexachlorobenzene	118-74-1	0.2	ND
2-chlorotoluene	95-49-8	0.2	ND
3-chlorotoluene	108-41-8	0.2	ND
4-chlorotoluene	106-43-4	0.2	ND
2,3-dichlorotoluene	32768-54-0	0.2	ND
2,4-dichlorotoluene	95-73-8	0.2	ND
2,5-dichlorotoluene	19398-61-9	0.2	ND
2,6-dichlorotoluene	118-69-4	0.2	ND
3,4-dichlorotoluene	95-75-0	0.2	ND
3,5-dichlorotoluene	25186-47-4	0.2	ND
2,3,4-dichlorotoluene	7359-72-0	0.2	ND
2,3,6-trichlorotoluene	2077-46-5	0.2	ND
2,4,5-trichlorotoluene	6639-30-1	0.2	ND
2,4,6-trichlorotoluene	23749-65-7	0.2	ND
3,4,5-trichlorotoluene	21472-86-6	0.2	ND
2,3,4,5- tetra chlorotoluene	76057-12-0	0.2	ND
2,3,5,6- tetra chlorotoluene	29733-70-8	0.2	ND
2,3,4,6- tetra chlorotoluene	875-40-1	0.2	ND
Pentachlorotoluene	877-11-2	0.2	ND
	Conclusion		PASS

"<" means "less than"; "ND" means "Not detected"; "mg/kg" means "milligram per kilogram"

Recommended Holding Time: NA

Maximum Holding Time: Extraction: 7-days from collection; Analysis: 40-days from extraction

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(4B) Sludge Parameters (Total Metals Threshold Values/ Total Metals-TCLP):

Total Metals (Threshold Values):

Standard Method for Analysis/Testing: In-house Method, USEPA 3015A; USEPA 3051A; USEPA 3052; USEPA 200.7; USEPA 200.8; USEPA 6010C; USEPA 6010D; USEPA 218.6; USEPA 3060a; USEPA 7196; ISO 18412

Substance name	CAS No.	Detection limit, mg/kg	Result, mg/kg (003)	Total Metals Threshold Values (mg/kg)	G Land Application Max Total Metals limit (mg/kg)	Conclusion
Total Arsenic (As)	7440-38-2	2	ND	10	75	
Total Cadmium (Cd)	7440-43-9	0.5	ND	3	85	
Total Chromium (Cr)	7440-47-3	2	ND	100	3000	
Total Lead (Pb)	7439-92-1	2	ND	10	840	
Total Antimony (Sb)	7440-36-0	2	ND	12		PASS
Total Barium (Ba)	7440-39-3	10	ND	700	Sample & Report Only	
Total Cobalt (Co)	7440-48-4	10	ND	1600		
Total Copper (Cu)	7440-50-8	10	ND	200	4300	
Total Nickel (Ni)	7440-02-0	5	ND	70	420	
Total Selenium (Se)	7782-49-2	2	ND	10	100	
Total Silver (Ag)	7440-22-4	10	ND	100	Sample & Report Only	
Total Zinc (Zn)	7440-66-6	10	ND	1000	7500	
Hexavalent Chromium (Cr-VI)	18540-29-9	2	ND	50	50	
Total Mercury (Hg)	7439-97-6	0.05	ND	1	57	

"<" means "less than"; "ND" means "Not detected"; "mg/kg" means "milligram per kilogram"

Recommended Holding Time: Cr-VI: 24-Hours; Mercury: NA; Other Metals: 28-days.

Maximum Holding Time: Cr-VI /Mercury: 28-days; Other Metals: 6-Months.

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Total Metals (TCLP):

Total Metals (Threshold Values):

Standard Method for Analysis/Testing: Preparation: Leachate Extraction: Toxicity Leachate Extraction Procedure, Acid Digestion, Analysis: ICP/ OES, or ICP/ MS/ ISO 11885 ISO 17294-2/ Leachate Extraction: EPA 1311, Analysis: USEPA 200.7 USEPA 200.8 USEPA 6010c USEPA 6020a

	Leachate value			sposal Pathway	s Limit if To	tal Metals and		
Parameters	A Offsite Incineration at >1000°C B Landfill with Significant Control Measures mg/L	C Building Products Processed at >1000°C mg/L	D Landfill with Limited Control Measures mg/L	E Offsite Incineration and Building Products Processed at <1000°C mg/L	F Landfill with No Control Measures mg/L	G Land Application mg/L	Result, mg/L (003)	Conclusion
Arsenic		5	2.75	0.5	0.5	0.5	Not Applicable	-
Cadmium		1	0.58	0.15	0.15	0.15	Not Applicable	-
Total Chromium		15	10	5	5	5	Not Applicable	-
Lead		5	2.75	0.5	0.5	0.5	Not Applicable	-
Antimony		15	7.8	0.6	0.6	0.6	Not Applicable	-
Barium		100	67.5	35	35	35	Not Applicable	-
Cobalt	Report Only if Required to	80	80	80	80	80	Not Applicable	-
Copper	Test	25	17.5	10	10	10	Not Applicable	-
Nickel		20	11.75	3.5	3.5	3.5	Not Applicable	-
Selenium		1	0.75	0.5	0.5	0.5	Not Applicable	-
Silver		5	5	5	5	5	Not Applicable	-
Zinc		250	150	50	50	50	Not Applicable	-
Chromium (VI)		5	3.75	2.5	2.5	0.05	Not Applicable	-
Mercury		0.2	0.125	0.05	0.05	0.05	Not Applicable	-

[&]quot;<" means "less than"; "ND" means "Not detected"; "mg/L" means "milligram per litre".

Note: Test have not been evaluated because Total Metals Threshold Values (Table-4B) and Anions Threshold Values (Table-4D) are not exceeded the limit (Meet the Limit).

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(4C) Sludge Parameter (Conventional and Organic MRSL):

Corresponding Conventional and Organic ZDHC MRSL limits for specific Disposal Pathways

Parameters	A Offsite Incineration at >1000°C B Landfill with Significant Control Measures	C Building Products Processed at >1000°C	Limited Control	E Offsite Incineration and Building Products Processed at <1000°C	F Landfill with No Control Measures	G Land Application	Result (003)	Conclusion
рН		5 - 11	5 - 11	5 - 11	6.5 - 9	6.5 - 9	7.1	DATA
% Solids			Sample and Report	Sample and	Sample and Report Only	Sample and Report Only	38.83%	DATA
Faecal Coliform			Only	Report Only	<1000 MPN/g		<5	DATA
Paint Filter Test			Pass Paint Filter Test	Pace Paint Filter Lect		Sample and Report Only	Absent	DATA
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	Sample and Report Only	Sample and Report Only		<0.4 n	ng/kg		ND	PASS
Polycyclic Aromatic Hydrocarbons (PAHs)								PASS
Chlorotoluenes (only)				<0.2 mg/kg			ND	PASS

"<" means "less than"; "ND" means "Not detected"; "mg/kg" means "milligram per kilogram" Note: Test data has been reported the data table-4A.

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(4D) Sludge Parameters (Anion):

Cyanide:

Standard Method for Analysis/Testing: Preparation: CN converted to HCN by reflux-distillation to NaOH Analysis: Colourimetry (EPA 9014) or ISE (EPA 9213), Preparation: USEPA 9013, Analysis: HJ745, EPA 9014 or EPA 9213.

Detection Limit: 1.0 mg/kg

	Threshol	d Values/ S						
Parameters	A Offsite Incineration at >1000°C B Landfill with Significant Control Measures	C Building Products Processed at >1000°C		E Offsite Incineration and Building Products Processed at <1000°C	F Landfill with No Control Measures	G Land Application	Result, mg/kg (003)	Conclusion
Cyanide	Report only if required to test	100	85	70	70	70	<1.0	PASS

[&]quot;<" means "less than"; "ND" means "Not detected"; "mg/kg" means "milligram per kilogram".

Note: Test data has been reported followed by the data table-4A.

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Untreated Wastewater



Sample Photo(s):

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Untreated Wastewater



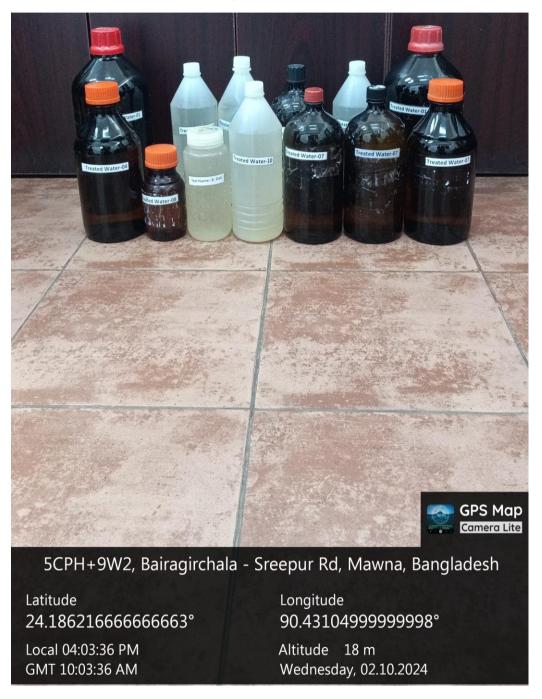
Sampling Point Photo(s):

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Effluent/Treated Wastewater



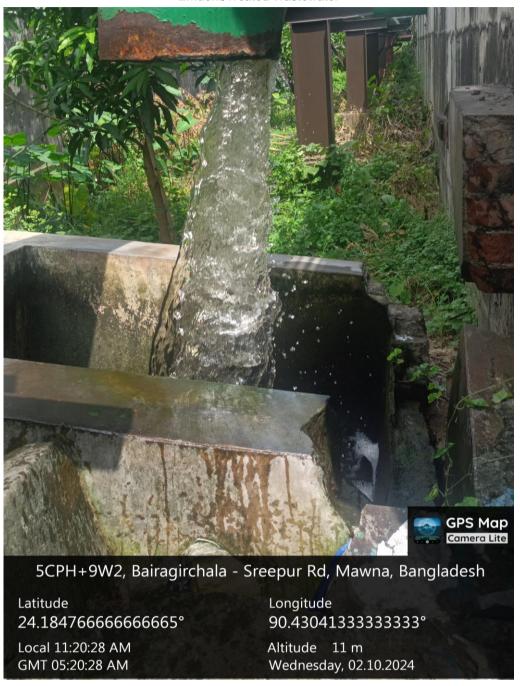
Sample Photo(s):

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Effluent/Treated Wastewater



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Sludge



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Sludge



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Foam



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Receiving Water



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Field Testing Instruments

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Primary Data Above Cory Sample Number / Project No. 100 2 4 6 9 7 1 5												
	MA JANUAL INITYT SETWEZ. DENMACK WASHING LTD. KEWA MOUJA, WARD # 5, GORGOR A MASTERBARI, SHEEPUR, GAZIPUR, BANGLADEDI.											
Sampler's Name & 20HC (D)	OUN-MACE WASHING LTD. REWA MOUIA, WARD #3, GORGORIA MASTERBARI, SHEEPUR, GAZIPUR, BANGLADESH. MISJIRAHRIN AIRM (C740108817971)											
Sampler's Name & 20HC ID Date of Collection	2-Oct-24											
Serroling Location Reference Sampling Guideline		fore Treatment-Untre- ter and Sludge Labora	ated Wastewater sa	mpling point								
Sampling Type		pling/Approved Grab										
Discharge Mode	Direct Discharg	a / Indirect Discharge	with Pretreatment /	Indirect Discharge with	hout Pretreatment/ J	tero Liquid Discharge						
Fectory Type	Dyeing/evinting	e/Washing/Finishing/Fi	ootwear/Others (Ple	ser specify)								
Field Data Sample Matrix (If Yes, X)	Arrival Time (United to the state of the sta			Departure Time: 5.50 = /pm							
Field Parameters					12:30 pm 1,30 pm 3173.3 3261.7 190.4 195.7		6	7				
Recording Time Washewater Flow Meter, Umin Flow Rate(m3/Hour) Control Flow Meter C Manual)		10. 30 Am	11, 30am	12:30 pm	1,30 Pm	2.30pm	3.30 pm	3011				
		180.9	10.30 11.30 m 12:30 pm 3015 3203.0 3173.0 180.9 102.2 100.4 4533.0			192.3	185	1800				
Flow Rate(m3/Day)			45	33,5			1.0					
Retention time of the equalization tank, Hou Color	ers				Blue							
Number of sample Container		6 (2.51)	1 (0.25 L)	2 (11)		The second second second second						
Volume Collected, L. Total Volume Collected, L.		6 X 2.5 L = 15 L	1X0.25= 0.25 L	2 X 1L= 2L		orus Quantity X Bott	le Volume = Total Vol	arrie				
ZDHC Waxtewater Flow Device Dimension					17.25 L							
Measument (cm)		Meter	Pipe (O)	Flume (U)	Weir (V)							
Danielle Danielle		NA NA										
Wastewater Sample Containers and Preservat	ives	NA NA	NA NA	NA								
Tests Name (Conventional Parameters & MRSL)		Required	Required Sample	Sample Container Pre-trea	itment Process & Preservati	06						
Buchanical Origen Demand(8005)		Test (X)	Volume (ml)									
Chisnips, Coleur, Conductivity, TDS, TDS, TDS, Sulfate												
AP and APSOs including all nomers Anti-Microbias & Brocipes												
Characterist a sancials Characterist Parafirs Characterist and Chlorateliums		Ŷ										
		×										
Cinethyl Fornamids (DMFs)		X	-									
Dyes - Cardingsinic or Equivalent Concern Dyes - Disperse (Altergenic)		×										
Dyes - Disperse (Alterprise) Date - Nano Stor Colonial		×	15000	Amberglass cleaned with (2.5L_6 Bottle)	h Nitric acid, rinsed thoroug	nly with distillated water and	dried before use, keep coo	between I'C to B's				
Flame Retardents	Diges – New York Cottomers Frame Retardents											
Clyces I Clytel Ethers		×										
Organitin Compounds OthersMacellaneous Chemicals		×	-									
Prohunties - including all other esters of ortho-phthalic	acid	×										
Polysystic Aromatic Hydrocarbons (PAHs)		×										
Remicial Aramatic Amines (Cleavable from Azo-colo UV Absorbers	urants)	×										
Perfluormated and Polytuornated Chemicals (PFCs)	Perfluormated and Polytuornated Chemicals (PFCs)		1000	2. Plastic with no FP lined lid, keep cool - between 2°C and 8°C								
ristogenated Solvents visable Organic Compounds (VOC)		×	250	3. Amber glass cleaned with	h Nitric acid, rinsed thoroug	Ny with distillated water and	d dried before use, HD < pm	2 ; keep mod - betw				
many Metals (All metals except O-VI)		×	1000			2M HN03, HN03 < pH 2, ke						
con			750									
Gnetiv		1	250	S. PE, Weshes with perticide grade Acetions, 0.45cm fitter in field, add buffer to an 3.0.0.5, long cost between 2°C to 6°C 8. PE, Washes with perticide grade Acetions, NaOH > 12 ptc, Add 0.2 ml of 20% Sodium Thiosoften, benop cost between 2°C to 8°C								
Chemical Cooper Demand(CDS)				The state of the state of	THE PERSON NAMED IN COLUMN 2	THE RESERVE OF STREET STATE ST	the Constant Responded to	channel I Little E.C.				
Phanais		-										
Total Mirages		-	8000	7. Amber glass riesed with	Nitric sold, Fre-add ti Sed o	CEM HOSON WINDS - HE N	Hep and retremen 2'C to 8'C					
DI & Sreace Angeonia Rifragen			1000					100,3 80090				
Total Plengharms		-										
Americanin regardably bound balogues (ACR)		-	250	S. Amber glass rinsed with	Nitric sold, Fre-add 6-5 ed -	ZM HNO3, HNO35 and 7 km	so confluence TV to TV					
Salte		-	250		# Amber glacs risead with Nitric axid. Fre-add 6.5 ml of 2M HM(0), HN(0)- pin 2, keep youd farmeren 2°C to 8°C 9. PE, Washes with pecticide glade Austria, 3.5 ml 2.5% EDTA, keep tool between 2°C to 8°C							
tuttas			250				N. P., have cool between 2°C o	- 100				
K.ook												
Remarks:			500	11. P. Oran, sterile, narris	ractive, 0.1 ml of 10% bottle	n Thiosoflate, Seep opur but	heest 2°C to 8°C					
. The minimum composite sampling time to	ZDHC guideline is	6 hours with no more	then 1 hour between	n discrete samples.								
 If the retention time of the equalization ta ZDHC Wastewater Sampling Facility confit The wastewater sample has been collected a 	nk is 17 hours/ mor mation:	re than untreated & ef	ffluent samples can b	e collected once and	that sample is concid- below was on-site an		le.					
Sampler's Name Sampler's 20HC Accreditation		(C74D106R17971)		CH WAS	HING							
Sampler's Signature		i (Compatibility (171)		13	131	Date :	2-Oct-24					
Facility Representative Name				A CONTRA	10.24							
Facility Representative Signature & Stamp			2.250	1182	100	Date:	2-0ct-24					
Laboratory Received Temperature (*C) & Tim		211	2.25 00	MISTERBA	Laly	Date:	2:00:24					
Sample Received By (Leboratory Person) & D	WEST TO SERVICE STATE OF THE PERSON SERVICE STATE SERVICE	HAlau	4		The !	Date:	2-Oct-24					

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***** End of Report *****

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- 2. Retailer Programs. If you request us to lest compliance with retailer, carrier or other third party program ("Retailer") by requesting Services under the Retailer's program, you consent to our disclosure of all associated information, materials, and deliverables to such Retailer and acknowledge that, notwithstanding any terms to the contrary in these Service Terms, the ownership of the deliverables for the Services will be in accordance with the Retailer's program.
- 3. Payment Terms. You will pay, without set off, our fees and related expenses in accordance with the Quotation including the cost of all taxes, wire or transfer fees, duties, and other fiscal charges which become due on the quoted price and will indemnify us from and against liabilities, incurred as a result of failure to pay any such sums when they become due. We may charge interest at 1% per month (12% per year), or the maximum legal rate if less than 1.0% per month, from the due date until paid fully. You agree to pay reasonable collection costs, including attorneys' fees, if necessary, in the event of late or non-payment.
- 4. Your Requirements. You are responsible for establishing or selecting all Your Requirements that we will use in performing the Services. We may provide you with assistance in developing Your Requirements that meet your needs, however, in all cases you must review and approve Your Requirements to be used in performing the Services.
- 5. Estimated Schedule and Price. Any time schedule and pricing terms set forth in this Quotation are estimates only and subject to change upon reasonable notice from us depending upon the specific project.
- 6. On-Site Investigations. If we perform Services on site at your facilities, or at the facilities of other parties as directed by you; you will ensure that our representatives have safe, secure, and free access to the facilities. Our access will not be conditioned upon the execution of any agreement, waiver, or release. If our representatives are prevented from performing or completing any Services for any reason beyond our reasonable control, we will not be responsible for the nonperformance, and you may be charged for any actual expenses we incur and fees for Services performed.
- 7. Deliverables. We will provide you with a report outlining: (i) your instructions and request for Services accepted by us, (ii) Your Requirements used in providing the Services, (iii) the Services performed, and (iv) the results of those Services. We are under no obligation to refer to or report on any facts or circumstances which are outside your specific instructions received and accepted by us.
- 8. Our Findings. We do not guarantee that our opinions or findings will be recognized or accepted by third parties.
- 9. Use of Names and Marks. Except as otherwise authorized by us in writing, you will not use our name, abbreviation, symbols, marks, or the name of any of our subsidiaries, affiliates, or parent on any goods or their containers or packaging, or in connection with any advertising, promotions, or otherwise.
- 10. Cancellation Fees. If you cancel or change a Quotation: (i) for an inspection after 3:00 PM of the working day before the scheduled inspection date, we will charge you the Quotation price plus any travel costs incurred before the cancellation; (ii) for testing after we receive the sample(s) at the testing facility, we will charge you cancellation fees according to the amount of actual work performed with a minimum cancellation fee of \$100 USD; or (iii) for a scheduled audit date, you will be responsible for all incurred non-refundable travel costs associate with that audit. Any change or cancellation of an audit that occurs within 7 days of the scheduled audit will be charged a \$600 USD fee in addition to any incurred travel costs.
- 11. No Warranty. NO REPRESENTATION, WARRANTY, OR GUARANTEE, EXPRESS OR IMPLIED, IS INCLUDED IN THESE TERMS AND CONDITIONS, OR IN ANY QUOTATION, REPORT, OR OTHER DOCUMENT PROVIDED UNDER THESE TERMS AND CONDITIONS, INCLUDING, BUT NOT LIMITED TO: (i) ANY "IMPLIED WARRANTY OF MERCHANTABILITY" OR "FITNESS FOR A PARTICULAR PURPOSE", (ii) NON-INFRINGEMENT, AND (iii) THAT THE WEB SERVICES (AS DEFINED BELOW) WILL BE UNINTERRUPTED, TIMELY, SECURE, OR ERROR-FREE.
- 12. Your Information. You represent and warrant that all information and data provided to us by you, or on your behalf, is complete and accurate and may be relied upon to provide Services. In addition, you represent and warrant that all of Your Information is owned or licensed by you, and does not infringe on the intellectual property rights of any third party. If any information or data provided to us by you or on your behalf is either incomplete or inaccurate, we will not be liable in any manner for any deficiencies in the Services.
- 13. Ownership of Work Product. You will own the test reports or other materials provided to you pursuant to any Quotation. We may retain a copy of the test reports and other materials for our archives and for creating reports for you and third parties, as required by you.
- 14. Web Services. We may provide you with certain website tools and related services, including the ability to order services online through a website (collectively, the "Web Services"). The Web Services are provided to you as a convenience and are provided on an "as is, as available" basis. By using the Web Services, you acknowledge and agree that no data or content transmitted over our networks, the Internet, or wirelessly, or through or in connection with the Web Services, is guaranteed to be secure or free from unauthorized intrusion, and that data stored by us, our affiliates, or our service providers may be deleted, modified, or damaged. You acknowledge that if you wish to protect your transmission of data or files to us, it is your responsibility to use a secure encrypted connection to communicate with and use the Web Services. Your use of the Web Services is at your sole risk and is subject to any terms of use applicable to such Web Services are included in the definition of Services above.
- 15. Confidentiality. We will not disclose your information obtained in confidence ("Confidential Information") to third parties, except our subsidiaries, affiliates, or subcontractors, without your prior written authorization. Confidential Information will not include information: (a) already known to us, (b) publicly available, (c) subsequently acquired by us from other sources without a breach of these Terms and Conditions, (d) disclosure that is necessary to perform the Services, (e) required to be produced by law or government order, or accreditation authority, or (f) related to a product bearing a UL Mark that should be disclosed to us or our affiliates pursuant to another agreement with your
- 16. Samples. If we require sample examination, you will ship samples to us at your expense. Upon completion of testing, the samples will be destroyed, unless other arrangements are made for return of the samples at your expense. You acknowledge that testing and sample preparation may damage or destroy the sample(s), for which we will not be liable.
- 17. LIMITATION OF LIABILITY. OUR LIABILITY FOR ANY CLAIMS FOR LOSS, DAMAGE, OR EXPENSE OF ANY NATURE AND HOWSOEVER ARISING FOR ANY BREACH OF CONTRACT AND/OR ANY FAILURE TO EXERCISE APPROPRIATE SKILL AND CARE BY US WILL UNDER NO CIRCUMSTANCE EXCEED THE FEES RECEIVED FOR THE SPECIFIC SERVICES WHICH GIVE RISE TO SUCH CLAIMS. UNDER NO CIRCUMSTANCE WILL WE HAVE ANY LIABILITY FOR ANY CLAIMS FOR INDIRECT, CONSEQUENTIAL, INCIDENTAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED ITO: LOSS OF PROPIETS, GOODWILL, USE, DATA, FUTURE BUSINESS, OR PRODUCTION; CANCELLATION OF CONTRACTS ENTERED INTO BY YOU; OR OTHER INTANGIBLE LOSSES (EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES). UNDER NO CIRCUMSTANCE WILL WE BE LIABLE TO YOU FOR ANY CLAIMS FOR LOSS, DAMAGE, OR EXPENSE UNLESS SUCH CLAIM IS BROUGHT UNDER SECTION 24 (DISPUTES). WITHIN TWELVE MONTHS AFTER THE DATE OF THE PERFORMANCE BY US OF THE SERVICES WHICH GIVE RISE TO THE CLAIM OR, IN THE EVENT OF ANY ALLEGED NON-PERFORMANCE, WITHIN TWELVE MONTHS OF THE DATE WHEN SUCH SERVICES SHOULD HAVE BEEN COMPLETED.
- 18. Indemnification. You will defend, hold harmless, and indemnify us and our officers, directors, trustees, employees, agents, or subcontractors against all claims made by any third party for loss, damage, or expense arising out of these Terms and Conditions, including without limitation, the performance or non-performance of any Services or the Web Services.
- 19. Waiver. Any failure by a party to insist upon the performance of any section of these Terms and Conditions will not constitute a waiver of any rights under these Terms and Conditions or future performance of that section.
- 20. No Third Party Beneficiaries. The parties intend that no provisions of these Terms and Conditions will in any way bind or benefit any third party or the public at large and that no third party will have any rights or cause of action under these Terms and Conditions. In particular, in the event Singapore law governs these Terms and Conditions pursuant to Section 23 (Governing Law), a person or entity who is not a party to these Terms and Conditions will have no right under the Contracts (Rights of Third Parties) Act (Chapter 53B) to enforce any term of these Terms and Conditions, regardless of whether such person or entity has been identified by name, as a member of a class, or as answering a particular description.
- 21. No Assignment. Neither party may assign any of its rights or obligations under these Terms and Conditions to any other person without the other party's written authorization. However, we may, upon written notice, assign our rights and obligations under these Terms and Conditions to any of our affiliates or subsidiaries.
- 22. Subcontracting. We may use subcontractors for certain testing or other Services. All subcontractors will meet our current qualification requirements and will comply with our requirements for confidentiality, conflicts of interest, and other less thanks are thanks and other less thanks and other less thanks are thanks and other less thanks and other less thanks are thanks and the less thanks are thanks are thanks and the less thanks are thanks are thanks are thanks are thanks are thanks are th
- 23. Termination and Notice. These Terms and Conditions will continue in effect until terminated by either party upon thirty days written notice or, in the event of your breach of these Terms and Conditions, immediately upon receipt of written notice to you. You will pay those fees and expenses incurred by us prior to termination. Notice to either party may be made by hand delivery, courier service, mail, facsimile, or e-mail transmission at the receiving party's designated principal place of business. Notice to us must be sent both to: UL Verification Services Pte. Ltd, Attn: President, 1 Maritime Square, Harbour Front Centre, #11-03, Singapore 099253 with a copy to UL LLC, Attn: General Counsel at 333 Pfingsten Road, Northbrook, Illinois 60062. Notice will be effective upon receipt.
- 24. Governing Law: These Terms and Conditions will be governed and interpreted by the laws of the State of Illinois, United States of America, except if: (i) UL Contracting Party's principal place of business is Asia, Australia, or New Zealand, then Singapore law, and (ii) UL Contracting Party's principal place of business is Europe, then Swiss law, without reference to the applicable jurisdiction's choice of law principles.
- 25. Disputes. Any dispute or disagreement, other than nonpayment of fees, relating to these Terms and Conditions or the Services, will be settled by confidential, binding arbitration administered by the International Centre for Dispute Resolution of the American Arbitration Association ("AAA") pursuant to the AAA Commercial Arbitration Rules and the Procedures for Large, Complex Commercial Disputes. The arbitration venue will be Chicago, Illinois, except if: (i) UL Contracting Party's principal place of business is in Europe, the venue will be Geneva, Switzerland, and (ii) UL Contracting Party's principal place of business is in Asia, Australia, or New Zealand, the venue will be Singapore, Republic of Singapore. The arbitration will be conducted before a panel of the 9(3) arbitrators. The arbitration panel will be follows: the parties will request a list of ten (10) arbitrators drawn from the AAA's panel of commercial arbitrators (who are experienced in and familiar with the AAA's Procedures for Large, Complex Commercial Disputes). From this list, both parties will each choose one arbitrator. After they have been notified of their panel selection, the two (2) arbitrators will agree on a third arbitrators will gene on a third arbitrators will be the panel's decision. The arbitrators will not have the authority to add, change, or disregard any term of these Terms and Conditions to award incidental, consequential, or punitive damages (including, but not limited to, loss of use, unjust enrichment, and/or lost profits), or exceed the remedies provided by the limitation of liability of these Terms and Conditions. The panel's decision will be binding and judgment on the arbitration award may be entered by a court of competent jurisdiction. Arbitration will be the final remedy for any dispute between the parties arising out of these Terms and Conditions, provided, however, that nothing her
- 26. Severability. If any section of these Terms and Conditions is held invalid, void, or unenforceable for any reason that section will be severed, and all other sections of these Terms and Conditions will remain valid to the extent permissible under law.
- 27. Modifications. These Terms and Conditions are the entire and complete agreement between the parties and supersede any other communications, representations, or agreements with respect to its subject matter. Under no circumstances will any preprinted, additional, or different terms and conditions on your requests for quotation, purchase orders, invoices, sales or marketing materials, emails, any acceptance communications, or other business documents apply to any Services or Quotation or bind us in any manner. Modifications that have not been made by us or that have not been accepted by us in a written or emailed confirmation from us are not accepted by us, and commencement of performance will not signify acceptance by us of any such modifications. Any such modifications are excluded from our agreement, and such modifications will not be a binding agreement on us.
- 28. Order of Precedence. Except for conflicts with Section 2 (Payment Terms), Section 4 (Estimated Schedule and Price) and Section 9 (Cancellation Fees), these Terms and Conditions will take precedence over any conflicting
- 29. Electronic Signature. These Terms and Conditions may be executed and delivered by facsimile, PDF, or by means of other electronic signature. Our electronic, digital, or hard copies of these Terms and Conditions, your acceptance, and Quotations as signed, or otherwise accepted, by you will be the true, complete, valid, authentic, and enforceable copies of these documents. You agree that you will not contest the admissibility or enforceability of our copies in a court or any proceeding arising out of such documents.
- 30. Force Majeure. Neither party will be liable for any failure or delay in the performance of its obligations due to fire, flood, earthquake, elements of nature, or acts of God, acts of war, terrorism, riots, civil disorder, rebellions, or other similar cause beyond the reasonable control of the party affected, provided such default or delay: (i) could not have been prevented by reasonable precautions; (ii) cannot reasonably be circumvented; (iii) and the party hindered or delayed immediately notifies the other party describing the circumstance causing delay.