Test Report No.: 248167477

Client: **KYUNGBANG VIETNAM CO., LTD**

Lot B-3A-CN, Lot B-2B-CN, Bau Bang Industrial Park, Lai Uyen Township, Bau Bang District, Binh Duong Province, Vietnam

Buyer's Name : -

Factory Details

Factory Name	:	KYUNGBANG VIETNAM CO., LTD
Factory Address (with geographical coordinates)	:	Lot B-3A-CN, Lot B-2B-CN, Bau Bang Industrial Park, Lai Uyen Township, Bau Bang District, Binh Duong Province, Vietnam
On-site ETP	:	Y
Discharge Type of Wastewater	:	Direct discharge
Destination of Wastewater	:	Bau Bang Industrial Park Ecological Lake

For Indirect discharge

Name of public wastewater treatment plants(CETP)	:	-
Address of public wastewater treatment plants(CETP)	:	-

Sampling Details

Sampling Date	:	2025-03-26
Sample Receiving Date	:	2025-03-26
Testing Period	:	2025-03-27 to 2025-04-14

Sampling Method:

Sample Type	**Total Volume**	1	2	3	4	5	6	7
Discharged Wastewater	30	09:30	10:30	11:30	12:30	13:30	14:30	15:30
Raw Wastewater	30	09:30	10:30	11:30	12:30	13:30	14:30	15:30
Incoming Water								
Sludge	1000 gram	09:30						

Overall Rating	**Discharged Wastewater**	**Raw Wastewater**	**Sludge**
Conventional Parameters / Anion / Metals	Comply	Not tested	Data
MRSL Parameters	Not Tested	Comply	Data
Legal Compliance	-	Not Tested	Not Tested
Specifications	ZDHC Wastewater Guidelines Version 2.2 (Sep 2024)- Limit refers to Textiles		

All parameters are tested within holding times respected (Table 5 & 6 of ZDHC Wastewater and Sludge Laboratory Sampling and Analysis Plan, Version 2.1- 2022). Storage condition: 2˚C to 8˚C
Sampler: ZDHC-A-24-E-C001068-R3EA5-7C237 (Onsite project: O-P-3935)

For and on behalf of
TÜV Rheinland Vietnam Co., Ltd.

TÜV Rheinland Vietnam Co., Ltd. TÜVRheinland®

2025-04-18 Nguyen Ngo Thi Tan Anh / Group Leader

Date *Name/Position*

Test Report No.: 248167477

Result Summary :

Conventional Parameters	Incoming Water	Discharged Wastewater	Raw Wastewater	Sludge
pH Value	-	Comply	-	-
Temperature	-	Comply	-	-
E.Coli	-	Comply	-	-
Colour	-	Comply	-	-
Persistent Foam	-	Comply	-	-
Wastewater Flowrate	-	Data	-	-
Ammonium Nitrogen	-	Comply	-	-
Adsorbable Organic Halogens (AOX)	-	Comply	-	-
Biochemical Oxygen Demand (BOD5) - 5 Days	-	Comply	-	-
Chemical Oxygen Demand (COD)	-	Comply	-	-
Dissolved Oxygen (DO)	-	Comply	-	-
Oil and Grease	-	Comply	-	-
Phenol	-	Comply	-	-
Chlorine	-	Comply	-	-
Total Dissolved Solids (TDS)	-	Data	-	-
Total Nitrogen	-	Comply	-	-
Total Phosphorous	-	Comply	-	-
Total Suspended Solids (TSS)	-	Comply	-	-
Anion - Chloride	-	Data	-	-
Anion - Cyanide	-	Comply	-	-
Anion - Sulfate	-	Data	-	-
Anion - Sulfide	-	Comply	-	-
Anion - Sulfite	-	Comply	-	-
%Solids	-	-	-	Data
Fecal Coliform	-	-	-	-
Paint Filter Test	-	-	-	-
Heavy Metals	-	Comply	-	-
Leachate Heavy Metals	-	-	-	-
Manufacturing Restricted Substances List (MRSL)	**Incoming Water**	**Discharged Wastewater**	**Raw Wastewater**	**Sludge**
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): Including All Isomers	-	-	Comply	Data
Anti-Microbials & Biocides	-	-	Comply	-
Chlorinated Paraffins	-	-	Comply	-
Chlorobenzenes and Chlorotoluenes	-	-	Comply	Data
Chlorophenols	-	-	Comply	-
Dimethyl Formamide (DMFa)	-	-	Comply	-
Dyes - Carcinogenic or Equivalent Concern	-	-	Comply	-

Dyes - Disperse (Sensitizing)	-	-	Comply	-
Dyes - Navy Blue Colorant	-	-	-	-
Flame Retardants	-	-	Comply	-
Glycols / Glycol Ethers	-	-	Comply	-
Halogenated Solvents	-	-	Comply	-
Organotin Compounds	-	-	Comply	-
Other / Miscellaneous Chemicals	-	-	Comply	-
Perfluorinated and Polyfluorinated Chemicals (PFCs)	-	-	Comply	-
Phthalates - Including all other esters of phthalic acid	-	-	Comply	-
Polycyclic Aromatic Hydrocarbons (PAHs)	-	-	Comply	Data
Restricted Aromatic Amines(Cleavable from Azo)	-	-	Comply	-
UV Absorbers	-	-	Comply	-
Volatile Organic Compounds (VOC)	-	-	Comply	-

Note: Aspirational = Fulfill Aspirational Limit
Foundational = Fulfill Foundational Limit
Comply = Comply with ZDHC Limit
- = Not Tested

Progressive = Fulfill Progressive Limit
Exceed = Exceed Foundational Limit
Not Comply = Not Comply with ZDHC Limit

Material List:

Field ID	Sample Type	Sample Description
R001	Raw	Untreated WW
D001	Effluent	Discharge WW
M003	Sludge	Sludge (Type A)

Notes:

*** Discharge Wastewater:** Wastewater that is released from a supplier, either directly to the environment (including but not limited to: water bodies, land application/irrigation), or to a wastewater treatment system beyond the supplier's property boundaries.

*** Direct Discharge:** A point source that discharges wastewater to stream, lakes, oceans, or other receiving bodies. Distribution of wastewater onto land is also considered a type of direct discharge. Municipal bodies and suppliers that introduce pollution through a defined conveyance or system such as outlet pipes are direct dischargers.

*** Indirect Discharge:** The discharge of wastewater through a sanitary or industrial wastewater sewer system to a central or common effluent treatment plant (CETP) not owned and/ or operated by the supplier discharging the pollutants.

*** Raw Wastewater: (Untreated Wastewater)** Wastewater that has not yet been treated prior to direct or indirect discharge, or recycling efforts. This wastewater therefore does not meet the quality standards for beneficial use.

*** Sludge:** The solid or semi-solid material separated during the wastewater treatment process, including septic and Zero Liquid Discharge (ZLD) systems.

*** Incoming Water:** Water that is supplied to a manufacturing process, usually withdrawn from surface water bodies, groundwater, collected from rainfall, supplied by municipalities, etc.

Type A: On-site or off-site incineration at > 1000°C.

Type B: Landfill with Significant Control Measures.

Type C: Building Products Processed at > 1000°C.

Type D: Landfill with Limited Control Measures.

Type E Offsite Incineration and Building Products Processed at < 1000°C.

Type F: Landfill with No Control Measures.

Type G: Land application for a specific purpose in approved areas.

1.pH Value

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
pH Value	PH	MS-0023003 (ver2) (Ref: US EPA Method 150.1:1982 pH)	NONE	NA	8.2
Conclusion					Comply

Abbreviation: NA = Not Applicable

Remark:

The limits according to ZDHC limit (Table 3 & 4C of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Wastewater Limit**		
	Foundational	**Progressive**	**Aspirational**
pH Value	6-9		

Parameter	**ZDHC Sludge Limit**						
Sludge Type	A	B	C	D	E	F	G
pH Value	NA			5-11	5-11	6.5-9	6.5-9

2.Temperature

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Temperature of the receiving body of water	Temp-Receiving Water	MS-0023003 (ver2) (Ref: US EPA Method 150.1:1982 pH)	ºC	NA	30.8
Temperature of the water in the discharge pipe	Temp-Discharge Pipe	MS-0023003 (ver2) (Ref: US EPA Method 150.1:1982 pH)	ºC	NA	34.7
The difference between the discharge pipe temp and the receiving body of water	Temp-Difference	MS-0023003 (ver2) (Ref: US EPA Method 150.1:1982 pH)	ºC	NA	3.9
Conclusion					Comply

Abbreviation: °C = Degrees Celsius
NA = Not Applicable

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (°C)**		
	Foundational	**Progressive**	**Aspirational**
Temperature	Δ +15	Δ +10	Δ +5

Δ is the degree above ambient temperature of receiving water body.

3.E.Coli

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
E.Coli	E.Coli	SMEWW 9221 B, 9221 G: 2017	MPN/100ml	1.8	4.5
Conclusion					Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
MPN/100ml =Most Probable Number per 100 milliliter

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (MPN/100ml)**		
	Foundational	**Progressive**	**Aspirational**
E.Coli	126		

4.Colour

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Colour 436 NM	COLOUR-436	MS-0022998 (ver2) (Ref: ISO 7887: 2011- Method B)	m^{-1}	NA	1.9
Colour 525 NM	COLOUR-525	MS-0022998 (ver2) (Ref: ISO 7887: 2011- Method B)	m^{-1}	NA	0.3
Colour 620 NM	COLOUR-620	MS-0022998 (ver2) (Ref: ISO 7887: 2011- Method B)	m^{-1}	NA	0.05
Conclusion					Comply

Abbreviation: NM = nanometer
NA = Not Applicable

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (m^{-1})**		
	Foundational	**Progressive**	**Aspirational**
Colour	7;5;3	5;3;2	2;1;1

5.Persistent Foam

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Persistent Foam	FOAM	Visual estimation	NONE	NA	Absent
Conclusion					Comply

Abbreviation: NA = Not Applicable

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit**		
	Foundational	**Progressive**	**Aspirational**
Persistent Foam	The presence of foam is no thicker than 45 centimetres (by visual estimation), and is contained within the aeration basin.		

6.Wastewater Flowrate

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Wastewater Flowrate	Flowrate	NA	m^3 / day	NONE	1648.49
Conclusion					Data

Abbreviation: m^3 / day = cubic metre per day
NA = Not Applicable

Remark:

(*) Daily Average is be calculated as the total Industrial Wastewater generated over 12 months/total working days in a 12 month period

7.Ammonium Nitrogen

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Ammonium Nitrogen	AMMONIUM-N	SM 4500-NH3 (F): 2017	mg/L	0.5	n.d.
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Ammonium Nitrogen	10	1	0.5

8.Adsorbable Organic Halogens (AOX)

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Adsorbable Organic Halogens	AOX	MS-0029913 (ver1) (Ref: ISO 9562:2004)	mg/L	0.1	0.6
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Adsorbable Organic Halogens (AOX)	3	0.5	0.1

9.Biochemical Oxygen Demand (BOD5) - 5 Days

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Biochemical Oxygen Demand	BOD5	MS-0029918 (ver1) (Ref: ISO 5815-1: 2019 & ISO 5813-1:1983)	mg/L	5	7
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Biochemical Oxygen Demand (BOD_5)	30	15	8

10.Chemical Oxygen Demand (COD)

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Chemical Oxygen Demand	COD	MS-0023031 (ver1) (Ref: SMEWW 5220D:2017)	mg/L	30	58
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Chemical Oxygen Demand (COD)	150	80	40

11.Dissolved Oxygen (DO)

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Dissolved Oxygen	DO	ISO 5814: 2012	mg/L	1	6.57
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Dissolved Oxygen (DO)	> 4		

12.Oil and Grease

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Oil and Grease	OG	US EPA 1664 (B):2010	mg/L	0.5	n.d.
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Oil and Grease	10	2	0.5

13.Phenol

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Phenol	108-95-2	MS-0023013 (ver3) (Ref: SMEWW 5530-C: 2017)	mg/L	0.001	0.008
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Phenol	0.5	0.01	0.001

14.Total Chlorine

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Total Chlorine	Total Chlorine	MS-0047585-ver0 (ref. to EPA 330.5: 1978)	mg/L	0.5	0.99
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Total Chlorine	1		

15.Total Dissolved Solids (TDS)

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Total Dissolved Solids	TDS	SMEWW 2540C: 2017	mg/L	5	4800
Conclusion					Data

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Total Dissolved Solids	Sample and report only		

16.Total Nitrogen

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Total Nitrogen	TOTAL-N	SM 4500N-C: 2023	mg/L	5	14
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Total Nitrogen	20	10	5

17.Total Phosphorous

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Total Phosphorous	TOTAL-P	BS EN ISO 11885:2009	mg/L	0.1	0.3
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Total Phosphorous	3	0.5	0.1

18.Total Suspended Solids (TSS)

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Total Suspended Solids	TSS	MS-0023009 (ver2) (Ref: SMEWW 2540D:2017 & ISO 11923:1997)	mg/L	5	n.d
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Total Suspended Solids	50	15	5

19.Anion - Chloride

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Anion - Chloride	Chloride	SMEWW 4110B: 2017	mg/L	0.1	300
Conclusion					Data

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Anion - Chloride	Sample and report only		

20.Anion - Cyanide

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Anion - Cyanide	57-12-5	SMEWW 4500-CN- (C&E)-2017	mg/L	0.05	n.d.
Conclusion					Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

Remark:

The limits according to ZDHC limit (Table 3 & 4C of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit for Wastewater (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Anion - Cyanide	0.2	0.1	0.05

Parameter	**ZDHC Sludge Limit (mg/kg)**						
Sludge Type	A	B	C	D	E	F	G
Anion - Cyanide	NA			85	70	70	70

21.Anion - Sulfate

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Anion - Sulfate	Sulfate	SMEWW 4110B: 2017	mg/L	0.1	2000
Conclusion					Data

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Anion - Sulfate	Sample and report only		

22.Anion - Sulfide

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Anion - Sulfide	18496-25-8	MS-0029916 (ver0) (Ref: SMEWW 4500 S2- (D): 2017)	mg/L	0.01	n.d
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Anion - Sulfide	0.5	0.05	0.01

23.Anion - Sulfite

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Anion - Sulfite	14265-45-3	MS-0029917 (ver0) (Ref: SMEWW 4500 SO32- (B): 2017)	mg/L	0.2	n.d.
Conclusion					Comply

Abbreviation: mg/L = milligram per liter
n.d. = not detected (< Reporting Limit)
RL =reporting limit

Remark:

The limits according to ZDHC limit (Table 3 of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Limit (mg/L)**		
	Foundational	**Progressive**	**Aspirational**
Anion - Sulfite	2	0.5	0.2

24.%Solids

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
%Solids	%Solids	EPA 160.3: 1971	%	0.1	30
Conclusion					Data

Abbreviation: % = percentage
NA = Not Applicable

Remark:

The limits according to ZDHC limit (Table 4C of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Sludge Limit**						
Sludge Type	A	B	C	D	E	F	G
%Solids	Sample and Report Only						

25.Heavy Metals

				Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Antimony (Sb) *	Antimony	USEPA 200.8: 1994	mg/L	0.01	0.049
Chromium (Cr, total)	Chromium Total	USEPA 200.8: 1994	mg/L	0.05	n.d.
Cobalt (Co)	Cobalt	USEPA 200.8: 1994	mg/L	0.01	n.d.
Copper (Cu)	Copper	USEPA 200.8: 1994	mg/L	0.25	n.d.
Nickel (Ni)	Nickel	USEPA 200.8: 1994	mg/L	0.05	n.d.
Silver (Ag)	Silver	USEPA 200.8: 1994	mg/L	0.005	n.d.
Zinc (Zn)	Zinc	USEPA 200.8: 1994	mg/L	0.5	n.d.
Arsenic (As)	Arsenic	USEPA 200.8: 1994	mg/L	0.005	n.d.
Cadmium (Cd)	Cadmium	USEPA 200.8: 1994	mg/L	0.01	n.d.
Chromium (Cr VI)	Chromium VI	MS-0031574-(ver 0) (Ref: ISO 18412:2005)	mg/L	0.001	n.d.
Lead (Pb)	Lead	USEPA 200.8: 1994	mg/L	0.01	n.d.
Mercury (Hg)	Mercury	USEPA 200.8: 1994	mg/L	0.001	n.d.
Barium (Ba)	Barium	USEPA 200.8: 1994	mg/L	0.05	n.d.
Selenium (Se)	Selenium	USEPA 200.8: 1994	mg/L	0.05	n.d.
Tin (Sn)	Tin	USEPA 200.8: 1994	mg/L	0.05	n.d.
Conclusion					Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

Remark:

The limits according to ZDHC limit (Table 2 & 4B of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	ZDHC Limit for Wastewater (mg/L)			ZDHC Limit for Sludge (mg/kg)		
	Foundational	Progressive	Aspirational	Disposal pathway A-F	Disposal pathway G	Total Metals Threshold Values**
Antimony (Sb)	0.1	0.05	0.01	Report only	NA	12
Chromium (Cr, total)	0.2	0.1	0.05		1200	100
Cobalt (Co)	0.05	0.02	0.01		NA	1600
Copper (Cu)	1	0.5	0.25		1500	200
Nickel (Ni)	0.2	0.1	0.05		420	70
Silver (Ag)	0.1	0.05	0.005		NA	100
Zinc (Zn)	5.0	1.0	0.5		2800	1000
Arsenic (As)	0.05	0.01	0.005		41	10
Cadmium (Cd)	0.1	0.05	0.01		39	3
Chromium (Cr VI)	0.05	0.005	0.001		50	50
Lead (Pb)	0.1	0.05	0.01		400	10
Mercury (Hg)	0.01	0.005	0.001		17	1
Barium (Ba)	Sample and report only				500	700
Selenium (Se)	Sample and report only				36	10
Tin (Sn)	Sample and report only				NA	NA

* if the Total Metals for Sludge exceeded the Total Metals Threshold Values (mg/kg) given in this table, proceed with Leachate Heavy Metal.

26.Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): Including All Isomers

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Nonylphenol (NP), mixed isomers	Multiple Including 104-40-5 25154-52-3 11066-49-2 84852-15-3	MS-0037074 (ver1) (Ref: ASTM D7065-06)	µg/L	5	5	n.d.
Octylphenol (OP), mixed isomers	Multiple Including 140-66-9 1806-26-4 27193-28-8	MS-0037074 (ver1) (Ref: ASTM D7065-06)	µg/L	5	5	n.d.
Nonylphenol ethoxylates (NPEO)	Multiple Including 9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0	MS-0037073 (ver1) (Ref: ASTM D7065-06)	µg/L	5	5	n.d.
Octylphenol ethoxylates (OPEO)	Multiple Including 9002-93-1 9036-19-5 68987-90-6	MS-0037073 (ver1) (Ref: ASTM D7065-06)	µg/L	5	5	n.d.
Conclusion						Comply

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Nonylphenol (NP), mixed isomers	Multiple Including 104-40-5 25154-52-3 11066-49-2 84852-15-3	Reference to MS-0037074 (ver1) (Ref: ASTM D7065-06)	mg/kg	0.4	4.7
Octylphenol (OP), mixed isomers	Multiple Including 140-66-9 1806-26-4 27193-28-8	Reference to MS-0037074 (ver1) (Ref: ASTM D7065-06)	mg/kg	0.4	n.d.
Nonylphenol ethoxylates (NPEO)	Multiple Including 9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0	Reference to MS-0037073 (ver1) (Ref: ASTM D7065-06)	mg/kg	0.4	n.d.
Octylphenol ethoxylates (OPEO)	Multiple Including 9002-93-1 9036-19-5 68987-90-6	Reference to MS-0037073 (ver1) (Ref: ASTM D7065-06)	mg/kg	0.4	n.d.
Conclusion					Data

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

Remark:

The limits according to ZDHC limit (Table 4A of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Sludge Limit (mg/kg)**						
Sludge Type	**A**	**B**	**C**	**D**	**E**	**F**	**G**
AP & APEOs	Sample and Report Only			0.4	0.4	0.4	0.4

27.Anti-Microbials & Biocides

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
o-Phenylphenol (+Salts)	90-43-7	BS EN 12673-1999	µg/L	100	100	n.d.
Permethrin	Multiple including 52645-53-1	EPA 8270E: 2018	µg/L	500	500	n.d.
Triclosan	3380-34-5	BS EN 12673-1999	µg/L	100	100	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

28.Chlorinated Paraffins

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Medium-chain Chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	Reference to ISO 18219-1&2:2021	µg/L	500	500	n.d.
Short-chain Chlorinated paraffins (SCCPs) (C10-C13)	85535-84-8	Reference to ISO 18219-1&2:2021	µg/L	25	25	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

29.Chlorobenzenes and Chlorotoluenes

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
1,2-Dichlorobenzene	95-50-1	US EPA 8270 E: 2018 (Liquid Extraction, determination by GC MS)	µg/L	0.2	0.2	n.d.
Other isomers of mono, di-, tri-, tetra-, penta- and hexa- Chlorobenzene and mono, di- tri-, tetra- and penta-Chlorotoluene	Multiple including 108-90-7,541-73-1,106-46-7,87-61-6,120-82-1,108-70-3,634-66-2,634-90-2,95-94-3,608-93-5,118-74-1,95-49-8,108-41-8,106-43-4,32768-54-0,95-73-8,19398-61-9,118-69-4,95-75-0,25186-47-4,7359-72-0,2077-46-5,6639-30-1,23749-65-7,21472-86-6,1006-32-2,875-40-1,1006-31-1,877-11-2	US EPA 8270 E: 2018 (Liquid Extraction, determination by GC MS)	µg/L	0.2	0.2	n.d.
Conclusion						Comply

					Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL		Result
mono, di- tri-, tetra- and penta-Chlorotoluene	Multiple	Reference to MS-0048859 v0 (ref. to US EPA 8270 E: 2018 (Liquid Extraction, determination by GC-MS))	mg/kg	0.2		n.d.
Conclusion						Data

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

Remark:

The limits according to ZDHC limit (Table 4C of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Sludge Limit (mg/kg)**						
Sludge Type	A	B	C	D	E	F	G
mono, di- tri-, tetra- and penta-Chlorotoluene	Sample and Report only			0.2	0.2	0.2	0.2

30.Chlorophenols

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
2-Chlorophenol	95-57-8	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
3-chlorophenol	108-43-0	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
4-chlorophenol	106-48-9	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,3-Dichlorophenol	576-24-9	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,4-Dichlorophenol	120-83-2	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,5-Dichlorophenol	583-78-8	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,6-Dichlorophenol	87-65-0	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
3,4-Dichlorophenol	95-77-2	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
3,5- Dichlorophenol	591-35-5	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,3,4-Trichlorophenol	15950-66-0	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,3,5-Trichlorophenol	933-78-8	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,3,6-Trichlorophenol	933-75-5	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,4,5-Trichlorophenol	95-95-4	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,4,6-Trichlorophenol	88-06-2	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
3,4,5-Trichlorophenol	609-19-8	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,3,4,5-Tetrachlorophenol	4901-51-3	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,3,4,6-Tetrachlorophenol	58-90-2	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
2,3,5,6-Tetrachlorophenol	935-95-5	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
Pentachlorophenol	87-86-5	MS-0039398 (ver0) (Ref: ISO 14154:2005)	µg/L	0.5	0.5	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

31.Dimethyl Formamide (DMFa)

						Sample No. R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Dimethyl formamide (DMFa) *	68-12-2	EPA 8270E: 2018 (Extraction: refer to EPA 3510C: 1996)	µg/L	1000	1000	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

Remark:

* Sample and Report only for leather

32.Dyes - Carcinogenic or Equivalent Concern

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
C.I. Direct Black 38	1937-37-7	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I. Direct Blue 6	2602-46-2	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I. Acid Red 26	3761-53-3	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I. Basic Red 9	569-61-9	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I. Direct Red 28	573-58-0	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I. Basic Violet 14	632-99-5	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I. Disperse Blue 1	2475-45-8	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I. Disperse Blue 3	2475-46-9	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I Basic Green 4 (malachite green chloride)	569-64-2	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I Basic Green 4 (malachite green oxalate)	2437-29-8	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I Basic Green 4 (malachite green)	10309-95-2	Reference to DIN 54231:2022	µg/L	500	500	n.d.
Disperse Orange 11	82-28-0	Reference to DIN 54231:2022	µg/L	500	500	n.d.
Basic violet 3 with >0.1% of Michler's Ketone	548-62-9	Reference to DIN 54231:2022	µg/L	500	500	n.d.
C.I. Acid Viiolet 49	1694-09-3	Reference to DIN 54231:2022	µg/L	500	500	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

33.Dyes - Disperse (Sensitizing)

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Disperse Yellow 1	119-15-3	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Blue 102	12222-97-8	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Blue 106	12223-01-7	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Yellow 39	12236-29-2	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Orange 37/59/76	13301-61-6	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Brown 1	23355-64-8	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Orange 1	2581-69-3	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Yellow 3	2832-40-8	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Red 11	2872-48-2	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Red 1	2872-52-8	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Red 17	3179-89-3	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Blue 7	3179-90-6	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Blue 26	3860-63-7	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Yellow 49	54824-37-2	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Blue 35	12222-75-2	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Blue 124	61951-51-7	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Yellow 9	6373-73-5	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Orange 3	730-40-5	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Disperse Blue 35	56524-77-7	Reference to DIN 54231:2022	µg/L	50	50	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

34.Flame Retardants

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Tris-(2-chloro-ethyl)-phosphate (TCEP)	115-96-8	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Decabromodiphenyl ether (DecaBDE)	1163-19-5	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Tri-(2,3-di-bromo-propyl)-phosphate (TRIS)	126-72-7	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Octabromodiphenyl ether (OctaBDE)	32536-52-0	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Bis-(2,3-di-bromo-propyl)-phosphate (BDBPP)	5412-25-9	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Tris(1-aziridinyl)phosphine oxide) (TEPA)	545-55-1	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Polybromobiphenyls (PBB)	59536-65-1	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Tetra-bromo-bisphenol-A (TBBPA)	79-94-7	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Hexabromocyclododecane(HBCDD)	3194-55-6	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Tris-(1,3-di-chloro-iso-propyl)-phosphate (TDCP)	13674-87-8	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Decabromobiphenyl (DecaBB)	13654-09-6	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Dibromobiphenyls (DiBB)	Multiple	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Octabromobiphenyls (OctaBB)	Multiple	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Tetrabromobisphenol A bis(dibromopropyl ether)	21850-44-2	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Hexabromodiphenyl ether (hexaBDE)	36483-60-0	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Monobromobiphenyls (MonoBB)	Multiple	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Monobromodiphenylethers Multiple (MonoBDEs)	Multiple	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Nonabromobiphenyls (NonaBB)	Multiple	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.

Tribromodiphenylethers (TriBDEs)	Multiple	Reference to ISO 17881-1:2016 & ISO 17881-2:2016	µg/L	25	25	n.d.
Boric acid	10043-35-3; 11113-50-1	USEPA 200.8: 1994 (ICP-MS)	µg/L	100	500	B: n.d. (*)
Diboron trioxide	1303-86-2	USEPA 200.8: 1994 (ICP-MS)	µg/L	100	500	B: n.d. (*)
Disodium octaborate	12008-41-2	USEPA 200.8: 1994 (ICP-MS)	µg/L	100	500	B: n.d. (*)
Disodium tetraborate anhydrous	1303-96-4; 1330-43-4	USEPA 200.8: 1994 (ICP-MS)	µg/L	100	500	B: n.d. (*)
Tetraboron disodium heptaoxide, hydrate	12267-73-1	USEPA 200.8: 1994 (ICP-MS)	µg/L	100	500	B: n.d. (*)
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

Remark:

(*) B= Boron
Limit refers to boron.

35.Glycols / Glycol Ethers

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Bis(2-methylethyl)ether	111-96-6	MS-0048860-v0 (Ref. to US EPA 8270 E:2018 (Liquid Extraction, determination by GC-MS))	µg/L	50	50	n.d.
2-Ethoxyethanol	110-80-5	MS-0048860-v0 (Ref. to US EPA 8270 E:2018 (Liquid Extraction, determination by GC-MS))	µg/L	50	50	n.d.
2-Ethoxyethyl acetate	111-15-9	MS-0048860-v0 (Ref. to US EPA 8270 E:2018 (Liquid Extraction, determination by GC-MS))	µg/L	50	50	n.d.
Ethylene glycol dimethyl ether	110-71-4	MS-0048860-v0 (Ref. to US EPA 8270 E:2018 (Liquid Extraction, determination by GC-MS))	µg/L	50	50	n.d.
2-Methoxyethanol	109-86-4	MS-0048860-v0 (Ref. to US EPA 8270 E:2018 (Liquid Extraction, determination by GC-MS))	µg/L	50	50	n.d.
2-Methoxyethyl acetate	110-49-6	MS-0048860-v0 (Ref. to US EPA 8270 E:2018 (Liquid Extraction, determination by GC-MS))	µg/L	50	50	n.d.
2-Methoxypropyl acetate	70657-70-4	MS-0048860-v0 (Ref. to US EPA 8270 E:2018 (Liquid Extraction, determination by GC-MS))	µg/L	50	50	n.d.
Triethylene glycol dimethyl ether	112-49-2	MS-0048860-v0 (Ref. to US EPA 8270 E:2018 (Liquid Extraction, determination by GC-MS))	µg/L	50	50	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

36.Halogenated Solvents

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
1,2-dichloroethane	107-06-2	EPA 8260 B: 1996	µg/L	1	1	n.d.
Methylene chloride	75-09-2	EPA 8260 B: 1996	µg/L	1	1	n.d.
Trichloroethylene	79-01-6	EPA 8260 B: 1996	µg/L	1	1	n.d.
Tetrachloroethylene	127-18-4	EPA 8260 B: 1996	µg/L	1	1	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

37.Organotin Compounds

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Mono-,di-and tri-methyltin derivatives	Multiple including 993-16-8 753-73-1 1066-45-1	MS-0037081 (ver1) (Ref: ISO 17353:2004)	µg/L	0.01	0.01	n.d.
Mono-,di-and tri-butyltin derivatives	Multiple including 1118-46-3 1461-22-9	MS-0037081 (ver1) (Ref: ISO 17353:2004)	µg/L	0.01	0.01	n.d.
Mono-,di-and tri-phenyltin derivatives	Multiple including 1124-19-2 1135-99-5 639-58-7	MS-0037081 (ver1) (Ref: ISO 17353:2004)	µg/L	0.01	0.01	n.d.
Mono-,di-and tri-octyltin derivatives	Multiple including 3091-25-6 3542-36-7 2587-76-0	MS-0037081 (ver1) (Ref: ISO 17353:2004)	µg/L	0.01	0.01	n.d.
Dipropyltin compounds (DPT)	Multiple including 867-36-7	MS-0037081 (ver1) (Ref: ISO 17353:2004)	µg/L	0.01	0.01	n.d.
Tetrabutyltin compounds (TeBT)	Multiple including 1461-25-2	MS-0037081 (ver1) (Ref: ISO 17353:2004)	µg/L	0.01	0.01	n.d.
Tripropyltin Compounds (TPT)	Multiple including 2279-76-7	MS-0037081 (ver1) (Ref: ISO 17353:2004)	µg/L	0.01	0.01	n.d.
Tetraoctyltin compounds (TeOT)	Multiple including 3590-84-9	MS-0037081 (ver1) (Ref: ISO 17353:2004)	µg/L	0.01	0.01	n.d.
Tricyclohexyltin (TCyHT)	Multiple including 3091-32-5	MS-0037081 (ver1) (Ref: ISO 17353:2004)	µg/L	0.01	0.01	n.d.
Tetraethyltin Compounds (TeET)	Multiple including 597-64-8	MS-0037081 (ver1) (Ref: ISO 17353:2004)	µg/L	0.01	0.01	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

38.Other / Miscellaneous Chemicals

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
AEEA [2-(2-aminoethylamino) ethanol]	111-41-1	MS-0047602-v0 (Liquid extraction, LC-MS/MS)	µg/L	500	500	n.d.
Bisphenol A	80-05-7	MS-0047603-v0 (Liquid extraction, GC-MS)	µg/L	10	10	n.d.
Thiourea	62-56-6	MS-0047825 v0 (Liquid extraction, LC-DAD)	µg/L	50	50	n.d.
Quinoline	91-22-5	MS-0047601-v0 (Liquid extraction,LC-MS/MS)	µg/L	50	50	n.d.
Borate, zinc salt	12767-90-7	USEPA 200.8: 1994 (ICP-MS)	µg/L	100	100	B: n.d.; Zn: n.d. (*)
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

Remark:

(*) B= Boron; Zn= Zinc
Limit refers to boron and zinc individually, not the salt.

39.Perfluorinated and Polyfluorinated Chemicals (PFCs)

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Perfluorooctane sulfonate (PFOS) and related substances	Multiple including 1763-23-1	Reference to MS-0009471 (2019) (Ref: CEN/TS 15968:2014)	µg/L	0.01	0.01	n.d.
Perfluorooctanoic acid (PFOA) and related substances	Multiple including 335-67-1	Reference to MS-0009471 (2019) (Ref: CEN/TS 15968:2014)	µg/L	1	1	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

40.Phthalates - Including all other esters of phthalic acid

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Di(ethylhexyl) phthalate (DEHP)	117-81-7	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Bis(2-methoxyethyl) phthalate(DMEP)	117-82-8	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Di-n-octyl phthalate (DNOP)	117-84-0	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Di-iso-decyl phthalate (DIDP)	26761-40-0	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Di-Isononyl Phthalate (DINP)	28553-12-0	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Di-n-hexyl phthalate (DnHP)	84-75-3	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Di-n-butyl phthalate (DBP)	84-74-2	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Butyl benzyl phthalate (BBP)	85-68-7	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Dinonyl phthalate (DNP)	84-76-4	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Diethyl phthalate (DEP)	84-66-2	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Di-n-propyl phthalate (DPRP)	131-16-8	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Di-isobutyl phthalate (DIBP)	84-69-5	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Di-cyclohexyl phthalate (DCHP)	84-61-7	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Di-iso-octyl phthalate (DIOP)	27554-26-3	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
1,2-benzenedicarboxylic acid, di-C7-11-branched and linearalkyl esters (DHNUP)	68515-42-4; 68515-50-4	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6; 84777-06-0	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Di-n-pentylphalates	131-18-0	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Diisopentylphthalates	605-50-5	MS-0037084 (ver0) (Ref: US EPA 8270D:1998)	µg/L	10	10	n.d.
Conclusion					--	Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

41.Polycyclic Aromatic Hydrocarbons (PAHs)

					Sample No.	D001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Benzo(a)pyrene	50-32-8	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Anthracene	120-12-7	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Pyrene	129-00-0	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Benzo[ghi]perylene	191-24-2	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Benzo(e)pyrene	192-97-2	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Indeno[1,2,3-cd]pyrene	193-39-5	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Benzo(j)fluoranthene	205-82-3	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Benzo[b]fluoranthene	205-99-2	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Fluoranthene	206-44-0	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Benzo[k]fluoranthene	207-08-9	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Acenaphthylene	208-96-8	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Chrysene	218-01-9	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Dibenz(a,h)anthracene	53-70-3	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Benzo[a]anthracene	56-55-3	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Acenaphthene	83-32-9	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Phenanthrene	85-01-8	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Fluorene	86-73-7	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Naphthalene	91-20-3	MS-0037082 (ver0) (Ref: US EPA 8270:1986)	µg/L	1	1	n.d.
Conclusion						Comply

				Sample No.	S001
Parameter	Parameter Code	Test Method	Unit	RL	Result
Benzo(a)pyrene	50-32-8	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Anthracene	120-12-7	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Pyrene	129-00-0	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Benzo[ghi]perylene	191-24-2	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Benzo(e)pyrene	192-97-2	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Indeno[1,2,3-cd]pyrene	193-39-5	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Benzo(j)fluoranthene	205-82-3	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Benzo[b]fluoranthene	205-99-2	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Fluoranthene	206-44-0	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Benzo[k]fluoranthene	207-08-9	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Acenaphthylene	208-96-8	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Chrysene	218-01-9	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Dibenz(a,h)anthracene	53-70-3	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Benzo[a]anthracene	56-55-3	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Acenaphthene	83-32-9	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Phenanthrene	85-01-8	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Fluorene	86-73-7	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Naphthalene	91-20-3	EPA 8270E: 2018 (Extraction: refer to EPA 3550C: 2007)	mg/kg	0.2	n.d.
Conclusion					Data

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

Remark:

The limits according to ZDHC limit (Table 4C of ZDHC Wastewater Guidelines Version 2.2 issued in September 2024):

Parameter	**ZDHC Sludge Limit (mg/kg)**						
Sludge Type	A	B	C	D	E	F	G
PAHs	Sample and Report only			0.2	0.2	0.2	0.2

42.Restricted Aromatic Amines(Cleavable from Azo)

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
4,4'-methylene-bis-(2-chloroaniline)	101-14-4	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4,4'-diaminodiphenylmethane	101-77-9	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4,4'-oxydianiline	101-80-4	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4-chloroaniline	106-47-8	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
3,3'-Dimethoxybenzidine	119-90-4	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
3,3'-Dimethylbenzidine	119-93-7	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
6-Methoxy-m-toluidine	120-71-8	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
2,4,5-trimethylaniline	137-17-7	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4,4'-Thiodianiline	139-65-1	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4-aminoazobenzene	60-09-03	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4-methoxy-m-phenylenediamine	615-05-4	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.

4,4'-Methylenedi-o-toluidine	838-88-0	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
2,6-xylidine	87-62-7	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
o-anisidine	90-04-0	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
2-naphthylamine	91-59-8	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
3,3'-Dichlorobenzidine	91-94-1	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4-Aminobiphenyl	92-67-1	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
benzidine	92-87-5	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
o-toluidine	95-53-4	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
2,4-xylidine	95-68-1	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4-chloro-o-toluidine	95-69-2	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4-methyl-m-phenylenediamine	95-80-7	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
o-Aminoazotoluene	97-56-3	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
5-nitro-o-toluidine	99-55-8	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4-chloro-o-toluidinium chloride	3165-93-3	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
2-Naphthylammoniumacetate	553-00-4	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
4-methoxy-m-phenylene diammonium sulphate	39156-41-7	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
2,4,5-trimethylaniline hydrochloride	21436-97-5	Reference to ISO 14362-1:2017 & ISO 14362-3:2017	µg/L	0.1	0.1	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

43.UV Absorbers

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	36437-37-3	EPA 8270E: 2018 (Extraction: refer to EPA 3510C: 1996)	µg/L	100	100	n.d.
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	EPA 8270E: 2018 (Extraction: refer to EPA 3510C: 1996)	µg/L	100	100	n.d.
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	EPA 8270E: 2018 (Extraction: refer to EPA 3510C: 1996)	µg/L	100	100	n.d.
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	EPA 8270E: 2018 (Extraction: refer to EPA 3510C: 1996)	µg/L	100	100	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

44.Volatile Organic Compounds (VOC)

					Sample No.	R001
Parameter	Parameter Code	Test Method	Unit	RL	ZDHC Limit	Result
Benzene	71-43-2	ISO 11423-1:1997	µg/L	1	1	n.d.
Xylene	1330-20-7	ISO 11423-1:1997	µg/L	1	1	n.d.
o-cresol	95-48-7	ISO 11423-1:1997	µg/L	1	1	n.d.
p-cresol	106-44-5	ISO 11423-1:1997	µg/L	1	1	n.d.
m-cresol	108-39-4	ISO 11423-1:1997	µg/L	1	1	n.d.
Toluene*	108-88-3	ISO 11423-1:1997	µg/L	1	1	n.d.
Conclusion						Comply

Abbreviation: n.d. = not detected (< Reporting Limit)
RL =reporting limit
mg/L = milligram per liter
mg/kg = milligram per kilogram

Sampling Photo

Untreated WW (Sampling point)

Discharge WW (Sampling point)

Sludge (Sampling point)

R001- Untreated WW sample

D001- Discharge WW sample

S001- Sludge sample

APPENDIX

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ZDHC WASTEWATER AND SLUDGE SAMPLING FIELD DATA

The Wastewater samples have been collected under the facilitie's normal production scale and wastewater flow rate. The sampler listed below was on-site and collected the samples.

Facility Confirmation	TUV RHEINLAND VIETNAM Sample Collection Information
Facility Name: KYUNGBANG	Sampler's Name: Bui Thanh Hoa
Facility Representative Name: Mai Quốc Hoàng	Sampler's ZDHC Accreditation: ZDHC Academy Document Control Number ZDHC-A-24-E-C001068-R3EA5-7C237
Facility Representative Signature and stamp:	Sampler's Signature:
Date: 250326	Date: 250326

	ZDHC Sludge sample Collection							
Sampling Location:								
Sampling time (Hours)	0	1	2	3	4	5	6	Number of bottles or bags
Time	9h30							
Notes								

	ZDHC Sludge sample Collection							
Sampling Location:								
Sampling time (Hours)	0	1	2	3	4	5	6	Number of bottles or bags
Time								
Notes								

	ZDHC Incoming sample Collection							
Sampling Location:								
Sampling time (Hours)	0	1	2	3	4	5	6	Number of bottles or bags
Time	9h30							
Notes	pH=7.5		t° = 34.7 °C					

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ZDHC WASTEWATER SAMPLING FIELD DATA FORM AND REPRESENTATIVE SAMPLE DECLARATION

The Wastewater samples have been collected under the facilitie's normal production scale and wastewater flow rate. The sampler listed below was on-site and collected the samples.

Facility Confirmation	Sampler Information
Facility Name: **KYUNG BANG**	Sampler's Name: Le Duy Tho
Facility Representative Name: Mai Quốc Hoàng	Sampler's ZDHC Accreditation: ZDHC-A-25-E-C001068-R4E1C-2E021
Facility Representative Signature and stamp:	Sampler's Signature:
Sampling date: ~~25/03/2025~~ 26/03/2025	Sampling time: 9:30

ZDHC Wastewater Sample Collection Field Test Measurements

Sampling Location: UNTREATED WW

Visible color: Dark purple

Sampling time (Hours)	Time	Temperature, °C		pH	DO (mg/L)	Chlorine (mg/L)	Foam (cm)	WW flow meter (L/min)	Alternate measured flow		Number of bottles
		Wastewater	Receiving water						Depth (cm)	Velocity (cm/sec)	
0	9:30	37.9		10.9							Glass 1000mL
1	10:30	45.3		11.8							Plastic Tube
2	11:30	39.4		11.8							Plastic Bottles 5L
3	12:30	42.3		11.8							Glass vial
4	13:30	44.6		11.8							Plastic Bottles 500mL
5	14:30	45.8		11.8							Glass 250mL
6	15:30	42.1		11.8							
Average		42.7		11.67							
Notes											

ZDHC Wastewater Flow Device Dimensions

Measurement (cm)	Meter	Pipe (O)	Flume (U)	Wier (V)
Diameter	NA			
Depth	NA	NA	NA	

ZDHC Wastewater Sampling Field Testing QA/QC

Parameter	LCS Known	LCS Measured	Accuracy %
pH			
Total Chlorine			

ZDHC WASTEWATER SAMPLING FIELD DATA FORM AND REPRESENTATIVE SAMPLE DECLARATION

TÜVRheinland®

The Wastewater samples have been collected under the facilitle's normal production scale and wastewater flow rate. The sampler listed below was on-site and collected the samples.

Facility Confirmation	Sampler information
Facility Name: KYUNGBANG	Sampler's Name: Bui Thanh Hoa
Facility Representative Name: Mai Quốc Hoàng	Sampler's ZDHC Accreditation: ZDHC Academy Document Control Number ZDHC-A-24-E-C001068-R3EA5-7C237
Facility Representative Signature and stamp:	Sampler's Signature:
Sampling date: 250326	Sampling time: 9h30

ZDHC Wastewater Sample Collection Field Test Measurements

Sampling Location: EFFLUENT WW

Visible color: light yellow

Sampling time (Hours)	Time	Temperature, °C		pH	DO (mg/L)	Chlorine (mg/L)	Foam (cm)	WW flow meter (L/min)	Alternate measured flow		Number of bottles
		Wastewater	Receiving water						Depth (cm)	Velocity (cm/sec)	
0	9h30	30.0		8.1	6.45	1.04					Glass 1000mL
1	10h30	31.9		8.2	6.37	0.90					Plastic Tube
2	11h30	30.0		8.2	6.59	0.99					Plastic Bottles 5L
3	12h30	31.4		8.3	6.71	1.09					Glass vial
4	13h30	31.6		8.2	6.71	0.91					Plastic Bottles 500mL
5	14h30	30.4		8.2	6.75	0.51					Glass 250mL
6	15h30	30.3		8.2	6.40	01.48					
Average											
Notes											

ZDHC Wastewater Flow Device Dimensions

Measurement (cm)	Meter	Pipe (O)	Flume (U)	Weir (V)
Diameter	NA			
Depth	NA	NA	NA	

ZDHC Wastewater Sampling Field Testing QA/QC

Parameter	LCS Known	LCS Measured	Accuracy %

- END -

I. General Terms and Conditions of TÜV Rheinland Vietnam (hereinafter "TRV")

1 Scope

1.1 The following General Terms and Conditions (hereinafter "GTC") of TRV apply to the services agreed between TRV and the client (hereinafter the "Parties") and include the ancillary services and other ancillary obligations provided within the framework of the execution of the contract (hereinafter jointly referred to as "Services"). In addition, and overriding to these General Terms and Conditions, the Special Terms and Conditions shall apply.

1.2 Both consumers and entrepreneurs may be clients within the meaning of these GTC.

1.3 If the client is a consumer, the "II. Special Terms and Conditions for Consumers" shall apply in addition and overriding to the General Terms and Conditions and the Special Terms and Conditions.

1.4 Conflicting or deviating terms and conditions of the client do not apply and are hereby excluded. General terms and conditions of the client shall not become part of the contract even if TRV does not expressly object to them, accepts payments of the client without reservation, or performs the Services without reservation.

1.5 In the context of an ongoing business relationship with the client, these GTC and the Special Terms and Conditions shall also apply to future contracts with these clients without TRV having to refer to them separately in each individual case.

1.6 Insofar as these GTC or the Special Terms and Conditions refer to the term "accreditor", this also includes authorization and recognition organizations; the terms "accreditation specifications", "accreditation requirements" and "accreditation procedures" apply accordingly to the specifications and procedures of the authorization or recognition organizations.

1.7 Insofar as these GTC or the Special Terms and Conditions refer to a written form requirement, written form within the meaning of the laws of Vietnam is sufficient to observe the written form requirement.

1.8 Individual agreements made with the client in individual cases (including collateral agreements, supplements, and amendments) shall in any case take precedence over these GTC. Subject to evidence to the contrary, a written contract or written confirmation from TRV is authoritative for the content of such agreements.

2 Quotations and conclusion of contract; term of contract

2.1 The contract is concluded by signing of the offer letter from TRV or a separate contract document by both contracting Parties or by TRV providing the Services requested by the client. If the client commissions TRV without a prior offer from TRV, TRV is entitled, at its sole discretion, to accept the order by a written declaration of acceptance or by rendering the Services ordered.

2.2 Insofar as a certain term of the contract has been agreed upon, this shall be based on what has been agreed in the offer of TRV or in the contract. An agreed term shall be extended by the term provided for in the offer or in the contract if the contract is not terminated in writing by one of the contracting Parties three (3) months prior to its expiration date.

3 Services Provision and scope of Services

3.1 Scope and type of Services to be provided by TRV are specified in the contractually agreed service description of TRV. If no separate service description of TRV is available, the last offer of TRV governs for the Services to be provided. The Parties can only agree on changes to the service description in writing. Unless otherwise agreed, Services beyond the scope of the service description (e.g., checking the correctness and functionality of parts, products, processes, installations, organizations not listed in the service description, as well as the intended use and application of such) are not owed. In particular, no responsibility is assumed for the design, selection of materials, construction or intended use of an examined part, product, process or plant, unless this is expressly stated in the order.

3.2 TRV is entitled to determine the method of service provision including examinations or tests carried out at its own discretion if not otherwise agreed in writing or mandatory regulations require a certain procedure.

3.3 If mandatory legal regulations and standards or official requirements for the agreed Services change after conclusion of the contract, TRV shall be entitled to additional remuneration for expenses required to address any such required changes.

3.4 Unless contractually agreed, when testing, TRV does not guarantee the accuracy of the safety programs or safety regulations on which the tests are based, which have been made available by the client or by third parties.

3.5 The Services owed under the contract are agreed exclusively with the client. A contact of third Parties with the Services of TRV, as well as making available and reliance on the performance results by any third party, is not part of the agreed Services. This also applies if the client passes on performance results - in full or in extracts - to third parties in accordance with Clause 10.4.

3.6 The Parties shall not include any third Parties in the scope of protection of the contract, unless the Parties have expressly agreed to such inclusion in writing, naming the third Party.

4 Performance periods/dates

4.1 The performance periods and dates specified in the contract are non-binding unless the performance periods and dates are expressly marked as binding in the contract.

4.2 If performance is delayed, the client may only withdraw from the contract in accordance with the statutory provisions if TRV is responsible for the delay in performance. Any statutory rights of termination remain unaffected. TRV is not responsible for a delay in performance, in particular if the client has not fulfilled its duties to cooperate in accordance with Clause 5.1 or has not done so in time and, in particular, has not provided TRV with all documents and information required for the performance of the service as specified in the contract.

4.3 If the client is obliged to comply with legal, officially prescribed and/or by the accreditor prescribed deadlines, it is the client's responsibility to agree on performance dates with TRV, which enable the client to comply with the legal and/or officially prescribed deadlines. TRV assumes no responsibility in this respect unless TRV expressly agreed in writing specifically stating that ensuring the deadlines is the contractual obligation of TRV.

5 Cooperation obligation of the client

5.1 The client shall carry out or provide all necessary cooperation and/or supporting information or documents, in particular the cooperation and/or supporting information or documents specified in Section II (Special Terms and Conditions) and shall provide information which enable TRV to render the contractual Services in conformity with the contract. The client is responsible for ensuring that all necessary cooperation actions, documents and information on its part, its agents or other third parties assigned to its sphere are provided in good time and free of charge for TRV.

5.2 All cooperation, documents and information mentioned under Clause 5.1 must comply with the relevant statutory regulations, standards, safety regulations and accident prevention regulations.

5.3 The client shall bear any additional costs incurred because of Services having to be repeated or being delayed due to delayed, incorrect or incomplete information or improper cooperation attributable to client. Even if a lump sum or a maximum price has been agreed, TRV is entitled to invoice these additional costs.

5.4 The client shall ensure TRV employee is provided with a safe work environment for executing the work assignments at client’s premises and also provide necessary inductions on workplace hazards, additional activity specific personnel protective equipment as applicable.

6 Prices and accounting of Services

6.1 Insofar as TRV and the client have agreed a fixed lump-sum price in the contract, this shall be invoiced. If the scope of Services is not completely defined in writing when the contract is concluded, the Services provided by TRV are invoiced according to the expenditure of time and the fee agreed in the contract.

If the amount of the fee has not been agreed in writing in the contract, invoicing shall be based on the TRV price list valid at the time the Services is provided, which will be made available to the client upon request. Unless otherwise agreed, the applicable value added tax or similar tax has to be added to the agreed upon price.

6.2 Unless otherwise agreed in writing, the applicable value added tax has to be added to the agreed upon price. Partial acceptance is possible. In the event of partial acceptance, the partial remuneration is due after successful acceptance of individual work parts.

6.3 TRV is entitled to demand down payments for Services already provided in accordance with the contract in the amount of the value of the Services provided and owed under the contract.

7 Payment terms/costs/offsetting

7.1 All invoice amounts are due for payment within 30 days of the invoice date.

All invoice amounts are due for payment immediately without deduction upon receipt of the invoice. Discounts and rebates are not granted.

7.2 Payments shall be made to the bank account of TRV stated in the invoice, indicating the invoice number and client number. Unless otherwise agreed by the Parties in the contract, payments shall be made to the bank account of TRV stated in the invoice, indicating the invoice number and client number within 30 days of the invoice date. Payments shall be made in Vietnam Dong or in foreign currency, if permitted by Vietnamese law.

7.3 In the event of default as to late payment by clients, TRV is entitled to charge default interest at a rate of 20% per year on above default balance calculated on daily basis. TRV reserves the right to claim further damages.

7.4 If the client is in default with the payment of the invoice, TRV is entitled to withdraw from the contract with the client after expiry of a reasonable grace period (a) to withdraw an already issued certificate or test mark, to demand back work results, such as test reports, and to declare declarations of conformity invalid and (b) to terminate the contract without notice in the event that the contract is a continuing obligation or a contract with an agreed term.

7.5 Insofar as TRV becomes aware of circumstances after conclusion of the contract from which insolvency or other significant deterioration of the client's financial circumstances occurs or threatens to occur and the fulfilment of the contractual obligations is thereby endangered, TRV is entitled to refuse the corresponding Services under the contract. The right to refuse performance shall cease to apply if the client effects the contractual obligations or provides security in the amount of the endangered payment claim. If the client does not provide its services owed or adequate security within a reasonable period of time, TRV is entitled to terminate the contract while maintaining its claims for compensation and penalty.

7.6 Objections regarding TRV’s invoices must be made in writing within 2 weeks of receipt of the invoice. TRV will make special reference to the aforementioned payment deadline in its invoices.

7.7 TRV is entitled to demand an appropriate advance payment, insofar as this is reasonable for the client taking into account the order value and the scope of the service owed by TRV.

7.8 Only legally established or undisputed claims may be offset against claims of TRV. This limitation of set-off does not apply if the claims and counterclaims of TRV and the client are based on the same legal relationship. The same applies to the assertion of rights of retention by the client.

7.9 TRV shall be entitled to raise its fees at the beginning of a month if overheads and/or purchase costs have increased. In this case, TRV shall notify the client in writing of the rise in fees. This notification shall be issued one month prior to the date on which the rise in fees shall come into effect (period of notice of changes in fees). If the rise in fees remains under 5% per contractual year, the client shall not have any special right of termination. If the rise in fees exceeds 5% per contractual year, the client shall be entitled to terminate the contractual relationship by the end of the period of notice of changes in fees. If the contract is not terminated, the changed fees shall be deemed to have been agreed upon expiry of the above period.

7.10 Client shall pay any taxes, including VAT or similar tax, due in relation to the Services provided. TRV will only apply the zero VAT rate for exported services if client can substantiate that all conditions are fulfilled, and appropriate documentation is provided by the client as required under prevailing tax regulations. In the event that the Vietnamese tax authorities determine that the facts presented by the client are incorrect and assess standard VAT rate, the client agrees to pay the assessed VAT plus applicable penalties and interest to TRV within thirty (30) days of being advised by TRV.

8 Acceptance

8.1 In the case of agreed contractual Services or if acceptance of the work has been contractually agreed, the client is obliged to accept immediately after notification of completion, even in the case of partial performance or completion of self-contained parts. The costs of acceptance shall be borne by the client.

8.2 If the client does not meet its acceptance obligation without delay, acceptance shall be deemed to have taken place four (4) calendar weeks after the performance of the service if TRV specifically refers the client to the aforementioned period when the service is performed.

8.3 The client is not entitled to refuse acceptance due to insignificant defects.

9 Confidentiality

9.1 "Confidential Information" means all information, documents, pictures, drawings, know-how, data, samples and project documents handed over by one Party (hereinafter "Disclosing Party") to the other Party (hereinafter "Receiving Party") or otherwise disclosed from the beginning of the contract. This also includes copies of this information in paper and electronic form. When provided in writing or in any other physical form, Confidential Information must be identified by the words "confidential" or a similar wording indicating the confidential nature of the information.

In the case of Confidential Information that is passed on orally, appropriate prior notice of the confidentiality of such information must be provided and later memorialized in writing.

Confidential Information is expressly not the data and know-how collected, compiled or otherwise obtained by TRV (non-personal) within the scope of the provision of Services by TRV. TRV is entitled to store, use, further develop and pass on the data obtained in connection with the provision of Services for the purposes of developing new Services, improving Services and analyzing the provision of Services.

9.2 Confidential Information

(a) May only be used by the Receiving Party to fulfil the purpose of the contract, unless otherwise expressly agreed in writing with the Disclosing Party,

(b) May not be duplicated, distributed, published or passed on in any other form by the receiving Party, with the exception of such Confidential Information necessary to fulfil the purpose of the contract or such Confidential Information which the Receiving Party must pass on the basis of judicial instructions or legal or governmental regulations; this concerns in particular the Confidential Information to be passed on to supervisory authorities and/or accreditors of TRV within the framework of an accreditation procedure or, within the framework of the provision of Services, to Affiliated Companies of TRV or subcontractors or their respective employees. “Affiliated Companies” shall mean all companies, directly or indirectly, owned or controlled by, or owning or controlling, or under common control with a Party. For purposes of this definition "control" of a company shall mean to have, directly or indirectly, (i) the ownership of the majority of shares or voting rights or (ii) the right to elect or appoint, directly or indirectly, the majority of the managing directors, the board of directors, or a similar managing body or (iii) the power to direct or cause the direction of the management and policies of a corporation, company or other entity.

(c) Must be treated confidential by the Receiving Party in the same way as it treats its own Confidential Information, but in no case less carefully than with reasonable care and attention.

9.3 The Receiving Party shall make the Confidential Information received from the Disclosing Party available only to those persons who need it to provide Services under this GTC. These persons include advisors to the Receiving Party and its Affiliates and subcontractors.

9.4 The term “Confidential Information” does not include information which

(a) Was already generally known at the time of publication or becomes known to the general public without a violation of this GTC, or

(b) Was demonstrably known to the Receiving Party at the time of conclusion of the contract or are thereafter disclosed in a justified manner by a third Party; or

(c) was already in the possession of the Receiving Party prior to transmission by the Disclosing Party; or

(d) The Receiving Party has independently developed irrespective of the transmission by the Disclosing Party.

9.5 Confidential information remains the property of the respective Disclosing Party. The Receiving Party hereby agrees to immediately (i) return all Confidential Information, including all copies thereof, to the Disclosing Party at any time upon the request of the Disclosing Party, or to (ii) destroy the Confidential Information, including all copies thereof, upon the request of the Disclosing Party, and to confirm in writing to the Disclosing Party the fact of such destruction.

The above-mentioned obligation to return or destroy does not apply to

(a) Reports and certificates drawn up exclusively for the purpose of fulfilling the contractual obligations under the contract for the client, which remain with the client. However, TRV is entitled to take copies of this and the Confidential Information, which forms the basis for the preparation of these reports and certificates, as proof of proper performance of the contract and for general documentation purposes for its files; or

(b) Confidential Information that is stored on backup servers or in analog backup systems on a generational basis during routine data backups as part of normal archiving processes; or

(c) The extent contrary to laws, regulations, orders of a competent court, an administration or supervisory authority or an accreditation body.

9.6 This confidentiality obligation exists from the beginning of the contract and continues to apply for a period of five years after termination of the contract.

10 Copyrights and rights of use, publication

10.1 The copyrights of the reports, test reports, test results, expert opinions, results, calculations, representations, etc. prepared within the scope of the order (hereinafter "Performance Results") are owned by TRV. As the owner of the copyrights, TRV is free to grant others the right to use the Performance Results for individual or all types of use (hereinafter "Right of Use").

10.2 The client receives a non-exclusive, unlimited, non-transferable, non-sub licensable right of use to the contents of the service results produced within the scope of the order, unless otherwise contractually agreed in individual cases. The Right of Use is limited to the contractual purpose (e.g., use of test reports, audit reports as proof of audits carried out or in the case of a contractually agreed review of a management system for conformity with certification conditions as proof of the corresponding decision).

10.3 The transfer of Rights of Use of the generated Performance Results regulated in Clause 10.2. of these GTC is subject to full payment of the remuneration agreed in favor of TRV.

10.4 The client may only pass on the Performance Results in full unless TRV has given its prior written consent to the partial passing on of Performance Results.

10.5 Any publication or reproduction of the Performance Results for advertising purposes or any further use of the Performance Results beyond the scope regulated in Clause 10.2 requires the prior written consent of TRV in each individual case. The client shall be responsible for and hold TRV harmless from any damages or complaints caused by publication or duplication of the service results for promotion purposes.

10.6 TRV may revoke a once given approval according to Clause 10.5 at any time without stating reasons. In this case, the client is obliged to stop the transfer of the Performance Results immediately at its own expense and, as far as possible, to withdraw publications.

10.7 The consent of TRV to publication does not entitle the client to use the corporate logo of TRV, also registered as a Union trademark (Reg.-No.: 005871116) or the corporate design of TRV as reference advertising.

11 Defects

11.1 The legal warranty rights shall apply, unless otherwise regulated in these conditions.

11.2 In the event of a defect, the client has a claim to supplementary performance. Supplementary performance shall be effected at the discretion of TRV either by rectification or new delivery. Generally, supplementary performance by TRV is carried out as a gesture of goodwill and without recognition of a legal obligation. Acknowledgement with the consequence of a new start of the statute of limitations shall only exist if TRV has expressly declared this to the client. If the supplementary performance fails, the client is entitled either to withdraw from the contract or to reduce the price. Supplementary performance shall be deemed to have failed after the second unsuccessful attempt, unless the nature of the item or the defect or other circumstances in particular indicate otherwise.

11.3 The notification of defects by the client must be in writing.

The client's claims for defects regulated in this Clause 11 shall become statute-barred within one (1) year from the beginning of the statutory limitation period. TRV is not required to perform and the claim for performance or cure would be excluded in case where (i) the performance is impossible for TRV or for any other person, or (ii) the performance requires expense and effort which is grossly disproportionate to the interest in performance of the client, or (iii) the obstacle to the performance of the TRV is weighed against the interest of the client in performance, performance cannot be reasonably required of the TRV ; or (iv) the cure is possible only at disproportionate expense.

Notwithstanding the foregoing, the statutory limitation period shall apply a) in respect of all claims and rights of the client in cases of: (i) establishment of ownership rights resulting from prescriptive periods with respect to possession or deriving benefits from property unlawfully, (ii) in relation to building and a thing that has been used for a building in accordance with the normal way it is used and has resulted in the defectiveness of the building, (iii) and in the event of fraudulent concealment of the defect or b) in the event of claims for damages in the event of injury to life, body or health, claims under the applicable laws of Vietnam as well as grossly negligent or intentional breaches of duty.

11.4 Apart from the claims mentioned in Clause 11, the client is not entitled to any further claims and rights due to defects, with the exception of claims for damages and reimbursement of expenses. Liability for damages and

I. General Terms and Conditions of TÜV Rheinland Vietnam (hereinafter "TRV")

reimbursement of expenses shall be governed by Clause 12 of these Terms and Conditions.

12 Damages and Reimbursement of Expenses

12.1 TRV is not liable for damages or reimbursement of expenses on whatever legal grounds - in particular due to defects, breach of duties arising from the contractual relationship or tort. This applies in particular, but not exclusively, to claims for damages due to lost sales or profits, financing costs as well as damages as a result of business interruption or loss of production.

12.2 This exclusion of liability according to Clause 12.1 does not apply in the case of (a) intent or gross negligence, (b) liability for guaranteed quality characteristics, (c) liability on the basis of the Product Liability Act and (d) culpable injury to life, body or health. In addition, TRV is also liable in accordance with legal provisions in the event of a breach of essential contractual obligations, i.e., obligations whose fulfilment is essential for the proper execution of the contract and on whose observance the client regularly relies on and may rely.

12.3 Insofar as TRV is not liable for intent or gross negligence, injury to life, body or health, for guaranteed quality characteristics or under the Product Liability Act, TRV's liability in the event of a breach of essential contractual obligations is limited to the foreseeable damage typical for the contract.

12.4 Insofar as liability under this Clause 12 is excluded or limited, this shall also apply to the personal liability of the employees, representatives, organs and other employees of TRV and its assistant and vicarious agents.

12.5 The limitation period for claims for damages and reimbursement of expenses shall be governed by legal provisions.

12.6 No change in the burden of proof to the detriment of the client shall be construed with the above-mentioned provisions.

12.7 Unless otherwise contractually agreed in writing, TRV shall only be liable under the contract to the client and, if applicable, to a third Party explicitly named in writing in the contract. Liability towards other third Parties is excluded with the exception of liability in tort.

13 FORCE MAJEURE

13.1 "Force Majeure" means the occurrence of an event or circumstance that prevents or impedes a Party from performing one or more of its contractual obligations under the contract, if and to the extent that Party proves: (a) that such impediment is beyond its reasonable control; and (b) that it could not reasonably have been foreseen at the time of the conclusion of the contract; and (c) that the effects of the impediment could not reasonably with its best efforts have been avoided or overcome by the affected Party.

13.2 In the absence of proof to the contrary, the following events affecting a Party shall be presumed to fulfil conditions (a) and (b) under paragraph 1 of this Clause: (i) war (whether declared or not), hostilities, invasion, act of foreign enemies, extensive military mobilization; (ii) civil war, riot, rebellion and revolution, military or usurped power, insurrection, act of terrorism, sabotage or piracy; (iii) currency and trade restriction, embargo, sanction; (iv) act of authority whether lawful or unlawful, compliance with any law or governmental order, expropriation, seizure of works, requisition, nationalization; (v) plague, epidemic, natural disaster or extreme natural event; (vi) explosion, fire, destruction of equipment, prolonged break-down of transport, telecommunication, information system or energy; (vii) labor disturbance such as boycott, strike and lock-out, go-slow. The Force Majeure shall not include financial crisis.

13.3 The Party successfully invoking this Clause is relieved from its duty to perform its obligations under the contract and from any liability in damages or from any other contractual remedy for breach of contract, he written notice shall be given within [24hours] of becoming aware of its inability to perform the Contract due to Force Majeure and will make every effort to avoid or remedy the cause of Force Majeure. If the affected Party does not promptly send a written notice to the other Party within the above-said [24 hours], the affected Party shall remain responsible for Force Majeure.

The performance of the Contract by the Parties (exclusive of the obligation to effort to avoid or take remedies the cause of Force Majeure) shall be suspended during the time of the Force Majeure. In this case, all other provisions of the Contract will be extended for a reasonable period equal to the period from the beginning of the Force Majeure until remedying the Force Majeure.

Where the effect of the impediment or event invoked is temporary, the performance of the contract by the Parties (exclusive of the obligation to effort to avoid or take remedies the cause of Force Majeure's Event) shall be suspended during the time of the Force Majeure. In this case, all other provisions of the contract will be extended for a reasonable period equal to the period from the beginning of the Force Majeure until remedying the Force Majeure. Where the duration of the impediment invoked has the effect of substantially depriving the contracting Parties of what they were reasonably entitled to expect under the contract, either Party has the right to terminate the contract by serving the written notice [30 days] in advance to the other Party. The Parties shall thereafter have no claim against each other in relation to such termination Unless otherwise agreed, the Parties expressly agree that the contract may be terminated by either Party if occurrence of Force Majeure exceeds 120 days which cannot be repaired or restored by the affected Party.

14 HARDSHIP

14.1 The Parties are bound to perform their contractual duties even if events have rendered performance more onerous than could reasonably have been anticipated at the time of the conclusion of the contract.

14.2 Notwithstanding paragraph 1 of this Clause, where a Party proves that:

(a) There are significant changes in situation after the contract is entered into that the continued performance of its contractual duties has become excessively onerous due to an event beyond its reasonable control which it could not reasonably have been expected to have taken into account at the time of the conclusion of the contract; and that

(b) It could not reasonably have avoided or overcome the event or its consequences, the Parties are bound, within a reasonable time of the invocation of this Clause, to negotiate alternative contractual terms which reasonably allow to overcome the consequences of the event.

14.3 Where Clause 14.2 applies, but where the Parties have been unable to agree alternative contractual terms as provided in that paragraph within [120 days] from the date occurrence of situation in Clause 14.2 to enable the affected-Party to continue the performance of the contract, affected-Parties is entitled to terminate the contract by giving one month written notice to the other Party.

15 Export control

15.1 When passing on the Services provided by TRV or parts thereof to third Parties in Vietnam or abroad, the client must comply with the respectively applicable regulations of national and international export control law.

15.2 The performance of a contract with the client is subject to the proviso that there are no obstacles to performance due to national or international foreign trade legislations or embargos and/or sanctions.

16 Liability of TRV

16.1 Irrespective of the legal basis and in particular in the event of a breach of contractual obligations and tort, the liability of TRV for any damage, loss and reimbursement of expenses caused shall be limited to: (i) in the case of contract with a fixed overall fee, ten times the overall fee for the entire contract; (ii) in the case of contracts for annually recurring Services, to the agreed annual fee; (iii) in the case of contracts expressly charged on a time and material basis, to a maximum of VND 520 million and (iv) in the case of framework agreements that provide for the possibility of placing individual orders, to an amount equal to three times the fee for the individual order under which the damage occurred. The maximum liability of TRV is limited in any event of damage or loss to VND 60 billion.

16.2 Any liability in relation to the Services would be of TRV. The client agrees not to bring any claim, including for negligence, against TRV's members, directors, employees or agents.

16.3 TRV shall not be liable for personnel made available by the client to support TRV in the performance of its services regulated under the contract. The client shall indemnify TRV against any claims made by third parties.

16.4 The limitation periods for claims for damages shall be two years from the date on which the cause of action accrues.

16.5 None of the provisions of this Clause 16 changes the burden of proof to the disadvantage of the client.

17 Partial invalidity, place of performance, jurisdiction

17.1 In the event that one or more provisions of these GTC should be invalid, the remaining provisions of these terms and conditions shall remain unaffected.

17.2 The place of performance for all obligations under these GTC or the contract, including supplementary performance, shall be the registered office of the respective TRV company providing the service owed under the contract.

17.3 The place of jurisdiction for all disputes arising from and in connection with the contractual relationship is Vietnam, insofar as the client is a merchant, a legal entity under public law or a special fund under public law. However, TRV is entitled to sue the client at his general place of jurisdiction or at another competent court. The above provisions do not apply if the law provides for an exclusive place of jurisdiction. In relation to non-merchants, Vietnam shall be the place of jurisdiction if the client moves his place of residence or usual abode abroad after conclusion of the contract or his place of residence or usual abode is not known to TRV at the time the claims are asserted in the competent court of Vietnam.

17.4 The legal and business relations between TRV and the client shall be governed exclusively by Vietnamese substantive law to the exclusion of international private law.

18 Data protection notice

TRV processes personal data of the client for the purpose of fulfilling this contract. In addition, TRV also processes the data for other legal purposes in accordance with the relevant legal basis (e.g., balancing of interests / consent). The personal data of the client will only be disclosed to other natural or legal persons if the legal requirements are met. This also applies to transfers to third countries. The personal data will be deleted immediately as soon as a corresponding reason for deletion arises.

Legal record retention periods, which result from mandatory statutory provisions (e.g., retention periods under accounting or tax requirements) are taken into account. Data subjects may exercise the following rights: right of information, right of rectification, right of deletion, right of processing limitation, right of objection, right of data transferability. In addition, persons concerned by the data processing have the right to revoke their consent at any time with effect for the future, as well as the right to file a complaint with the competent data protection supervisory authority.

For further details on the processing of personal data by TRV as the person responsible or contract processor, please refer to the respective data protection information. You can contact the Data Protection Officer of TRV by mail to the following address: TÜV Rheinland Vietnam, Floor 05 Anna Building, Quang Trung Software City, Tan Chanh Hiep Ward, District 12, Ho Chi Minh City, Vietnam.

30 June 2022

II. Special Terms and Conditions for Consumers

For the avoidance of doubt, this provision of this section is only applied to the client is the consumers. For consumers, the following provisions apply preferential to the General Terms and Conditions and the Special Terms and Conditions of TRV:

1. Offers and conclusion of contract

1.1 Inquiries of the client regarding the provision of Services by TRV, which are made by means of remote communication (e.g., letter, telephone, e-mail), are not binding. Upon receipt of an enquiry, TRV will send the client an offer by letter or e-mail containing details regarding the client's enquiry (including prices, total price and any other additional costs which may be incurred in individual cases and the term of the contract or the conditions for termination of a permanent contract or contracts which automatically renew themselves) and to which these conditions are attached (hereafter "offer"). However, TRV is not obliged to submit an offer. Upon receipt of the acceptance of TRV's offer by the client by letter or e-mail, a contract is concluded with TRV and the client. However, if TRV's offer is expressly designated as "subject to confirmation" or "non-binding", a contract is only concluded when the client places an order by letter or e-mail based on TRV's “without obligation” or “non-binding” offer and the corresponding confirmation of acceptance by TRV.

1.2 TRV will provide the client with a confirmation of the contract after conclusion of the contract, but at the latest upon performance, in which the contract content including these conditions is reproduced on a permanent data medium (e.g., by letter or e-mail).

2. Right of revocation

2.1 Consumers have the following right of revocation:

Revocation instruction

Right of revocation

The client has the right to revoke a contract within fourteen days without giving reasons. The revocation period is fourteen days from the date of conclusion of the respective contract.

To exercise this right of revocation, the client must inform TRV:

TÜV Rheinland Vietnam

Floor 5, Anna Building, Quang Trung Software City, Tan Chanh Hiep Ward, District 12, Ho Chi Minh City, Vietnam

Tel: +84 28 3842 0600

by means of a clear declaration (e.g., a letter or e-mail) of the client’s decision to revoke the contract. The client may use the attached model revocation form, it being understood that the use of this form is not mandatory.

In order to comply with the revocation period, it is sufficient that the client sends the notice of the exercise of the revocation right before the expiry of the revocation period.

Consequences of the revocation

If the client revokes this contract, we will refund all payments we have received from the client, including delivery costs (except for the additional costs resulting from the client choosing a delivery method other than the cheapest standard delivery offered by TRV), immediately and at the latest within 14 days from the day TRV receives notice of cancellation. TRV will use the same means of payment for the refund as the client used for the original transaction, unless expressly agreed otherwise with the client; in no event will the client be charged any fees for this refund.

If the client has requested that the Services commence during the cancellation period, the client shall pay to TRV an appropriate amount corresponding to the proportion of the Services already provided by TRV at the time the client notifies TRV of the exercise of the right of revocation under this contract compared to the total scope of the Services provided for in the contract.

Model revocation form

(If the client wants to cancel the contract, please fill out this form and send it back.)

- To: TÜV Rheinland Vietnam Co., Ltd
Floor 5, Anna Building, Quang Trung Software City, Tan Chanh Hiep Ward, District 12, Ho Chi Minh City, Vietnam
Tel: +84 28 3842 0600

- I/We (*) hereby revoke the contract concluded by me/us (*) for the purchase of the following goods (*)/ the provision of the following service (*)

- Ordered on (*)/received on (*)

- Name of the consumer(s)

- Address of the consumer(s)

- Signature of the consumer(s) (only if communicated on paper)

- Date

2.2 The client will lose its right of revocation for Service contracts if TRV has completed the agreed Services during the revocation period, provided that TRV started providing the Services after the consumer has given its express consent and has confirmed its knowledge that it will lose its right of revocation upon complete fulfilment of the contract by TRV. In the case of a contract concluded off site of the premises, the consumer's consent must be transmitted on a durable medium.

3. Prices

The lump-sum fixed prices or fees specified in the TRV offer are gross prices including legal value-added tax. The price includes value-added tax.

4. Defects

Clauses 11.2 - 11.5 of the General Terms and Conditions do not apply to consumers.

5. Export control

Clause 13 of the General Terms and Conditions does not apply to consumers.

6. Term

6.1 The term of a contract shall not exceed two (2) years.

6.2 Notwithstanding Clause 2.2 sentence 2 of the GTC, an agreed term shall be extended by a maximum of one year if the contract is not terminated in writing by one of the contracting Parties three (3) months before expiry of the term provided for in the offer or contract.