Wastewater Discharge Trend Report

MAY 2016
SUSTAINABLE CHEMICALS MANAGEMENT (SCM)

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Introduction & Methodology

Introduction

Since 1841, our family owned company has put serving our customers and local communities first. Today, this means striving to do business sustainably: everyday, everywhere, for everyone.

An important part of this commitment is to achieve a zero discharge of hazardous chemicals (ZDHC) in the supply chain by 2020. In 2015-16, C&A rolled out its Sustainable Chemicals Management (SCM) program to 52 facilities with wet processing. As part of the program, facilities conducted wastewater testing of 163 analytes in 11 priority chemical groups for the presence of hazardous chemicals.[1] Additionally, in order to assess facilities performance holistically and identify areas of on-site improvement, chemical management practices in the supply chain were also audited.

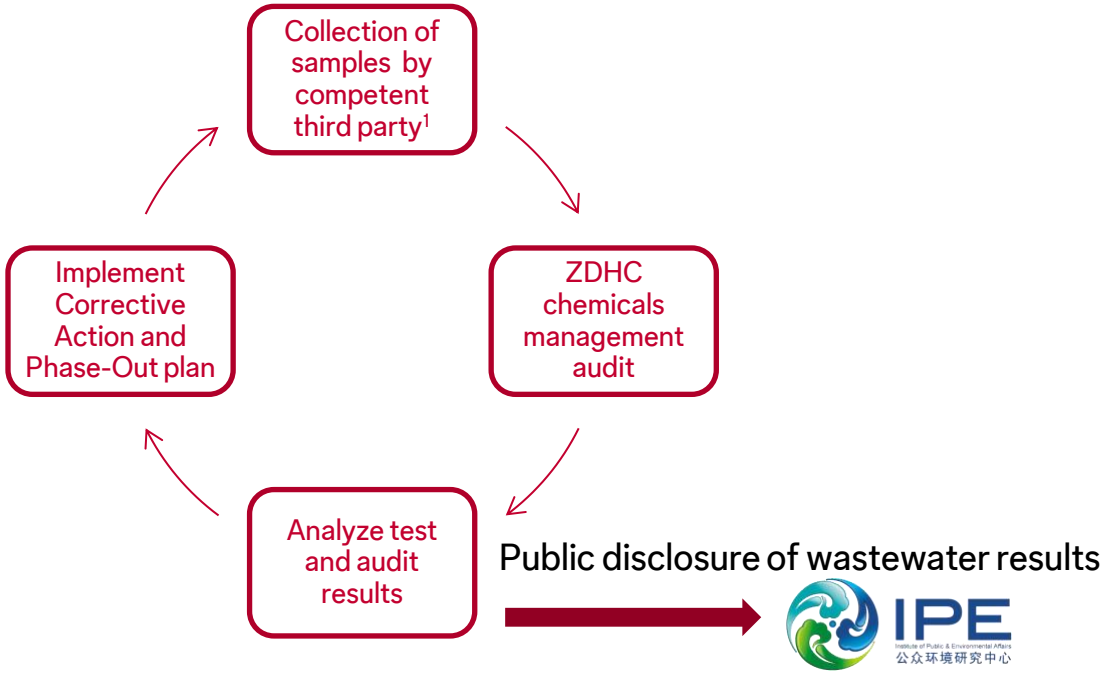
The purpose of this report is to communicate the Wastewater Discharge Trends of the C&A Supply Chain as conducted by the Sustainable Chemicals Management (SCM) program. The report serves to act as a progress indicator of current performance and will be further enhanced with future data in order to monitor trends and progress.

C&A releases this information as part of our commitment to the Right to Know principle.

1 – Please refer Appendix 1 and 3 for more details on the testing standards.

Methodology

- Objective: To understand the status quo by undertaking wastewater samples and conducting Sustainable Chemicals Management audits at 52 nominated fabric mills for C&A Europe. Out of these 52 mills, 47 conducted wastewater testing whilst the others were excluded due to having no process wastewater or sharing the same effluent treatment plant.
- Environmental samples were tested if 11 priority chemical groups are discharged and chemicals management practices were audited at C&A production units



11 Priority Chemical Classes[2]

1. Alkylphenols & Alkylphenol Ethoxylates
2. Phthalates
3. Flame Retardants
4. Aromatic Amines in Azo Colorants
5. Organotin Compounds
6. Perfluorinated Chemicals
7. Chlorobenzenes
8. Chlorinated Solvents
9. Chlorophenols
10. Short Chain Chlorinated Paraffins
11. Heavy Metals

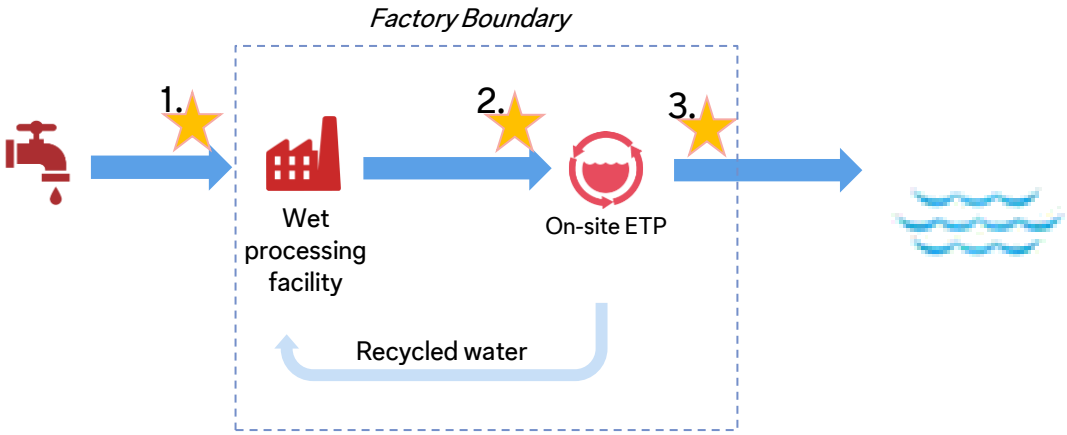
1 – Third parties: Bureau Veritas Consumer Product Services (BVCPS), SGS

2 – Please refer Appendix 3 for complete list of analytes

Methodology

Sampling Points[1] for on-site ETP

1. Incoming water[2]
2. Wastewater before treatment
3. Wastewater after treatment



Sampling Points[1] for off-site ETP

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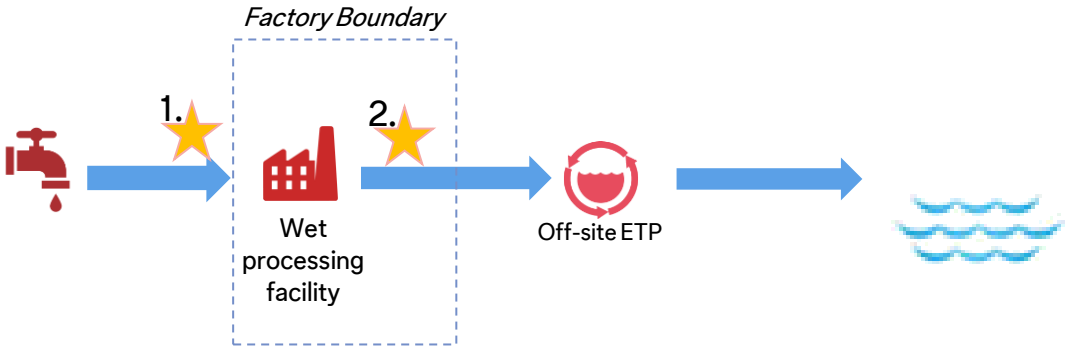


Sampling Time and Method

The sampling was conducted within a semi-announced window of one working week. Sampling was only conducted if the facility was in full operation and typically conducted between 2-5pm. The sample analyzed was a 2 hour composite sample mixed with grab samples taken every 15 minutes. Stringent international standards were followed during the sampling and transport to ensure sample preservation and integrity.

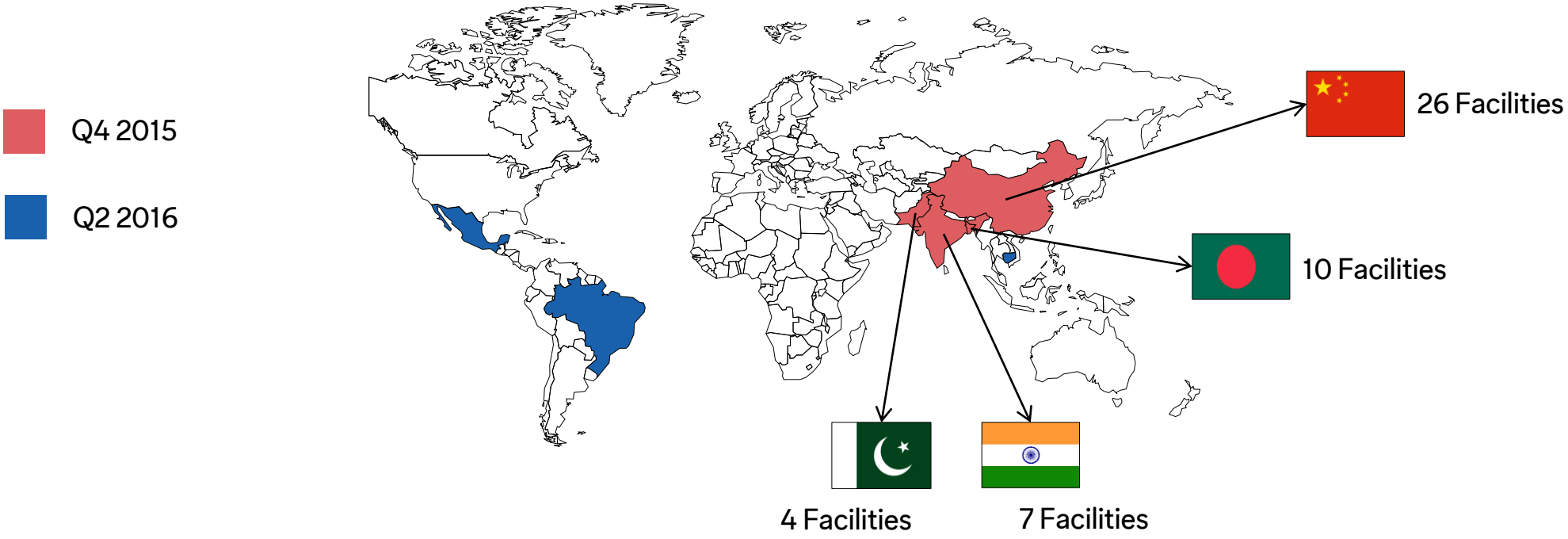
1 – Please refer Appendix 1 for detailed Sampling Plan

2– Water sources are ground water, municipal supply or water extracted from fresh water bodies like rivers, lakes.

Methodology

Geographical Coverage

In Q4 2015, the geographical coverage of the Sustainable Chemicals Management (SCM) program covered 52 fabric mills across Bangladesh, China, India and Pakistan. 47 of these conducted wastewater tests for C&A.



By June 2016, C&A will extend the SCM testing program to over 100 wet processing facilities, including, sites in Brazil, Cambodia and Mexico. This coverage equates to 74% of our nominated fabric sourced from Asia, 35% of our fabric sourced from Mexico and 46% of our total sales in Brazil.

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Summary & Analysis

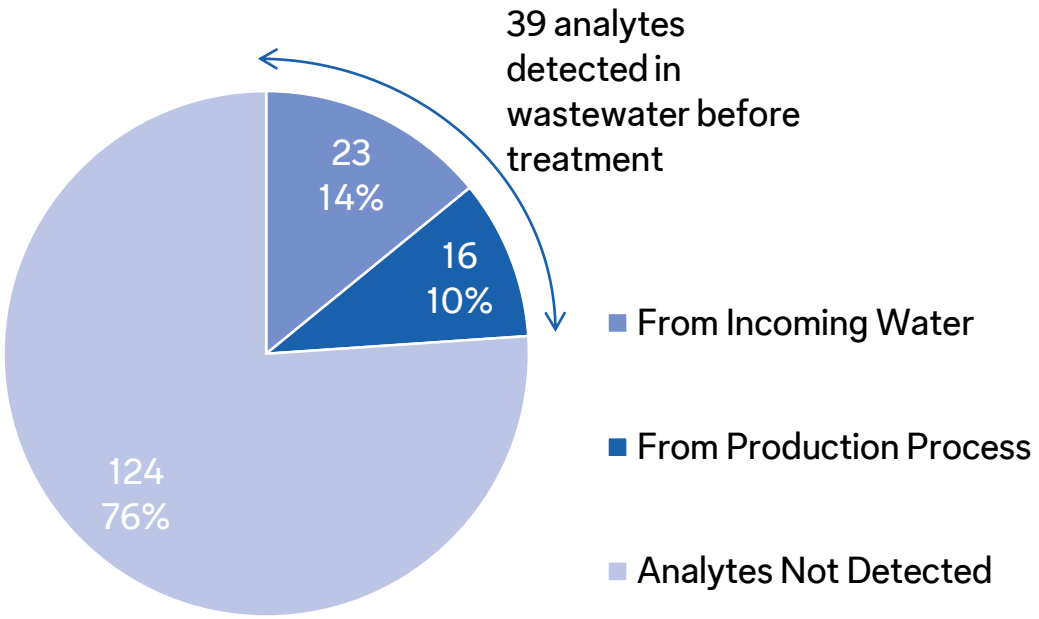
Summary of Detections

- 124 analytes, out of 163, are not detected across all 3 sampling points
- 39 analytes were detected in wastewater before treatment but 23 of these were found as contaminations from polluted incoming water
- 16 analytes, from the 163 analytes tested, were added to the wastewater as a result of manufacturing processes

Table 1: Chemical Classes Detected by Sampling Point

Incoming Water	Wastewater Before Treatment	Wastewater After Treatment
Alkylphenols & Alkylphenol Ethoxylates	Alkylphenols & Alkylphenol Ethoxylates	Alkylphenols & Alkylphenol Ethoxylates
Phthalates	Phthalates	Phthalates
Perfluorinated Chemicals	Aromatic Amines in Azo Colorants	Aromatic Amines in Azo Colorants
Chlorobenzenes	Organotin Compounds	Chlorophenols
Chlorinated Solvents	Perfluorinated Chemicals	Perfluorinated Chemicals
Heavy Metals	Chlorobenzenes	Chlorobenzenes
	Chlorinated Solvents	Chlorinated Solvents
	Short Chain Chlorinated Paraffins	Short Chain Chlorinated Paraffins
	Heavy Metals	Heavy Metals

Figure 1: Detected Analytes by Source

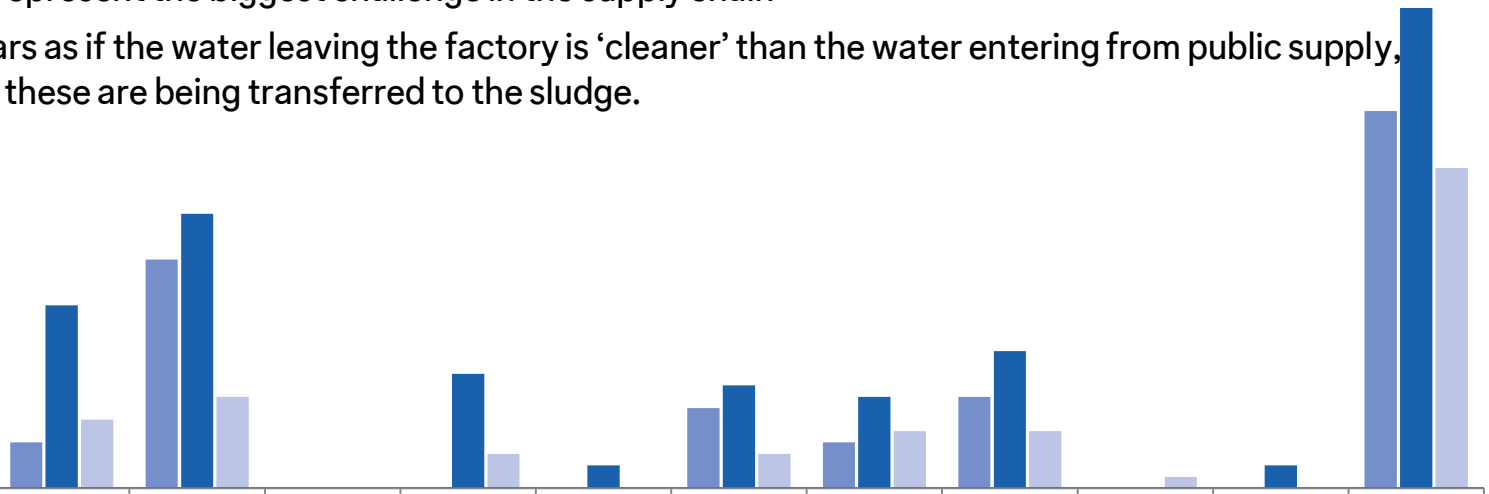


Of 163 analytes (from 11 priority chemical groups);

- 23 analytes across 6 chemical groups were detected in incoming water
- 39 analytes across 9 chemical groups were detected in wastewater before treatment
- 29 analytes across 9 chemical groups were detected in wastewater after treatment

Detections Trends: GLOBAL

- Incoming water shown significant pollution with contaminations;
  - 89% of incoming water samples contaminated with heavy metals
  - 54% of incoming water samples contaminated with phthalates
- PFCs were detected in 9 wastewater samples before treatment, with 7 of these being traced to incoming water contamination
- AP & APEOs and Azo Colorants represent the biggest challenge in the supply chain
- In many chemical groups it appears as if the water leaving the factory is 'cleaner' than the water entering from public supply, however, C&A need to explore if these are being transferred to the sludge.



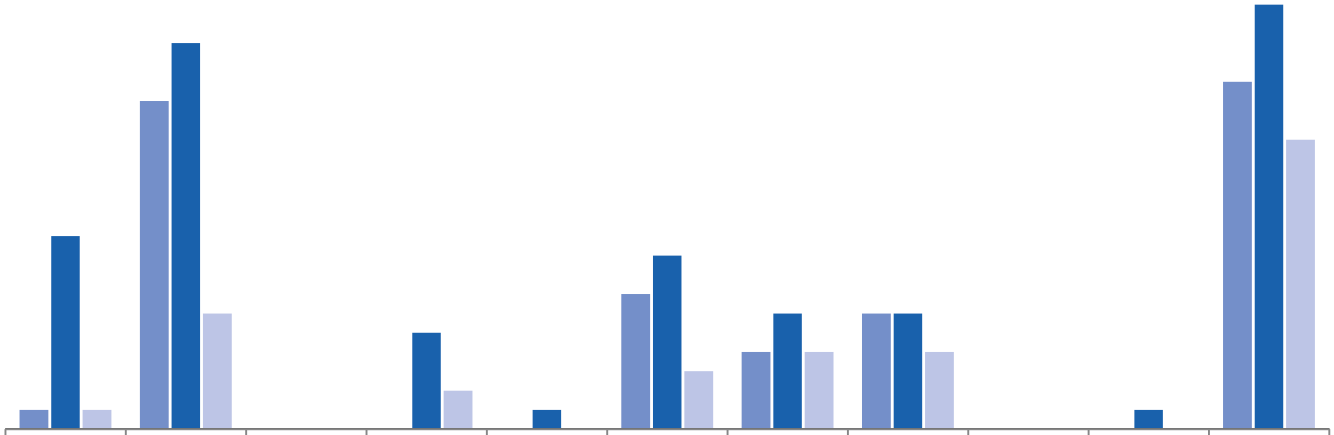
	AP & APEOs	Phthalates	Flame Retardants	Azo Colorants	Organotin Compounds	PFCs	Chlorobenzenes	Chlorinated Solvents	Chlorophenols	SCCPs	Heavy Metals
Incoming water (37)	4	20	-	-	-	7	4	8	-	-	33
Wastewater before treatment (43)	16	24	-	10	2	9	8	12	-	2	42
Wastewater after treatment (31)	6	8	-	3	-	3	5	5	1	-	28

Figure 3: Facilities with Detections at All 3 Sampling Points, Global

Note: The number of tests conducted at each sampling point may vary depending on the set-up of the facility (off-site ETP will not have an 'after treatment' test) and on occasion C&A accepted other ZDHC Brand's test report, if conducted within the last 12 months, whose sampling points may have differed to C&A methodology.

Detections Trends: CHINA

- Incoming water shown significant pollution with contaminations;
  - 32% of incoming water samples contaminated with PFCs, a substance that is banned in banned in C&A production
  - 82% of incoming water samples contaminated with heavy metals
  - 77% of incoming water samples contaminated with phthalates
- China accounted for all detections of PFCs globally. 9 wastewater samples 'before treatment' had detections of PFCs, with 7 of these being traced to incoming water contamination and 2 samples being traced to the use in manufacturing processes
- Detections of AP & APEOs and Azo Colorants largely can be traced to the use in manufacturing processes



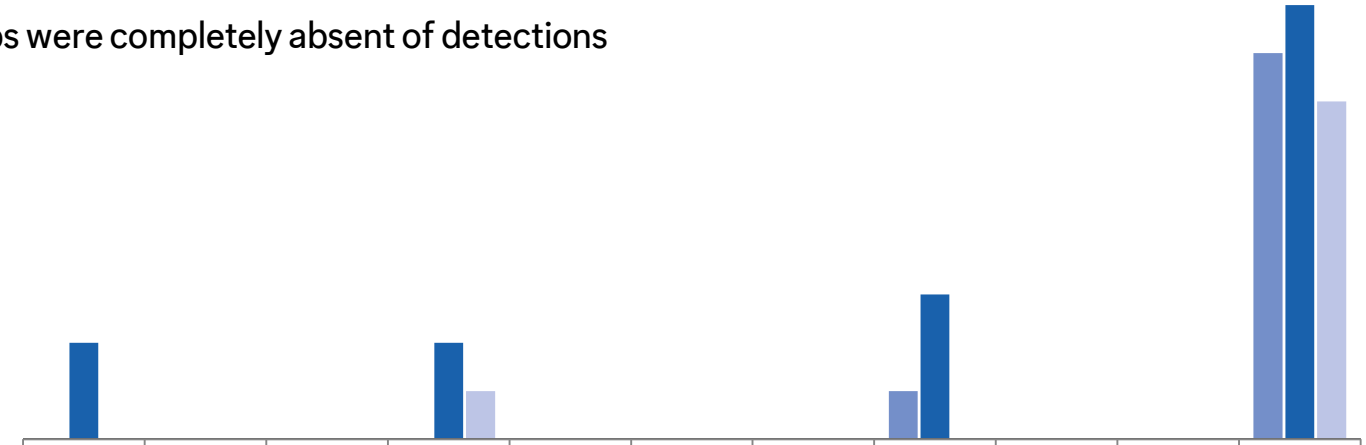
	AP & APEOs	Phthalates	Flame Retardants	Azo Colorants	Organotin Compounds	PFCs	Chlorobenzenes	Chlorinated Solvents	Chlorophenols	SCCPs	Heavy Metals
Incoming water (22)	1	17	-	-	-	7	4	6	-	-	18
Wastewater before treatment (23)	10	20	-	5	1	9	6	6	-	1	22
Wastewater after treatment (16)	1	6	-	2	-	3	4	4	-	-	15

Figure 4: Facilities with Detections at All 3 Sampling Points, China

Note: The number of tests conducted at each sampling point may vary depending on the set-up of the facility (off-site ETP will not have an 'after treatment' test) and on occasion C&A accepted other ZDHC Brand's test report, if conducted within the last 12 months, whose sampling points may have differed to C&A methodology.

Detection Trends: BANGLADESH

- Heavy metals was the only chemical group commonly found in incoming water, before and after treatment
- AP & APEOs and Azo Colorants remain a concern with detections in 2, out of 9, 'before treatment' samples that can be traced back to use in the manufacturing process
- Chlorinated solvents were detected in 3 'before treatment' samples, with 1 sample being traced to incoming water contamination
- 7 priority chemical groups were completely absent of detections



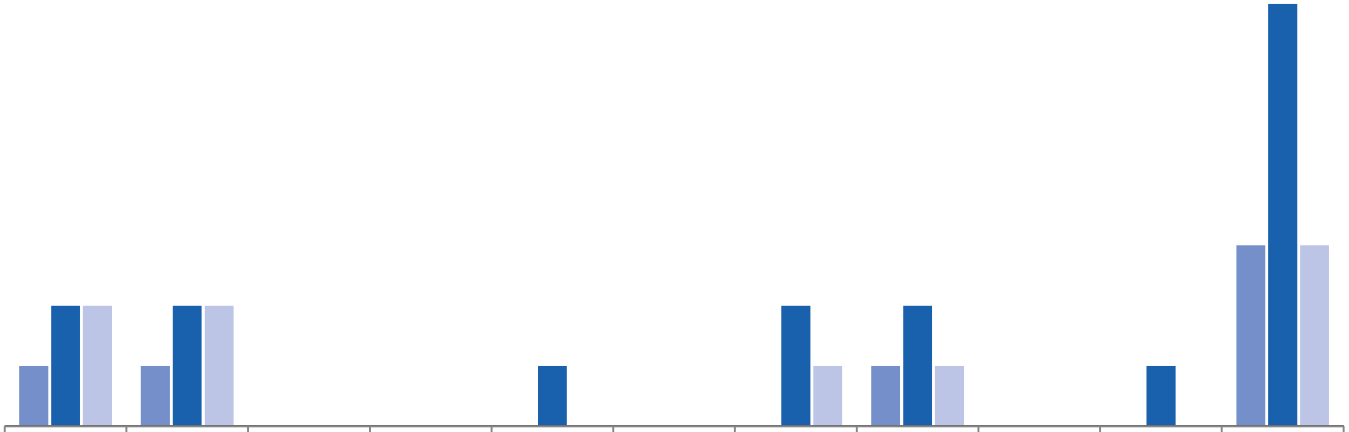
	AP & APEOs	Phthalates	Flame Retardants	Azo Colorants	Organotin Compounds	PFCs	Chlorobenzenes	Chlorinated Solvents	Chlorophenols	SCCPs	Heavy Metals
Incoming water (8)	-	-	-	-	-	-	-	1	-	-	8
Wastewater before treatment (9)	2	-	-	2	-	-	-	3	-	-	9
Wastewater after treatment (7)	-	-	-	1	-	-	-	-	-	-	7

Figure 5: Facilities with Detections at All 3 Sampling Points, Bangladesh

Note: The number of tests conducted at each sampling point may vary depending on the set-up of the facility (off-site ETP will not have an 'after treatment' test) and on occasion C&A accepted other ZDHC Brand's test report, if conducted within the last 12 months, whose sampling points may have differed to C&A methodology.

Detection Trends: INDIA

- Out of 3 incoming water samples, all were contaminated with heavy metals, with one detection also in each AP & APEOs, Phthalates and Chlorinated Solvents
- All 7 samples of 'before treatment' had detections for heavy metals with 4 being traced to the manufacturing process
- 4 chemical groups were absent of detections



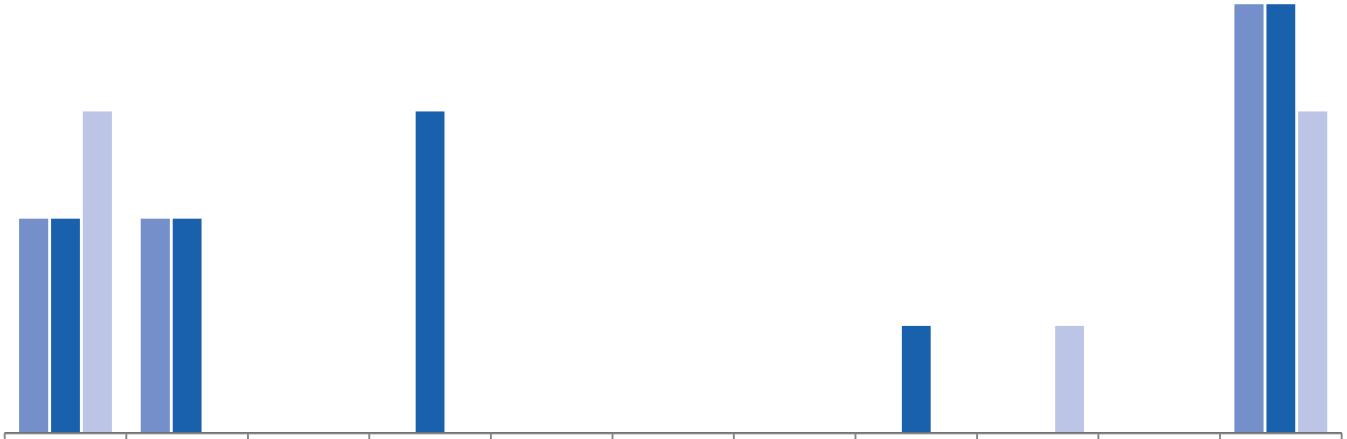
	AP & APEOs	Phthalates	Flame Retardants	Azo Colorants	Organotin Compounds	PFCs	Chlorobenzenes	Chlorinated Solvents	Chlorophenols	SCCPs	Heavy Metals
Incoming water (3)	1	1	-	-	-	-	-	1	-	-	3
Wastewater before treatment (7)	2	2	-	-	1	-	2	2	-	1	7
Wastewater after treatment (5)	2	2	-	-	-	-	1	1	-	-	3

Figure 6: Facilities with Detections at All 3 Sampling Points, India

Note: The number of tests conducted at each sampling point may vary depending on the set-up of the facility (off-site ETP will not have an 'after treatment' test) and on occasion C&A accepted other ZDHC Brand's test report, if conducted within the last 12 months, whose sampling points may have differed to C&A methodology.

Detection Trends: PAKISTAN

- Contaminated incoming water was responsible for all detections in AP & APEOs, Phthalates and Heavy Metals
- Of concern is the detection of Azo Colorants in 3 out of 4 samples in 'before treatment'
- The one detection of Chlorophenols in 'after treatment' is likely introduced from chemicals used in the treatment of wastewater



	AP & APEOs	Phthalates	Flame Retardants	Azo Colorants	Organotin Compounds	PFCs	Chlorobenzenes	Chlorinated Solvents	Chlorophenols	SCCPs	Heavy Metals
Incoming water (4)	2	2	-	-	-	-	-	-	-	-	4
Wastewater before treatment (4)	2	2	-	3	-	-	-	1	-	-	4
Wastewater after treatment (3)	3	-	-	-	-	-	-	-	1	-	3

Figure 7: Facilities with Detections at All 3 Sampling Points, Pakistan

Note: The number of tests conducted at each sampling point may vary depending on the set-up of the facility (off-site ETP will not have an 'after treatment' test) and on occasion C&A accepted other ZDHC Brand's test report, if conducted within the last 12 months, whose sampling points may have differed to C&A methodology.

Way forward

C&A will continue to use its influence and knowledge to refine the use of chemicals in its global supply chain.

- All wastewater test reports are assessed for conformance to the MRSL. If detections are found then a investigation using chemical tractability to find the substance of concern and find safer alternatives. This will be implemented as part of their Corrective Action Plan.
- Specifically, if PFCs are detected in the wastewater before treatment, C&A will test the fabric to assess conformance to the RSL.
- Across all detections, C&A will implement the 'Clean Factory Approach' meaning that we will look beyond C&A production and support to improve chemical management systems and phase-out hazardous chemicals at the facility level.
- Inline with the C&A strategy of public disclosure and in support of the Right to Know principle, C&A will work with all tested wet processing facilities to disclose their raw waste water discharge data on the Institute of Public and Environmental Affairs (IPE) website .
- To increase transparency C&A has publically released its Tier 1 suppliers factory's and by April 2017 will release a list of our biggest wet processing facilities, including all laundries and printers and our biggest mills.

Way forward (cont.)

- Work with individual facilities and their top management to create their own hazardous chemicals phase out plan, in alignment with the C&A Sustainable Chemicals Management strategy and the ZDHC Roadmap to Zero.
- Build the necessary capacity within the supply chain on chemicals management and waste water issues so that implementations can be successfully completed and sustained.
- Continue, at least annually, the cycle of wastewater testing and chemical management audits to monitor continual progress and trends in the C&A supply chain.
- Through our work with ZDHC, partner with chemical suppliers, manufacturing partners, and wet processors to increase availability of safer alternative chemicals and to enhance the MRSL beyond the initial 11 priority chemical groups.
- Continue to publish, at least annually, the results of the C&A wastewater testing program publically

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Appendix

Appendix 1

Testing Methodology

- Sampling was conducted within a semi-announced 1 week window. Typically sampling was conducted between 2 – 5pm whilst the facility was under normal operating conditions. Method of sampling used is time-weighted composite grab samples. 2-hours time-weighted composite grab samples are discrete samples that are taken at a location to provide water quality characteristics at that time. For the purposes of quantifying water or wastewater constituents, 2-hour time-weighted composite grab samples will show the concentrations at that location and time of sampling. They will not provide any information about the concentrations outside that point in time.

- Sampling procedure is with reference to below standards:

1) South Australia EPA Guidelines (June 2007), Regulatory Monitoring and Testing Water and Wastewater Sampling
2) Australia EPA (Victoria) Guideline (June 2009), Sampling and Analysis of Waters, Wastewaters, Soils and Wastes.
3) ISO 5667-3-2003, Water Quality – Sampling – Part 3: Guidance on the Preservation and Handling of Water Samples
4) ASTM D3976-92 (Reapproved 2010), Standard Practice for Preparation of Sediment Samples for Chemical Analysis.
5) APHA 1060 Collection and Preservation of Samples

Appendix 3

Priority Chemical Classes and Analytes

SN	Chemical Class	Analyte	CAS No.	Detection Limit (ppb)	Name of method	Preservation
1	Alkylphenols & Alkylphenol Ethoxylates	Octylphenol (OP)	various	1	With reference to DIN EN ISO18857 and followed by GC/MS or LC/MS analysis	pH 2, HCl; Cool, 4° C
2		Nonylphenol (NP)	various	1		
3		Octylphenol Ethoxylates OP1EO	various	5		
4		Octylphenol Ethoxylates OPEO (2-16)	various	5		
5		Nonylphenol Ethoxylates NP1EO	various	5		
6		Nonylphenol Ethoxylates NPEO (2-18)	various	5		
7	Phthalates	Butyl benzyl phthalate (BBP)	85-68-7	1	Solvent extraction with GC/MS analysis or LC/MS analysis	Cool, 4° C
8		Dibutyl phthalate (DBP)	84-74-2	1		
9		Di-2-ethylhexyl phthalate (DEHP)	117-81-7	1		
10		Di-n-octyl phthalate (DNOP)	117-84-0	1		
11		Di-iso-nonyl phthalate (DINP)	28553-12-0 / 68515-48-0	1		
12		Di-iso-decyl phthalate (DIDP)	26761-40-0 / 68515-49-1	1		
13		Dimethyl phthalate (DMP)	131-11-3	1		
14		Diethyl phthalate (DEP)	84-66-2	1		
15		Di-n-propyl phthalate (DPRP)	131-16-8	1		
16		Di-iso-butyl phthalate (DIBP)	84-69-5	1		
17		Di-cyclohexyl phthalate (DCHP)	84-61-7	1		
18		Di-n-hexyl phthalate (DnHP)	84-75-3	1		
19		Dinonyl phthalate (DNP)	84-76-4	1		
20		Di-iso-octyl phthalate (DIOP)	27554-26-3	1		
21		Dimethoxyethyl phthalate (DMEP)	117-82-8	1		
22		Di-(C7-C11 alkyl) phthalate linear and branched (DHNUP)	68515-42-4	1		
23		Di-iso-heptyl Phthalate (DIHpP)	71888-89-6	1		
24		Di-penty Phthalate (n-, iso-, or mixed), (DPP)	605-50-5 / 776297-69-9 / 131-18-0/ 84777-06-0	1		

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SN	Chemical Class	Analyte	CAS No.	Detection Limit (ppb)	Name of method	Preservation
25	Flame Retardants	Polybromobiphenyls (PBBs)	various	0.05	Solvent extraction with GC/MS analysis or LC/MS analysis	Cool, 4° C
26		Monobromobiphenyl (MonoBB)	-	0.05		
27		Dibromobiphenyl (DiBB)	-	0.05		
28		Tribromobiphenyl (TriBB)	-	0.05		
29		Tetrabromobiphenyl (TetraBB)	-	0.05		
30		Pentabromobiphenyl (PentaBB)	-	0.05		
31		Hexabromobiphenyl (HexaBB)	-	0.05		
32		Heptabromobiphenyl (HeptaBB)	-	0.05		
33		Octabromobiphenyl (OctaBB)	-	0.05		
34		Nonabromobiphenyl (NonaBB)	-	0.05		
35		Decabromobipheny (DecaBB)	-	0.05		
36		Polybromodiphenyl ethers (PBDEs)	various	0.05		
37		Monobromodiphenyl ethers (MonoBDE)	-	0.05		
38		Dibromodiphenyl ethers (DiBDE)	-	0.05		
39		Tribromodiphenyl ethers (TriBDE)	-	0.05		
40		Tetrabromodiphenyl ethers (TetraBDE)	40088-47-9	0.05		
41		Pentabromodiphenyl ether (PentaBDE)	32534-81-9	0.05		
42		Hexabromodiphenyl ethers (HexaBDE)	36483-60-0	0.05		
43		Heptabromodiphenyl ethers (HeptaBDE)	68928-80-3	0.05		
44		Octabromodiphenyl ether (OctaBDE)	32536-52-0	0.05		
45		Nonabromodiphenyl ethers (NonaBDE)	63936-56-1	0.05		
46		Decabromodiphenyl ether (DecaBDE)	1163-19-5	0.05		
47		Tris(2,3-dibromopropyl) phosphate (TRIS/TDBPP)	126-72-7	0.5		
48		Tetrabromobisphenol A (TBBPA)	79-94-7	0.5		
49		Bis(2,3-dibromopropyl) phosphate (BIS/BDBPP)	5412-25-9	0.5		
50		Hexabromocyclododecane (HBCDD)	3194-55-6	0.5		
51		2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	0.5		
52		Tris(aziridinyl)-phosphineoxide (TEPA)	545-55-1	0.5		
53		Bis(2,3-dibromopropylether) of Tetrabromobisphenol (BDBPT)	21850-44-2	0.5		
54		Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	0.5		
55		Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	0.5		

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Priority Chemical Classes and Analytes

SN	Chemical Class	Analyte	CAS No.	Detection Limit (ppb)	Name of method	Preservation
56	Aromatic Amines in Azo Colorants	4-Aminodiphenyl	92-67-1	0.5	With reference to EN 14362-1 & 3 and followed by GC/MS and HPLC Analysis.	Cool, 4° C
57		Benzidine	92-87-5	0.5		
58		4-Chloro-o-toluidine	95-69-2	0.5		
59		2-Naphthylamine	91-59-8	0.5		
60		o-Aminoazotoluene	97-56-3	0.5		
61		5-nitro-o-toluidine	99-55-8	0.5		
62		4-Chloroaniline	106-47-8	0.5		
63		4-Methoxy-m-phenylenediamine	615-05-4	0.5		
64		4,4`-Diaminodiphenylmethane	101-77-9	0.5		
65		3,3`-Dichlorobenzidine	91-94-1	0.5		
66		3,3`-Dimethoxybenzidine	119-90-4	0.5		
67		3,3`-Dimethylbenzidine	119-93-7	0.5		
68		4,4`-Methylenedi-o-toluidine	838-88-0	0.5		
69		p-Cresidine	120-71-8	0.5		
70		4,4`-Methylene-bis-(2-chloraniline)	101-14-4	0.5		
71		4,4`-Oxydianiline	101-80-4	0.5		
72		4,4`-Thiodianiline	139-65-1	0.5		
73		o-Toluidine	95-53-4	0.5		
74		4-Methyl-m-phenylenediamine	95-80-7	0.5		
75		2,4,5-Trimethylaniline	137-17-7	0.5		
76		o-Anisidine	90-04-0	0.5		
77		4-Aminoazobenzene	60-09-3	0.5		
78		2,4-Xylidine	95-68-1	0.5		
79		2,6-Xylidine	87-62-7	0.5		
80		Aniline	62-53-3	0.5		

Appendix 3

Priority Chemical Classes and Analytes

SN	Chemical Class	Analyte	CAS No.	Detection Limit (ppb)	Name of method	Preservation
81	Organotin Compounds	Monobutyltin (MBT)	various	0.01	With reference to DIN EN17353 and followed by GC/MS analysis.	Cool, 4° C
82		Dibutyltin (DBT)	various	0.01		
83		Dioctyltin (DOT)	various	0.01		
84		Tributyltin (TBT)	various	0.01		
85		Triphenyltin (TPhT)	various	0.01		
86		Tricyclohexyltin (TCyT)	various	0.01		
87		Trioctyltin (TOT)	various	0.01		
88		Tripropyltin (TPT)	various	0.01		
89		Monooctyltin (MOT)	various	0.01		
90		Diphenyltin (DPhT)	various	0.01		
91		Tetrabutyltin (TeBT)	1461-25-2	0.01		
92	Perfluorinated Chemicals	Perfluoro-n-octanoic acid (PFOA)	335-67-1/ 335-95-5	0.01	LC/MS analysis	Cool, 4° C
93		Perfluorobutanesulfonic acid	375-73-5	0.01		
94		Perfluorooctanesulfonic acid	1763-23-1	0.01		
95		Perfluorohexanesulfonic acid (PFHxS)	355-46-4	0.01		
96		Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	0.01		
97		Perfluorobutyric Acid (PFBA)	375-22-4	0.01		
98	Chlorobenzenes	Chlorobenzene	108-90-7	0.5	Solvent extraction with GC/MS analysis	pH 2, HCl; Cool, 4° C
99		Dichlorobenzenes	various	0.5		
100		1,2-Dichlorobenzene	95-50-1	0.5		
101		1,3-Dichlorobenzene	541-73-1	0.5		
102		1,4-Dichlorobenzene	106-46-7	0.5		
103		Trichlorobenzenes	various	0.5		
104		1,2,3-Trichlorobenzene	87-61-6	0.5		
105		1,2,4-Trichlorobenzene	120-82-1	0.5		
106		1,3,5-Trichlorobenzene	108-70-3	0.5		
107		Tetrachlorobenzenes	various	0.5		
108		1,2,3,4-Tetrachlorobenzene	634-66-2	0.5		
109		1,2,3,5-Tetrachlorobenzene	634-90-2	0.5		
110		1,2,4,5-Tetrachlorobenzene	95-94-3	0.5		
111		Pentachlorobenzene	608-93-5	0.5		
112		Hexachlorobenzene	118-74-1	0.5		

Appendix 3

Priority Chemical Classes and Analytes

SN	Chemical Class	Analyte	CAS No.	Detection Limit (ppb)	Name of method	Preservation
113	Chlorinated Solvents	1,2-Dichloroethane	107-06-2	1	Headspace GC-MS analysis	pH 2, HCl; Cool, 4° C; No headspace
114		1,1-Dichloroethylene	75-35-4	1		
115		Methylene Chloride	75-09-2	1		
116		cis-1,2-Dichloroethylene	156-59-2	1		
117		trans-1,2-Dichloroethylene	156-60-5	1		
118		Chloroform	67-66-3	1		
119		1,1,1-Trichloroethane	71-55-6	1		
120		Carbon Tetrachloride	56-23-5	1		
121		Trichloroethylene	79-01-6	1		
122		1,1,2-Trichloroethane	79-00-5	1		
123		1,1,1,2-Tetrachloroethane	630-20-6	1		
124		Tetrachloroethylene	127-18-4	1		
125		1,1-Dichloroethane	75-34-3	1		
126		1,1,2,2-Tetrachloroethane	79-34-5	1		
127	Chlorophenols	Pentachlorophenol (PCP)	87-86-5	0.5	Solvent extraction and derivatisation with acetic anhydride followed by GC/MS analysis	pH 2, HCl; Cool, 4° C
128		Tetrachlorophenol (TeCP)	various	0.5		
129		2,3,4,5-Tetrachlorophenol	4901-51-3	0.5		
130		2,3,4,6-Tetrachlorophenol	58-90-2	0.5		
131		2,3,5,6-Tetrachlorophenol	935-95-5	0.5		
132		Trichlorophenol (TriCP)	various	0.5		
133		2,4,6-Trichlorophenol	88-06-2	0.5		
134		2,3,5-Trichlorophenol	933-78-8	0.5		
135		2,4,5-Trichlorophenol	95-95-4	0.5		
136		3,4,5-Trichlorophenol	609-19-8	0.5		
137		2,3,4-Trichlorophenol	15950-66-0	0.5		
138		2,3,6-Trichlorophenol	933-75-5	0.5		
139		Dichlorophenol (DiCP)	various	0.5		
140		2,3-Dichlorophenol	576-24-9	0.5		
141		3,4-Dichlorophenol	95-77-2	0.5		
142		2,4-Dichlorophenol	120-83-2	0.5		
143		2,5-Dichlorophenol	583-78-8	0.5		
144		2,6-Dichlorophenol	87-65-0	0.5		

Appendix 3

Priority Chemical Classes and Analytes

SN	Chemical Class	Analyte	CAS No.	Detection Limit (ppb)	Name of method	Preservation
145	Chlorophenols	3,5-Dichlorophenol	591-35-5	0.5	Solvent extraction and derivatisation with acetic anhydride followed by GC/MS analysis	pH 2, HCl; Cool, 4° C
146		Mono Chlorophenol (MonoCP)	various	0.5		
147		2-Chlorophenol	95-57-8	0.5		
148		3-Chlorophenol	108-43-0	0.5		
149		4-Chlorophenol	106-48-9	0.5		
150	Short Chain Chlorinated Paraffins	Short Chain Chlorinated Paraffins	85535-84-8	5	Solvent extraction with GC/MS analysis	Cool, 4° C
151	Heavy Metals	Arsenic (As)	various	1	Acid Digestion with ICP analysis	pH 2, HNO3; Cool, 4° C
152		Cadmium (Cd)	various	0.1		
153		Mercury (Hg)	various	0.05		
154		Lead (Pb)	various	1		
155		Antimony (Sb)	various	1		
156		Cobalt (Co)	various	1		
157		Nickel (Ni)	various	1		
158		Copper (Cu)	various	1		
159		Zinc (Zn)	various	1		
160		Chromium (Cr)	various	1		
161		Manganese (Mn)	various	1		
162		Chromium VI (Cr VI)	various	1	Solvent extraction and derivatisation followed by UV analysis	Cool, 4° C
163		Cyanide (CN-)	various	20	With reference to APHA 4500 CN— B,C&E and followed by UV analysis	pH 12, NaOH; Cool, 4° C