EFFLUENT TESTING TREND ANALYSIS

SEPTEMBER 2017

BURBERRY

CONTENTS

EXECUTIVE SUMMARY	3
INTRODUCTION	3
METHODOLOGY	3
TREND ANALYSIS	5
CONCLUSIONS	10
NEXT ACTIONS	10
APPENDIX	10

EXECUTIVE SUMMARY

This report discloses the details of effluent testing data collected during a correlation study of chemical input vs output in wet processes¹.

The positive trends observed are an encouraging indicator of improvements although these improvements need to be confirmed on larger scale over a longer period.

Effluent testing needs to become a standard practice to monitor the quality of chemical inputs which can come into the effluent stream through chemicals used in processes and raw material procured.

INTRODUCTION

To ensure Burberry is properly positioned to deliver on its commitment, incoming water and untreated effluent at eighteen major wet processing facilities, was monitored over a period of nineteen months.

In line with the commitment to the Right to Know Principle, all testing data gathered was made publicly available with this report at <u>www.burberryplc.com</u>.

METHODOLOGY

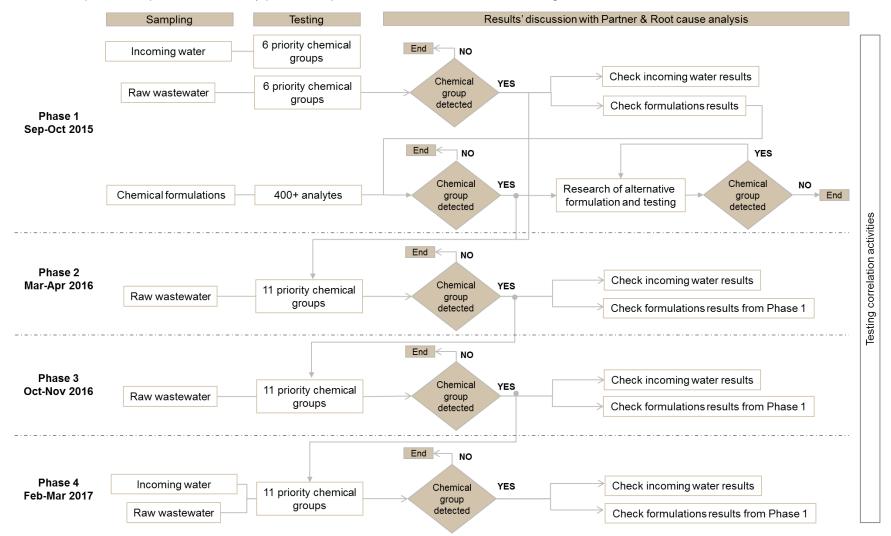
To track and study the trend of detection of the targeted substances, effluent testing was performed in four sequential phases:

- Phase 1 Sep-Oct 2015
- Phase 2 Mar-Apr 2016
- Phase 3 Oct-Nov 2016
- Phase 4 Feb-Mar 2017

The study involved eighteen wet processing facilities:

- 7 Dye-houses
- 2 Tanneries
- 4 Finishing houses
- 1 Laundry
- 3 Dye-house + Finishing
- 1 Dye-house + Laundry

¹<u>https://www.burberryplc.com/content/dam/burberry/corporate/Responsibility/Responsibility_docs/Policies_state</u> ments/Chemical_Management/2017/Input%20vs%20output%20analysis%20report%20-%2020170719.pdf



The overall process implemented in every phase is represented in the flow chart below - Figure 1.

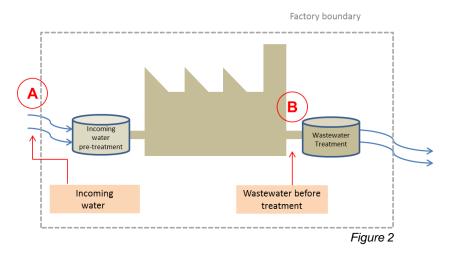
Figure 1

LAB CORRELATION

To ensure the reliability of data, different labs were involved in correlation activities throughout the period of analysis. This exercise allowed the identification of the lowest credible detection limits that are technologically available.

Before Phase 1, the lack of correlation between labs led to investigating only six out of the eleven chemical groups: Alkylphenol Ethoxylates (APEOs), Per- and Poly-fluorinated Chemicals (PFCs), Phthalates, Chlorinated Solvents, Short Chain Chlorinated Paraffins (SCCPs) and Chlorophenols. In Phase 2 and 3, individual facilities were tested for a specific range of chemical groups detected in their chemical inventory in previous analytical screening. In Phase 4, all the eleven priority groups were tested to reflect the improvements of inter-lab correlation of analytical results.

SAMPLING POINTS



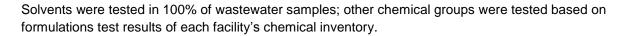
- A. INCOMING WATER incoming water was sampled at the point where it enters the facility, prior to any on-site treatment. Water sources are ground water, municipal supply or water from fresh water bodies like rivers, lakes.
- B. RAW WASTEWATER wastewater was sampled after the wet processes, prior to any on-site or off-site treatment, to better control the intentional or unintentional use of unwanted chemicals. The sampling was conducted at full operational conditions of facilities.

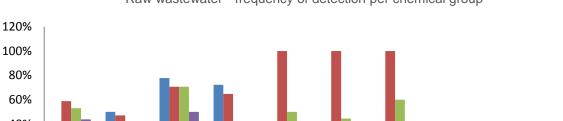
Raw wastewater results were assessed against each facility's discharge permit. After this point, raw wastewater of each facility was treated at the Effluent Treatment Plant (ETP) before being discharged in the environment in compliance with local regulations and discharge permits.

TREND ANALYSIS

WASTEWATER – FREQUENCY OF DETECTION PER CHEMICAL GROUP

The bar chart below – *Figure 3*, represents the frequency of detection in raw wastewater of each chemical group, in every phase. The percentages were calculated considering the sum of detections in the total number of tests for a specific chemical group. APEOs, PFCs, Phthalates and Chlorinated





Raw wastewater - frequency of detection per chemical group

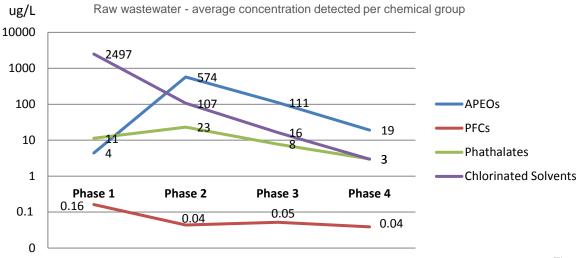
40% 20%	h	h		h	I.	L	L	L	÷.		
0%	APEO	PFC	Phthalates	Chlorinate d solvents	СР	РАН	Azo-Dyes	voc	СВ	Glycols	SCCP
Phase 1	39%	50%	78%	72%	0%	Not tested	0%				
Phase 2	59%	47%	71%	65%	100%	100%	100%	0%	0%	0%	0%
Phase 3	53%	24%	71%	41%	50%	44%	60%	25%	0%	0%	0%
Phase 4	44%	31%	50%	31%	19%	6%	0%	6%	31%	0%	0%

Figure 3

- Among the most tested chemical groups (APEOs, PFCs, Phthalates and Chlorinated solvents), Phthalates are the most frequently detected, followed by Chlorinated Solvents, both groups showing a decreasing detection trend;
- Polycyclic Aromatic Hydrocarbons (PAHs), Azo-dyes, Volatile Organic Compounds (VOCs), Chlorobenzenes and Glycols were not tested in Phase 1. From Phase 2, there is a decreasing detection trend in PAH and Azo-dyes;
- The 100% detection rate found in Phase 2 for Chlorophenols (CP), PAH and Azo-dyes is not significant due to the small number of water samples tested for these chemical groups two, three and one, respectively;
- Glycols and SCCP were never detected across all four phases;
- The chart shows a decrease in detection in six chemical groups out of eleven.

RAW WASTEWATER - AVERAGE CONCENTRATION DETECTED PER CHEMICAL GROUP

In the two graphs below, the detection trend is reported showing the average concentration, in $\mu g/L$, in which chemical groups were detected in every phase. *Figure 4* reports the four chemical groups always tested, *Figure 5* includes the remaining seven groups. The figures represent the sum of concentration of detected analytes divided by the total number of facilities.





- The APEO average concentration shows a peak in Phase 2 before dropping in Phase 3 and 4;
- The average concentration of PFCs decreases significantly between Phase 1 and 2; the trend relates to the transition to PFC free production from Phase 2 onwards.
- The concentration of Phthalates slightly increases in Phase 2 before reducing in Phase 4;
- Chlorinated Solvents show a drastic diminishing trend, dropping from around 2500 μg/L in Phase 1 to 3 μg/L in Phase 4;
- Overall, all chemical groups show a general decreasing detection trend across the four phases.

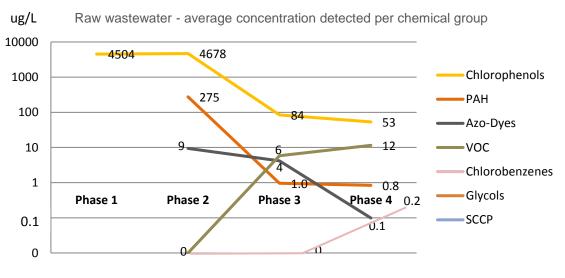


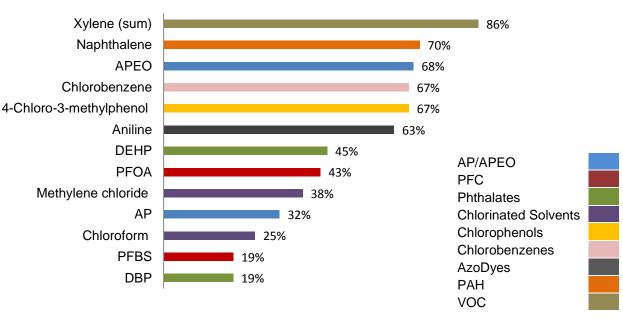
Figure 5

- The high average concentration of Chlorophenols in Phase 1 and 2 is related to their extensive use in tanneries as biocides. After substituting some chemical formulations, the concentration of Chlorophenols significantly decreased, but their use could not be completely eliminated;
- PAH and Azo-dyes show a decreasing detection frequency and concentration trend;
- Phase 4 shows an increase in the detection of Chlorobenzenes and VOC.

RAW WASTEWATER – FREQUENCY OF DETECTION PER ANALYTE

Additionally, Figure 6 shows the most frequent analytes detected for each chemical group.

It is worth underlining the significant recurrence of one specific analyte in the case of Chlorophenols, Chlorobenzenes, Azo-dyes, PAH and VOC.



Raw wastewater - frequency of detection per analyte

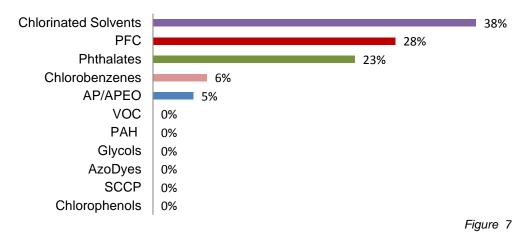
Figure 6

INCOMING WATER – FREQUENCY OF DETECTION PER CHEMICAL GROUP AND ANALYTES

The last two graphs show the overall chemical detection frequency in incoming water, both in terms of chemical groups and single analytes.

Incoming water was only tested in Phase 1 and 4, assuming a water quality almost constant during the four periods of analysis.

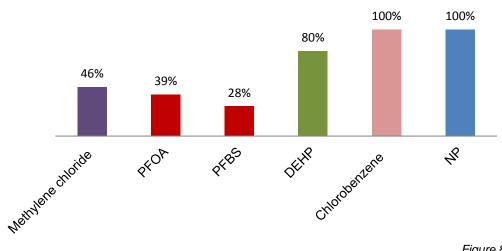
Overall, five out of the nine chemical groups detected in wastewater across the four phases, were also detected in incoming water.



Incoming water - frequency of detection per chemical group

Figure 8 shows the most frequent analytes detected in the incoming water:

- Out of the 38% of chlorinated solvents detected in incoming water - Figure 7, 46% is represented by Methylene chloride;
- The most frequent PFC analytes detected in the incoming water are Perfluorooctanoic acid (PFOA) and Perfluorobutane sulphonates (PFBS);
- Phthalates show a significant prevalence of the Bis (2-ethylhexyl) phthalate (DEHP); •
- Chlorobenzenes and AP/APEO are present in incoming water as chlorobenzene and • Nonylphenol (NP);
- In the case of PFCs, Phthalates, Chlorinated Solvents and Chlorobenzenes, the most • frequent analytes detected in incoming water and raw wastewater correspond - Figure 6, 8.



Incoming water - frequency of detection per analyte

Figure 8

CONCLUSIONS

- In most of the cases, chemicals detected show a decreasing trend across the four periods of analysis; this could indicate that the MRSL implementation is effectively contribute in reducing the discharges of chemicals of concern;
- The detection of APEOs, PFCs, Phthalates, Chlorinated solvents and Chlorobenzenes in raw wastewater is linked to their presence in incoming water, even if their use in wet processes cannot be excluded;
- The detection of the other chemical groups is most likely related to their involuntary introduction in the processes, and subsequently in the raw wastewater, through chemical formulations or contaminations occurred in previous processing of raw materials;
- SCCP and Glycols have never been detected across four seasons;
- There is high correlation between incoming and raw wastewater for specific analytes;
- A testing frequency of at least twice a year allows a comprehensive detection trend analysis.

NEXT STEPS

Whilst this study demonstrates some encouraging trends, it is important to continue to monitor effluent to validate the impact of the MRSL implementation.

In July 2017 Burberry signed the Zero Discharge Hazardous Chemicals (ZDHC) call to action for the implementation of the ZDHC wastewater guidelines through its supply chain. The aim is to encourage the application of the guidelines as standard practice among Supply Chain Partners, to monitor their wastewater twice a year and to assess their margin for improvement using better chemistry and raw material procurement practices. Additionally, Burberry recognises the importance of being transparent and it stimulates its Supply Chain Partners to publish their results on the ZDHC Chemical Gateway platform.

APPENDIX

This appendix includes the full list of analytes tested and detected in every phase.

September/October 2015 Detox (Incoming water)
6
7
8
9
10
11
12

Finishing house
Dye-house
Finishing house
Dye-house
Finishing house
Dye-house
Dye-house 13 14 15 Dye-house and finishing 4 Printing house Dye-house and finishing actor Factory Type Dye-house Tannery Tannery Laundry Dye-house and Laundry Dye-house Due house Factory Tr IRMophenol ethoxylates / Alkolphenol (APEO),APS) Performanted Chemicals (PECs) Philaulates (Orive-Philailates) Chioranted Solvents Chioranted Solvents Chioranted Solvents Chioranted Revision (SCCPs) Short-Chained Chiorinated Paraffins (SCCPs) Chioranter and Chioranter and Short-Chained Chiorinated Paraffins (SCCPs) Chioranter and Short-Chained Chioranted Paraffins (SCCPs) Solvedsite aromatic hydrocarbon (PAH) Volatile Organic Compounds (VOC) 1 1 1 1 1 1 1 1 1 \geq 2 \geq / / 2

Detox (Wastewater Before Treatment)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Factory Type	Dye-house	Dye-house	Printing house	Tannery	Tannery	Finishing	Dye-house	Finishing house	Dye-house	Finishing house	Dye-house	Dye-house	Laundry	Dye-house and finishing	Dye-house and finishing			Dye-house	Factories
Alkylphenol ethoxylates / Alkylphenols (APEOs/APs)						1	1		1	1			1				1	1	7
Perfluorinated Chemicals (PFCs)		1		1	1	1		1	1	1		1	1						9
Phthalates (Ortho-Phthalates)	1	1	1	1	1	1	1	1		1				1	1	1	1	1	14
Chlorinated Solvents		1	1	1	1	1	1	1	1	1	1	1			1		1		13
Chlorophenols				1	1														2
Short-Chained Chlorinated Paraffins (SCCPs)																			0
Chlorobenzenes																			0
Azo dyes																			0
Glycols																			0
Polycyclic aromatic hydrocarbon (PAH)																			0
Volatile Organic Compounds (VOC)																			0

Not Tested Not Detected 1 Detected

			1	1	2		3	-	4		5		6		7		8		9		10		11		12		13		14		15		16		17		18
	Chemical substances	Detection limit	Incoming	WW befor treat	incomi	ing WW befor	e Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming																								
	Nonylphenol	1 ug/L												2.2		1.4				1.3																2.5	
ol	Octylphenol	1 ug/L								1																											
s/	Nonylphenol ethooxylates, 1+2 (NPEO 1+2)	5 ug/L																																			
	Octylphenol ethoxylates, 1+2, (OPEO, 1+2)	5 ug/L																																			
VPs)	Nonylphenol ethoxylates, n=3 to n=18 (NPEO 3-18)	5 ug/L																				72						53									
	Octylphenol ethoxylates, n=3 to n= 16 (OPEO 3-16)	5 ug/L																																			
	Perfluorooctanoic acid (PFOA)	0.01 µg/L				0.255					0.013	0.079	0.043	0.26				0.017		0.0154		0.052				0.014	0.241	0.38									
	Perfluorooctane sulphonates (PFOS)	0.01 µg/L																																			
nated	Perfluoro-n-hexanoic acid (PFHxA)	0.01 µg/L				0.423							0.0992	1.4																							
(PFCS)	Perfluorohexane sulphonates (PFHxS)	0.01 µg/L																																			
	Perfluorobutanoic acid (PFBA)	0.01 µg/L				0.015		-					0.0142	0.134					0.0114																		
	Perfluorobutane sulphonates (PFBS)	0.01 µg/L		3.9			4.5		1.7	0.159	0.0928			5.7		8.2			2.8	0.011		5.3			11				5.92	25.4		18.6	188			31.8	
	Bis (2-ethylhexyl) phthalate (DEHP)	1 ug/L 1 ug/L		3.9	_	1.2	4.5	2.1	1.7	7.6		3.9		5.7		82			2.8			5.3			1.1				5.92	25.4		18.6	188	3.16	3.44	31.8	3.66
	Butyl benzyl phthalate (BBP) Di-n-butyl phthalate (DBP)	1 ug/L		-	_									22				1.3				2.6								5		4.44				7.36	
	Districtury prenance (DBP) Distriyi phthalate	1 ug/L		-	_				1.6	6.7		7.3		22				1.5				2.6								5		4,44				1.30	
	Directlyl phthalate	1 ual							1.0	0.7		1.5																									
	Dimotiyi phihaaae Di-n-octyl phihalate (DNOP)	1 ug/L			-																																
	Di-isonoryl phthalate (DINP)	1 ug/L			-																																
		1 ug/L		1		-		1	1	1	1												-		-												
halates)	Di-iso-decyl phthalate (DIDP) Di-isobutyl phthalate (DIBP)	1 ug/L		1		-	1.7	1	1	1	1	1.2						4.4				2.3								2.64		2.76			2.12	5.56	
	Di-n-hexyl phthalate	1 ug/L	1	1							1				1									-							1						
	Dimethoxyethyl phthalate (DMEP)	1 up/L																																			
	Di-n-propyl phthalate (DPRP)	1 ug/L							1	1																											
	Di-iso-octyl phthalate (DIOP)	1 ug/L	1	1			1	1	1	1	1				1	1															1			1	1		
	Di-cyclohexyl phthalate (DCHP)	1 ug/L	1	1			1	1	1	1	1				1	1															1			1	1		
	Dinonyl phthalate (DNP)	1 ug/L																								l											
	Bromodichloromethane	1 ug/L																																			
	Bromoform	1 ug/L																																			
	Carbon tetrachloride	1 ug/L																																			
	Chlorodibromomethane	1 ug/L																																			
	Chloroethane	1 ug/L																																			
	Chloroform	1 ug/L	1	1			_		1	27	1	3		6	1																1						
	Dibromomethane	1 ug/L	1	1			_	-	1		1				1																1						
	1,1-Dichloroethane	1 ug/L	I				_	-	1	-					I																I						
	1,2-Dichloroethane	1 ug/L	I				_	-	1	-					I																I						
	1,1-Dichloroethene	1 ug/L		1	_			1		-	1		I				<u> </u>															-			-		
	cis-1,2-Dichloroethene	1 ug/L		1	_			1		-	1		I				8	6														-			-		
nts	trans-1,2-Dichloroethene	1 ug/L			_			+	+	+	1																					<u> </u>			<u> </u>		
	trans-1,3-Dichloropropene	1 ug/L			_			+	+	+	1																					<u> </u>			<u> </u>		
	Hexachlorobutadiene Methylene chloride	1 ug/L		1	3	8	6	4	4	29	4	8	5	5	4	4	2	2	2	2	5	5	7	5	6	5						856				43900	
		1 upl.			3	8	Б	4	4	29	4	8	5	5	4	4	2	2	2	4	D	5	'	5	0	D						656				43300	
	1,1,2,2-Tetrachloroethane Tetrachloroethene	1 ug/L		1	45		-	1	+	1	1						100			84																	
	Tetrachloroethene 1,1,1-Trichloroethane	1 ug/L 1 ug/L	<u> </u>	+	40		-	+	+	+	1				<u> </u>		100			04											<u> </u>						
	1,1,1-i nchioroethane Trichloroethene	1 ug/L					-	1	+	1	1																										
	Vinyl chloride	1 ug/L 1 ug/L	1	1			-	1	+	1	1				1	-															1	<u> </u>			<u> </u>		
	Hexachioroethane	1 ug/L		1		-		1	1	1	1												-		-												
	1.1.1.2-Tetrachioroethane	1 ug/L	1	1			1	1	1	1	1				1	1						-	-	-	-						1						
	1,1,2-Trichloroethane	1 ug/L		1		-		1	1	1	1												-	-	-												
	4-Chloro-3-methylphenol	0.5 ug/L	-	-	1/	//	1	-	1	9000	1					-			/	/	/	-	/	-	/	/	/	/	/			-		/	-	/	~
	2-Chlorophenol	0.5 ug/L								1.9	1		-	-			-		-	-	-						-	-	-				-			-	-
	2,4-Dichlorophenol	0.5 ug/L																																			~
	2,5-Dichlorophenol	0.5 ug/L	-					-	1	1	1			-	-	-	-												-	-	-	-		-	-		-
	2,6-Dichlorophenol	0.5 ug/L					~						-						_	_	_			\sim		_	_		-							_	~
	Pentachlorophenol (PCP)	0.5 ug/L																																			~
	2,3,4,6-Tetrachlorophenol	0.5 ug/L			1		~	\sim		1			-						_	_	_			\sim		_	_		-							_	~
	2,4,5-Trichlorophenol	0.5 ug/L	/					-				-	/	/	-	\sim	/	-	/	_	_	_	_	/	_	/	/	/	_	/	-	-	/	/	-	_	~
	2,4,6-Trichlorophenol	0.5 ug/L					-			1.9																											~
enols	2,3,4,5-Tetrachlorophenol	0.5 ug/L																																			~
	2,3,5,6-Tetrachlorophenol	0.5 ug/L		\square	-		-		1		1																										-
	Tetrachlorophenols (TeCP)	0.5 ug/L			-	-			_	1	1																										-
	2,3,4-Trichlorophenol	0.5 ug/L		-	-			_																													_
	2,3,5-Trichlorophenol	0.5 ug/L					-	-	4	-																											<
	3,4,5-Trichlorophenol	0.5 ug/L		-			-			-																											_
	3,5- Dichlorophenol	0.5 ug/L			-																																_
	2,3-Dichlorophenol	0.5 ug/L			-	-																															_
	3,4-Dichlorophenol	0.5 ug/L		-						-																											_
	3-chlorophenol	0.5 ug/L			-	2		\sim		1	1																										_
	4-chiorophenol	0.5 ug/L	<u> </u>	\sim	/	-	1	\sim		4.1	1		<u> </u>	-		\sim	<u> </u>		<u> </u>	<u> </u>	<u> </u>	\sim	<u> </u>	<u> </u>	\sim	<u> </u>	<u> </u>	<u> </u>	<u> </u>		$ \sim$	\sim	<u> </u>		\sim	<u> </u>	
ained ated (SCCPs)	Short chain chlorinated paraffins (SCCPs)	0.4 ug/L				$\langle \rangle$																															/

Value Detector

September/October 2015 - page 1

September/October 2015 - page 2

			1		2		3		4	5		6		7		8		9	10		11	12		13		14	15	5	16		17		18
	Chemical substances	Detection																			WW before												
	onemical substances	limit	Incoming	WW before treat	Incoming	WW before treat	Incoming tr	/ before Inc	oming Wi	W before Incoming	WW before	Incoming	WW before treat	Incoming	WW before Inci treat	ming the	before in	www.before treat	^a Incoming	WW before treat	Incoming WW before treat	Incoming	WW before treat	Incoming	before h	ncoming WW be treat	fore Incom	ning WW before treat	Incoming	WW before treat	Incoming	WW before Inc	www.before treat
	Chloroberzene	0.02 ug/L		-	-		-	-				-		-				//		-		-		-			-	/ /	-			-	
	4-Chiorotoluene	0.02 ug/L									-																						-
	1,2-Dichlorobenzene	0.02 ug/L																						/		/							/
	1,3-Dichlorobenzene	0.02 ug/L																									_						
	1,4-Dichloroberzene	0.02 ug/L																									-						
(h)	1,2,4-Trichlorobenzene	0.02 ug/L		-	-														-	-							_		-	-			
Chiorobenzenes	1,2,3-Trichlorobenzene 1,3,5-Trichlorobenzene	0.02 ug/L									\sim																		-				
	12.3.4-Tetrachlorobergene	0.02 ug/L 0.02 ug/L									~											-											
	1,2,3,5-Tetrachlorobenzene	0.02 ug/L	-								-								-														~
	1,2,4,5-Tetrachlorobenzene	0.02 ug/L																															
	Pentachlorobenzene	0.02 ug/L																															
	Hexachlorobenzene	0.02 ug/L																															
	1,4-Phenylenediamine	0.1 ug/L		_																-									-				
	2,4,5-Trimethylaniline 2,4-Diaminoanisole	0.1 ug/L																	-								-						
	2,4-Diaminoanisole 2,4-Diaminotoluene	0.1 ug/L 0.1 ug/L		-	-				-		-						-		-						-				-				
	2,4-Xyldine	0.1 ug/L									-						_								_								
	2,6-Xylidine	0.1 ug/L					-				-															/							_
	2-Chloroaniline	0.1 ug/L									-																						_
1	2-Naphthylamine	0.1 ug/L	\sim								\sim								~														
	3,3'-Dichlorobenzidine	0.1 ug/L	\sim																														$ \rightarrow $
	3,3'-Dimethoxybenzidine	0.1 ug/L	\sim	\leftarrow	\leftarrow						-								\leftarrow			\leftarrow	\sim						\leftarrow				
1	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	0.1 ug/L		\leftarrow				-	-		\sim						-		\leftarrow						-		-		\sim				
1	3,3'-Dimethylbenzidine 4,4'-Diaminodiphenylmethane	0.1 ug/L 0.1 ug/L	-	-	-			-	-							-			-	-		-			-			-	-	-			
	4,4 -Otaminooprenymenane 4,4 -Methylene-bis(2-chioroaniline)	0.1 ug/L	\sim						-		\sim						-								-								
1	4.4'-Oxydianiline	0.1 ug/L	\sim								-																						-
	4,4'-Thiodianiline	0.1 ug/L										-								-													-
	4-Aminobiphenyl	0.1 ug/L																															
	4-Chloroaniline	0.1 ug/L																										\sim					
	4-Chloro-o-toluidine	0.1 ug/L																									_						
	5-Nitro-o-anisidine	0.1 ug/L 0.1 ug/L		-	-														-	-							_		-	-			
	5-Nitro-o-toluidine 4-Aminoazobenzene	0.1 ug/L 0.1 ug/L		-	-						-								-						-				-				
	Aniine	0.1 ug/L									~								-														
	Benzidine	0.1 ug/L									-											-											-
	m-Toluidine	0.1 ug/L																															~
	n,n-Diethylanaline	0.1 ug/L																															
	n-Ethylaniine	0.1 ug/L																															
	n-Methylaniine	0.1 ug/L																															
	o-Aminoazotoluene o-Anisidine	0.1 ug/L 0.1 ug/L		-	-						-								-	-					-				-	-			
	o-Toluidine	0.1 ug/L		-					_		-						-		-						-								
	p-Cresidine	0.1 ug/L	-	-	-						-								-										-				~
	p-Toluidine	0.1 ug/L									-																						_
	2-Methoxyethanol	5000 ug/L																															
	2-Methoxyethyl acetate	5000 ug/L																										\sim					_
	2-Ethoxyethanol	5000 ug/L																									_						
Glycols	2-Ethoxyethyl acetate	5000 ug/L		-	-				-																		-		-				
1	Bis(2-methoxyethyl)-ether Triethylene glycol dimethyl ether	5000 ug/L 5000 ug/L	-	1	-			-	-							-			-			-			-				-				
1	2-Methoxypropyl acetate	5000 ug/L		\sim							-			-								-			-								10
1	Ethane, 1,2-dimethoxy-	5000 ug/L																															-
	Benzoja)pyrene	0.1 ug/L	\sim	\sim																		\sim	\sim						\sim	\sim			_
	Anthracene	0.1 ug/L	\sim																														$ \rightarrow $
	Pyrene	0.1 ug/L	\sim	\leftarrow	\leftarrow						-								\leftarrow			\leftarrow	\sim						\leftarrow				
1	Benzolghilperylene Restrolehumme	0.1 ug/L 0.1 ug/L		\sim	-			-	-		\sim					-	-		-						-				-				50
1	Benzo(e)pyrene Indeno(1,2,3-cd)pyrene	0.1 ug/L 0.1 ug/L	-	-	-			-	-							-			-			-			-				-	-			
1	Benzo(b)fluoranthene	0.1 ug/L	-	\sim	\sim			-			-								-			-			-				\sim				
1	Fluoranthene	0.1 ug/L	\sim								-																						-
Polycyclic aromatic	Benzo[k]fluoranthene	0.1 ug/L										-																		-			-
hydrocarbon (PAH)	Acenaphthylene	0.1 ug/L	\sim	\sim	\sim						\sim	\sim			_					\sim		\sim	\sim						\sim				
1	Chrysene	0.1 ug/L	\sim				_					-																					
	Dibenz(a,h)anthracene	0.1 ug/L	\sim	\leftarrow	\leftarrow						-								\leftarrow	\sim		\leftarrow	\sim				-		\leftarrow				
1	Benz[a]anthracene	0.1 ug/L						-	-		\sim					-	-			-					-		-						
1	Acenaphthene Phenanthrene	0.1 ug/L 0.1 ug/L	-	1	-				-										-			-							-				
1	Fluorene	0.1 ug/L		\sim	\sim				-		-			-			_					-			-								10
1	Naphthalene	0.1 ug/L																							_								-
	Benzo (i) anthracene	0.1 ug/L																															~
	Benzene	1 ug/L	\sim									\sim																					_
	Xylene	1 ug/L																															
	o-Xylene	1 ug/L	\leftarrow	\leftarrow	\leftarrow							\sim							\leftarrow			\sim	\sim	_					\leftarrow				
volatile Organic	Benzene, 1,3-dimethyl- p-Xvlene	1 ug/L		\sim					-										\sim						-								
Compounds (MOC)	p-Xylene Phenol, 2-methyl-	1 ug/L 1 ug/L	\sim	-	\sim			-	-		\sim					-	-		-	-		\sim	-		-				-	-			
	Phenol, 2-methyl- p-Cresol	1 ug/L	\sim	-	-				-		-								-			-	-						-	-			-
1	Phenol, 3-methyl-										-														_								\sim
1	Cresol	1 ug/L 1 ug/L	\sim								-																						-

Not Tested Not Detected Value Detected

Detox (Incoming water)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1
Factory Type	Dye-house	Dye-house	Printing house	Tannery	Tannery	Finishing house	Dye-house	Finishing house	Dye-house	Finishing house	Dye-house	Dye-house	Laundry	Dye-house and finishing	Dye-house and finishing	Dye-house and finishing	Dye-house and Laundry	Dye-house	Factorie
Alkylphenol ethoxylates / Alkylphenols (APEOs/APs)								/		/			1		-				n
Perfluorinated Chemicals (PFCs)																			0
Phthalates (Ortho-Phthalates)													1						1
Chlorinated Solvents													1						1
Chlorophenols																			0
Short-Chained Chlorinated Paraffins (SCCPs)																			0
Chlorobenzenes																			0
Azo dyes																			0
Glycols																			0
Polycyclic aromatic hydrocarbon (PAH)																			0
Volatile Organic Compounds (VOC)																			0

Detox (Wastewater Before Treatment)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Factory Type	Dye-house	Dye-house	Printing house	Tannery	Tannery	Finishing	Dye-house	Finishing house	Dye-house	Finishing house	Dye-house	Dye-house	Laundry	Dye-house and finishing	Dye-house and finishing			Dye-house	Factories
Alkylphenol ethoxylates / Alkylphenols (APEOs/APs)	1	1	1		1		1	1	1	1			1				1		10
Perfluorinated Chemicals (PFCs)		1		1	1	1		1	1	1							1		8
Phthalates (Ortho-Phthalates)	1		1	1		1	1	1		1			1	1	1		1	1	12
Chlorinated Solvents		1		1	1			1	1	1		1	1		1		1	1	11
Chlorophenols				1	1														2
Short-Chained Chlorinated Paraffins (SCCPs)																			0
Chlorobenzenes																			0
Azo dyes					1														1
Glycols																			0
Polycyclic aromatic hydrocarbon (PAH)			1	1								1							3
Volatile Organic Compounds (VOC)																			0

Not Tested Not Detected 1 Detected

March/April 2016 - page 1

			1		2	3		4		5		6	1	7		8		9		10		11		12		13		14		15		16		17	1	8
	Chemical substances	Detection limit	Incoming	WW before treat	Incoming WW bef	lore Incomi	ing WW before treat	e Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming W	/W before treat	Incoming	WW before Incor	ming WW before treat
	h	1 ug/L							_						3.7			_	4.2	_				_		2	3							_	2	_
Alkviphenol	Nonylphenol Octvlohenol	1 ug/L						-	-				-	-	3.7				4.2							2	3						-			_
ethoxylates /	Nonylphenol ethooxylates, 1+2 (NPEO 1+2)	5 ug/L																	7.7														Ĺ			/
	Octylphenol ethoxylates, 1+2, (OPEO, 1+2)	5 ug/L																																		
(APEOs/APs)	Nonylphenol ethoxylates, n=3 to n=18 (NPEO 3-18) Octylphenol ethoxylates, n=3 to n= 16 (OPEO 3-16)	5 ug/L	\sim	81	170		86	-		\sim	52		_		115		140		82 94		8960 150														_	
	Perfluorooctanoic acid (PFOA)	5 ug/L 0.01 µg/L			0.04	2	-	-			0.0127		0.02	\sim					24		0.132	-														-
	Perfluorooctane sulphonates (PFOS)	0.01 µg/L					_																												-	-
	Perfluoro-n-hexanoic acid (PFHxA)	0.01 µg/L			0.03	2				/			0.18				0.0158			/		/		/										/		
	Perfluorohexane sulphonates (PFHxS)	0.01 µg/L				_	-																												0.2	-
	Perfluorobutanoic acid (PFBA) Perfluorobutane sulphonates (PFBS)	0.01 µg/L 0.01 µg/L		-				-	0.0164		0.0559		0.04						0.0286																	-
	Bis (2-ethylhexyl) phthalate (DEHP)	1 ug/L		5			_	-	3.8		0.0339		7.9		17		6.7		0.0200							2	13		12		26				13	16
	Butyl benzyl phthalate (BBP)	1 ug/L																									Ľ									_
	Di-n-butyl phthalate (DBP)	1 ug/L											2.1		1.4						115						1									1
	Diethyl phthalate	1 ug/L 1 ug/L				_	_	-		\sim			_		5.5						23														_	
	Dimethyl phthalate Di-n-octyl phthalate (DNOP)			-	\sim	-			-				-		5.5						1/						1			-						-
Phthalates	Di-isononyl phthalate (DINP)	1 ug/L					-		1				1								95															/
(Ortho-Phthalates)	Di-iso-decyl phthalate (DIDP) Di-isobutyl phthalate (DIBP)									/										/				-			l l			\sim			1	/		-
		1 ug/L		1.7			1.4						2.4		1.9				Ţ								1						T			2
1	Di-n-hexyl phthalate Dimethoxyethyl phthalate (DMEP)	1 ug/L 1 ug/L					-	-	4																					>						2
	Dimethoxyethyl phthalate (DMEP) Di-n-propyl phthalate (DPRP)	1 ug/L	\leq	1 1			-	-	1				1	-							-															_
	Di-iso-octyl phthalate (DIOP)	1 ug/L					_																												-	-
	Di-cyclohexyl phthalate (DCHP)	1 ug/L				-				/										/		/		/				/						/		_
	Dinonyl phthalate (DNP)	1 ug/L				_	-																									-				
	Bromodichloromethane Bromoform	1 ug/L 1 ug/L		-				-	2.7				-													1	1								2	
	Carbon tetrachloride	1 ug/L					_	-					-																							
	Chlorodibromomethane	1 ug/L					_	-																			1								5	_
	Chloroethane	1 ug/L																																		_
	Chloroform	1 ug/L			2.4	_	-	-	39		2.3															4	3								2	36
	Dibromomethane 1,1-Dichloroethane	1 uglL 1 uglL							-				-																							-
	1.2-Dichloroethane	1 ug/L					_	-					-																							_
	1,1-Dichloroethene	1 ug/L					_																				Ľ									_
Chlorinated	cis-1,2-Dichloroethene	1 ug/L								\sim			_																					\sim	_	\leq
Solvents	trans-1,2-Dichloroethene trans-1,3-Dichloroeropene	1 ug/L	\sim			_	_	-					-																							-
	Hexachiorobutadiene	1 ug/L 1 ug/L		-			-	-					-									-														-
	Methylene chloride	1 ug/L					_	-																	1						1620					53
	1,1,2,2-Tetrachioroethane	1 ug/L				-				/										/				/				-						/		_
	Tetrachioroethene	1 ug/L				_	-	-									18		2.7		15						2								_	
	1,1,1-Trichloroethane Trichloroethene	1 ug/L 1 ug/L		-				-	-				-				1.6																			-
	Vinyl chloride	1 ug/L					_	-					-				1.0																			-
	Hexachloroethane	1 ug/L																									Ľ									_
	1,1,1,2-Tetrachloroethane	1 ug/L	\sim																																	_
	1,1,2-Trichloroethane 4-Chloro-3-methylphenol	1 ug/L 0.5 ug/L						\sim	9300		53				-														-							5-
1	4-Critoro-3-metriyiphenol 2-Chiorophenol	0.5 ug/L						-	9300		53		\sim																\sim							
1	2,4-Dichlorophenol	0.5 ug/L							1								-			-	-						-	-	2		-			-		_
1	2,5-Dichlorophenol	0.5 ug/L							1		-	\sim			\sim						-						_		~		_			_	_	
1	2,6-Dichlorophenol	0.5 ug/L	\sim	\sim									\leftarrow													\sim			\sim							
1	Pentachlorophenol (PCP) 2.3.4.6-Tetrachlorophenol	0.5 ug/L 0.5 ug/L						-	+				\sim	-							-								\sim							
1	2,4,5-Trichlorophenol	0.5 ug/L							1																				~				-			
1	2,4,6-Trichlorophenol	0.5 ug/L							2.5																				/							
Chlorophenols	2,3,4,5-Tetrachlorophenol	0.5 ug/L								/	_				/		_				/					\sim		\sim	\sim							\leq
	2,3,5,6-Tetrachlorophenol Tetrachlorophenols (TeCP)	0.5 ug/L 0.5 ug/L				-								\sim																						
	2,3,4-Trichlorophenol	0.5 ug/L					\sim	-																					-							
1	2,3,5-Trichlorophenol	0.5 ug/L							1																											
1	3,4,5-Trichlorophenol	0.5 ug/L	\sim							/					\sim						/						-		/		-			_		
	3,5- Dichlorophenol	0.5 ug/L				-																							\leq							
1	2,3-Dichlorophenol 3,4-Dichlorophenol	0.5 ug/L 0.5 ug/L						\sim	4				\sim																							
	3,4-Dichiorophenol 3-chiorophenol	0.5 ug/L						-	1				1	-															\sim							
	4-chiorophenol	0.5 ug/L							1	-							-			-	-						-		2		-			-		
Short-Chained Chlorinated Paraffins (SCCPs)	Short chain chlorinated paraffins (SCCPs)	0.4 ug/L					\square											\square			\square	\square							/			\square				$\overline{\nabla}$

Not Tested Not Detected Value Detected

March/April 2016 - page 2

			1 2	3	4	5		6	7		8 9		10	11		12	13		14		15	1	16	17		18
	Chemical substances	Detection						-																		
	Chemical substances	limit	Incoming WW before Incoming WW before treat	Incoming	WW before Incoming WW before treat	Incoming	WW before treat	Incoming WW before treat	Incoming	WW before treat	Incoming WW before Incoming	WW before treat	Incoming	WW before Incoming	WW before treat	Incoming W	V before Incomin treat	WW before treat	Incoming	WW before treat		before I	incoming WW before treat	² Incoming	WW before In treat	www.before treat
	Chlorobenzene	0.02 ug/L 0.02 ug/L				\sim																				
	4-Chlorotoluene 1,2-Dichlorobenzene	0.02 ug/L 0.02 ug/L		-														-								
	1,3-Dichlorobenzene	0.02 ug/L																								
	1,4-Dichloroberzene	0.02 ug/L																								\geq
Chlorohenzenes	1,2,4-Trichlorobenzene 1,2,3-Trichlorobenzene	0.02 ug/L 0.02 ug/L																-								
chiorobenicies	1,3,5-Trichlorobenzene	0.02 ug/L																								
	1,2,3,4-Tetrachloroberizene	0.02 ug/L																								
	1,2,3,5-Tetrachlorobenzene 1,2,4,5-Tetrachlorobenzene	0.02 ug/L 0.02 ug/L																								
	1,2,4,5-1 etrachiorobenzene Pentachiorobenzene	0.02 ug/L																-								
	Hexachlorobenzene	0.02 ug/L																								
	1,4-Pherylenediamine	0.1 ug/L																								\leq
	2,4,5-Trimethylaniline 2,4-Diaminoanisole	0.1 ug/L 0.1 ug/L											-													
	2,4-Diaminotoluene	0.1 ug/L																-								
	2,4-Xyldine	0.1 ug/L	////			-				-										-						
	2,6-Xylidine	0.1 ug/L																-								
	2-Chloroaniline 2-Naphthylamine	0.1 ug/L 0.1 ug/L																\leftarrow								
	3,3'-Dichiprobenzidine	0.1 ug/L																								
	3,3'-Dimethoxybenzidine	0.1 ug/L				_		\sim					-													
	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	0.1 ug/L		\sim										\square								-				
	3,3'-Dimethylbenzidine 4,4'-Diaminodiphenylmethane	0.1 ug/L 0.1 ug/L																-								
	4,4'-Methylene-bis(2-chloroaniline)	0.1 ug/L																\sim				-				
	4,4'-Oxydianiline	0.1 ug/L								/																
	4,4'-Thiodianiline	0.1 ug/L																								\leq
	4-Aminobiphenyl 4-Chloroaniline	0.1 ug/L 0.1 ug/L																-								
	4-Chioro-o-toluidine	0.1 ug/L																-								
	5-Nitro-o-anisidine	0.1 ug/L																								
	5-Nitro-o-toluidine	0.1 ug/L																								$ \rightarrow $
	4-Aminoazoberzene Aniline	0.1 ug/L					6.8																			
	Benzidine	0.1 ug/L					0.0											-								
	m-Toluidine	0.1 ug/L																								
	n,n-Diethylanaline	0.1 ug/L				_	2.3																			\leq
	n Ethylaniine n Methylaniine	0.1 ug/L 0.1 ug/L					0.3											-								
	o-Aminoazotoluene	0.1 ug/L	<u> </u>															-								
	o-Anisidine	0.1 ug/L																								
	o-Toluidine	0.1 ug/L																								\leq
	p-Cresidine p-Toluidine	0.1 ug/L 0.1 ug/L																-								\leq
	2-Methoxyethanol	5000 ug/L																								
	2-Methoxyethyl acetate	5000 ug/L								-										-						
	2-Ethoxyethanol	5000 ug/L																-								
Glycols	2-Ethoxyethyl acetate Bis(2-methoxyethyl)-ether	5000 ug/L 5000 ug/L		\sim														-								
	Triethylene glycol dimethyl ether	5000 ug/L																								
	2-Methoxypropyl acetate	5000 ug/L				\leq				/		-			/					/					/	
	Ethane, 1,2-dimethoxy-	5000 ug/L				\sim																				
	Benzojajpyrene Anthracene	0.1 ug/L 0.1 ug/L				\leq												\sim				-		-		50
	Pyrene	0.1 ug/L														-				-						
	Benzo(ghi)perylene	0.1 ug/L					\sim									\sim										
	Benzo[e]pyrene	0.1 ug/L																-				-		\sim		
	Indeno(1,2,3-cd)pyrene Benzo/b/fluoranthene	0.1 ug/L 0.1 ug/L											-					1				-				
	Benzo(b)fluoranthene Fluoranthene	0.1 ug/L													-											
Polycyclic aromatic	Benzo[k]fluoranthene	0.1 ug/L																								
hydrocarbon (PAH)		0.1 ug/L		\sim									\sim													$ \rightarrow $
	Chrysene Diberz[a,h]anthracene	0.1 ug/L 0.1 ug/L		-								-										-		-		50
	Benz(ajanthracene	0.1 ug/L																								
	Acenaphthene	0.1 ug/L			176	_		\sim					-													
	Phenanthrene	0.1 ug/L		\sim	45		\sim										14							\sim		
	Fluorene Naphthalene	0.1 ug/L 0.1 ug/L		-	170				-								420	\sim				-		-		
	Benzo (i) anthracene	0.1 ug/L														-		-								
	Benzene	1 ug/L				-																				
	Xylene	1 ug/L																								
	o-Xylene Benzene, 1,3-dimethyl-	1 ug/L 1 ug/L																\sim				-		\sim		\leq
Volatile Organic	p-Xylene	1 ug/L																								
Volatile Organic Compounds (VOC)	Phenol, 2-methyl-	1 ug/L				/	/		/		///				-					/	/			-		_
	p-Cresol	1 ug/L																								$ \rightarrow \rightarrow$
	Phenol, 3-methyl- Cresol	1 ug/L 1 ug/L																-								5
1	UTBUDI	- Jac																								

Not Tested Not Detected Value

Detox (Incoming water) 13 Printing house Dye-house Dye-house and finishing Dye-house and finishing Factor Factory Type Dye-house Dye-house Tannery Dye-house Laundry Dye-house and Laundry Tannery Dve-house \leq and finish ...nsh \vdash \geq _ 2 \leq 1 \leq \leq 2 2

Detox (Wastewater Before Treatment)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Factory Type	Dye-house	Dye-house	Printing house	Tannery	Tannery	Finishing	Dye-house	Finishing house	Dye-house	Finishing house	Dye-house	Dye-house	Laundry			Dye-house and finishing		Dye-house	Factories
Alkylphenol ethoxylates / Alkylphenols (APEOs/APs)		1	1		1		1	1		1		1	1	1					9
Perfluorinated Chemicals (PFCs)		1		1		1				1									4
Phthalates (Ortho-Phthalates)	1	1	1		1		1	1		1		1	1		1			1	11
Chlorinated Solvents			1	1	1			1		1			1				1		7
Chlorophenois				1	1														2
Short-Chained Chlorinated Paraffins (SCCPs)																			0
Chlorobenzenes																			0
Azo dyes			1	1					1										3
Glycols																			0
Polycyclic aromatic hydrocarbon (PAH)				1	1				1			1							4
Volatile Organic Compounds (VOC)				1															1

Not Tested Not Detected 1 Detected

October/November 2016

October/November 2016 - page 1

		1	1	I I - I			1 -	1	r -	r r	- 1		1		1	1	1	12		14		16				TT
			-	2	3	-	5		6		/	0		9 10				12	15	14	15	10	17	_	10	+ +
	Chemical substances	Detection limit		WW before WW before		WW before WW befo		WW before		WW before		WW before	WW before	WW before	WW before		WW before		WW before WW before		WW before WW before		WW before	ww.be	etore	WW before
		umit	Incoming	treat Incoming treat	Incoming	treat Incoming WW befo	Incoming	treat	Incoming	treat	Incoming	treat Incoming	treat	Incoming www.berore Incoming	9 treat	Incoming	treat	Incoming	treat Incoming WW before treat	Incoming	treat Incoming WW before treat	Incoming	treat Incomi	ing trea	at Incoming	treat
	Nonyiphenol	1 ug/L					-								-	-			12.7		2.6		_	_		
Alkylphenol	Octylphenol	1 ug/L	-					_							_									-		-
ethoxylates / Alkylphenols	Nonylphenol ethooxylates, 1+2 (NPEO 1+2) Octylohenol ethoxylates, 1+2, (OPEO, 1+2)	5 ug/L 5 ug/L						-							-		-							-		-
(APEOs/APs)	Nonylphenol ethoxylates, n=3 to n=18 (NPEO 3-18)	5 ug/L		51			-	56					130		1100		-		93					-		-
(Octylphenol ethoxylates, n=3 to n= 16 (OPEO 3-16)	5 ug/L	-			190	-	74				44			140	-	-		~ _					-		-
	Perfluorooctanoic acid (PFOA)	0.01 µg/L		0.011		0.011	-			0.0305			-		0.0195							-		-		1
	Perfluorooctane sulphonates (PFOS)	0.01 µg/L													_	-								_		1
	Perfluoro-n-hexanoic acid (PFHxA)	0.01 µg/L								0.303													/			
Chemicals (PFCs)	Perfluorohexane sulphonates (PFHxS)	0.01 µg/L													-	-								-		
	Perfluorobutanoic acid (PFBA)	0.01 µg/L	-		-	0.0257 0.516	_			0.01					_	-	-					-		-		_
-	Perfluorobutane sulphonates (PFBS) Bis (2-ethylhexyl) phthalate (DEHP)	0.01 µg/L		4 3		0.0257 0.516	-	-				20	13		12		-		1.4 14					_		- 2
	Bis (2-dilytholy) presalate (DEPP) Butyl benzyl phthalate (BBP)	1 ug/L 1 ug/L				1.3	-	-				20	13		12	-			1.4					-		- <u>-</u>
	Di-n-butyl phthalate (DBP)	1 ug/L	-				-	1.1					1.2		15	-	-		1.8 5					-		2
	Diethyl phthalate	1 ug/L													3.3	-								-		1
	Dimethyl phthalate	1 ug/L																								1
	Di-n-octyl phthalate (DNOP)	1 ug/L													-									-		
Phthalates	Di-isononyl phthalate (DINP)	1 ug/L	\sim		\sim				\sim	├							\leftarrow			-		\sim		-		-
(Ortho-Phthalates)	Di-iso-decyl phthalate (DIDP) Di-isobutyl phthalate (DIBP)	1 upL					-			+			2.8		11	\sim	\sim	-	1.5 5			-		\rightarrow	-	
1	Di-Isobutyi primalate (DIBP) Di-n-hexyl phthalate	1 ug/L 1 ug/L	-		-		-						20		- "	-	1			-				_	-	
1	Dimethoxyethyl phthalate (DMEP)	1 ug/L					-	1		1 1			1		-	-	\sim								\sim	1
	Di-n-propyl phthalate (DPRP)	1 ug/L					-						-		-							-		-		-
1	Di-iso-octyl phthalate (DIOP)	1 ug/L																								1
	Di-cyclohexyl phthalate (DCHP)	1 ug/L									/												/			
	Dinonyl phthalate (DNP)	1 ug/L													-	-								-		
	Bromodichloromethane	1 ug/L					-	-							_	-	-					-		6		_
	Bromoform Carbon tetrachloride	1 ug/L 1 ug/L					-	_							-		-									-
	Chlorodibromomethane	1 ug/L					-	-							-	-								5		-
	Chloroethane	1 ug/L	-				-	-							-	-	-							-		-
	Chloroform	1 ug/L				4.8 4.3	-	3.4		ľ					_							-		4		-
	Dibromomethane	1 ug/L													_											1
	1,1-Dichloroethane	1 ug/L									-												/			
	1,2-Dichloroethane	1 ug/L													-	-								-		_
	1,1-Dichloroethene cis-1,2-Dichloroethene	1 ug/L	-				-	_				7.7			_	-	-		17.6					-		-
Chlorinated	trans-1,2-Dichloroethene	1 ug/L 1 ug/L					-	-		-		1.1			~		-		17.6					_	-	-
Solvents	trans-1,3-Dichloropropene	1 up/L					-	-							-	-	-					-		-		-
	Hexachlorobutadiene	1 ug/L					-								-							-		-		-
	Methylene chloride	1 ug/L	/					1.2			/		1.9											3	1	1
	1,1,2,2-Tetrachloroethane	1 ug/L													-									4		_
	Tetrachloroethene	1 ug/L	-			67	-					23	140		18									-		_
	1,1,1-Trichloroethane	1 ug/L						_				4.6	2.2		_									-		-
	Trichloroethene Vinyl chloride	1 ug/L 1 ug/L				74	-	-				4.0			-							-		-		-
	Hexachioroethane	1 ug/L					-								-	-						-		-		1
	1,1,1,2-Tetrachioroethane	1 ug/L														-								_		1
	1,1,2-Trichloroethane	1 ug/L													-											1
1	4-Chloro-3-methylphenol	0.5 ug/L				210	-	210							-	-										$ \sim$
1	2-Chlorophenol 2,4-Dichlorophenol	0.5 ug/L	\sim					-								\sim	\sim							_		\sim
1	2,4-Dichlorophenol 2,5-Dichlorophenol	0.5 ug/L 0.5 ug/L	-		-		-		-	+ +					\sim	\leftarrow	\leftarrow	-		-				\rightarrow		\leq
1	2,5-Dichlorophenol	0.5 ug/L			-		10			+ +			-		-	1	-	-		-				\rightarrow		\sim
1	Pentachlorophenol (PCP)	0.5 ug/L	-				-				-					-								-		
1	2,3,4,6-Tetrachlorophenol	0.5 ug/L																								
1	2,4,5-Trichlorophenol	0.5 ug/L																-						-		\sim
1	2,4,6-Trichlorophenol	0.5 ug/L	\leftarrow				-		\sim							\leftarrow	\leftarrow	\sim		\sim				-		\leftarrow
Chlorophenols	2,3,4,5-Tetrachlorophenol	0.5 ug/L 0.5 ug/L	\sim					-		+					\sim		\leftarrow			-				\rightarrow	-	\leftarrow
1	2,3,5,6-Tetrachlorophenol Tetrachlorophenols (TeCP)	0.5 ug/L 0.5 ug/L	-				-	-		+ +			-		-	-	1	-		-				_	-	-
1	2,3,4-Trichlorophenol	0.5 ug/L					-	1								-	\sim							_	\sim	\sim
1	2,3,5-Trichlorophenol	0.5 ug/L									-													-		
1	3,4,5-Trichlorophenol	0.5 ug/L																								
1	3,5- Dichlorophenol	0.5 ug/L	/		-		\sim		-		_	\sim	-			1										\sim
1	2,3-Dichlorophenol	0.5 ug/L								L [-			-	-									\sim
	3,4-Dichlorophenol	0.5 ug/L	\sim		\sim		-	-	\sim	├			\sim			\leftarrow	\leftarrow			\sim				-		\leftarrow
	3-chlorophenol 4-chlorophenol	0.5 ug/L 0.5 ug/L	\sim		-		-		-	┝──┝					-	\sim	\sim	-		-				\rightarrow	-	\leftarrow
	www.www.eneroll	0.5 Ugit	<hr/>		$ \sim$			<i></i>	$ \sim$	 	- /				1	-		-		$ \sim$				_		\sim
Short-Chained	Photo shale ship instant a section (CCCPs)	0.4																						/		
Chlorinated	Short chain chlorinated paraffins (SCCPs)	0.4 ug/L									/															
Paraffins (SCCPs)		1		\vee \vee \vee	\sim			\mathbf{V}	\sim		/		V			V				\mathbf{V}	/ / /	VL				\mathbf{V}

October/November 2016 - page 2

			1		2	3	4	5	6	7 8		9		10	11		12 13		14	15	16		17	18
	Chemical substances	Detection limit	Incoming	WW before treat	Incoming	WW before Incoming WW before treat	re Incoming	WW before Incoming WW before treat	Incoming	WW before Incoming WW before Incoming	WW before treat	Incoming	WW before In	ncoming WW before treat	Incoming	WW before treat	Incoming WW before Incomin	ng WW before treat	Incoming	WW before Incoming WW before treat	Incoming	WW before treat		V before Incoming WW b
	Chlorobenzene	0.02 ug/L	/	1	/		/		~		-	/		/		/	///		/	\sim	\sim	/	/	
4	4-Chiorotoluene	0.02 ug/L							\geq					\sim										
1	1,2-Dichlorobenzene	0.02 ug/L							_				_											
	1,3-Dichlorobenzene	0.02 ug/L							\sim				_											
	1,4-Dichlorobenzene	0.02 ug/L							_				_											
	1,2,4-Trichlorobenzene	0.02 ug/L							_				_											
	1,2,3-Trichlorobenzene	0.02 ug/L							_				_									\sim		
1	1,3,5-Trichlorobenzene	0.02 ug/L							_				_											
	1,2,3,4-Tetrachloroberizene	0.02 ug/L							/															
1	1,2,3,5-Tetrachloroberizene	0.02 ug/L							\sim															
1	1,2,4,5-Tetrachloroberizene	0.02 ug/L							/															
	Pentachiorobenzene	0.02 ug/L					2		\sim															
F	Hexachlorobenzene	0.02 ug/L							/															
	1,4-Phenylenediamine	0.1 ug/L							\sim															
2	2,4,5-Trimethylaniline	0.1 ug/L							/				_											
2	2,4-Diaminoanisole	0.1 ug/L					-																	
2	2,4-Diaminotoluene	0.1 ug/L																						
2	2,4-Xylidine	0.1 ug/L											1											
5	2,6-Xylidine	0.1 ug/L							/															
2	2-Chloroaniline	0.1 ug/L																						
2	2-Naphthylamine	0.1 ug/L																						
7	3,3'-Dichlorobenzidine	0.1 ug/L				12			/			-												
	3,3'-Dimethoxybenzidine	0.1 ug/L							/				-			-						-		
7	3,3'-Dimethyl-4,4'-diaminodiphenylmethane	0.1 ug/L							/															
2	3,3'-Dimethylbenzidine	0.1 ug/L	-	-	-				/		-		1			-			-					
		0.1 ug/L	-	-	-				~		-	-	- F.	/	-	-			-		-	-	-	
	4,4'-Methylene-bis(2-chloroaniline)	0.1 ug/L					-		~			-				-			-					
	4.4'-Oxydianiline	0.1 ug/L							~		-	-		/		-			-			-	-	
	4,4'-Thiodianiline	0.1 ug/L					~		-															
	4-Aminobiphenvl	0.1 ug/L							~											///				
	4-Choroaniine	0.1 ug/L					-		_				-											
2	4-Chloro-o-toluidine	0.1 ug/L					-		_				-											
	5-Nitro-o-anisidine	0.1 ug/L							_				_											
	5-Nitro-o-toluídine	0.1 ugL							\sim				-											
b	4-Aminoazoberzene	0.1 ugiL							\sim				_											
		0.1 ug/L				17		14.3	\sim			-	3.6											
	Aniline								\sim				3.0											
-	Benzidine m-Toluidine	0.1 ug/L 0.1 ug/L					-		~			-												
	n,n-Diethylanaline	0.1 ug/L							\sim				_											
	n-Ethylaniine		-				-		_															
		0.1 ug/L							\sim				_											
	n-Methylaniline o-Aminoazotoluene	0.1 ug/L							\sim				_											
		0.1 ug/L	-		-		-		\sim				-											
<u>°</u>	o-Anisidine	0.1 ug/L							\sim															
	o-Toluidine o-Cresidine	0.1 ug/L			-				\sim															
		0.1 ug/L							\leq				_											
	p-Toluidine 2-Methoxyethanoi	0.1 ug/L 5000 ug/L	-		-		-		\sim				-											
									\leq				_											
2	2-Methoxyethyl acetate 2-Ethoxyethanol	5000 ug/L			-				\sim			\sim	_											
		5000 ug/L							\leq				_											
	2-Ethoxyethyl acetate	5000 ug/L							\leq				_											
	Bis(2-methoxyethyl)-ether	5000 ug/L							\leq				_											
	Triethylene glycol dimethyl ether	5000 ug/L	-		-		-		\sim				-											
	2-Methoxypropyl acetate	5000 ug/L		-	-				_		-	-			-									
	Ethane, 1,2-dimethoxy-	5000 ug/L							\sim			-				-			-			-		
	Benzojajpyrene	0.1 ug/L	-	-	-						-	-	-		-									
	Anthracene	0.1 ug/L	-		-				_				-		\sim									
	Pyrene	0.1 ug/L	-	-	-				\sim				-											
B	Benzolghilperylene	0.1 ug/L			-				_				-		-									
P	Benzojejpyrene	0.1 ug/L		-	-				\sim				-											
	indeno[1,2,3-cd]pyrene	0.1 ug/L	-		-				_				-											
	Benzo(b)fluoranthene	0.1 ug/L	-	-							-	-	-		-									
E					-		+		_															
F	Fluoranthene	0.1 ug/L		-			+				-				-						-	-		
olycyclic aromatic B	Fluoranthene Benzo[k]fluoranthene	0.1 ug/L											-											
F olycyclic aromatic ydrocarbon (PAH)	Fluoranthene Benzo[k]fluoranthene Acenaphthylene	0.1 ug/L 0.1 ug/L	\leq																					
olycyclic aromatic B ydrocarbon (PAH)	Fuorarthene Benzolk/fluoranthene Acenaphthylene Chrysene	0.1 ugL 0.1 ugL 0.1 ugL	\leq	\leq					\sim						-								\leq	
olycyclic aromatic B ydrocarbon (PAH) A C D	Fuoranthene Benzzöl/fuoranthene Acenaphthylene Chrysene Dibenz(a,h)anthracene	0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L	\geq						\geq		\leq	\leq	5						\leq	222		\geq		- 28
olycyclic aromatic B ydrocarbon (PAH) A D B	Fuoranthene Benzol/plluoranthene Consphthylene Dhisera(a.h)anne Dibera(a.h)anthracene Bostojlanthracene	0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L		MM					\geq			\sim	-			\geq			\geq	222				
olycyclic aromatic B ydrocarbon (PAH) A D B A	Lucrantine Evendflucrantine Aconsphitylere Chryson Donr(a J)antinacene Benr(a)antinacene Benr(a)antinacene Kenraphinene	0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L							\geq															
olycyclic aromatic B ydrocarbon (PAH) A D B A P	Evarathene Evarathene Evarathene Accessitivities Accessititivities Accessitivities Accessitivi	0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L		MMM	MMM				\geq			NN												
olycyclic aromatic B ydrocarbon (PAH) A D B A P F	Noordhee Beoolgthoorachee Acergatylike Diserdja Jarthacee Bisrdja arthacee Beorgtharte Beorgtharte Pherantree Noorde	0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L		MMM	NNNN							NNN												
F olycyclic aromatic B ydrocarbon (PAH) A B A A F N N	Noorthee Boodylboardee Koenghtylen Dongla, Jupartaene Dongla, Jupartaene Booglaphraene Noorgethee Noorgethee Paranteree Noorse	0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L 0.1 ug/L		MMM				67 12			MMM	MMM	0.3				0.4							
olycyclic aromatic B ydrocarbon (PAH) A B A P F N B B B B B	Nacardhea Beachdheanathea Nacraidhfuine Dhearda Bairteane Beachdaitheane Beachdaitheane Meanathean Meanathean Nacraine Nacraine Nacraine Nacraine Nacraine Nacraine Nacraine	0.1 ugl. 0.1 ugl.	MMMMM		NNNN							MMM	0.3				0.4							
F olycyclic aromatic B ydrocarbon (PAH) A B B P F N B B B B B B B B B B B	Noardree Noardphoratree Noardphylee Doragle Johnson Doragle Johnson Doragle Johnson Noardphane Noardphane Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard Noard No	0.1 ugl. 0.1 ugl. 1 ugl.	MMMMM	MMMM	MMMM			72			MMMM	NNNN	0.3				0.4							
olycyclic aromatic B ydrocarbon (PAH) A B A A P F N B B B X X	Nacastron Nacastrone Nacastrophysics Nacastrophysics Nacastrophysics Nacastrophysics Nacastrophysics Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastrone Nacastron	0.1 ugl. 0.1 ugl. 0.1 ugl. 0.1 ugl. 0.1 ugl. 0.1 ugl. 0.1 ugl. 0.1 ugl. 0.1 ugl. 0.1 ugl. 1 ugl. 1 ugl.		MMMMM	MMMMM			72 8.1			MNNNN	NNNNN	0.3				0.4							
olycyclic aromatic bydrocarbon (PAH) A B A P P N B B B A P P N B B A A P A A A A A A A A A A A A A	Nacasthwa Nacasthwa Kanaghibyian Kanaghibyian Kanaghibyian Kanaghibyian Kanaghibyian Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa N	0.1 ugl. 0.1 ugl. 1 ugl.		MMMMM				72			MMMMM	MMMM	0.3				0.4							
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volatie Organic Volatie Organic Volatie Organic	Nacasthwa Nacasthwa Kanaghkyin Kanaghkyin Kanaghkyin Kanaghtan Kanaghtan Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nacasthwa Nac	0.1 ugL 0.1 ugL 0.1 ugL 0.1 ugL 0.1 ugL 0.1 ugL 0.1 ugL 0.1 ugL 0.1 ugL 0.1 ugL 1 ugL 1 ugL 1 ugL 1 ugL 1 ugL		MMMMMMM				72 8.1			MMMMM	MMMMMM	0.3											
volatile Organic Volatile Organic Populatile Organic Populatile Organic Populatile Organic Populatile Organic Populatile Organic Populatile Organic Populatile Organic Populatile Organic Populatile Organic	Nacastree ScongReg Macroson Scong Macroson	0.1 ugL 0.1 ugL 1 ugL 1 ugL 1 ugL 1 ugL 1 ugL 1 ugL 1 ugL 1 ugL		MMMMMMM				7.2 8.1 4.5				MMMMMM	0.3											
vytrocarbon (PAH) A vytrocarbon (PAH) A B A B B C C C C C C C C C C C C C C C	Nacastrow Nacastrow Karagtofikus at 200 Karagtofikus at 200 Karagtofikus at 200 Nacastrow Pasastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacastrow Nacast	0.1 upt. 0.1 upt. 1 upt. 1 upt. 1 upt. 1 upt. 1 upt. 1 upt. 1 upt. 1 upt. 1 upt.		MMMMMMMM				7.2 8.1 4.5				MMMMMMM	0.3											
volatile Organic Volatile Organic Volatile Organic Volatile Organic	Nacastree ScongReg Macroson Scong Macroson	0.1 ugL 0.1 ugL 1 ugL 1 ugL 1 ugL 1 ugL 1 ugL 1 ugL 1 ugL 1 ugL		NNNNNNNNNN	NNNNNNNNNNN			7.2 8.1 4.5				MMMMMMMM	0.3											

Not Tested Not Detected Value Detected

Detox (Incoming water)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Factory Type	Dye-house	Dye-house	Printing house	Tannery	Tannery	Finishing house	Dye-house	Finishing house	Dye-house	Finishing house	Dye-house	Dye-house	Laundry	Dye-house and finishing	Dye-house and finishing	Dye-house and finishing	Dye-house and Laundry	Dye-house	Factorie
Alkylphenol ethoxylates / Alkylphenols (APEOs/APs)													/				1	1	2
Perfluorinated Chemicals (PFCs)					1	1							1				1		4
Phthalates (Ortho-Phthalates)		1		1						1									3
Chlorinated Solvents					1														1
Chlorophenols																			0
Short-Chained Chlorinated Paraffins (SCCPs)																			0
Chlorobenzenes									1	1			1					1	4
Azo dyes																			0
Glycols																			0
Polycyclic aromatic hydrocarbon (PAH)																			0
Volatile Organic Compounds (VOC)																			0

Detox (Wastewater Before Treatment)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Factory Type	Dye-house	Dye-house	Printing house	Tannery	Tannery	Finishing	Dye-house	Finishing house	Dye-house	Finishing house	Dye-house	Dye-house	Laundry	Dye-house and finishing	Dye-house and finishing	Dye-house and finishing	Dye-house and Laundry	Dye-house	Factories
Alkylphenol ethoxylates / Alkylphenols (APEOs/APs)				1		1	1					1		1			1	1	7
Perfluorinated Chemicals (PFCs)					1	1							1		1		1		5
Phthalates (Ortho-Phthalates)	1	1	1	1			1			1		1	1						8
Chlorinated Solvents	1				1	1						1	1						5
Chlorophenols			1	1	1														3
Short-Chained Chlorinated Paraffins (SCCPs)																			0
Chlorobenzenes									1	1		1	1					1	5
Azo dyes																			0
Glycols																			0
Polycyclic aromatic hydrocarbon (PAH)				1															1
Volatile Organic Compounds (VOC)					1														1

Not Tested Not Detected 1 Detected

Chemical substances		1	1		2		3		4	5		6		7	-	8	9		10		11	12		13		14	15		16		17		18
	Chemical substances	Detection limit	Incoming	WW before treat		W before treat	Incoming	WW before Ir	coming WW	before Incomit	ng WW bi		ig WW befo		WW before		before Incom	ing WW before the at	re Incoming	WW before treat		W before Incomi	ng WW before	Incoming	WW before Inc	coming WW befor		WW before h		W before In		/ before In	Incoming
	la construction de la constructi	1.00									_		_				-					-				18					4	5	3
lkylphenol	Norylphenol Octylphenol	1 ug/L 1 ug/L									-			-			-									10					-	5	
	Nonylphenol ethooxylates, 1+2 (NPEO 1+2)	5 ug/L																															
viphenois	Octviphenol ethoxylates, 1+2, (OPEO, 1+2)	5 ug/L															-																
	Nonylphenol ethoxylates, n=3 to n=18 (NPEO 3-18)	5 ug/L								12			19		64		_						100										
	Octylphenol ethoxylates, n=3 to n= 16 (OPEO 3-16)	5 ug/L											18		62																		
	Perfluorooctanoic acid (PFOA)	0.01 µg/L								0.012	2	0.031	3 0.0424															0.03			0.1	0.1	
	Perfluorooctane sulphonates (PFOS)	0.01 µg/L																						0.08	0.07								
orinated	Perfluoro-n-hexanoic acid (PFHxA)	0.01 µg/L								0.010		0.106	0.166																				
cals (PFCs)	Perfluorohexane sulphonates (PFHxS)	0.01 µg/L									0.02																						
	Perfluorobutanoic acid (PFBA)	0.01 µg/L										0.012	7 0.0523																				
	Perfluorobutane sulphonates (PFBS)	0.01 µg/L									4 0.1	42										\sim						_					
	Bis (2-ethylhexyl) phthalate (DEHP)	1 ug/L		1.4	1	2		5	4	6						-			1	4			6.7	_	14								
	Butyl benzyl phthalate (BBP)	1 ug/L													1.1								1										
	Di-n-butyl phthalate (DBP)	1 ug/L 1 ug/L													1.1								1										
	Diethyl phthalate Dimethyl phthalate	1 ug/L									-			-			_																
	Di-n-octyl phthalate (DNOP)	1 ug/L									-			-		\leq	-																
	Di-isononyl phthalate (DINP)	1 up/L	1	-				6					-	-	1		_						-	1				1					-
halates	Di las des debitadas (DIDD)	1 ug/L	1	-				-					-	-	1		_						-	1				1					-
-Phthalates)	Di-isobutyl phthalate (DIBP)	1 ug/L	1									1	1		1	-				1		-	1.1	1									-
	Di-n-hexyl phthalate	1 ug/L	1									1	1		1					1				1			1				1		-
	Dimethoxyethyl phthalate (DMEP)	1 ug/L																															_
	Di-n-propyl phthalate (DPRP)	1 ug/L																															_
	Di-iso-octyl phthalate (DIOP)	1 ug/L																															
	Di-cyclohexyl phthalate (DCHP)	1 ug/L	1	_											_				_														_
	Dinonyl phthalate (DNP)	1 ug/L	1	_											1				_					1									
	Bromodichloromethane	1 ug/L														-																	
	Bromoform	1 ug/L																															
	Carbon tetrachloride	1 ug/L																															
	Chlorodibromomethane Chloroethane	1 ug/L																															
	Chloroform	1 ug/L		_									1.5	_	-		-																
	Dibromomethane	1 ug/L 1 ug/L									10	,	1.5	-			_																
	1,1-Dichloroethane	1 ug/L																															-
	1,2-Dichloroethane	1 ug/L									-																						-
	1.1-Dichloroethene	1 ug/L															_																
	cis-1,2-Dichloroethene	1 ug/L								6.6																							_
hlorinated Solvents	trans-1,2-Dichloroethene	1 ug/L																															_
owents	trans-1,3-Dichloropropene	1 ug/L																															
	Hexachlorobutadiene	1 ug/L																															
	Methylene chloride	1 ug/L		11							6												8										
	1,1,2,2-Tetrachloroethane	1 ug/L																				_											
	Tetrachloroethene	1 ug/L								2.6															2								
	1,1,1-Trichloroethane	1 ug/L								1						-																	
	Trichloroethene	1 ug/L								1.9																							
	Vinyl chloride	1 ug/L																															
	Hexachioroethane 1.1.1.2-Tetrachioroethane	1 ug/L		_							_			_	-				_														
	1,1,1,2-1 etrachoroethane	1 ug/L		_							_		_	_	-		-																
	4-Chloro-3-methylphenol	1 ug/L 0.5 ug/L	+	+		-		11.2		662	18	0		-	+		-	-	-	-				+			+	1 1					-
	2-Chlorophenol	0.5 ug/L	1	-							10		-	-	1		_						-	1				1					-
	2,4-Dichlorophenol	0.5 ug/L	1									1	1		1					1			1	1			1				1		-
	2,5-Dichlorophenol	0.5 ug/L	1									1	1		1					1			1	1									-
	2,6-Dichlorophenol	0.5 ug/L																															-
	Pentachlorophenol (PCP)	0.5 ug/L	1			-	-													-		~							-				_
	2,3,4,6-Tetrachlorophenol	0.5 ug/L	1																									1					
	2,4,5-Trichlorophenol	0.5 ug/L	1	_											-				_														_
	2,4,6-Trichlorophenol	0.5 ug/L	1	_											1				_					1									
rophenols	2,3,4,5-Tetrachlorophenol	0.5 ug/L	1	_	1								_		1								_	1									
	2,3,5,6-Tetrachlorophenol	0.5 ug/L	<u> </u>	-	+						_		-				-		_				-	-	_		_	+					
	Tetrachlorophenois (TeCP)	0.5 ug/L	1	-	+										+	-	-							+				+					
	2,3,4-Trichlorophenol	0.5 ug/L	1	-	+										+		-							+				+					
	2,3,5-Trichlorophenol 3,4,5-Trichlorophenol	0.5 ug/L 0.5 ug/L	+		1 1	-					-			-	+		-		-					-				1 1					-
	3,4,5- Dichlorophenol 3,5- Dichlorophenol	0.5 ug/L	+	-	+ +	-					-			-	+		-		-	-				1				1 1					-
	2,3-Dichlorophenol	0.5 ug/L	1	-	1								-	-	1		_						-	1				1 1					-
	3,4-Dichlorophenol	0.5 ug/L	1	-	1								-	-	1		_					-	-	1				1 1					-
	3-chlorophenol	0.5 ug/L	1	-									-	-	1		_						-	1				1					-
	4-chlorophenol	0.5 ug/L	1									1	1		1	-				1				1									-
ort-Chained hlorinated iffins (SCCPs)	Short chain chlorinated paraffins (SCCPs)	0.4 ug/L																															-

February/March 2017 - page 1

Value Detected

February/March 2017 - page 2

			1		2		3	4		5		6	7		8	9		10		11	12		13	14	15		16	1	17		18	8
	Chemical substances	Detection					-			-					-																	
	chemical substances	limit	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before Incomin treat	g WW before treat	Incoming	WW before treat	Incoming WW be treat	fore Incoming	WW before treat	Incoming	WW before Incoming	WW before treat	Incoming	WW before treat	Incoming WW befinter	Incoming	WW before treat	Incoming	WW before Incoming WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat	Incoming	WW before treat
	Oblashanna	0.02													-			2.18	4.00		_		0.2	0.3							0.09	0.08
	Chlorobenzene 4-Chloroboluene	0.02 ug/L 0.02 ug/L															0.01	2.10	1.00		-		01	0.5							0.03	0.00
	1,2-Dichloroberzene	0.02 ug/L																			-	0.03										
	1.3-Dichloroberzene 1.4-Dichloroberzene	0.02 ug/L 0.02 ug/L														\geq					-											0.04
	1,4-Dichiorobenzene 1,2,4-Trichiorobenzene	0.02 ug/L 0.02 ug/L																			-											
Chlorobenzenes	1,2,3-Trichlorobenzene	0.02 ug/L																			-											
	1,3,5-Trichlorobenzene	0.02 ug/L																			2											
	1.2,3,4-Tetrachlorobenzene 1.2,3,5-Tetrachlorobenzene	0.02 ug/L 0.02 ug/L		_	_									_				_			_											-
		0.02 ug/L																			_											
	Pentachlorobenzene	0.02 ug/L																			-											
	Hexachlorobenzene 1,4-Phenylenediamine	0.02 ug/L 0.1 ug/L													~						-											r – – – – –
	2,4,5-Trimethylaniline	0.1 ug/L													\geq						-											t
	2,4-Diaminoanisole	0.1 ug/L																		/	-											
	2,4-Diaminotoluene	0.1 ug/L																			-											
	2.4-Xyldine 2.6-Xyldine	0.1 ug/L 0.1 ug/L													\leq						_											ł
	2-Chloroaniline	0.1 ug/L																														
	2-Naphthylamine	0.1 ug/L		1	1												1	1			1									_		
	3,3'-Dichlorobenzidine 3,3'-Dimethoxybenzidine	0.1 ug/L 0.1 ug/L										I	_						-		-											\rightarrow
	3,3-Dimethoxybenziane 3,3-Dimethyl-4,4-diaminodiphenylmethane	0.1 ug/L	1	1	1										-		1	1		\leq	-										\rightarrow	\rightarrow
	3,3'-Dimethylbenzidine	0.1 ug/L																			1											
	4,4'-Diaminodiphenylmethane 4,4'-Methylene-bis(2-chloroaniline)	0.1 ug/L																														
	4,4 - Methylene bis(2-choroanene) 4,4 - Oxydianiline	0.1 ug/L 0.1 ug/L																			-											
	4,4'-Thiodianiline	0.1 ug/L													\sim						-											
		0.1 ug/L																			2											
	4-Chloroaniline 4-Chloro-o-toluidine	0.1 ug/L 0.1 ug/L		_	_									_		\geq		_			_											-
	5-Nitro-o-anisidine	0.1 ug/L																			_											
	5-Nitro-o-toluidine	0.1 ug/L																		\geq												
		0.1 ug/L 0.1 ug/L									1.58										-											
	Anilne Benzidine	0.1 ug/L 0.1 ug/L									1.00										-											
	m-Toluidine	0.1 ug/L																														
	n,n-Diethylanaline	0.1 ug/L																			2											
	n-Ethylaniine n-Methylaniine	0.1 ug/L 0.1 ug/L														\geq					-											ł
	o-Aminoazotoluene	0.1 ug/L																														
	o-Anisidine	0.1 ug/L																			2											
	o-Toluidine p-Cresidine	0.1 ug/L 0.1 ug/L		_	_									_				_			_											-
	p-Clustine p-Toludine	0.1 ug/L													\geq	\geq					-											
	2-Methoxyethanol	5000 ug/L																		\sim	2											
	2-Methoxyethyl acetate 2-Ethoxyethanol	5000 ug/L 5000 ug/L														\geq					_											
	2-Ethoxyethyl acetate	5000 ug/L																			-											
Glycols	Bis(2-methoxyethyl)-ether	5000 ug/L																														
	Triethylene glycol dimethyl ether	5000 ug/L	1						_				_	_								I					— — — — — — — — — — — — — — — — — — —					
	2-Methoxypropyl acetate Ethane, 1,2-dimethoxy-	5000 ug/L 5000 ug/L										I	_		-				-		-											\rightarrow
	Benzojajpyrene	0.1 ug/L		1	1							1 1					1	1			-											
	Anthracene	0.1 ug/L	-	-	-					_							1	-			2					-						
	Pyrene Benznichilhen/ene	0.1 ug/L 0.1 ug/L										I	_		\leq				-		-											\rightarrow
	Benzo(ghi)perylene Benzo(e)pyrene	0.1 ug/L		1	1							1 1					1	1			-											
	Indeno(1,2,3-cd)pyrene	0.1 ug/L													-						2											
	Benzo(b)fluoranthene Fluoranthene	0.1 ug/L 0.1 ug/L	+	+											-						-										\rightarrow	ł
Polycyclic aromatic	Huoranthene Benzo(k)fluoranthene	0.1 ug/L 0.1 ug/L	-	+	-				-			1 1		+				-	+		-	1										<u> </u>
hydrocarbon (PAH)	Acenaphthylene	0.1 ug/L																			1											
	Chrysene Disease	0.1 ug/L	1						_				_	_							_	I					— — — — — — — — — — — — — — — — — — —					
		0.1 ug/L 0.1 ug/L	+	+	-													-	-		-										\rightarrow	<u> </u>
	Benz[a]arithracene Acenaphthene	0.1 ug/L			1							1 1					1	1			-											
	Phenanthrene	0.1 ug/L																			1											
	Fluorene Naphthalene	0.1 ug/L 0.1 ug/L	+	+					13.4						\leq	\leq					-										\rightarrow	ł
	Napritraiene Benzo (i) arthracene	0.1 ug/L 0.1 ug/L	1	1	1				1.0.7								1	1			-										\rightarrow	t
	Benzene	1 ug/L																			1											
	Xylene	1 ug/L	1	-					_		92			-			-		-		-											
	o-Xylene Benzene 1 3-dimethul	1 ug/L 1 ug/L	+	+							40				\sim				-	\geq	-										\rightarrow	<u> </u>
Volatile Organic	Benzene, 1,3-dimethyl- p-Xylene Phenol, 2-methyl-	1 ug/L			1						52	1 1					1	1			-											
compounds (VOC)	Phenol, 2-methyl-	1 ug/L																			1											
	p-Cresol	1 ug/L															-		1		_	I					<u> </u>					——
1	Phenol, 3-methyl- Cresol	1 ug L 1 ug L	1	1	-				-					-	-		1	-	+		-	1			+							\rightarrow
L				1		1	1		1		1				-	<u> </u>			4		- 1		1									

Not Tested Not Detected Value Detected