

## Test report

**61243-005 P01 139**

**Client:** Environmental Protection Agency (EPA)  
McCumiskey House  
Richview  
Clonskeagh Road  
Dublin 14  
Ireland

**Order dated:** July 18, 2007

**Sample:** Cow's milk samples, details see table

Sample-No.	Client's sample characterization	GfA sample No.
A1	Cow milk	7N3383001
A2	Cow milk	7N3383002
A3	Cow milk	7N3383003
A4	Cow milk	7N3383004
A5	Cow milk	7N3383005
A6	Cow milk	7N3383006
A7	Cow milk	7N3383007
A8	Cow milk	7N3383008
A9	Cow milk	7N3383009
A10	Cow milk	7N3383010
A11	Cow milk	7N3383011
A12	Cow milk	7N3383012
A13	Cow milk	7N3383013
A14	Cow milk	7N3383014
A15	Cow milk	7N3383015
A16	Cow milk	7N3383016
A18	Cow milk	7N3383017
A19	Cow milk	7N3383018
A20	Cow milk	7N3383019
A21	Cow milk	7N3383020
A22	Cow milk	7N3383021
A23	Cow milk	7N3383022
A24	Cow milk	7N3383023
A25	Cow milk	7N3383024
B1	Cow milk	7N3383025
B2	Cow milk	7N3383026

Sample-No.	Client's sample characterization	GfA sample No.
B3	Cow milk	7N3383027
B4	Cow milk	7N3383028
B5	Cow milk	7N3383029
B6	Cow milk	7N3383030
B7	Cow milk	7N3383031
B8	Cow milk	7N3383032
B9	Cow milk	7N3383033
B13	Cow milk	7N3383034
B14	Cow milk	7N3383035
B15	Cow milk	7N3383036
B17	Cow milk	7N3383037

**Testing:** Analysis for polychlorinated Dibenzofurans and Dibenzodioxins (PCDF/Ds) and for polychlorinated Biphenyls (PCBs).

**Sampling:** The samples were sent to GfA by the client.

**Sample entry:** July 20, 2007

**Test method:** **Sample preparation**  
Freeze drying; Homogenisation; ASE extraction of a representative sample amount by means of Hexane/Dichloromethane/Methanol. Addition of sixteen  $^{13}\text{C}_{12}$ -labelled internal Tetra- through OctaCDF/D standards and twelve  $^{13}\text{C}_{12}$ -labelled internal PCB standards prior to extraction. Gravimetrical determination of the fat content after evaporation of the solvents.

**PCDF/D analysis:**

For the PCDF/D analysis the solution was cleaned-up by multi-step liquid/solid chromatography. Prior to the gas chromatographic analysis, two further  $^{13}\text{C}$ -labelled PCDF/D standards were added to the PCDF/D fraction for the determination of the recovery of the internal standards.

A capillary gas chromatograph (HRGC, HP 5890) equipped with a DB5 column coupled with a high resolution mass spectrometer (HRMS, VG-Auto-Spec) was used for the PCDF/D analysis. The quantitative determination of native Tetra- through OctaCDF/Ds was achieved via the corresponding  $^{13}\text{C}_{12}$ -labelled internal standards (Isotope dilution method; QMA504-171; DIN EN ISO/IEC 17025:2005 accredited method).

The analytical methodology is in compliance with the requirement for the HRGC/HRMS confirmatory analysis of food for PCDD/Fs and PCBs as laid down by the EU directive 2002/69 and its amendment 2004/44 from April 2004.

**PCB analysis:**

For the PCB analysis the solution was cleaned-up by multi-step liquid/solid chromatography; addition of another  $^{13}\text{C}$ -labelled PCB congener to the PCB fraction as recovery standard prior to the GC/MS analysis.

For analysis, a capillary gas chromatograph (HRGC, HP 5890) equipped with a HT5 column coupled with a high resolution mass spectrometer (HRMS, VG-AutoSpec) was used. The quantitative determination of native PCBs was achieved via the corresponding  $^{13}\text{C}_{12}$ -labelled internal standards (Isotope dilution method; QMA504-171; DIN EN ISO/IEC 17025:2005 accredited method; however HRMS instead of LRMS).

The analytical methodology is in compliance with the requirement for the HRGC/HRMS confirmatory analysis of food for PCDD/Fs and PCBs as laid down by the EU directive 2002/69 and its amendment 2004/44 from April 2004.

**Start of testing:** July 20, 2007

**End of testing:** October 26, 2007

**Results:** The results of the analysis of the samples are shown in the Tables 01 to 40.

**Remarks:** None

Tab. 01: Survey on the milk fat related PCDD/F and PCB-TEQ values determined in the background samples A 1 - A 25 of 2006 (upper bound values)

Sample	Dioxins		PCBs	Dioxins and PCBs Total WHO-TEQ incl. LOQ <sup>a</sup>
	I-TEQ incl. LOQ <sup>a</sup>	WHO-TEQ incl. LOQ <sup>a</sup>	WHO-TEQ incl. LOQ <sup>a</sup>	
Unit	pg/g milk fat	pg/g milk fat	pg/g milk fat	pg/g milk fat
A1	0,169	0,186	0,130	0,316
A2	0,181	0,206	0,170	0,376
A3	0,235	0,269	0,251	0,520
A4	0,234	0,265	0,232	0,497
A5	0,165	0,185	0,157	0,342
A6	0,173	0,197	0,117	0,314
A7	0,184	0,216	0,141	0,357
A8	0,185	0,211	0,184	0,395
A9	0,163	0,188	0,145	0,333
A10	0,168	0,193	0,103	0,296
A11	0,144	0,159	0,245	0,404
A12	0,157	0,176	0,181	0,357
A13	0,152	0,179	0,152	0,331
A14	0,126	0,141	0,091	0,232
A15	0,155	0,174	0,181	0,355
A16	0,188	0,220	0,196	0,416
A18	0,181	0,202	0,149	0,351
A19	0,224	0,257	0,251	0,508
A20	0,210	0,235	0,220	0,455
A21	0,209	0,228	0,218	0,446
A22	0,152	0,170	0,106	0,276
A23	0,221	0,201	0,268	0,469
A24	0,212	0,242	0,179	0,421
A25	0,249	0,295	0,209	0,504

[a] : TEQ value calculated by including the not detected congeners also by taking the full value of their limits of quantification (LOQ)

Tab. 02: Survey on the milk fat related PCDD/F and PCB-TEQ values determined in the potential impact samples B 1 - B 17 of 2006 (upper bound values)

Sample	Dioxins		PCBs	Dioxins and PCBs Total WHO-TEQ incl. LOD <sup>a</sup>
	I-TEQ incl. LOD <sup>a</sup>	WHO-TEQ incl. LOD <sup>a</sup>	WHO-TEQ incl. LOD <sup>a</sup>	
Unit	pg/g milk fat	pg/g milk fat	pg/g milk fat	pg/g milk fat
B1	0,216	0,254	0,287	0,541
B2	0,201	0,233	0,090	0,323
B3	0,177	0,205	0,173	0,378
B4	0,146	0,161	0,152	0,313
B5	0,162	0,183	0,171	0,354
B6	0,146	0,170	0,109	0,279
B7	0,207	0,248	0,110	0,358
B8	0,510	0,611	0,897	1,51
B9	0,288	0,336	0,351	0,687
B13	0,215	0,238	0,243	0,481
B14	0,190	0,212	0,163	0,375
B15	0,238	0,271	0,239	0,510
B17	0,196	0,216	0,141	0,357

[a] : TEQ value calculated by including the not detected congeners also by taking the full value of their limits of quantification (LOQ)

Tab. 03: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A1 7N3383.001		A2 7N3383.002	
Fat content [%]	3,9		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,08 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>
12378-PentaCDF	< 0,06 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,05 <sup>d</sup>	< 0,002 <sup>d</sup>
23478-PentaCDF	0,10 <sup>d</sup>	0,004 <sup>d</sup>	0,14 <sup>d</sup>	0,005 <sup>d</sup>
123478-HexaCDF	< 0,06 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,05 <sup>d</sup>	< 0,002 <sup>d</sup>
123678-HexaCDF	< 0,06 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,05 <sup>d</sup>	< 0,002 <sup>d</sup>
123789-HexaCDF	< 0,06 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,05 <sup>d</sup>	< 0,002 <sup>d</sup>
234678-HexaCDF	< 0,06 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,05 <sup>d</sup>	< 0,002 <sup>d</sup>
1234678-HeptaCDF	0,09 <sup>d</sup>	0,004 <sup>d</sup>	< 0,05 <sup>d</sup>	< 0,002 <sup>d</sup>
1234789-HeptaCDF	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>	< 0,05 <sup>d</sup>	< 0,002 <sup>d</sup>
OctaCDF	< 0,60 <sup>d</sup>	< 0,02 <sup>d</sup>	< 0,50 <sup>d</sup>	< 0,02 <sup>d</sup>
<b>PCDD</b>				
2378-TetraCDD	< 0,03 <sup>d</sup>	< 0,001 <sup>d</sup>	< 0,03 <sup>d</sup>	< 0,001 <sup>d</sup>
12378-PentaCDD	< 0,04 <sup>d</sup>	< 0,001 <sup>d</sup>	< 0,05 <sup>d</sup>	< 0,002 <sup>d</sup>
123478-HexaCDD	< 0,08 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>
123678-HexaCDD	0,13 <sup>d</sup>	0,005 <sup>d</sup>	0,12 <sup>d</sup>	0,005 <sup>d</sup>
123789-HexaCDD	< 0,08 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>
1234678-HeptaCDD	0,13 <sup>d</sup>	0,005 <sup>d</sup>	0,13 <sup>d</sup>	0,005 <sup>d</sup>
OctaCDD	0,81 <sup>d</sup>	0,03 <sup>d</sup>	0,37 <sup>d</sup>	0,01 <sup>d</sup>
TEQ (WHO) excl. LOQ [a]	0,064 <sup>d</sup>	0,003 <sup>d</sup>	0,085 <sup>d</sup>	0,003 <sup>d</sup>
TEQ (WHO) incl. 1/2 LOQ [b]	0,125 <sup>d</sup>	0,005 <sup>d</sup>	0,145 <sup>d</sup>	0,006 <sup>d</sup>
TEQ (WHO) incl. LOQ [c]	0,186 <sup>d</sup>	0,007 <sup>d</sup>	0,206 <sup>d</sup>	0,008 <sup>d</sup>
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,065 <sup>d</sup>	0,003 <sup>d</sup>	0,085 <sup>d</sup>	0,003 <sup>d</sup>
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,117 <sup>d</sup>	0,005 <sup>d</sup>	0,133 <sup>d</sup>	0,005 <sup>d</sup>
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,169 <sup>d</sup>	0,007 <sup>d</sup>	0,181 <sup>d</sup>	0,007 <sup>d</sup>
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	82,0		107	
13C12-12378-PentaCDF	75,4		50,8	
13C12-23478-PentaCDF	85,8		91,0	
13C12-123478-HexaCDF	78,9		82,7	
13C12-123678-HexaCDF	81,3		86,1	
13C12-123789-HexaCDF	82,5		81,6	
13C12-234678-HexaCDF	84,3		89,2	
13C12-1234678-HeptaCDF	63,3		58,6	
13C12-1234789-HeptaCDF	75,9		89,3	
13C12-OctaCDF	49,9		74,2	
13C12-2378-TetraCDD	79,5		101	
13C12-12378-PentaCDD	76,6		95,9	
13C12-123478-HexaCDD	86,2		95,4	
13C12-123678-HexaCDD	77,7		42,8	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	72,5		87,7	
13C12-OctaCDD	46,7		71,6	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[d] : Results verified by a duplicate analysis

Tab. 04: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A3 7N3383.003		A4 7N3383.004	
Fat content [%]	3,8		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,07	< 0,003	< 0,09 <sup>d</sup>	< 0,003 <sup>d</sup>
12378-PentaCDF	< 0,05	< 0,002	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>
23478-PentaCDF	0,20	0,008	0,19 <sup>d</sup>	0,007 <sup>d</sup>
123478-HexaCDF	0,08	0,003	0,07 <sup>d</sup>	0,003 <sup>d</sup>
123678-HexaCDF	0,05	0,002	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>
123789-HexaCDF	< 0,05	< 0,002	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>
234678-HexaCDF	0,07	0,003	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>
1234678-HeptaCDF	0,06	0,002	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>
1234789-HeptaCDF	< 0,05	< 0,002	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>
OctaCDF	< 0,51	< 0,02	< 0,62 <sup>d</sup>	< 0,02 <sup>d</sup>
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,03 <sup>d</sup>	< 0,001 <sup>d</sup>
12378-PentaCDD	0,07	0,003	0,06 <sup>d</sup>	0,002 <sup>d</sup>
123478-HexaCDD	< 0,06	< 0,002	< 0,08 <sup>d</sup>	< 0,003 <sup>d</sup>
123678-HexaCDD	0,15	0,006	0,13 <sup>d</sup>	0,005 <sup>d</sup>
123789-HexaCDD	< 0,06	< 0,002	< 0,08 <sup>d</sup>	< 0,003 <sup>d</sup>
1234678-HeptaCDD	0,14	0,005	0,10 <sup>d</sup>	0,004 <sup>d</sup>
OctaCDD	< 0,25	< 0,01	< 0,31 <sup>d</sup>	< 0,01 <sup>d</sup>
TEQ (WHO) excl. LOQ [a]	0,206	0,008	0,182 <sup>d</sup>	0,007 <sup>d</sup>
TEQ (WHO) incl. 1/2 LOQ [b]	0,237	0,009	0,223 <sup>d</sup>	0,008 <sup>d</sup>
TEQ (WHO) incl. LOQ [c]	0,269	0,010	0,265 <sup>d</sup>	0,010 <sup>d</sup>
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,171	0,007	0,150 <sup>d</sup>	0,006 <sup>d</sup>
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,203	0,008	0,192 <sup>d</sup>	0,007 <sup>d</sup>
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,235	0,009	0,234 <sup>d</sup>	0,009 <sup>d</sup>
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	69,5		94,8	
13C12-12378-PentaCDF	77,8		55,5	
13C12-23478-PentaCDF	82,4		81,3	
13C12-123478-HexaCDF	88,4		77,7	
13C12-123678-HexaCDF	89,3		78,5	
13C12-123789-HexaCDF	87,7		81,2	
13C12-234678-HexaCDF	87,3		81,9	
13C12-1234678-HeptaCDF	88,0		75,3	
13C12-1234789-HeptaCDF	91,2		82,3	
13C12-OctaCDF	90,4		62,6	
13C12-2378-TetraCDD	73,7		98,1	
13C12-12378-PentaCDD	84,0		74,0	
13C12-123478-HexaCDD	93,9		83,3	
13C12-123678-HexaCDD	80,3		85,6	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	95,3		78,2	
13C12-OctaCDD	89,9		60,7	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[d] : Results verified by a duplicate analysis

Tab. 05: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A5 7N3383.005		A6 7N3383.006	
Fat content [%]	4,2		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,05	< 0,002	< 0,05	< 0,002
23478-PentaCDF	0,12	0,005	0,13	0,005
123478-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
123678-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
123789-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
234678-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
1234678-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
1234789-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
OctaCDF	< 0,50	< 0,02	< 0,49	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	0,04	0,002	0,05	0,002
123478-HexaCDD	< 0,06	< 0,003	< 0,06	< 0,002
123678-HexaCDD	0,09	0,004	0,11	0,004
123789-HexaCDD	< 0,06	< 0,003	< 0,06	< 0,002
1234678-HeptaCDD	< 0,07	< 0,003	< 0,07	< 0,003
OctaCDD	< 0,25	< 0,01	< 0,24	< 0,01
TEQ (WHO) excl. LOQ [a]	0,108	0,005	0,127	0,005
TEQ (WHO) incl. 1/2 LOQ [b]	0,146	0,006	0,162	0,007
TEQ (WHO) incl. LOQ [c]	0,185	0,008	0,197	0,008
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,088	0,004	0,102	0,004
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,127	0,005	0,137	0,006
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,165	0,007	0,173	0,007
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	71,2		65,7	
13C12-12378-PentaCDF	78,2		76,8	
13C12-23478-PentaCDF	81,3		78,9	
13C12-123478-HexaCDF	88,0		87,2	
13C12-123678-HexaCDF	90,1		85,2	
13C12-123789-HexaCDF	87,3		83,4	
13C12-234678-HexaCDF	87,1		84,3	
13C12-1234678-HeptaCDF	85,4		81,5	
13C12-1234789-HeptaCDF	91,5		87,0	
13C12-OctaCDF	88,7		86,3	
13C12-2378-TetraCDD	74,8		69,9	
13C12-12378-PentaCDD	83,9		82,1	
13C12-123478-HexaCDD	95,0		92,2	
13C12-123678-HexaCDD	78,5		77,2	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	95,9		92,1	
13C12-OctaCDD	88,2		85,5	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)



Tab. 06: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A7 7N3383.007		A8 7N3383.008	
Fat content [%]	4,0		3,7	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,07	< 0,003	< 0,08	< 0,003
12378-PentaCDF	< 0,05	< 0,002	< 0,06	< 0,002
23478-PentaCDF	0,14	0,005	0,14	0,005
123478-HexaCDF	0,05	0,002	< 0,06	< 0,002
123678-HexaCDF	< 0,05	< 0,002	< 0,06	< 0,002
123789-HexaCDF	< 0,05	< 0,002	< 0,06	< 0,002
234678-HexaCDF	< 0,05	< 0,002	< 0,06	< 0,002
1234678-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
1234789-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
OctaCDF	< 0,48	< 0,02	< 0,54	< 0,02
<b>PCDD</b>				
2378-TetraCDD	0,03	0,001	< 0,03	< 0,001
12378-PentaCDD	0,07	0,003	0,05	0,002
123478-HexaCDD	< 0,06	< 0,002	< 0,07	< 0,003
123678-HexaCDD	0,11	0,004	0,09	0,003
123789-HexaCDD	< 0,06	< 0,002	< 0,07	< 0,003
1234678-HeptaCDD	0,10	0,004	< 0,08	< 0,003
OctaCDD	0,32	0,01	< 0,27	< 0,01
TEQ (WHO) excl. LOQ [a]	0,178	0,007	0,133	0,005
TEQ (WHO) incl. 1/2 LOQ [b]	0,197	0,008	0,172	0,006
TEQ (WHO) incl. LOQ [c]	0,216	0,009	0,211	0,008
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,145	0,006	0,106	0,004
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,164	0,007	0,145	0,005
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,184	0,007	0,185	0,007
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	72,0		56,5	
13C12-12378-PentaCDF	86,3		73,1	
13C12-23478-PentaCDF	89,0		74,9	
13C12-123478-HexaCDF	97,0		81,3	
13C12-123678-HexaCDF	99,0		81,5	
13C12-123789-HexaCDF	93,2		76,9	
13C12-234678-HexaCDF	94,4		76,4	
13C12-1234678-HeptaCDF	90,4		74,8	
13C12-1234789-HeptaCDF	99,1		80,0	
13C12-OctaCDF	96,7		78,0	
13C12-2378-TetraCDD	73,8		59,8	
13C12-12378-PentaCDD	91,2		77,3	
13C12-123478-HexaCDD	101		84,5	
13C12-123678-HexaCDD	85,4		70,1	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	104		85,0	
13C12-OctaCDD	94,8		78,0	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 07: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A9 7N3383.009		A10 7N3383.010	
Fat content [%]	4,0		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,05	< 0,002	< 0,05	< 0,002
23478-PentaCDF	0,11	0,005	0,11	0,004
123478-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
123678-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
123789-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
234678-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
1234678-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
1234789-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
OctaCDF	< 0,48	< 0,02	< 0,51	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	0,05	0,002	0,05	0,002
123478-HexaCDD	< 0,06	< 0,002	< 0,06	< 0,002
123678-HexaCDD	0,09	0,004	0,10	0,004
123789-HexaCDD	< 0,06	< 0,002	< 0,06	< 0,002
1234678-HeptaCDD	0,07	0,003	< 0,07	< 0,003
OctaCDD	< 0,24	< 0,01	< 0,25	< 0,01
TEQ (WHO) excl. LOQ [a]	0,119	0,005	0,120	0,005
TEQ (WHO) incl. 1/2 LOQ [b]	0,154	0,006	0,157	0,006
TEQ (WHO) incl. LOQ [c]	0,188	0,007	0,193	0,007
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,093	0,004	0,094	0,004
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,128	0,005	0,131	0,005
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,163	0,006	0,168	0,006
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	71,1		69,3	
13C12-12378-PentaCDF	77,2		84,6	
13C12-23478-PentaCDF	80,8		85,5	
13C12-123478-HexaCDF	90,3		92,7	
13C12-123678-HexaCDF	90,7		94,3	
13C12-123789-HexaCDF	86,8		88,6	
13C12-234678-HexaCDF	86,6		90,4	
13C12-1234678-HeptaCDF	85,3		84,0	
13C12-1234789-HeptaCDF	92,9		89,5	
13C12-OctaCDF	91,4		92,4	
13C12-2378-TetraCDD	72,3		72,0	
13C12-12378-PentaCDD	83,7		87,4	
13C12-123478-HexaCDD	94,0		97,0	
13C12-123678-HexaCDD	79,7		81,5	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	97,1		98,2	
13C12-OctaCDD	90,5		91,3	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 08: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A11 7N3383.011		A12 7N3383.012	
Fat content [%]	3,5		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,05	< 0,002
23478-PentaCDF	0,09	0,003	0,11	0,004
123478-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
123678-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
123789-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
234678-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
1234678-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
1234789-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
OctaCDF	< 0,52	< 0,02	< 0,49	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,03	< 0,001	0,04	0,001
123478-HexaCDD	< 0,07	< 0,002	< 0,06	< 0,002
123678-HexaCDD	0,08	0,003	0,11	0,004
123789-HexaCDD	< 0,07	< 0,002	< 0,06	< 0,002
1234678-HeptaCDD	0,10	0,003	0,07	0,003
OctaCDD	< 0,26	< 0,009	< 0,25	< 0,01
TEQ (WHO) excl. LOQ [a]	0,053	0,002	0,105	0,004
TEQ (WHO) incl. 1/2 LOQ [b]	0,106	0,004	0,140	0,005
TEQ (WHO) incl. LOQ [c]	0,159	0,006	0,176	0,007
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,053	0,002	0,086	0,003
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,099	0,003	0,122	0,005
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,144	0,005	0,157	0,006
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	75,6		82,4	
13C12-12378-PentaCDF	69,4		95,6	
13C12-23478-PentaCDF	78,9		104	
13C12-123478-HexaCDF	72,5		107	
13C12-123678-HexaCDF	71,3		107	
13C12-123789-HexaCDF	72,1		106	
13C12-234678-HexaCDF	70,3		108	
13C12-1234678-HeptaCDF	71,5		103	
13C12-1234789-HeptaCDF	63,8		111	
13C12-OctaCDF	60,8		110	
13C12-2378-TetraCDD	70,1		84,6	
13C12-12378-PentaCDD	74,2		102	
13C12-123478-HexaCDD	73,6		116	
13C12-123678-HexaCDD	59,1		93,7	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	70,8		116	
13C12-OctaCDD	61,6		110	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 09: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A13 7N3383.013		A14 7N3383.014	
Fat content [%]	3,9		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,05	< 0,002	< 0,06	< 0,002
23478-PentaCDF	0,08	0,003	< 0,06	< 0,002
123478-HexaCDF	< 0,05	< 0,002	< 0,06	< 0,002
123678-HexaCDF	< 0,05	< 0,002	< 0,06	< 0,002
123789-HexaCDF	< 0,07	< 0,003	< 0,06	< 0,002
234678-HexaCDF	< 0,06	< 0,002	< 0,06	< 0,002
1234678-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
1234789-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
OctaCDF	< 0,50	< 0,02	< 0,52	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,05	< 0,002	< 0,03	< 0,001
123478-HexaCDD	< 0,06	< 0,002	< 0,07	< 0,003
123678-HexaCDD	0,09	0,004	< 0,07	< 0,003
123789-HexaCDD	< 0,06	< 0,002	< 0,07	< 0,003
1234678-HeptaCDD	< 0,10	< 0,004	< 0,07	< 0,003
OctaCDD	< 0,25	< 0,01	< 0,26	< 0,01
TEQ (WHO) excl. LOQ [a]	0,050	0,002	ND	ND
TEQ (WHO) incl. 1/2 LOQ [b]	0,114	0,004	0,071	0,003
TEQ (WHO) incl. LOQ [c]	0,179	0,007	0,141	0,006
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,050	0,002	ND	ND
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,101	0,004	0,063	0,003
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,152	0,006	0,126	0,005
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	84,7		94,0	
13C12-12378-PentaCDF	62,7		89,0	
13C12-23478-PentaCDF	73,0		101	
13C12-123478-HexaCDF	71,2		84,0	
13C12-123678-HexaCDF	70,2		82,1	
13C12-123789-HexaCDF	72,2		85,8	
13C12-234678-HexaCDF	72,4		84,1	
13C12-1234678-HeptaCDF	75,4		75,3	
13C12-1234789-HeptaCDF	70,9		75,6	
13C12-OctaCDF	64,3		63,6	
13C12-2378-TetraCDD	77,5		88,1	
13C12-12378-PentaCDD	67,9		92,8	
13C12-123478-HexaCDD	75,6		85,4	
13C12-123678-HexaCDD	66,6		71,4	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	75,1		76,0	
13C12-OctaCDD	65,8		62,4	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 10: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A15 7N3383.015		A16 7N3383.016	
Fat content [%]	4,5		3,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,08	< 0,004	< 0,09	< 0,003
12378-PentaCDF	< 0,06	< 0,003	< 0,07	< 0,002
23478-PentaCDF	0,08	0,004	< 0,10	< 0,003
123478-HexaCDF	< 0,06	< 0,003	< 0,07	< 0,002
123678-HexaCDF	< 0,06	< 0,003	< 0,07	< 0,002
123789-HexaCDF	< 0,06	< 0,003	< 0,07	< 0,002
234678-HexaCDF	< 0,06	< 0,003	< 0,07	< 0,002
1234678-HeptaCDF	< 0,06	< 0,003	< 0,06	< 0,002
1234789-HeptaCDF	< 0,06	< 0,003	< 0,06	< 0,002
OctaCDF	< 0,58	< 0,03	< 0,64	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,04	< 0,002	< 0,07	< 0,002
123478-HexaCDD	< 0,07	< 0,003	< 0,08	< 0,002
123678-HexaCDD	0,09	0,004	0,09	0,003
123789-HexaCDD	< 0,07	< 0,003	< 0,08	< 0,002
1234678-HeptaCDD	0,13	0,006	< 0,09	< 0,003
OctaCDD	< 0,29	< 0,01	< 0,32	< 0,01
TEQ (WHO) excl. LOQ [a]	0,052	0,002	0,009	0,0003
TEQ (WHO) incl. 1/2 LOQ [b]	0,113	0,005	0,115	0,003
TEQ (WHO) incl. LOQ [c]	0,174	0,008	0,220	0,007
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,052	0,002	0,009	0,0003
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,104	0,005	0,098	0,003
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,155	0,007	0,188	0,006
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	85,4		84,8	
13C12-12378-PentaCDF	78,3		72,0	
13C12-23478-PentaCDF	89,5		82,2	
13C12-123478-HexaCDF	77,9		75,0	
13C12-123678-HexaCDF	76,8		73,3	
13C12-123789-HexaCDF	80,5		80,9	
13C12-234678-HexaCDF	79,1		76,8	
13C12-1234678-HeptaCDF	74,4		71,8	
13C12-1234789-HeptaCDF	71,5		77,3	
13C12-OctaCDF	66,1		64,5	
13C12-2378-TetraCDD	76,5		80,3	
13C12-12378-PentaCDD	82,8		77,4	
13C12-123478-HexaCDD	80,1		78,7	
13C12-123678-HexaCDD	61,3		61,3	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	72,5		74,1	
13C12-OctaCDD	65,2		62,1	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 11: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A18 7N3383.017		A19 7N3383.018	
Fat content [%]	3,8		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,10	< 0,004	< 0,09	< 0,003
12378-PentaCDF	< 0,08	< 0,003	< 0,07	< 0,003
23478-PentaCDF	0,09	0,003	0,17	0,007
123478-HexaCDF	< 0,08	< 0,003	0,07	0,003
123678-HexaCDF	< 0,08	< 0,003	< 0,07	< 0,003
123789-HexaCDF	< 0,08	< 0,003	< 0,07	< 0,003
234678-HexaCDF	< 0,08	< 0,003	0,08	0,003
1234678-HeptaCDF	< 0,07	< 0,003	0,07	0,003
1234789-HeptaCDF	< 0,07	< 0,003	< 0,06	< 0,002
OctaCDF	< 0,72	< 0,03	< 0,62	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,04	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,04	< 0,002	0,07	0,003
123478-HexaCDD	< 0,09	< 0,004	< 0,08	< 0,003
123678-HexaCDD	< 0,09	< 0,004	0,14	0,005
123789-HexaCDD	< 0,09	< 0,004	< 0,08	< 0,003
1234678-HeptaCDD	< 0,10	< 0,004	0,16	0,006
OctaCDD	< 0,36	< 0,01	< 0,31	< 0,01
TEQ (WHO) excl. LOQ [a]	0,045	0,002	0,182	0,007
TEQ (WHO) incl. 1/2 LOQ [b]	0,124	0,005	0,219	0,009
TEQ (WHO) incl. LOQ [c]	0,202	0,008	0,257	0,010
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,045	0,002	0,148	0,006
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,113	0,004	0,186	0,007
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,181	0,007	0,224	0,009
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	91,5		82,7	
13C12-12378-PentaCDF	76,7		73,2	
13C12-23478-PentaCDF	88,7		83,7	
13C12-123478-HexaCDF	80,4		79,4	
13C12-123678-HexaCDF	77,1		75,0	
13C12-123789-HexaCDF	84,6		79,9	
13C12-234678-HexaCDF	79,3		79,7	
13C12-1234678-HeptaCDF	73,5		72,4	
13C12-1234789-HeptaCDF	80,0		71,6	
13C12-OctaCDF	66,6		64,1	
13C12-2378-TetraCDD	81,8		73,8	
13C12-12378-PentaCDD	83,6		76,0	
13C12-123478-HexaCDD	80,7		81,9	
13C12-123678-HexaCDD	79,4		61,5	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	74,8		73,7	
13C12-OctaCDD	63,3		60,3	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 12: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A20 7N3383.019		A 21 7N3383.020	
Fat content [%]	4,4		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,09	< 0,004	< 0,09 <sup>d</sup>	< 0,004 <sup>d</sup>
12378-PentaCDF	< 0,07	< 0,003	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>
23478-PentaCDF	0,16	0,007	0,15 <sup>d</sup>	0,006 <sup>d</sup>
123478-HexaCDF	< 0,07	< 0,003	< 0,08 <sup>d</sup>	< 0,003 <sup>d</sup>
123678-HexaCDF	< 0,07	< 0,003	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>
123789-HexaCDF	< 0,07	< 0,003	< 0,09 <sup>d</sup>	< 0,003 <sup>d</sup>
234678-HexaCDF	< 0,07	< 0,003	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>
1234678-HeptaCDF	< 0,06	< 0,003	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>
1234789-HeptaCDF	< 0,06	< 0,003	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>
OctaCDF	< 0,63	< 0,03	< 0,67 <sup>d</sup>	< 0,03 <sup>d</sup>
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,002	< 0,04 <sup>d</sup>	< 0,001 <sup>d</sup>
12378-PentaCDD	0,05	0,002	< 0,04 <sup>d</sup>	< 0,002 <sup>d</sup>
123478-HexaCDD	< 0,08	< 0,004	< 0,08 <sup>d</sup>	< 0,003 <sup>d</sup>
123678-HexaCDD	0,10	0,004	0,13 <sup>d</sup>	0,005 <sup>d</sup>
123789-HexaCDD	< 0,08	< 0,004	< 0,08 <sup>d</sup>	< 0,003 <sup>d</sup>
1234678-HeptaCDD	< 0,09	< 0,004	0,14 <sup>d</sup>	0,005 <sup>d</sup>
OctaCDD	< 0,32	< 0,01	< 0,33 <sup>d</sup>	< 0,01 <sup>d</sup>
TEQ (WHO) excl. LOQ [a]	0,143	0,006	0,091 <sup>d</sup>	0,003 <sup>d</sup>
TEQ (WHO) incl. 1/2 LOQ [b]	0,189	0,008	0,159 <sup>d</sup>	0,006 <sup>d</sup>
TEQ (WHO) incl. LOQ [c]	0,235	0,010	0,228 <sup>d</sup>	0,009 <sup>d</sup>
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,118	0,005	0,091 <sup>d</sup>	0,003 <sup>d</sup>
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,164	0,007	0,150 <sup>d</sup>	0,006 <sup>d</sup>
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,210	0,009	0,209 <sup>d</sup>	0,008 <sup>d</sup>
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	87,5		92,8	
13C12-12378-PentaCDF	91,2		75,0	
13C12-23478-PentaCDF	100		84,6	
13C12-123478-HexaCDF	96,2		79,5	
13C12-123678-HexaCDF	92,3		77,6	
13C12-123789-HexaCDF	96,0		85,2	
13C12-234678-HexaCDF	96,4		82,3	
13C12-1234678-HeptaCDF	90,5		75,7	
13C12-1234789-HeptaCDF	87,3		78,0	
13C12-OctaCDF	84,2		71,6	
13C12-2378-TetraCDD	79,5		85,0	
13C12-12378-PentaCDD	95,6		78,5	
13C12-123478-HexaCDD	100		81,1	
13C12-123678-HexaCDD	73,6		64,7	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	90,7		78,5	
13C12-OctaCDD	81,1		67,8	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[d] : Results verified by a duplicate analysis

Tab. 13: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A22 7N3383.021		A23 7N3383.022	
Fat content [%]	3,0		2,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,09	< 0,003	< 0,10	< 0,003
12378-PentaCDF	< 0,07	< 0,002	< 0,07	< 0,002
23478-PentaCDF	< 0,07	< 0,002	0,14	0,004
123478-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,002
123678-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,002
123789-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,002
234678-HexaCDF	< 0,07	< 0,002	< 0,07	< 0,002
1234678-HeptaCDF	< 0,06	< 0,002	< 0,07	< 0,002
1234789-HeptaCDF	< 0,06	< 0,002	< 0,07	< 0,002
OctaCDF	< 0,63	< 0,02	< 0,69	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,04	< 0,001
12378-PentaCDD	< 0,04	< 0,001	< 0,04	< 0,001
123478-HexaCDD	< 0,08	< 0,002	< 0,09	< 0,002
123678-HexaCDD	< 0,08	< 0,002	0,12	0,003
123789-HexaCDD	< 0,08	< 0,002	< 0,09	< 0,002
1234678-HeptaCDD	< 0,09	< 0,003	< 0,10	< 0,003
OctaCDD	< 0,31	< 0,009	< 0,35	< 0,01
TEQ (WHO) excl. LOQ [a]	ND	ND	0,079	0,002
TEQ (WHO) incl. 1/2 LOQ [b]	0,085	0,003	0,150	0,004
TEQ (WHO) incl. LOQ [c]	0,170	0,005	0,221	0,006
I-TEQ (NATO/CCMS) excl. LOQ [a]	ND	ND	0,079	0,002
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,076	0,002	0,140	0,004
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,152	0,005	0,201	0,006
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	90,6		64,4	
13C12-12378-PentaCDF	78,8		60,4	
13C12-23478-PentaCDF	87,6		69,0	
13C12-123478-HexaCDF	80,0		60,1	
13C12-123678-HexaCDF	79,5		58,7	
13C12-123789-HexaCDF	86,3		65,3	
13C12-234678-HexaCDF	82,7		62,3	
13C12-1234678-HeptaCDF	78,0		57,6	
13C12-1234789-HeptaCDF	79,5		57,4	
13C12-OctaCDF	73,8		51,5	
13C12-2378-TetraCDD	82,9		60,8	
13C12-12378-PentaCDD	80,6		64,4	
13C12-123478-HexaCDD	82,6		61,3	
13C12-123678-HexaCDD	66,7		48,9	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	79,3		59,3	
13C12-OctaCDD	69,2		49,3	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)



Tab. 14: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A24 7N3383.023		A25 7N3383.024	
Fat content [%]	3,0		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,09	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,07	< 0,002	< 0,05	< 0,002
23478-PentaCDF	0,16	0,005	0,22	0,009
123478-HexaCDF	< 0,07	< 0,002	0,07	0,003
123678-HexaCDF	< 0,07	< 0,002	0,05	0,002
123789-HexaCDF	< 0,07	< 0,002	< 0,05	< 0,002
234678-HexaCDF	< 0,07	< 0,002	0,07	0,003
1234678-HeptaCDF	0,06	0,002	< 0,06	< 0,002
1234789-HeptaCDF	< 0,06	< 0,002	< 0,05	< 0,002
OctaCDF	< 0,61	< 0,02	< 0,47	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	0,03	0,001
12378-PentaCDD	0,06	0,002	0,09	0,004
123478-HexaCDD	< 0,08	< 0,002	< 0,06	< 0,002
123678-HexaCDD	0,11	0,003	0,09	0,003
123789-HexaCDD	< 0,08	< 0,002	< 0,06	< 0,002
1234678-HeptaCDD	0,09	0,003	0,08	0,003
OctaCDD	0,41	0,01	< 0,24	< 0,009
TEQ (WHO) excl. LOQ [a]	0,156	0,005	0,268	0,011
TEQ (WHO) incl. 1/2 LOQ [b]	0,199	0,006	0,281	0,011
TEQ (WHO) incl. LOQ [c]	0,242	0,007	0,295	0,012
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,125	0,004	0,221	0,009
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,168	0,005	0,235	0,009
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,212	0,006	0,249	0,010
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	85,8		72,2	
13C12-12378-PentaCDF	67,4		57,6	
13C12-23478-PentaCDF	82,1		61,8	
13C12-123478-HexaCDF	77,4		62,6	
13C12-123678-HexaCDF	75,8		63,3	
13C12-123789-HexaCDF	76,2		64,1	
13C12-234678-HexaCDF	78,7		64,4	
13C12-1234678-HeptaCDF	72,1		61,3	
13C12-1234789-HeptaCDF	80,3		68,0	
13C12-OctaCDF	65,3		53,3	
13C12-2378-TetraCDD	89,9		73,4	
13C12-12378-PentaCDD	78,6		61,2	
13C12-123478-HexaCDD	75,0		68,9	
13C12-123678-HexaCDD	72,4		70,0	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	76,4		64,2	
13C12-OctaCDD	63,4		50,8	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 15: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B1 7N3383.025		B2 7N3383.026	
Fat content [%]	3,7		3,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,05	< 0,002	< 0,05	< 0,002
23478-PentaCDF	0,18	0,007	0,15	0,006
123478-HexaCDF	0,07	0,003	0,06	0,002
123678-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
123789-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
234678-HexaCDF	0,06	0,002	0,06	0,002
1234678-HeptaCDF	0,05	0,002	0,05	0,002
1234789-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
OctaCDF	< 0,51	< 0,02	< 0,51	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	0,08	0,003	0,06	0,002
123478-HexaCDD	< 0,06	< 0,002	< 0,07	< 0,002
123678-HexaCDD	0,11	0,004	0,15	0,006
123789-HexaCDD	< 0,06	< 0,002	< 0,07	< 0,002
1234678-HeptaCDD	0,09	0,003	0,11	0,004
OctaCDD	0,26	0,009	< 0,26	< 0,009
TEQ (WHO) excl. LOQ [a]	0,192	0,007	0,171	0,006
TEQ (WHO) incl. 1/2 LOQ [b]	0,223	0,008	0,202	0,007
TEQ (WHO) incl. LOQ [b]	0,254	0,009	0,233	0,008
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,154	0,006	0,139	0,005
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,185	0,007	0,170	0,006
I-TEQ (NATO/CCMS) incl. LOQ [b]	0,216	0,008	0,201	0,007
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	82,9		89,2	
13C12-12378-PentaCDF	61,9		74,8	
13C12-23478-PentaCDF	81,0		81,6	
13C12-123478-HexaCDF	75,0		80,6	
13C12-123678-HexaCDF	71,8		78,5	
13C12-123789-HexaCDF	74,3		79,9	
13C12-234678-HexaCDF	75,0		81,0	
13C12-1234678-HeptaCDF	66,3		74,4	
13C12-1234789-HeptaCDF	79,1		87,6	
13C12-OctaCDF	59,8		68,4	
13C12-2378-TetraCDD	81,3		91,9	
13C12-12378-PentaCDD	76,7		80,9	
13C12-123478-HexaCDD	71,7		79,8	
13C12-123678-HexaCDD	67,5		73,0	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	72,7		80,8	
13C12-OctaCDD	56,2		64,8	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 16: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B3 7N3383.027		B4 7N3383.028	
Fat content [%]	3,6		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,05	< 0,002
23478-PentaCDF	0,13	0,005	0,09	0,004
123478-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
123678-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
123789-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
234678-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
1234678-HeptaCDF	0,07	0,002	0,06	0,002
1234789-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
OctaCDF	< 0,52	< 0,02	< 0,50	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	< 0,06 <sup>d</sup>	< 0,002	0,03	0,001
123478-HexaCDD	< 0,07	< 0,002	< 0,06	< 0,002
123678-HexaCDD	0,08	0,003	0,11	0,004
123789-HexaCDD	< 0,07	< 0,002	< 0,06	< 0,002
1234678-HeptaCDD	< 0,07	< 0,003	0,10	0,004
OctaCDD	0,32	0,01	0,32	0,01
TEQ (WHO) excl. LOQ [a]	0,074	0,003	0,090	0,003
TEQ (WHO) incl. 1/2 LOQ [b]	0,139	0,005	0,125	0,005
TEQ (WHO) incl. LOQ [c]	0,205	0,007	0,161	0,006
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,074	0,003	0,075	0,003
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,126	0,005	0,110	0,004
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,177	0,006	0,146	0,006
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	98,6		82,7	
13C12-12378-PentaCDF	66,8		71,6	
13C12-23478-PentaCDF	74,1		85,0	
13C12-123478-HexaCDF	74,4		78,0	
13C12-123678-HexaCDF	75,1		78,4	
13C12-123789-HexaCDF	78,9		78,9	
13C12-234678-HexaCDF	79,4		80,6	
13C12-1234678-HeptaCDF	75,7		74,2	
13C12-1234789-HeptaCDF	85,6		84,7	
13C12-OctaCDF	67,1		65,6	
13C12-2378-TetraCDD	106		84,8	
13C12-12378-PentaCDD	70,5		79,6	
13C12-123478-HexaCDD	79,2		77,2	
13C12-123678-HexaCDD	76,9		52,5	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	80,3		80,1	
13C12-OctaCDD	63,7		62,6	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[d] : Higher detection limit of quantification (LOQ) due to matrix interferences

Tab. 17: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B5 7N3383.029		B6 7N3383.030	
Fat content [%]	3,5		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,06	< 0,002	< 0,05	< 0,002
23478-PentaCDF	0,11	0,004	0,08	0,003
123478-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
123678-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
123789-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
234678-HexaCDF	< 0,06	< 0,002	< 0,05	< 0,002
1234678-HeptaCDF	< 0,05	< 0,002	0,06	0,002
1234789-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
OctaCDF	< 0,53	< 0,02	1,29	0,05
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	0,04	0,002	0,05	0,002
123478-HexaCDD	< 0,07	< 0,002	< 0,06	< 0,002
123678-HexaCDD	0,09	0,003	0,08	0,003
123789-HexaCDD	< 0,07	< 0,002	< 0,06	< 0,002
1234678-HeptaCDD	< 0,07	< 0,003	< 0,07	< 0,003
OctaCDD	< 0,27	< 0,009	< 0,25	< 0,009
TEQ (WHO) excl. LOQ [a]	0,107	0,004	0,100	0,004
TEQ (WHO) incl. 1/2 LOQ [b]	0,145	0,005	0,135	0,005
TEQ (WHO) incl. LOQ [c]	0,183	0,006	0,170	0,007
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,085	0,003	0,076	0,003
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,124	0,004	0,111	0,004
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,162	0,006	0,146	0,006
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	85,8		90,0	
13C12-12378-PentaCDF	62,1		68,2	
13C12-23478-PentaCDF	69,6		77,1	
13C12-123478-HexaCDF	67,9		74,6	
13C12-123678-HexaCDF	70,2		74,4	
13C12-123789-HexaCDF	72,4		77,0	
13C12-234678-HexaCDF	71,5		77,1	
13C12-1234678-HeptaCDF	67,8		71,7	
13C12-1234789-HeptaCDF	77,6		83,0	
13C12-OctaCDF	58,3		64,8	
13C12-2378-TetraCDD	81,3		93,9	
13C12-12378-PentaCDD	68,6		74,5	
13C12-123478-HexaCDD	70,3		74,9	
13C12-123678-HexaCDD	71,3		75,2	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	73,2		77,6	
13C12-OctaCDD	54,2		59,6	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 18: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B7 7N3383.031		B8 7N3383.032	
Fat content [%]	4,0		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,07	< 0,003	< 0,07	< 0,003
12378-PentaCDF	< 0,05	< 0,002	< 0,05	< 0,002
23478-PentaCDF	0,15	0,006	0,46	0,02
123478-HexaCDF	0,05	0,002	0,16	0,006
123678-HexaCDF	0,06	0,002	0,12	0,005
123789-HexaCDF	< 0,05	< 0,002	< 0,05	< 0,002
234678-HexaCDF	0,05	0,002	0,17	0,007
1234678-HeptaCDF	0,05	0,002	0,07	0,003
1234789-HeptaCDF	< 0,05	< 0,002	< 0,05	< 0,002
OctaCDF	< 0,47	< 0,02	< 0,49	< 0,02
<b>PCDD</b>				
2378-TetraCDD	0,03	0,001	0,08	0,003
12378-PentaCDD	0,08	0,003	0,20	0,008
123478-HexaCDD	< 0,06	< 0,002	0,09	0,003
123678-HexaCDD	0,12	0,005	0,21	0,008
123789-HexaCDD	< 0,06	< 0,002	0,08	0,003
1234678-HeptaCDD	< 0,08	< 0,003	0,22	0,009
OctaCDD	< 0,24	< 0,01	0,24	0,01
TEQ (WHO) excl. LOQ [a]	0,220	0,009	0,596	0,023
TEQ (WHO) incl. 1/2 LOQ [b]	0,234	0,009	0,603	0,024
TEQ (WHO) incl. LOQ [c]	0,248	0,010	0,611	0,024
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,179	0,007	0,494	0,019
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,193	0,008	0,502	0,020
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,207	0,008	0,510	0,020
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	93,1		87,1	
13C12-12378-PentaCDF	69,6		65,4	
13C12-23478-PentaCDF	76,3		74,5	
13C12-123478-HexaCDF	75,8		71,9	
13C12-123678-HexaCDF	75,1		70,7	
13C12-123789-HexaCDF	79,5		73,3	
13C12-234678-HexaCDF	78,3		73,4	
13C12-1234678-HeptaCDF	73,2		67,7	
13C12-1234789-HeptaCDF	83,9		77,6	
13C12-OctaCDF	65,9		61,2	
13C12-2378-TetraCDD	96,1		90,4	
13C12-12378-PentaCDD	72,4		72,6	
13C12-123478-HexaCDD	75,3		71,0	
13C12-123678-HexaCDD	79,3		69,0	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	78,5		72,8	
13C12-OctaCDD	62,2		59,3	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 19: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B9 7N3383.033		B13 7N3383.034	
Fat content [%]	4,0		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,08 <sup>d</sup>	< 0,003 <sup>d</sup>	0,17	0,007
12378-PentaCDF	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>	< 0,07	< 0,003
23478-PentaCDF	0,26 <sup>d</sup>	0,01 <sup>d</sup>	0,16	0,006
123478-HexaCDF	0,11 <sup>d</sup>	0,004 <sup>d</sup>	< 0,07	< 0,003
123678-HexaCDF	0,08 <sup>d</sup>	0,003 <sup>d</sup>	< 0,07	< 0,003
123789-HexaCDF	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>	< 0,07	< 0,003
234678-HexaCDF	0,10 <sup>d</sup>	0,004 <sup>d</sup>	< 0,07	< 0,003
1234678-HeptaCDF	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>	< 0,06	< 0,002
1234789-HeptaCDF	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>	< 0,06	< 0,002
OctaCDF	< 0,59 <sup>d</sup>	< 0,02 <sup>d</sup>	< 0,62	< 0,02
<b>PCDD</b>				
2378-TetraCDD	0,03 <sup>d</sup>	0,001 <sup>d</sup>	< 0,03	< 0,001
12378-PentaCDD	0,10 <sup>d</sup>	0,004 <sup>d</sup>	0,05	0,002
123478-HexaCDD	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,08	< 0,003
123678-HexaCDD	0,09 <sup>d</sup>	0,004 <sup>d</sup>	0,09	0,004
123789-HexaCDD	< 0,07 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,08	< 0,003
1234678-HeptaCDD	< 0,08 <sup>d</sup>	< 0,003 <sup>d</sup>	< 0,09	< 0,003
OctaCDD	< 0,29 <sup>d</sup>	< 0,01 <sup>d</sup>	0,39	0,02
TEQ (WHO) excl. LOQ [a]	0,302 <sup>d</sup>	0,012 <sup>d</sup>	0,156	0,006
TEQ (WHO) incl. 1/2 LOQ [b]	0,319 <sup>d</sup>	0,013 <sup>d</sup>	0,197	0,008
TEQ (WHO) incl. LOQ [c]	0,336 <sup>d</sup>	0,013 <sup>d</sup>	0,238	0,009
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,253 <sup>d</sup>	0,010 <sup>d</sup>	0,133	0,005
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,271 <sup>d</sup>	0,011 <sup>d</sup>	0,174	0,007
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,288 <sup>d</sup>	0,011 <sup>d</sup>	0,215	0,008
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	72,6		99,6	
13C12-12378-PentaCDF	75,5		65,7	
13C12-23478-PentaCDF	78,3		86,6	
13C12-123478-HexaCDF	71,9		81,8	
13C12-123678-HexaCDF	72,5		81,6	
13C12-123789-HexaCDF	80,4		84,0	
13C12-234678-HexaCDF	68,0		85,9	
13C12-1234678-HeptaCDF	65,0		75,2	
13C12-1234789-HeptaCDF	80,5		92,3	
13C12-OctaCDF	61,1		76,5	
13C12-2378-TetraCDD	80,0		98,7	
13C12-12378-PentaCDD	78,7		81,3	
13C12-123478-HexaCDD	63,6		81,1	
13C12-123678-HexaCDD	69,2		56,0	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	70,1		85,5	
13C12-OctaCDD	52,7		71,8	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[d] : Results verified by a duplicate analysis

Tab. 20: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B14 7N3383.035		B15 7N3383.036	
Fat content [%]	3,9		3,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>				
2378-TetraCDF	< 0,09	< 0,003	0,23	0,008
12378-PentaCDF	< 0,07	< 0,003	< 0,07	< 0,002
23478-PentaCDF	0,13	0,005	0,17	0,006
123478-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,002
123678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,002
123789-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,002
234678-HexaCDF	< 0,07	< 0,003	< 0,07	< 0,002
1234678-HeptaCDF	< 0,06	< 0,002	< 0,06	< 0,002
1234789-HeptaCDF	< 0,06	< 0,002	< 0,06	< 0,002
OctaCDF	< 0,61	< 0,02	< 0,64	< 0,02
<b>PCDD</b>				
2378-TetraCDD	< 0,03	< 0,001	< 0,03	< 0,001
12378-PentaCDD	0,05	0,002	0,07	0,002
123478-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
123678-HexaCDD	0,10	0,004	0,13	0,005
123789-HexaCDD	< 0,08	< 0,003	< 0,08	< 0,003
1234678-HeptaCDD	0,10	0,004	0,10	0,004
OctaCDD	0,33	0,01	0,44	0,02
TEQ (WHO) excl. LOQ [a]	0,125	0,005	0,188	0,007
TEQ (WHO) incl. 1/2 LOQ [b]	0,169	0,007	0,229	0,008
TEQ (WHO) incl. LOQ [c]	0,212	0,008	0,271	0,010
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,102	0,004	0,155	0,006
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,146	0,006	0,196	0,007
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,190	0,007	0,238	0,009
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-2378-TetraCDF	84,2		94,4	
13C12-12378-PentaCDF	61,8		70,9	
13C12-23478-PentaCDF	82,2		90,1	
13C12-123478-HexaCDF	73,7		80,3	
13C12-123678-HexaCDF	74,2		81,4	
13C12-123789-HexaCDF	75,0		81,8	
13C12-234678-HexaCDF	77,6		84,4	
13C12-1234678-HeptaCDF	64,7		64,4	
13C12-1234789-HeptaCDF	82,6		86,6	
13C12-OctaCDF	67,5		67,5	
13C12-2378-TetraCDD	88,8		96,2	
13C12-12378-PentaCDD	77,3		84,3	
13C12-123478-HexaCDD	72,0		77,7	
13C12-123678-HexaCDD	46,7		55,2	
13C12-123789-HexaCDD	100		100	
13C12-1234678-HeptaCDD	76,6		79,2	
13C12-OctaCDD	63,3		61,8	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 21: Results of the analysis of milk samples for PCDF/Ds; the results refer to the fat-weight and to the fresh-weight

Original Sample Name	B17	
GfA Sample No.	7N3383.037	
Fat content [%]	3,4	
Unit	pg/g fat-weight	pg/g fresh-weight
<b>PCDF</b>		
2378-TetraCDF	< 0,07 <sup>d</sup>	< 0,002 <sup>d</sup>
12378-PentaCDF	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>
23478-PentaCDF	0,17 <sup>d</sup>	0,006 <sup>d</sup>
123478-HexaCDF	0,06 <sup>d</sup>	0,002 <sup>d</sup>
123678-HexaCDF	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>
123789-HexaCDF	< 0,06 <sup>d</sup>	< 0,002 <sup>d</sup>
234678-HexaCDF	0,06 <sup>d</sup>	0,002 <sup>d</sup>
1234678-HeptaCDF	0,08 <sup>d</sup>	0,003 <sup>d</sup>
1234789-HeptaCDF	< 0,05 <sup>d</sup>	< 0,002 <sup>d</sup>
OctaCDF	0,66 <sup>d</sup>	0,02 <sup>d</sup>
<b>PCDD</b>		
2378-TetraCDD	< 0,03 <sup>d</sup>	< 0,0009 <sup>d</sup>
12378-PentaCDD	0,04 <sup>d</sup>	0,001 <sup>d</sup>
123478-HexaCDD	< 0,07 <sup>d</sup>	< 0,002 <sup>d</sup>
123678-HexaCDD	0,11 <sup>d</sup>	0,004 <sup>d</sup>
123789-HexaCDD	< 0,07 <sup>d</sup>	< 0,002 <sup>d</sup>
1234678-HeptaCDD	0,12 <sup>d</sup>	0,004 <sup>d</sup>
OctaCDD	0,31 <sup>d</sup>	0,01 <sup>d</sup>
TEQ (WHO) excl. LOQ [a]	0,153 <sup>d</sup>	0,005 <sup>d</sup>
TEQ (WHO) incl. 1/2 LOQ [b]	0,185 <sup>d</sup>	0,006 <sup>d</sup>
TEQ (WHO) incl. LOQ [c]	0,216 <sup>d</sup>	0,007 <sup>d</sup>
I-TEQ (NATO/CCMS) excl. LOQ [a]	0,133 <sup>d</sup>	0,005 <sup>d</sup>
I-TEQ (NATO/CCMS) incl. 1/2 LOQ [b]	0,164 <sup>d</sup>	0,006 <sup>d</sup>
I-TEQ (NATO/CCMS) incl. LOQ [c]	0,196 <sup>d</sup>	0,007 <sup>d</sup>
<b>Recovery Rates</b>	<b>%</b>	
13C12-2378-TetraCDF	103	
13C12-12378-PentaCDF	34,8	
13C12-23478-PentaCDF	75,7	
13C12-123478-HexaCDF	84,5	
13C12-123678-HexaCDF	88,4	
13C12-123789-HexaCDF	83,9	
13C12-234678-HexaCDF	94,1	
13C12-1234678-HeptaCDF	58,7	
13C12-1234789-HeptaCDF	95,4	
13C12-OctaCDF	81,5	
13C12-2378-TetraCDD	93,9	
13C12-12378-PentaCDD	98,4	
13C12-123478-HexaCDD	96,1	
13C12-123678-HexaCDD	44,7	
13C12-123789-HexaCDD	100	
13C12-1234678-HeptaCDD	92,5	
13C12-OctaCDD	79,4	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[d] : Results verified by a duplicate analysis



Tab. 22: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A1 7N3383.001		A2 7N3383.002	
Fat content [%]	3,9		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 4,01 <sup>d</sup>	< 0,13 <sup>d</sup>	< 3,30 <sup>d</sup>	< 0,13 <sup>d</sup>
PCB 81	< 0,80 <sup>d</sup>	< 0,03 <sup>d</sup>	< 0,66 <sup>d</sup>	< 0,03 <sup>d</sup>
PCB 126	1,00 <sup>d</sup>	0,12 <sup>d</sup>	1,39 <sup>d</sup>	0,05 <sup>d</sup>
PCB 169	< 1,00 <sup>d</sup>	< 0,03 <sup>d</sup>	< 0,83 <sup>d</sup>	< 0,03 <sup>d</sup>
Mono-ortho PCB				
PCB 105	18,3 <sup>d</sup>	0,64 <sup>d</sup>	22,4 <sup>d</sup>	0,86 <sup>d</sup>
PCB 114	2,19 <sup>d</sup>	0,09 <sup>d</sup>	2,43 <sup>d</sup>	0,09 <sup>d</sup>
PCB 118	89,2 <sup>d</sup>	2,74 <sup>d</sup>	109 <sup>d</sup>	4,18 <sup>d</sup>
PCB 123	< 4,01 <sup>d</sup>	< 0,13 <sup>d</sup>	< 3,30 <sup>d</sup>	< 0,13 <sup>d</sup>
PCB 156	9,82 <sup>d</sup>	0,30 <sup>d</sup>	12,2 <sup>d</sup>	0,47 <sup>d</sup>
PCB 157	< 4,01 <sup>d</sup>	< 0,13 <sup>d</sup>	< 3,30 <sup>d</sup>	< 0,13 <sup>d</sup>
PCB 167	< 4,01 <sup>d</sup>	< 0,13 <sup>d</sup>	4,65 <sup>d</sup>	0,18 <sup>d</sup>
PCB 189	< 4,01 <sup>d</sup>	< 0,13 <sup>d</sup>	< 3,30 <sup>d</sup>	< 0,13 <sup>d</sup>
TEQ 12 WHO PCB excl. LOQ [a]	0,117 <sup>d</sup>	0,012 <sup>d</sup>	0,160 <sup>d</sup>	0,006
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,123 <sup>d</sup>	0,012 <sup>d</sup>	0,165 <sup>d</sup>	0,006
TEQ 12 WHO PCB incl. LOQ [c]	0,130 <sup>d</sup>	0,012 <sup>d</sup>	0,170 <sup>d</sup>	0,007
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	103		104	
13C12-TetraCB(#52)	101		86,9	
13C12-TetraCB(#81)	104		85,4	
13C12-TetraCB(#77)	105		81,2	
13C12-PentaCB(#101)	104		88,5	
13C12-PentaCB(#123)	101		88,5	
13C12-PentaCB(#118)	100		92,7	
13C12-PentaCB(#114)	97,5		91,8	
13C12-PentaCB(#105)	112		90,0	
13C12-PentaCB(#126)	87,7		84,7	
13C12-HexaCB(#153)	116		93,4	
13C12-HexaCB(#138)	89,5		90,2	
13C12-HexaCB(#167)	90,1		91,5	
13C12-HexaCB(#156)	84,4		94,0	
13C12-HexaCB(#157)	79,2		89,0	
13C12-HexaCB(#169)	87,6		87,6	
13C12-HeptaCB(#180)	81,4		92,1	
13C12-HeptaCB(#189)	103		98,3	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[d] : Results verified by a duplicate analysis

Tab. 23: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A3 7N3383.003		A4 7N3383.004	
Fat content [%]	3,8		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,37	< 0,13	< 4,17	< 0,16
PCB 81	< 0,67	< 0,03	< 0,83	< 0,03
PCB 126	< 2,18	< 0,08	1,95	0,07
PCB 169	< 0,84	< 0,03	< 1,04	< 0,04
Mono-ortho PCB				
PCB 105	24,1	0,93	26,9	1,01
PCB 114	2,15	0,08	< 3,01	< 0,11
PCB 118	118	4,52	124	4,67
PCB 123	< 3,37	< 0,13	< 4,17	< 0,16
PCB 156	11,8	0,45	13,7	0,52
PCB 157	3,73	0,14	< 4,17	< 0,16
PCB 167	4,27	0,16	5,83	0,22
PCB 189	< 3,37	< 0,13	< 4,17	< 0,16
TEQ 12 WHO PCB excl. LOQ [a]	0,023	0,0009	0,217	0,008
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,137	0,005	0,225	0,008
TEQ 12 WHO PCB incl. LOQ [c]	0,251	0,01	0,232	0,009
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	64,6		95,7	
13C12-TetraCB(#52)	54,0		91,7	
13C12-TetraCB(#81)	66,2		108	
13C12-TetraCB(#77)	53,3		103	
13C12-PentaCB(#101)	65,2		104	
13C12-PentaCB(#123)	61,5		102	
13C12-PentaCB(#118)	63,0		103	
13C12-PentaCB(#114)	61,8		98,4	
13C12-PentaCB(#105)	67,0		102	
13C12-PentaCB(#126)	55,4		112	
13C12-HexaCB(#153)	66,1		107	
13C12-HexaCB(#138)	57,8		116	
13C12-HexaCB(#167)	61,5		96,0	
13C12-HexaCB(#156)	63,6		91,9	
13C12-HexaCB(#157)	53,7		86,0	
13C12-HexaCB(#169)	57,9		92,8	
13C12-HeptaCB(#180)	61,5		92,9	
13C12-HeptaCB(#189)	60,7		116	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 24: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A5 7N3383.005		A6 7N3383.006	
Fat content [%]	4,2		4,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,32	< 0,14	< 3,25	< 0,13
PCB 81	< 0,66	< 0,03	< 0,65	< 0,03
PCB 126	1,31	0,05	0,92	0,04
PCB 169	< 0,83	< 0,03	< 0,81	< 0,03
Mono-ortho PCB				
PCB 105	17,4	0,72	16,2	0,65
PCB 114	1,77	0,07	< 2,09	< 0,08
PCB 118	85,0	3,54	82,2	3,32
PCB 123	< 3,32	< 0,14	< 3,25	< 0,13
PCB 156	8,58	0,36	7,63	0,31
PCB 157	< 3,32	< 0,14	< 3,25	< 0,13
PCB 167	< 3,32	< 0,14	< 3,25	< 0,13
PCB 189	< 3,32	< 0,14	< 3,25	< 0,13
TEQ 12 WHO PCB excl. LOQ [a]	0,146	0,006	0,105	0,004
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,152	0,006	0,111	0,005
TEQ 12 WHO PCB incl. LOQ [c]	0,157	0,007	0,117	0,005
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	59,8		56,5	
13C12-TetraCB(#52)	58,5		52,1	
13C12-TetraCB(#81)	70,0		54,5	
13C12-TetraCB(#77)	54,2		51,5	
13C12-PentaCB(#101)	57,1		52,9	
13C12-PentaCB(#123)	55,2		53,7	
13C12-PentaCB(#118)	57,1		58,3	
13C12-PentaCB(#114)	60,6		55,3	
13C12-PentaCB(#105)	72,5		62,6	
13C12-PentaCB(#126)	57,1		50,2	
13C12-HexaCB(#153)	71,1		63,5	
13C12-HexaCB(#138)	61,5		52,2	
13C12-HexaCB(#167)	59,8		54,9	
13C12-HexaCB(#156)	61,3		55,0	
13C12-HexaCB(#157)	51,3		47,2	
13C12-HexaCB(#169)	56,1		52,2	
13C12-HeptaCB(#180)	59,4		54,1	
13C12-HeptaCB(#189)	57,9		55,7	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 25: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A7 7N3383.007		A8 7N3383.008	
Fat content [%]	4,0		3,7	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,19	< 0,13	< 3,62	< 0,13
PCB 81	< 0,64	< 0,03	< 0,72	< 0,03
PCB 126	< 1,16	< 0,05	1,56	0,06
PCB 169	< 0,80	< 0,03	< 0,90	< 0,03
Mono-ortho PCB				
PCB 105	15,6	0,62	20,3	0,74
PCB 114	2,03	0,08	1,76	0,06
PCB 118	80,3	3,20	94,9	3,48
PCB 123	< 3,19	< 0,13	< 3,62	< 0,13
PCB 156	8,75	0,35	7,47	0,27
PCB 157	< 3,19	< 0,13	< 3,62	< 0,13
PCB 167	< 3,19	< 0,13	< 3,62	< 0,13
PCB 189	< 3,19	< 0,13	< 3,62	< 0,13
TEQ 12 WHO PCB excl. LOQ [a]	0,015	0,0006	0,172	0,006
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,078	0,003	0,178	0,007
TEQ 12 WHO PCB incl. LOQ [c]	0,141	0,006	0,184	0,007
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	65,5		58,5	
13C12-TetraCB(#52)	60,3		52,0	
13C12-TetraCB(#81)	66,7		55,4	
13C12-TetraCB(#77)	56,9		45,1	
13C12-PentaCB(#101)	61,7		53,5	
13C12-PentaCB(#123)	60,3		51,7	
13C12-PentaCB(#118)	61,4		53,9	
13C12-PentaCB(#114)	61,1		53,5	
13C12-PentaCB(#105)	69,0		61,7	
13C12-PentaCB(#126)	55,0		49,9	
13C12-HexaCB(#153)	69,9		63,7	
13C12-HexaCB(#138)	63,5		47,9	
13C12-HexaCB(#167)	62,2		54,2	
13C12-HexaCB(#156)	64,2		53,9	
13C12-HexaCB(#157)	54,6		44,6	
13C12-HexaCB(#169)	55,4		47,9	
13C12-HeptaCB(#180)	63,2		55,5	
13C12-HeptaCB(#189)	59,9		52,9	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 26: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A9 7N3383.009		A10 7N3383.010	
Fat content [%]	4,0		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,22	< 0,13	< 3,38	< 0,13
PCB 81	< 0,64	< 0,03	< 0,68	< 0,03
PCB 126	< 1,19	< 0,05	< 0,75	< 0,03
PCB 169	< 0,80	< 0,03	< 0,84	< 0,03
Mono-ortho PCB				
PCB 105	18,1	0,72	18,1	0,68
PCB 114	2,28	0,09	< 1,35	< 0,05
PCB 118	85,4	3,39	89,6	3,37
PCB 123	< 3,22	< 0,13	< 3,38	< 0,13
PCB 156	7,58	0,30	9,43	0,35
PCB 157	< 3,22	< 0,13	< 3,38	< 0,13
PCB 167	< 3,22	< 0,13	< 3,38	< 0,13
PCB 189	< 3,22	< 0,13	< 3,38	< 0,13
TEQ 12 WHO PCB excl. LOQ [a]	0,015	0,0006	0,015	0,0006
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,080	0,003	0,059	0,002
TEQ 12 WHO PCB incl. LOQ [c]	0,145	0,006	0,103	0,004
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	72,6		67,4	
13C12-TetraCB(#52)	63,6		60,0	
13C12-TetraCB(#81)	70,6		65,8	
13C12-TetraCB(#77)	59,1		58,9	
13C12-PentaCB(#101)	76,4		64,1	
13C12-PentaCB(#123)	69,8		60,1	
13C12-PentaCB(#118)	70,2		64,1	
13C12-PentaCB(#114)	69,2		61,2	
13C12-PentaCB(#105)	76,4		68,7	
13C12-PentaCB(#126)	60,4		54,3	
13C12-HexaCB(#153)	80,8		68,6	
13C12-HexaCB(#138)	60,7		62,2	
13C12-HexaCB(#167)	69,2		63,8	
13C12-HexaCB(#156)	73,5		67,0	
13C12-HexaCB(#157)	62,2		54,0	
13C12-HexaCB(#169)	62,1		55,5	
13C12-HeptaCB(#180)	68,6		64,0	
13C12-HeptaCB(#189)	68,7		64,5	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 27: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A11 7N3383.011		A12 7N3383.012	
Fat content [%]	3,5		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,48	< 0,12	< 3,29	< 0,13
PCB 81	< 0,70	< 0,02	< 0,66	< 0,03
PCB 126	2,03	0,07	1,54	0,06
PCB 169	< 0,87	< 0,03	< 0,82	< 0,03
Mono-ortho PCB				
PCB 105	40,5	1,43	19,3	0,75
PCB 114	3,47	0,12	1,90	0,07
PCB 118	158	5,59	84,8	3,30
PCB 123	< 3,48	< 0,12	< 3,29	< 0,13
PCB 156	15,6	0,55	9,23	0,36
PCB 157	4,10	0,15	< 3,29	< 0,13
PCB 167	4,50	0,16	< 3,29	< 0,13
PCB 189	< 3,48	< 0,12	< 3,29	< 0,13
TEQ 12 WHO PCB excl. LOQ [a]	0,235	0,008	0,170	0,007
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,240	0,008	0,175	0,007
TEQ 12 WHO PCB incl. LOQ [c]	0,245	0,009	0,181	0,007
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	70,0		76,9	
13C12-TetraCB(#52)	73,0		75,5	
13C12-TetraCB(#81)	73,3		80,8	
13C12-TetraCB(#77)	64,7		76,8	
13C12-PentaCB(#101)	78,6		81,1	
13C12-PentaCB(#123)	70,0		79,5	
13C12-PentaCB(#118)	69,8		78,7	
13C12-PentaCB(#114)	71,1		80,5	
13C12-PentaCB(#105)	72,9		83,4	
13C12-PentaCB(#126)	67,1		76,9	
13C12-HexaCB(#153)	80,1		84,1	
13C12-HexaCB(#138)	71,6		78,6	
13C12-HexaCB(#167)	67,6		73,2	
13C12-HexaCB(#156)	68,9		76,7	
13C12-HexaCB(#157)	67,2		73,9	
13C12-HexaCB(#169)	67,6		71,1	
13C12-HeptaCB(#180)	76,9		81,8	
13C12-HeptaCB(#189)	75,2		77,6	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 28: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A13 7N3383.013		A14 7N3383.014	
Fat content [%]	3,9		4,2	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,33	< 0,13	< 3,49	< 0,14
PCB 81	< 0,67	< 0,03	< 0,70	< 0,03
PCB 126	1,26	0,05	0,69	0,03
PCB 169	< 0,83	< 0,03	< 0,87	< 0,04
Mono-ortho PCB				
PCB 105	18,0	0,70	< 14,0	< 0,58
PCB 114	< 1,33	< 0,05	< 1,46	< 0,06
PCB 118	83,2	3,23	49,0	2,03
PCB 123	< 3,33	< 0,13	< 3,49	< 0,14
PCB 156	9,04	0,35	< 6,98	< 0,29
PCB 157	< 3,33	< 0,13	< 3,49	< 0,14
PCB 167	< 3,33	< 0,13	< 3,49	< 0,14
PCB 189	< 3,33	< 0,13	< 3,49	< 0,14
TEQ 12 WHO PCB excl. LOQ [a]	0,140	0,005	0,074	0,003
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,146	0,006	0,082	0,003
TEQ 12 WHO PCB incl. LOQ [c]	0,152	0,006	0,091	0,004
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	94,4		105	
13C12-TetraCB(#52)	88,7		91,0	
13C12-TetraCB(#81)	78,5		114	
13C12-TetraCB(#77)	78,7		102	
13C12-PentaCB(#101)	77,9		105	
13C12-PentaCB(#123)	82,5		102	
13C12-PentaCB(#118)	81,6		107	
13C12-PentaCB(#114)	79,7		101	
13C12-PentaCB(#105)	80,1		102	
13C12-PentaCB(#126)	75,3		94,7	
13C12-HexaCB(#153)	82,3		94,1	
13C12-HexaCB(#138)	79,6		89,6	
13C12-HexaCB(#167)	81,9		98,3	
13C12-HexaCB(#156)	81,1		102	
13C12-HexaCB(#157)	76,7		100	
13C12-HexaCB(#169)	73,2		105	
13C12-HeptaCB(#180)	81,3		96,7	
13C12-HeptaCB(#189)	73,7		109	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 29: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A15 7N3383.015		A16 7N3383.016	
Fat content [%]	4,5		3,0	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,86	< 0,17	< 4,29	< 0,13
PCB 81	< 0,77	< 0,03	< 0,86	< 0,03
PCB 126	1,49	0,07	1,62	0,05
PCB 169	< 0,97	< 0,04	< 1,07	< 0,03
Mono-ortho PCB				
PCB 105	22,3	1,0	24,2	0,72
PCB 114	< 2,91	< 0,13	2,93	0,09
PCB 118	108	4,82	107	3,19
PCB 123	< 3,86	< 0,17	< 4,29	< 0,13
PCB 156	10,6	0,47	10,2	0,30
PCB 157	< 3,86	< 0,17	< 4,29	< 0,13
PCB 167	< 3,86	< 0,17	< 4,29	< 0,13
PCB 189	< 3,86	< 0,17	< 4,29	< 0,13
TEQ 12 WHO PCB excl. LOQ [a]	0,167	0,007	0,181	0,005
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,174	0,008	0,188	0,006
TEQ 12 WHO PCB incl. LOQ [c]	0,181	0,008	0,196	0,006
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	110		97,0	
13C12-TetraCB(#52)	96,9		88,9	
13C12-TetraCB(#81)	110		108	
13C12-TetraCB(#77)	104		102	
13C12-PentaCB(#101)	106		102	
13C12-PentaCB(#123)	99,5		96,9	
13C12-PentaCB(#118)	101		99,5	
13C12-PentaCB(#114)	100		97,5	
13C12-PentaCB(#105)	100		102	
13C12-PentaCB(#126)	118		99,8	
13C12-HexaCB(#153)	93,7		88,1	
13C12-HexaCB(#138)	88,6		83,6	
13C12-HexaCB(#167)	107		110	
13C12-HexaCB(#156)	104		111	
13C12-HexaCB(#157)	95,0		104	
13C12-HexaCB(#169)	108		107	
13C12-HeptaCB(#180)	95,2		101	
13C12-HeptaCB(#189)	124		110	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)



Tab. 30: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A18 7N3383.017		A19 7N3383.018	
Fat content [%]	3,8		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 4,83	< 0,19	< 4,15	< 0,16
PCB 81	< 0,97	< 0,04	< 0,83	< 0,03
PCB 126	1,15	0,04	2,00	0,08
PCB 169	< 1,21	< 0,05	1,04	0,04
Mono-ortho PCB				
PCB 105	< 19,3	< 0,74	45,3	1,76
PCB 114	2,01	0,08	4,58	0,18
PCB 118	90,6	3,47	185	7,19
PCB 123	< 4,83	< 0,19	< 4,15	< 0,16
PCB 156	10,8	0,41	21,0	0,82
PCB 157	< 4,83	< 0,19	5,37	0,21
PCB 167	< 4,83	< 0,19	7,20	0,28
PCB 189	< 4,83	< 0,19	< 4,15	< 0,16
TEQ 12 WHO PCB excl. LOQ [a]	0,131	0,005	0,249	0,01
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,140	0,005	0,250	0,01
TEQ 12 WHO PCB incl. LOQ [c]	0,149	0,006	0,251	0,01
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	101		92,2	
13C12-TetraCB(#52)	89,3		82,0	
13C12-TetraCB(#81)	98,1		80,6	
13C12-TetraCB(#77)	89,9		73,1	
13C12-PentaCB(#101)	90,5		87,1	
13C12-PentaCB(#123)	98,1		82,7	
13C12-PentaCB(#118)	101		84,4	
13C12-PentaCB(#114)	95,4		76,1	
13C12-PentaCB(#105)	95,0		70,1	
13C12-PentaCB(#126)	88,3		70,2	
13C12-HexaCB(#153)	95,4		81,9	
13C12-HexaCB(#138)	88,0		72,8	
13C12-HexaCB(#167)	89,7		79,4	
13C12-HexaCB(#156)	88,9		70,0	
13C12-HexaCB(#157)	87,1		65,9	
13C12-HexaCB(#169)	88,5		65,7	
13C12-HeptaCB(#180)	86,5		69,6	
13C12-HeptaCB(#189)	92,7		76,5	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 31: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A20 7N3383.019		A21 7N3383.020	
Fat content [%]	4,4		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 4,23 <sup>d</sup>	< 0,19 <sup>d</sup>	< 4,40	< 0,17
PCB 81	< 0,85 <sup>d</sup>	< 0,04 <sup>d</sup>	< 0,88	< 0,03
PCB 126	< 1,87 <sup>d</sup>	< 0,08 <sup>d</sup>	1,79	0,07
PCB 169	< 1,06 <sup>d</sup>	< 0,05 <sup>d</sup>	< 1,10	< 0,04
Mono-ortho PCB				
PCB 105	26,6 <sup>d</sup>	1,18 <sup>d</sup>	31,3	1,20
PCB 114	< 2,26 <sup>d</sup>	< 0,10 <sup>d</sup>	3,66	0,14
PCB 118	102 <sup>d</sup>	4,53 <sup>d</sup>	132	5,07
PCB 123	< 4,23 <sup>d</sup>	< 0,19 <sup>d</sup>	< 4,40	< 0,17
PCB 156	9,81 <sup>d</sup>	0,44 <sup>d</sup>	11,5	0,44
PCB 157	< 4,23 <sup>d</sup>	< 0,19 <sup>d</sup>	< 4,40	< 0,17
PCB 167	< 4,23 <sup>d</sup>	< 0,19 <sup>d</sup>	< 4,40	< 0,17
PCB 189	< 4,23 <sup>d</sup>	< 0,19 <sup>d</sup>	< 4,40	< 0,17
TEQ 12 WHO PCB excl. LOQ [a]	0,018 <sup>d</sup>	0,0008 <sup>d</sup>	0,203	0,008
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,119 <sup>d</sup>	0,005 <sup>d</sup>	0,211	0,008
TEQ 12 WHO PCB incl. LOQ [c]	0,220 <sup>d</sup>	0,010 <sup>d</sup>	0,218	0,008
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	108		112	
13C12-TetraCB(#52)	92,3		94,9	
13C12-TetraCB(#81)	102		104	
13C12-TetraCB(#77)	94,2		96,4	
13C12-PentaCB(#101)	100		100	
13C12-PentaCB(#123)	95,9		104	
13C12-PentaCB(#118)	101		105	
13C12-PentaCB(#114)	92,0		94,6	
13C12-PentaCB(#105)	85,2		90,6	
13C12-PentaCB(#126)	93,4		92,7	
13C12-HexaCB(#153)	94,6		98,2	
13C12-HexaCB(#138)	85,2		97,4	
13C12-HexaCB(#167)	85,6		87,9	
13C12-HexaCB(#156)	82,1		82,4	
13C12-HexaCB(#157)	78,5		76,9	
13C12-HexaCB(#169)	75,9		77,8	
13C12-HeptaCB(#180)	86,2		82,0	
13C12-HeptaCB(#189)	92,3		94,7	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[d] : Results verified by a duplicate analysis

Tab. 32: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A22 7N3383.021		A23 7N3383.022	
Fat content [%]	3,0		2,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 4,18	< 0,13	< 4,63	< 0,13
PCB 81	< 0,84	< 0,03	< 0,93	< 0,03
PCB 126	0,79	0,02	2,30	0,07
PCB 169	< 1,05	< 0,03	< 1,16	< 0,03
Mono-ortho PCB				
PCB 105	< 16,7	< 0,50	27,7	0,79
PCB 114	< 1,67	< 0,05	3,58	0,10
PCB 118	67,4	2,03	124	3,50
PCB 123	< 4,18	< 0,13	< 4,63	< 0,13
PCB 156	< 8,37	< 0,25	12,0	0,34
PCB 157	< 4,18	< 0,13	< 4,63	< 0,13
PCB 167	< 4,18	< 0,13	< 4,63	< 0,13
PCB 189	< 4,18	< 0,13	< 4,63	< 0,13
TEQ 12 WHO PCB excl. LOQ [a]	0,086	0,003	0,253	0,007
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,096	0,003	0,261	0,007
TEQ 12 WHO PCB incl. LOQ [c]	0,106	0,003	0,268	0,008
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	86,2		87,2	
13C12-TetraCB(#52)	74,8		74,4	
13C12-TetraCB(#81)	87,2		75,7	
13C12-TetraCB(#77)	81,5		73,1	
13C12-PentaCB(#101)	80,9		77,3	
13C12-PentaCB(#123)	88,3		78,7	
13C12-PentaCB(#118)	94,7		81,4	
13C12-PentaCB(#114)	89,4		77,1	
13C12-PentaCB(#105)	93,8		76,1	
13C12-PentaCB(#126)	86,5		78,8	
13C12-HexaCB(#153)	93,0		82,5	
13C12-HexaCB(#138)	90,2		78,9	
13C12-HexaCB(#167)	83,1		78,0	
13C12-HexaCB(#156)	84,6		70,7	
13C12-HexaCB(#157)	81,3		68,4	
13C12-HexaCB(#169)	88,2		62,5	
13C12-HeptaCB(#180)	85,8		74,5	
13C12-HeptaCB(#189)	91,1		77,0	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 33: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	A24 7N3383.023		A25 7N3383.024	
Fat content [%]	3,0		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 4,07	< 0,12	< 3,16	< 0,12
PCB 81	< 0,81	< 0,02	< 0,63	< 0,02
PCB 126	1,50	0,05	1,74	0,07
PCB 169	< 1,02	< 0,03	0,88	0,03
Mono-ortho PCB				
PCB 105	20,2	0,62	32,0	1,26
PCB 114	2,40	0,07	3,67	0,14
PCB 118	82,8	2,53	126	4,95
PCB 123	< 4,07	< 0,12	< 3,16	< 0,12
PCB 156	8,28	0,25	12,0	0,47
PCB 157	< 4,07	< 0,12	3,30	0,13
PCB 167	< 4,07	< 0,12	4,14	0,16
PCB 189	< 4,07	< 0,12	< 3,16	< 0,12
TEQ 12 WHO PCB excl. LOQ [a]	0,165	0,005	0,208	0,008
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,172	0,005	0,209	0,008
TEQ 12 WHO PCB incl. LOQ [c]	0,179	0,005	0,209	0,008
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	86,1		92,2	
13C12-TetraCB(#52)	75,0		85,2	
13C12-TetraCB(#81)	87,6		103	
13C12-TetraCB(#77)	83,1		99,0	
13C12-PentaCB(#101)	81,0		100	
13C12-PentaCB(#123)	89,1		102	
13C12-PentaCB(#118)	92,1		108	
13C12-PentaCB(#114)	90,1		97,8	
13C12-PentaCB(#105)	94,6		94,4	
13C12-PentaCB(#126)	80,7		64,2	
13C12-HexaCB(#153)	86,7		96,8	
13C12-HexaCB(#138)	85,9		78,8	
13C12-HexaCB(#167)	84,4		83,1	
13C12-HexaCB(#156)	81,9		74,0	
13C12-HexaCB(#157)	81,6		71,9	
13C12-HexaCB(#169)	78,2		72,3	
13C12-HeptaCB(#180)	79,3		78,2	
13C12-HeptaCB(#189)	88,4		93,9	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 34: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B1 7N3383.025		B2 7N3383.026	
Fat content [%]	3,7		3,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,40	< 0,13	< 3,42	< 0,12
PCB 81	< 0,68	< 0,03	< 0,68	< 0,02
PCB 126	2,51	0,09	0,58	0,02
PCB 169	< 0,85	< 0,03	< 0,86	< 0,03
Mono-ortho PCB				
PCB 105	32,8	1,21	24,1	0,87
PCB 114	3,59	0,13	2,70	0,10
PCB 118	134	4,95	114	4,12
PCB 123	< 3,40	< 0,13	< 3,42	< 0,12
PCB 156	12,7	0,47	11,7	0,42
PCB 157	3,46	0,13	< 3,42	< 0,12
PCB 167	4,54	0,17	5,05	0,18
PCB 189	< 3,40	< 0,13	< 3,42	< 0,12
TEQ 12 WHO PCB excl. LOQ [a]	0,277	0,010	0,079	0,003
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,282	0,010	0,085	0,003
TEQ 12 WHO PCB incl. LOQ [c]	0,287	0,011	0,090	0,003
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	102		101	
13C12-TetraCB(#52)	92,7		89,7	
13C12-TetraCB(#81)	115		105	
13C12-TetraCB(#77)	112		103	
13C12-PentaCB(#101)	107		103	
13C12-PentaCB(#123)	111		102	
13C12-PentaCB(#118)	113		104	
13C12-PentaCB(#114)	107		100	
13C12-PentaCB(#105)	97,6		93,8	
13C12-PentaCB(#126)	64,5		66,1	
13C12-HexaCB(#153)	102		94,2	
13C12-HexaCB(#138)	80,0		83,0	
13C12-HexaCB(#167)	93,9		91,2	
13C12-HexaCB(#156)	81,9		86,9	
13C12-HexaCB(#157)	78,2		82,6	
13C12-HexaCB(#169)	89,7		87,4	
13C12-HeptaCB(#180)	88,4		88,9	
13C12-HeptaCB(#189)	110		105	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 35: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B3 7N3383.027		B4 7N3383.028	
Fat content [%]	3,6		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,48	< 0,13	< 3,34	< 0,13
PCB 81	< 0,70	< 0,03	< 0,67	< 0,03
PCB 126	1,42	0,05	1,26	0,05
PCB 169	< 0,87	< 0,03	< 0,84	< 0,03
Mono-ortho PCB				
PCB 105	23,7	0,87	20,0	0,77
PCB 114	3,06	0,11	2,68	0,10
PCB 118	104	3,78	80,5	3,11
PCB 123	< 3,48	< 0,13	< 3,34	< 0,13
PCB 156	9,50	0,35	7,30	0,28
PCB 157	< 3,48	< 0,13	< 3,34	< 0,13
PCB 167	< 3,48	< 0,13	< 3,34	< 0,13
PCB 189	< 3,48	< 0,13	< 3,34	< 0,13
TEQ 12 WHO PCB excl. LOQ [a]	0,161	0,006	0,141	0,005
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,167	0,006	0,147	0,006
TEQ 12 WHO PCB incl. LOQ [c]	0,173	0,006	0,152	0,006
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	92,9		90,5	
13C12-TetraCB(#52)	84,8		82,7	
13C12-TetraCB(#81)	106		108	
13C12-TetraCB(#77)	102		106	
13C12-PentaCB(#101)	99,3		97,2	
13C12-PentaCB(#123)	101		103	
13C12-PentaCB(#118)	103		108	
13C12-PentaCB(#114)	96,1		102	
13C12-PentaCB(#105)	90,2		95,0	
13C12-PentaCB(#126)	68,7		68,6	
13C12-HexaCB(#153)	89,7		101	
13C12-HexaCB(#138)	76,1		80,2	
13C12-HexaCB(#167)	86,2		84,6	
13C12-HexaCB(#156)	80,4		78,8	
13C12-HexaCB(#157)	78,2		76,0	
13C12-HexaCB(#169)	86,2		79,9	
13C12-HeptaCB(#180)	86,7		81,8	
13C12-HeptaCB(#189)	104		98,6	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 36: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B5 7N3383.029		B6 7N3383.030	
Fat content [%]	3,5		3,8	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,53	< 0,12	< 3,27	< 0,13
PCB 81	< 0,71	< 0,02	< 0,65	< 0,03
PCB 126	1,44	0,05	0,84	0,03
PCB 169	< 0,88	< 0,03	< 0,82	< 0,03
Mono-ortho PCB				
PCB 105	19,9	0,70	14,3	0,55
PCB 114	2,40	0,08	1,92	0,07
PCB 118	85,4	3,01	85,6	3,27
PCB 123	< 3,53	< 0,12	< 3,27	< 0,13
PCB 156	7,94	0,28	7,11	0,27
PCB 157	< 3,53	< 0,12	< 3,27	< 0,13
PCB 167	< 3,53	< 0,12	< 3,27	< 0,13
PCB 189	< 3,53	< 0,12	< 3,27	< 0,13
TEQ 12 WHO PCB excl. LOQ [a]	0,160	0,006	0,098	0,004
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,166	0,006	0,104	0,004
TEQ 12 WHO PCB incl. LOQ [c]	0,171	0,006	0,109	0,004
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	103		91,1	
13C12-TetraCB(#52)	88,5		78,2	
13C12-TetraCB(#81)	95,2		99,3	
13C12-TetraCB(#77)	92,8		101	
13C12-PentaCB(#101)	94,3		85,5	
13C12-PentaCB(#123)	96,5		101	
13C12-PentaCB(#118)	98,8		104	
13C12-PentaCB(#114)	97,8		102	
13C12-PentaCB(#105)	98,7		101	
13C12-PentaCB(#126)	84,4		85,8	
13C12-HexaCB(#153)	96,4		101	
13C12-HexaCB(#138)	91,5		98,1	
13C12-HexaCB(#167)	87,8		102	
13C12-HexaCB(#156)	91,9		95,2	
13C12-HexaCB(#157)	89,9		93,5	
13C12-HexaCB(#169)	102		85,0	
13C12-HeptaCB(#180)	92,0		99,6	
13C12-HeptaCB(#189)	119		95,5	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 37: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B7 7N3383.031		B8 7N3383.032	
Fat content [%]	4,0		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,16	< 0,13	< 3,24	< 0,13
PCB 81	< 0,63	< 0,03	1,06	0,04
PCB 126	< 0,81	< 0,03	8,09	0,32
PCB 169	< 0,86	< 0,04	1,45	0,06
Mono-ortho PCB				
PCB 105	< 12,7	< 0,51	94,3	3,70
PCB 114	< 1,27	< 0,05	9,93	0,39
PCB 118	89,6	3,63	366	14,4
PCB 123	< 3,16	< 0,13	4,40	0,17
PCB 156	< 13,4	< 0,54	33,6	1,32
PCB 157	< 3,16	< 0,13	9,43	0,37
PCB 167	< 3,32	< 0,13	11,9	0,47
PCB 189	< 3,16	< 0,13	4,77	0,19
TEQ 12 WHO PCB excl. LOQ [a]	0,009	0,0004	0,897	0,035
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,059	0,002	0,897	0,035
TEQ 12 WHO PCB incl. LOQ [c]	0,110	0,004	0,897	0,035
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	127		91,6	
13C12-TetraCB(#52)	95,6		81,1	
13C12-TetraCB(#81)	87,6		82,8	
13C12-TetraCB(#77)	98,2		81,3	
13C12-PentaCB(#101)	89,6		85,3	
13C12-PentaCB(#123)	91,7		82,4	
13C12-PentaCB(#118)	95,8		87,7	
13C12-PentaCB(#114)	102		86,7	
13C12-PentaCB(#105)	110		94,8	
13C12-PentaCB(#126)	86,0		87,3	
13C12-HexaCB(#153)	97,4		91,3	
13C12-HexaCB(#138)	103		95,4	
13C12-HexaCB(#167)	97,4		94,3	
13C12-HexaCB(#156)	80,2		103	
13C12-HexaCB(#157)	87,2		96,1	
13C12-HexaCB(#169)	85,2		102	
13C12-HeptaCB(#180)	88,6		96,8	
13C12-HeptaCB(#189)	86,6		114	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)



Tab. 38: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B9 7N3383.033		B13 7N3383.034	
Fat content [%]	4,0		3,9	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 3,93 <sup>d</sup>	< 0,16 <sup>d</sup>	< 4,17	< 0,16
PCB 81	< 0,79 <sup>d</sup>	< 0,03 <sup>d</sup>	< 0,83	< 0,03
PCB 126	3,16 <sup>d</sup>	0,13 <sup>d</sup>	2,06	0,08
PCB 169	< 0,98 <sup>d</sup>	< 0,04 <sup>d</sup>	< 1,04	< 0,04
Mono-ortho PCB				
PCB 105	25,4 <sup>d</sup>	1,00 <sup>d</sup>	28,1	1,10
PCB 114	3,60 <sup>d</sup>	0,14 <sup>d</sup>	2,51	0,1
PCB 118	109 <sup>d</sup>	4,32 <sup>d</sup>	118	4,61
PCB 123	< 3,93 <sup>d</sup>	< 0,16 <sup>d</sup>	< 4,17	< 0,16
PCB 156	12,5 <sup>d</sup>	0,50 <sup>d</sup>	13,5	0,53
PCB 157	< 3,93 <sup>d</sup>	< 0,16 <sup>d</sup>	< 4,17	< 0,16
PCB 167	4,68 <sup>d</sup>	0,19 <sup>d</sup>	5,61	0,22
PCB 189	< 3,93 <sup>d</sup>	< 0,16 <sup>d</sup>	< 4,17	< 0,16
TEQ 12 WHO PCB excl. LOQ [a]	0,338 <sup>d</sup>	0,013 <sup>d</sup>	0,229	0,009
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,344 <sup>d</sup>	0,014 <sup>d</sup>	0,236	0,009
TEQ 12 WHO PCB incl. LOQ [c]	0,351 <sup>d</sup>	0,014 <sup>d</sup>	0,243	0,009
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	105		69,9	
13C12-TetraCB(#52)	92,4		67,5	
13C12-TetraCB(#81)	91,9		87,8	
13C12-TetraCB(#77)	90,0		86,6	
13C12-PentaCB(#101)	92,9		83,1	
13C12-PentaCB(#123)	94,8		91,3	
13C12-PentaCB(#118)	94,1		95,0	
13C12-PentaCB(#114)	96,5		95,6	
13C12-PentaCB(#105)	95,8		90,4	
13C12-PentaCB(#126)	91,5		64,9	
13C12-HexaCB(#153)	92,2		93,9	
13C12-HexaCB(#138)	84,4		89,9	
13C12-HexaCB(#167)	97,9		83,2	
13C12-HexaCB(#156)	99,3		78,4	
13C12-HexaCB(#157)	98,5		74,8	
13C12-HexaCB(#169)	100		83,2	
13C12-HeptaCB(#180)	101		85,3	
13C12-HeptaCB(#189)	112		91,5	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[d] : Results verified by a duplicate analysis

Tab. 39: Results of the analysis of milk samples for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name GfA Sample No.	B14 7N3383.035		B15 7N3383.036	
Fat content [%]	3,9		3,6	
Unit	pg/g fat-weight	pg/g fresh-weight	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>				
Non-ortho PCB				
PCB 77	< 4,09	< 0,16	< 4,26	< 0,15
PCB 81	< 0,82	< 0,03	< 0,85	< 0,03
PCB 126	1,33	0,05	2,03	0,07
PCB 169	< 1,02	< 0,04	< 1,07	< 0,04
Mono-ortho PCB				
PCB 105	19,6	0,77	23,6	0,85
PCB 114	2,15	0,08	2,50	0,09
PCB 118	85,3	3,35	112	4,02
PCB 123	< 4,09	< 0,16	< 4,26	< 0,15
PCB 156	9,47	0,37	13,8	0,50
PCB 157	< 4,09	< 0,16	< 4,26	< 0,15
PCB 167	4,70	0,18	5,06	0,18
PCB 189	< 4,09	< 0,16	< 4,26	< 0,15
TEQ 12 WHO PCB excl. LOQ [a]	0,150	0,006	0,225	0,008
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,156	0,006	0,232	0,008
TEQ 12 WHO PCB incl. LOQ [c]	0,163	0,006	0,239	0,009
<b>Recovery Rates</b>	<b>%</b>		<b>%</b>	
13C12-TriCB(#28)	94,7		103	
13C12-TetraCB(#52)	87,3		89,5	
13C12-TetraCB(#81)	80,6		112	
13C12-TetraCB(#77)	79,2		109	
13C12-PentaCB(#101)	91,4		102	
13C12-PentaCB(#123)	88,5		103	
13C12-PentaCB(#118)	91,3		108	
13C12-PentaCB(#114)	87,4		103	
13C12-PentaCB(#105)	89,1		94,2	
13C12-PentaCB(#126)	63,0		77,8	
13C12-HexaCB(#153)	94,6		97,1	
13C12-HexaCB(#138)	92,1		90,6	
13C12-HexaCB(#167)	71,4		79,1	
13C12-HexaCB(#156)	78,3		76,4	
13C12-HexaCB(#157)	71,5		73,8	
13C12-HexaCB(#169)	87,0		81,8	
13C12-HeptaCB(#180)	76,0		83,0	
13C12-HeptaCB(#189)	99,2		110	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

Tab. 40: Results of the analysis of a milk sample for PCBs; the results refer to the fat-weight and to the fresh-weight

Original Sample Name	B17	
GfA Sample No.	7N3383.037	
Fat content [%]	3,4	
Unit	pg/g fat-weight	pg/g fresh-weight
<b>WHO-PCB</b>		
Non-ortho PCB		
PCB 77	< 4,07 <sup>d</sup>	< 0,14 <sup>d</sup>
PCB 81	< 0,81 <sup>d</sup>	< 0,03 <sup>d</sup>
PCB 126	1,01 <sup>d</sup>	0,03 <sup>d</sup>
PCB 169	< 1,02 <sup>d</sup>	< 0,03 <sup>d</sup>
Mono-ortho PCB		
PCB 105	29,8 <sup>d</sup>	0,99 <sup>d</sup>
PCB 114	3,70 <sup>d</sup>	0,12 <sup>d</sup>
PCB 118	136 <sup>d</sup>	4,55 <sup>d</sup>
PCB 123	< 4,07 <sup>d</sup>	< 0,14 <sup>d</sup>
PCB 156	15,7 <sup>d</sup>	0,52 <sup>d</sup>
PCB 157	< 4,07 <sup>d</sup>	< 0,14 <sup>d</sup>
PCB 167	6,62 <sup>d</sup>	0,22 <sup>d</sup>
PCB 189	< 4,07 <sup>d</sup>	< 0,14 <sup>d</sup>
TEQ 12 WHO PCB excl. LOQ [a]	0,127 <sup>d</sup>	0,004 <sup>d</sup>
TEQ 12 WHO PCB incl. 1/2 LOQ [b]	0,134 <sup>d</sup>	0,004 <sup>d</sup>
TEQ 12 WHO PCB incl. LOQ [c]	0,141 <sup>d</sup>	0,005 <sup>d</sup>
<b>Recovery Rates</b>	<b>%</b>	
13C12-TriCB(#28)	103	
13C12-TetraCB(#52)	93,1	
13C12-TetraCB(#81)	92,3	
13C12-TetraCB(#77)	87,2	
13C12-PentaCB(#101)	100	
13C12-PentaCB(#123)	90,3	
13C12-PentaCB(#118)	95,3	
13C12-PentaCB(#114)	91,3	
13C12-PentaCB(#105)	91,5	
13C12-PentaCB(#126)	85,5	
13C12-HexaCB(#153)	93,7	
13C12-HexaCB(#138)	87,7	
13C12-HexaCB(#167)	90,4	
13C12-HexaCB(#156)	91,3	
13C12-HexaCB(#157)	87,3	
13C12-HexaCB(#169)	88,0	
13C12-HeptaCB(#180)	93,9	
13C12-HeptaCB(#189)	93,6	

&lt; : Concentration below the indicated limit of quantification (LOQ)

[a] : TE-value calculated by including the detected PCDF/D congeners only

[b] : TE-value calculated by including the not detected PCDF/D congeners also by taking half of their detection limit (LOD)

[c] : TE-value calculated by including the not detected PCDF/D congeners also by taking the full value of their detection limit (LOD)

[d] : Results verified by a duplicate analysis

October 30, 2007

Dr. R. Grümping

**Remark:** The test results relate only to the items tested. Extracts of the report shall not be reproduced without written approval of the GfA mbH.



Environmental Protection Agency (EPA)  
Mr. Colman Concannon  
McCumiskey House  
Richview  
Clonskeagh Road  
Dublin 14  
  
Ireland

October 30, 2007

Our ref.: 

61243-005
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 P01-139-Kr  
Please include in all correspondences

Your ref.: ./.  
Project manager: Dr. R. Grümping  
Direct dial: -154

**Analysis of 37 cow's milk samples for PCDD/Fs and PCBs;  
Your order PO 013517 dated July 19, 2007**

Dear Mr. Concannon,

Enclosed please find our test report concerning the investigations mentioned above

If you have any questions please don't hesitate to contact us.

Best regards

Dr. R. Grümping