



## FINAL LAB REPORT

Prepared by

**SGS NORTH AMERICA**

Prepared for

*This report is approved by*

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**PROJECT INFORMATION SUMMARY** *(When applicable, see QC Annotations for details)*

Client Project
SGS Project #
Analytical Protocol(s)
No. Samples Submitted
Additional QC Sample(s)
No. Laboratory Method Blanks
No. OPRs / Batch CS3
Date Received
Condition Received
Temperature upon Receipt (°C)
Extraction within Holding Time
Analysis within Holding Time



**QC ANNOTATIONS:**

1. Please see Appendices attached for data qualifier/attribute and lab identifier descriptions which may be contained in the project.

## APPENDIX A: GENERAL DATA QUALIFIERS / DATA ATTRIBUTES

<b>B</b>	The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
<b>C</b>	Two or more congeners co-elute. In EDDs, C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter.
<b>E</b>	The reported concentration exceeds the calibration range (upper point of the calibration curve) and is an estimated value.
<b>EMPC</b>	Represents an Estimated Maximum Possible Concentration. EMPCs arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
<b>H/h</b>	If the standard recovery is below the method or SOP specified value "H" is assigned. If the obtained value is less than half the specified value "h" is assigned.
<b>J</b>	Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve) and is an estimated value.
<b>ND</b>	Indicates a non-detect.
<b>NR or R</b>	Indicates a value that is not reportable.
<b>PR</b>	Due to interference, the associated congener is poorly resolved.
<b>QI</b>	Indicates the presence of a quantitative interference.
<b>SI</b>	Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.
<b>U</b>	The analyte was not detected. The estimated detection limit (EDL) may be reported for this analyte.
<b>V</b>	The labeled standard recovery was found to be outside of the method control limits.



## APPENDIX B: DRBC/TMDL SPECIFIC DATA QUALIFIERS / DATA ATTRIBUTES

<b>J</b>	The reported result is an estimate. The value is less than the minimum calibration level but greater than the estimated detection limit (EDL).
<b>U</b>	The analyte was not detected in the sample at the estimated detection limit (EDL).
<b>E</b>	The reported concentration is an estimate. The value exceeds the upper calibration range (upper point of the calibration curve).
<b>D</b>	Dilution Data. Result was obtained from the analysis of a dilution.
<b>B</b>	Analyte found in the sample and associated method blank.
<b>C</b>	Co-eluting congener
<b>Cxx</b>	Co-elutes with the indicated congener, data is reported under the lowest IUPAC congener. 'Xx' denotes the IUPAC number with the lowest numerical designated congener.
<b>NR</b>	Analyte is not reportable because of problems in sample preparation or analysis.
<b>V</b>	Labeled standard recovery is not within method control limits.
<b>X</b>	Results from re-injection/repeat/second-column analysis.
<b>EMPC</b>	Estimated maximum possible concentration. Indicates that a peak is identified but did not meet the method specified ion-abundance ratio.

## APPENDIX C: LAB IDENTIFIERS

<b>AR</b>	Indicates use of the archived portion of the sample extract.
<b>CU</b>	Indicates a sample that required additional clean-up prior to MS injection/processing.
<b>D</b>	Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
<b>DE</b>	Indicates a dilution performed with the addition of ES (extraction standard) solution.
<b>DUP</b>	Designation for a duplicate sample.
<b>MS</b>	Designation for a matrix spike.
<b>MSD</b>	Designation for a matrix spike duplicate.
<b>RJ</b>	Indicates a reinjection of the sample extract.
<b>S</b>	Indicates a sample split. The number that follows the "S" indicates the split factor.




## SGS CERTIFICATIONS

Arkansas	88-0682
California (ELAP)	Interim ELAP Cert #2914
CLIA	34D1013708
Connecticut	PH-0258
USDA Soil Permit	P330-14-00135
DoD	2726.01
Florida (Primary NELAP)	E87634
ISO 17025/IEC	2726.01
Louisiana	4115
Maine	#2014020
Massachusetts	M-NC919
Minnesota (Primary NELAP For Method 23)	Lab #037-999-459 Cert #688823
New Jersey	NC100
New York	11685
North Carolina DWR	481
North Dakota	R-197
Oregon	NC200002
Pennsylvania	68-03675
South Carolina	Lab #99029 Cert #99029002
Texas	T104704260-13-5
US Coast Guard	16714/159.317/SGS
Virginia	Lab #460214 Cert #3006
Washington	C913
West Virginia	293

Rev. 04-Sep-2014

# A7343 - TEQ


Project ID: 1109141

Sample Summary Part 1 (dry weight)			Method 8290A
Analyte	Method Blank A7343_12796	110914-1	
	pg/g	pg/g	
2,3,7,8-TCDD	(0.123)	0.445	
1,2,3,7,8-PeCDD	(0.35)	1.17	
1,2,3,4,7,8-HxCDD	(0.154)	2.72	
1,2,3,6,7,8-HxCDD	(0.14)	5.95	
1,2,3,7,8,9-HxCDD	(0.197)	13.6	
1,2,3,4,6,7,8-HpCDD	(0.276)	196	
OCDD	(0.532)	1470	
2,3,7,8-TCDF	(0.123)	0.753	
1,2,3,7,8-PeCDF	(0.12)	[0.193]	
2,3,4,7,8-PeCDF	(0.149)	0.308	
1,2,3,4,7,8-HxCDF	(0.093)	[0.298]	
1,2,3,6,7,8-HxCDF	(0.0906)	0.347	
2,3,4,6,7,8-HxCDF	(0.114)	[0.483]	
1,2,3,7,8,9-HxCDF	(0.186)	(0.188)	
1,2,3,4,6,7,8-HpCDF	(0.0948)	4.57	
1,2,3,4,7,8,9-HpCDF	(0.206)	0.255	
OCDF	(0.541)	5.34	
<b>ITEF TEQ (ND=0; EMPC=0)</b>	<b>0</b>	<b>7.01</b>	
<b>ITEF TEQ (ND=0; EMPC=EMPC)</b>	<b>0</b>	<b>7.1</b>	
<b>ITEF TEQ (ND=DL/2; EMPC=0)</b>	<b>0.248</b>	<b>7.04</b>	
<b>ITEF TEQ (ND=DL/2; EMPC=EMPC)</b>	<b>0.248</b>	<b>7.11</b>	
<b>ITEF TEQ (ND=DL; EMPC=EMPC)</b>	<b>0.496</b>	<b>7.12</b>	
Checkcode	129-449-BDX	358-677-WXK	
Lab ID	MB1_12796_DF_TLX	A7343_12796_DF_001	

( ) = DL  
[ ] = EMPC

# A7343 - WHO-2005-TEQ

Project ID: 1109141


Sample Summary Part 1 (dry weight)			Method 8290A
Analyte	Method Blank A7343_12796	110914-1	
	pg/g	pg/g	
2,3,7,8-TCDD	(0.123)	0.445	
1,2,3,7,8-PeCDD	(0.35)	1.17	
1,2,3,4,7,8-HxCDD	(0.154)	2.72	
1,2,3,6,7,8-HxCDD	(0.14)	5.95	
1,2,3,7,8,9-HxCDD	(0.197)	13.6	
1,2,3,4,6,7,8-HpCDD	(0.276)	196	
OCDD	(0.532)	1470	
2,3,7,8-TCDF	(0.123)	0.753	
1,2,3,7,8-PeCDF	(0.12)	[0.193]	
2,3,4,7,8-PeCDF	(0.149)	0.308	
1,2,3,4,7,8-HxCDF	(0.093)	[0.298]	
1,2,3,6,7,8-HxCDF	(0.0906)	0.347	
2,3,4,6,7,8-HxCDF	(0.114)	[0.483]	
1,2,3,7,8,9-HxCDF	(0.186)	(0.188)	
1,2,3,4,6,7,8-HpCDF	(0.0948)	4.57	
1,2,3,4,7,8,9-HpCDF	(0.206)	0.255	
OCDF	(0.541)	5.34	
<b>WHO-2005 TEQ (ND=0; EMPC=0)</b>	<b>0</b>	<b>6.5</b>	
<b>WHO-2005 TEQ (ND=0; EMPC=EMPC)</b>	<b>0</b>	<b>6.58</b>	
<b>WHO-2005 TEQ (ND=DL/2; EMPC=0)</b>	<b>0.319</b>	<b>6.52</b>	
<b>WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)</b>	<b>0.319</b>	<b>6.59</b>	
<b>WHO-2005 TEQ (ND=DL; EMPC=EMPC)</b>	<b>0.638</b>	<b>6.6</b>	
Checkcode	129-449-BDX	358-677-WXK	
Lab ID	MB1_12796_DF_TLX	A7343_12796_DF_001	

( ) = DL  
[ ] = EMPC



# A7343 - Totals

Project ID: 1109141

Sample Summary Part 2 (dry weight)			Method 8290A
Analyte	Method Blank A7343_12796  pg/g	110914-1  pg/g	
<b>Totals</b>			
TCDDs	0		107
PeCDDs	0		89.1
HxCDDs	0		436
HpCDDs	0		675
OCDD	0		1470
TCDFs	0		92.7
PeCDFs	0		6.96
HxCDFs	0		6.95
HpCDFs	0		10.7
OCDF	0		5.34
<b>Total PCDD/Fs (ND=0; EMPC=0)</b>	<b>0</b>		<b>2910</b>
<b>Total PCDD/Fs (ND=0; EMPC=EMPC)</b>	<b>0</b>		<b>2910</b>
<b>Total PCDD/Fs (2378-X ND=DL; EMPC=EMPC)</b>	<b>3.49</b>		<b>2910</b>
<b>Total 2378s (ND=0; EMPC=0)</b>	<b>0</b>		<b>1710</b>
<b>Total 2378s (ND=0.5; EMPC=0)</b>	<b>1.74</b>		<b>1710</b>
<b>Total 2378s (ND=1; EMPC=0)</b>	<b>3.49</b>		<b>1710</b>
<b>Total 2378s (ND=0; EMPC=1)</b>	<b>0</b>		<b>1710</b>
<b>Total 2378s (ND=0.5; EMPC=1)</b>	<b>1.74</b>		<b>1710</b>
<b>Total 2378s (ND=1; EMPC=1)</b>	<b>3.49</b>		<b>1710</b>
Checkcode	129-449-BDX		358-677-WXK
Lab ID	MB1_12796_DF_TLX		A7343_12796_DF_001


Total 2378s = Sum of 17 2378-substituted PCDD/PCDF congeners (SARA 313)

( ) = DL

[ ] = EMPC

# A7343 - Others

Project ID: 1109141

<b>Sample Summary</b> <b>Part 3 (dry weight)</b>			<b>Method 8290A</b>
<b>Analyte</b>	<b>Method Blank A7343_12796</b>  pg/g	<b>110914-1</b>  pg/g	
<b>Other PCDD/Fs (ND=0, EMPC=0)</b>  Other TCDD Other PeCDD Other HxCDD Other HpCDD  Other TCDF Other PeCDF Other HxCDF Other HpCDF	0 0 0 0  0 0 0 0	107 87.9 414 479  92 6.65 6.61 5.86	
<b>Other PCDD/Fs (ND=0, EMPC=EMPC)</b>  Other TCDD Other PeCDD Other HxCDD Other HpCDD  Other TCDF Other PeCDF Other HxCDF Other HpCDF	0 0 0 0  0 0 0 0	107 88.8 414 479  93 8.06 6.61 5.86	
Checkcode Lab ID	<a href="#">129-449-BDX</a> MB1_12796_DF_TLX	<a href="#">358-677-WXK</a> A7343_12796_DF_001	

( ) = DL  
 [ ] = EMPC

**A7343 - DLs**  
**Project ID: 1109141**

**Sample Summary**  
**Part 5 (DLs) (dry weight)**

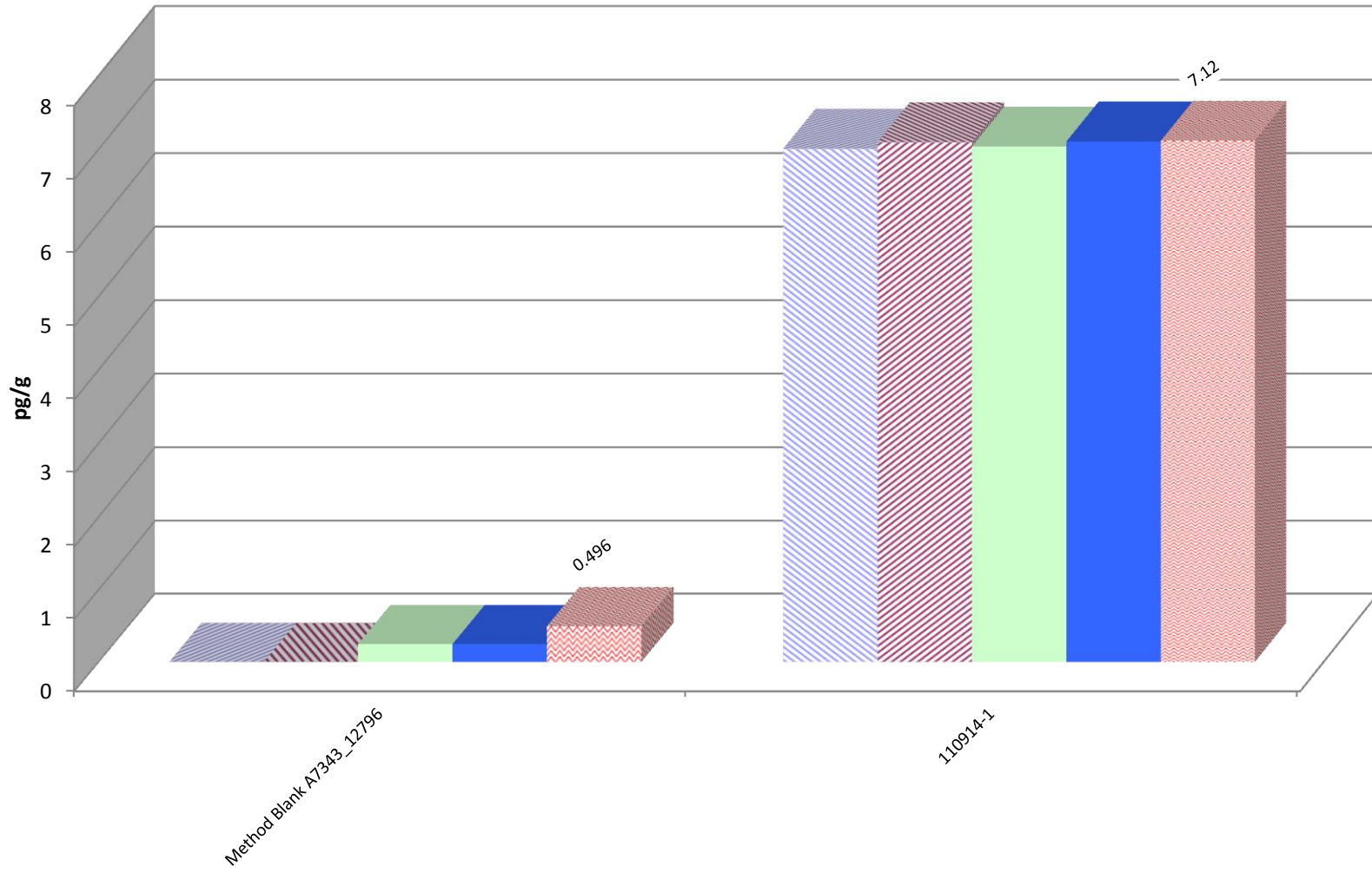


**Method 8290A**

Analyte	Method Blank A7343_12796	110914-1
	pg/g	pg/g
2,3,7,8-TCDD	0.123	0.188
1,2,3,7,8-PeCDD	0.35	0.466
1,2,3,4,7,8-HxCDD	0.154	0.625
1,2,3,6,7,8-HxCDD	0.14	0.594
1,2,3,7,8,9-HxCDD	0.197	0.776
1,2,3,4,6,7,8-HpCDD	0.276	0.312
OCDD	0.532	1.78
2,3,7,8-TCDF	0.123	0.156
1,2,3,7,8-PeCDF	0.12	0.148
2,3,4,7,8-PeCDF	0.149	0.152
1,2,3,4,7,8-HxCDF	0.093	0.119
1,2,3,6,7,8-HxCDF	0.0906	0.105
2,3,4,6,7,8-HxCDF	0.114	0.127
1,2,3,7,8,9-HxCDF	0.186	0.188
1,2,3,4,6,7,8-HpCDF	0.0948	0.105
1,2,3,4,7,8,9-HpCDF	0.206	0.225
OCDF	0.541	0.473
Total TCDD	0.123	0.188
Total PeCDD	0.35	0.466
Total HxCDD	0.162	0.66
Total HpCDD	0.276	0.312
Total TCDF	0.123	0.156
Total PeCDF	0.133	0.15
Total HxCDF	0.116	0.13
Total HpCDF	0.137	0.154
Checkcode	129-449-BDX	358-677-WXK
Lab ID	MB1_12796_DF_TLX	A7343_12796_DF_001

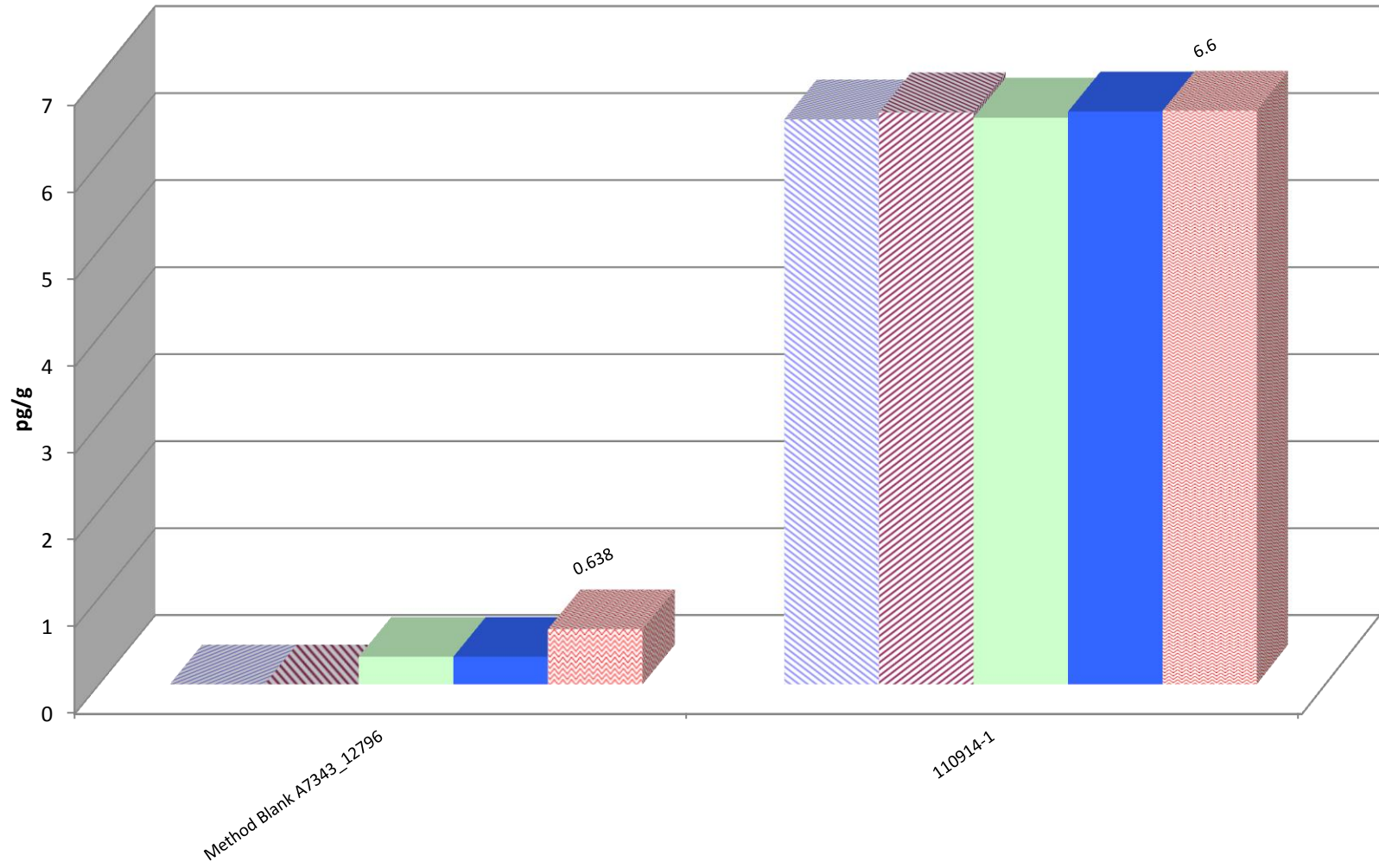
**ITEF-TEQ**  
**Project ID: 1109141**  
**A7343**

- ND=0; EMPC=0
- ND=0; EMPC=EMPC
- ND=DL/2; EMPC=0
- ND=DL/2; EMPC=EMPC
- ND=DL; EMPC=EMPC



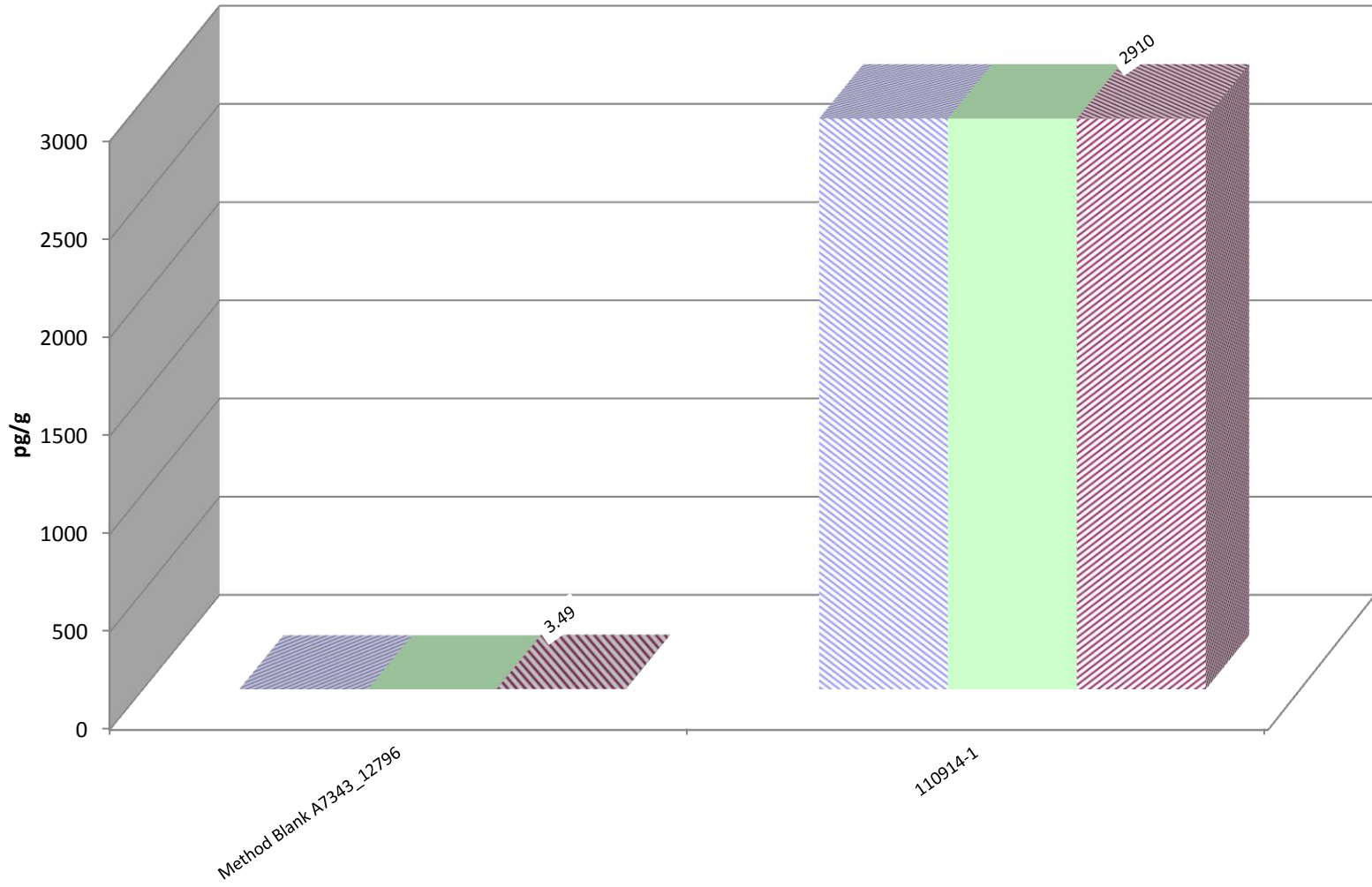
**WHO-2005-TEQ**  
**Project ID: 1109141**  
**A7343**

- ND=0; EMPC=0
- ND=0; EMPC=EMPC
- ND=DL/2; EMPC=0
- ND=DL/2; EMPC=EMPC
- ND=DL; EMPC=EMPC



**Totals**  
**Project ID: 1109141**  
**A7343**

- ▨ Total PCDD/Fs (ND=0; EMPC=0)
- Total PCDD/Fs (ND=0; EMPC=EMPC)
- ▨ Total PCDD/Fs (2378-X ND=DL; EMPC=EMPC)

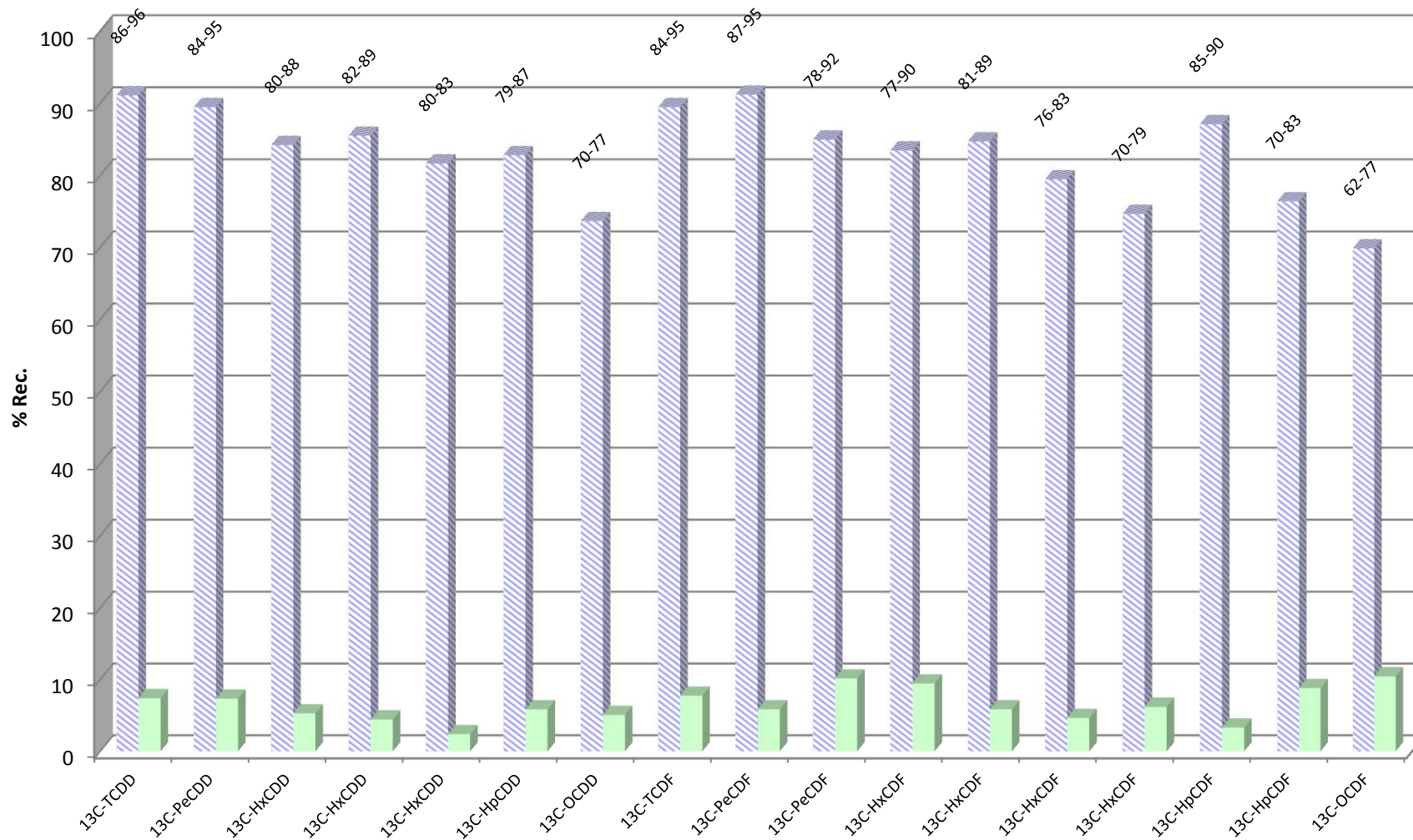


# Mean Recoveries of Extraction Standards (N=2)

Project ID: 1109141

A7343

Mean Std. Dev.

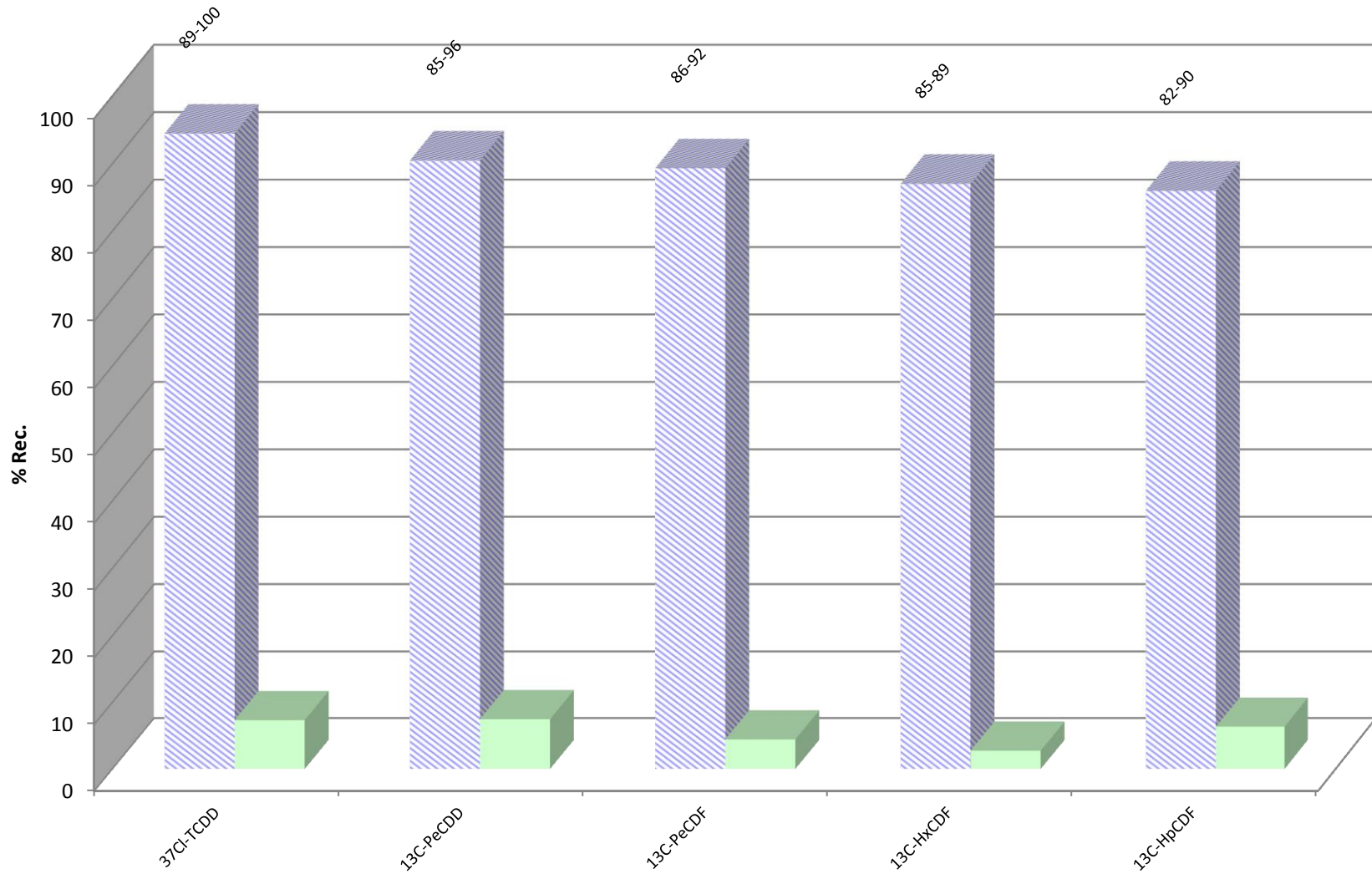


# Mean Recoveries of Clean-Up Standards (N=2)

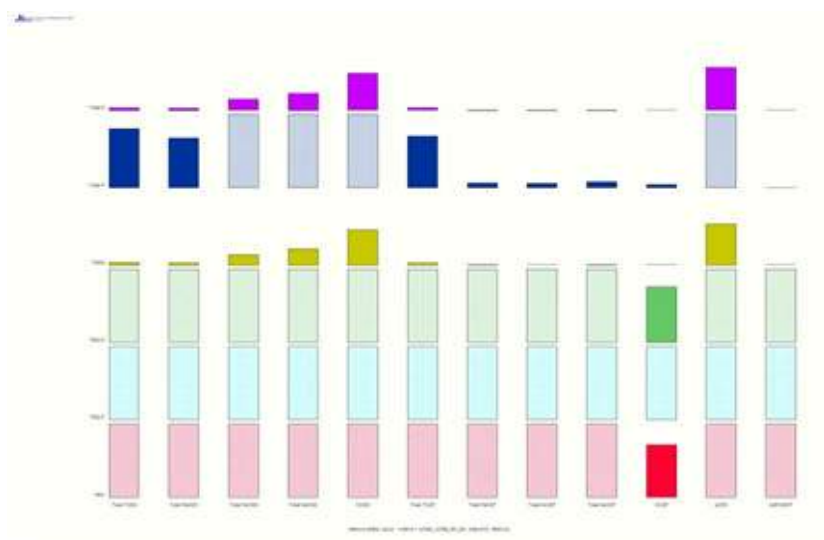
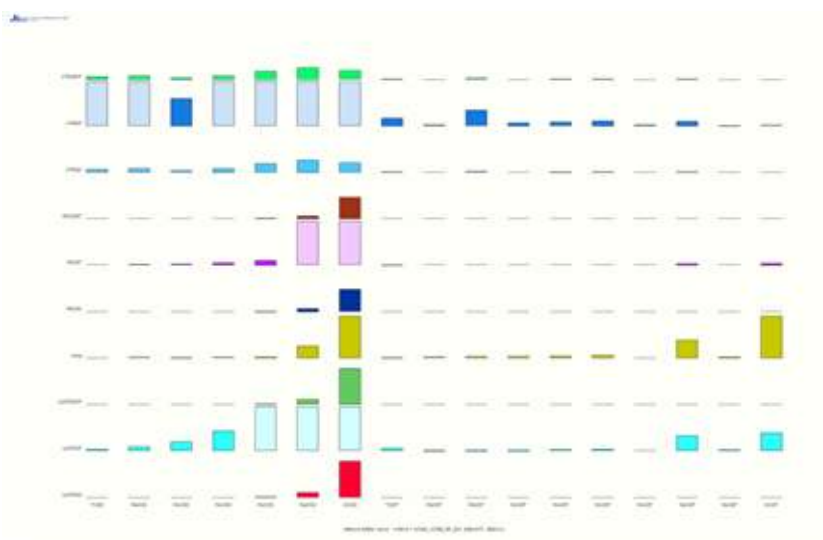
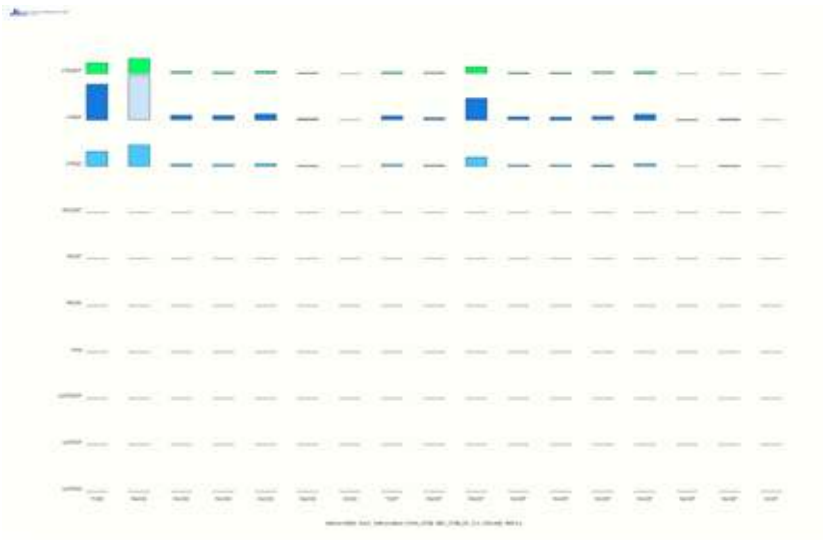
Project ID: 1109141

A7343

Mean Std. Dev.







# Sample ID: Method Blank A7343\_12796

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	Friends of Perdido Bay	Matrix:	Solid	Lab Project ID:	A7343	Date Received:	n/a
Project ID:	1109141	Weight/Volume:	10.00 g	Lab Sample ID:	MB1_12796_DF_TLX	Date Extracted:	19-Nov-2014
Date Collected:	n/a	% Solid:	n/a	QC Batch No:	12796	Date Analyzed:	28-Nov-2014
		Split:	-	Dilution:	-	Time Analyzed:	21:52:27
Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	0.123			ES 2378-TCDD	85.9	
12378-PeCDD	ND	0.35			ES 12378-PeCDD	84.3	
123478-HxCDD	ND	0.154			ES 123478-HxCDD	80.5	
123678-HxCDD	ND	0.14			ES 123678-HxCDD	82.4	
123789-HxCDD	ND	0.197			ES 123789-HxCDD	80	
1234678-HpCDD	ND	0.276			ES 1234678-HpCDD	78.7	
OCDD	ND	0.532			ES OCDD	70.1	
2378-TCDF	ND	0.123			ES 2378-TCDF	84	
12378-PeCDF	ND	0.12			ES 12378-PeCDF	87.1	
23478-PeCDF	ND	0.149			ES 23478-PeCDF	77.8	
123478-HxCDF	ND	0.093			ES 123478-HxCDF	76.8	
123678-HxCDF	ND	0.0906			ES 123678-HxCDF	80.6	
234678-HxCDF	ND	0.114			ES 234678-HxCDF	76.2	
123789-HxCDF	ND	0.186			ES 123789-HxCDF	70.3	
1234678-HpCDF	ND	0.0948			ES 1234678-HpCDF	84.8	
1234789-HpCDF	ND	0.206			ES 1234789-HpCDF	70.2	
OCDF	ND	0.541			ES OCDF	62.5	
Totals					Standard	CS/AS Recoveries	
Total TCDD	ND	0.123	ND		CS 37Cl-2378-TCDD	89.3	
Total PeCDD	ND	0.35	ND		CS 12347-PeCDD	85.2	
Total HxCDD	ND	0.162	ND		CS 12346-PeCDF	86.2	
Total HpCDD	ND	0.276	ND		CS 123469-HxCDF	85.1	
Total TCDF	ND	0.123	ND		CS 1234689-HpCDF	81.5	
Total PeCDF	ND	0.133	ND		AS 1368-TCDD	91.2	
Total HxCDF	ND	0.116	ND		AS 1368-TCDF	91.6	
Total HpCDF	ND	0.137	ND				
<b>Total PCDD/Fs</b>	<b>ND</b>		<b>ND</b>				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	0.248	0.248	0.248				
TEQ: ND=DL	0.496	0.496	0.496				



5500 Business Drive  
Wilmington, NC 28405, USA  
www.us.sgs.com

Tel: +1 910 794-1613; Toll-Free 866 846-8290

# Sample ID: Method Blank A7343\_12796

# Method 8290A

<b>Client Data</b>		<b>Sample Data</b>		<b>Laboratory Data</b>			
Name:	Friends of Perdido Bay	Matrix:	Solid	Lab Project ID:	A7343	Date Received:	n/a
Project ID:	1109141	Weight/Volume:	10.00 g	Lab Sample ID:	MB1_12796_DF_TLX	Date Extracted:	19-Nov-2014
Date Collected:	n/a	% Solid:	n/a	QC Batch No.:	12796	Date Analyzed:	28-Nov-2014
		Split:	-	Dilution:	-	Time Analyzed:	21:52:27

Tetra-Dioxins	Conc. (pg/g)	Qualifiers	Penta-Dioxins	Conc. (pg/g)	Qualifiers	Hexa-Dioxins	Conc (pg/g)	Qualifiers	Hepta-Dioxins	Conc (pg/g)	Qualifiers
1368D	(0.123)		12479/12468D	(0.35)		124679/124689D	(0.162)		1234679D	(0.276)	
1379D	(0.123)		12469D	(0.35)		123468D	(0.162)		1234678D	(0.276)	
1369D	(0.123)		12368D	(0.35)		123679/123689D	(0.162)				
1469D	(0.123)		12478D	(0.35)		123469D	(0.162)				
1247D...[4]	(0.123)		12379D	(0.35)		123478D	(0.154)				
1378D	(0.123)		12369D...[3]	(0.35)		123678D	(0.14)				
1268D	(0.123)		12346/12347D	(0.35)		123467D	(0.162)				
1478D	(0.123)		12378D	(0.35)		123789D	(0.197)		<b>Conc.</b>	0	
1279D	(0.123)		12367D	(0.35)					<b>EMPC</b>	0	
1234/1269D	(0.123)		12389D	(0.35)							
1236D	(0.123)								<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	(0.123)									<b>(pg/g)</b>	
1239D	(0.123)								OCDD	(0.532)	
2378D	(0.123)										
1278D	(0.123)										
1267D	(0.123)										
1289D	(0.123)										
<b>Conc.</b>	0		<b>Conc.</b>	0		<b>Conc.</b>	0				
<b>EMPC</b>	0		<b>EMPC</b>	0		<b>EMPC</b>	0				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	0	0
TEQ: ND=DL/2	0.248	0.248
TEQ: ND=DL	0.496	0.496

Total PCDD/Fs	Conc.	EMPC
	0	0

Checkcode: 129-449-BDX

Report Created: 02-Dec-2014 09:51 Analyst: AC

# Sample ID: Method Blank A7343\_12796

# Method 8290A

Client Data			Sample Data			Laboratory Data			Date Received: n/a		
Name: Friends of Perdido Bay			Matrix:			Lab Project ID: A7343			Date Received: n/a		
Project ID: 1109141			Weight/Volume: 10.00 g			Lab Sample ID: MB1_12796_DF_TLX			Date Extracted: 19-Nov-2014		
Date Collected: n/a			% Solid: n/a			QC Batch No.: 12796			Date Analyzed: 28-Nov-2014		
			Split: -			Dilution: -			Time Analyzed: 21:52:27		
Tetra-Furans	Conc. (pg/g)	Qualifiers	Penta-Furans	Conc. (pg/g)	Qualifiers	Hexa-Furans	Conc (pg/g)	Qualifiers	Hepta-Furans	Conc (pg/g)	Qualifiers
1368F	(0.123)		13468/12468F	(0.121)		123468F	(0.116)		1234678F	(0.0948)	
1468F	(0.123)		13678F...[3]	(0.133)		124678/134678F	(0.116)		1234679F	(0.137)	
2468F	(0.123)		12368F...[3]	(0.133)		134679F	(0.116)		1234689F	(0.137)	
1346/1246F	(0.123)		14678F	(0.133)		124679F	(0.116)		1234789F	(0.206)	
1347F...[3]	(0.123)		13479F	(0.133)		124689F	(0.116)				
1348F	(0.123)		13469/12479F	(0.133)		123467F	(0.116)				
1248F...[3]	(0.123)		12346F	(0.133)		123478F	(0.093)				
1268F	(0.123)		23468/12469F	(0.133)		123678F	(0.0906)				
1467F	(0.123)		12347F	(0.133)		123479F	(0.116)				
1478F	(0.123)		12348F	(0.133)		123469F	(0.116)				
1369/1237F	(0.123)		12378F	(0.12)		123679F	(0.116)				
2467F	(0.123)		12678/12367F	(0.133)		234678F	(0.114)		Conc.	0	
2368F	(0.123)		12379F	(0.133)		234678/123689F	0		EMPC	0	
1238F...[5]	(0.123)		12679F	(0.133)		123689F	(0.116)				
1278F	(0.123)		23467/12369F	(0.133)		123789F	(0.186)		Octa-Furan	Conc	Qualifiers
1349F	(0.123)		23478F	(0.149)		123789/123489F	0			(pg/g)	
1267F	(0.123)		23478/12489F	0		123489F	(0.116)		OCDF	(0.541)	
2346/1249F	(0.123)		12489F	(0.133)							
2347/1279F	(0.123)		12349F	(0.133)							
2348F	(0.123)		12389F	(0.133)							
2378F	(0.123)										
2367/3467F	(0.123)										
1269F	(0.123)										
1239F	(0.123)										
1289F	(0.123)										
Conc.	0		Conc.	0		Conc.	0				
EMPC	0		EMPC	0		EMPC	0				


Checkcode: 129-449-BDX

Report Created: 02-Dec-2014 09:51 Analyst: AC

**Sample ID: Method Blank A7343\_12796      TEQ Summary      Method 8290A**


Client Project Name:	Friends of Perdido Bay	Matrix:	Solid	Lab Sample ID:	MB1_12796_DF_TLX
Client Project ID:	1109141	Weight/Volume:	10.00 g	QC Batch No.:	12796
Date Collected:	n/a	Split:	-	Date Extracted:	19-Nov-2014
Date Received:	n/a	Dilution:	-	Date Analyzed:	28-Nov-2014 21:52
Lab Project No:	A7343	Units	pg/g		

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	(0.123)		0.123	(0.123)	(0.123)	(0.123)
12378-PeCDD	(0.35)		0.35	(0.175)	(0.35)	(0.35)
123478-HxCDD	(0.154)		0.154	(0.0154)	(0.0154)	(0.0154)
123678-HxCDD	(0.14)		0.14	(0.014)	(0.014)	(0.014)
123789-HxCDD	(0.197)		0.197	(0.0197)	(0.0197)	(0.0197)
1234678-HpCDD	(0.276)		0.276	(0.00276)	(0.00276)	(0.00276)
OCDD	(0.532)		0.532	(0.000532)	(0.000532)	(0.00016)
2378-TCDF	(0.123)		0.123	(0.0123)	(0.0123)	(0.0123)
12378-PeCDF	(0.12)		0.12	(0.006)	(0.006)	(0.0036)
23478-PeCDF	(0.149)		0.149	(0.0745)	(0.0745)	(0.0447)
123478-HxCDF	(0.093)		0.093	(0.0093)	(0.0093)	(0.0093)
123678-HxCDF	(0.0906)		0.0906	(0.00906)	(0.00906)	(0.00906)
234678-HxCDF	(0.114)		0.114	(0.0114)	(0.0114)	(0.0114)
123789-HxCDF	(0.186)		0.186	(0.0186)	(0.0186)	(0.0186)
1234678-HpCDF	(0.0948)		0.0948	(0.000948)	(0.000948)	(0.000948)
1234789-HpCDF	(0.206)		0.206	(0.00206)	(0.00206)	(0.00206)
OCDF	(0.541)		0.541	(0.000541)	(0.000541)	(0.000162)

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	EMPC = 0, ND = 0	0	0	0
	EMPC = 0, ND = DL / 2	0.248	0.335	0.319
	EMPC = 0, ND = DL	0.495	0.669	0.637
	EMPC = 0, < J-level = 0	0	0	0
	EMPC = EMPC, ND = 0	0	0	0
	EMPC = EMPC, ND = DL / 2	0.248	0.335	0.319
	EMPC = EMPC, ND = DL	0.495	0.669	0.637
	EMPC = EMPC, < J-level = 0	0	0	0

# Sample ID: 110914-1

# Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	Friends of Perdido Bay	Matrix:	Solid	Lab Project ID:	A7343	Date Received:	11-Nov-2014
Project ID:	1109141	Weight/Volume:	7.15 g	Lab Sample ID:	A7343_12796_DF_001	Date Extracted:	19-Nov-2014
Date Collected:	09-Nov-2014	% Solid:	23.8 %	QC Batch No:	12796	Date Analyzed:	28-Nov-2014
		Split:	-	Dilution:	-	Time Analyzed:	23:39:06
Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	0.445			J	ES 2378-TCDD	96.4	
12378-PeCDD	1.17			J	ES 12378-PeCDD	94.7	
123478-HxCDD	2.72			J	ES 123478-HxCDD	88	
123678-HxCDD	5.95				ES 123678-HxCDD	88.7	
123789-HxCDD	13.6				ES 123789-HxCDD	83.4	
1234678-HpCDD	196				ES 1234678-HpCDD	87	
OCDD	1470				ES OCDD	77.3	
2378-TCDF	0.753				ES 2378-TCDF	95	
12378-PeCDF	EMPC		0.193	J	ES 12378-PeCDF	95.4	
23478-PeCDF	0.308			J	ES 23478-PeCDF	92.2	
123478-HxCDF	EMPC		0.298	J	ES 123478-HxCDF	90.2	
123678-HxCDF	0.347			J	ES 123678-HxCDF	88.9	
234678-HxCDF	EMPC		0.483	J	ES 234678-HxCDF	82.8	
123789-HxCDF	ND	0.188			ES 123789-HxCDF	79.1	
1234678-HpCDF	4.57				ES 1234678-HpCDF	89.5	
1234789-HpCDF	0.255			J	ES 1234789-HpCDF	82.7	
OCDF	5.34			J	ES OCDF	77.3	
Totals					Standard	CS/AS Recoveries	
Total TCDD	107		107		CS 37Cl-2378-TCDD	99.7	
Total PeCDD	89.1		90		CS 12347-PeCDD	95.8	
Total HxCDD	436		436		CS 12346-PeCDF	92.5	
Total HpCDD	675		675		CS 123469-HxCDF	89	
Total TCDF	92.7		93.7		CS 1234689-HpCDF	90.5	
Total PeCDF	6.96		8.56		AS 1368-TCDD	101	
Total HxCDF	6.95		7.73		AS 1368-TCDF	99.5	
Total HpCDF	10.7		10.7				
<b>Total PCDD/Fs</b>	<b>2910</b>		<b>2910</b>				
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TEQ: ND=0	7.01		7.1				
TEQ: ND=DL/2	7.04	0.391	7.11				
TEQ: ND=DL	7.06	0.782	7.12				

# Sample ID: 110914-1

# Method 8290A

<b>Client Data</b>			<b>Sample Data</b>			<b>Laboratory Data</b>						
Name:	Friends of Perdido Bay		Matrix:	Solid		Lab Project ID:	A7343		Date Received:	11-Nov-2014		
Project ID:	1109141		Weight/Volume:	7.15 g		Lab Sample ID:	A7343_12796_DF_001		Date Extracted:	19-Nov-2014		
Date Collected:	09-Nov-2014		% Solid:	23.8 %		QC Batch No.:	12796		Date Analyzed:	28-Nov-2014		
			Split:	-		Dilution:	-		Time Analyzed:	23:39:06		

Tetra-Dioxins	Conc. (pg/g)	Qualifiers	Penta-Dioxins	Conc. (pg/g)	Qualifiers	Hexa-Dioxins	Conc (pg/g)	Qualifiers	Hepta-Dioxins	Conc (pg/g)	Qualifiers
1368D	38		12479/12468D	16.8		124679/124689D	304		1234679D	479	
1379D	25.4		12469D	33		123468D	7.29		1234678D	196	
1369D	2.21		12368D	4.42		123679/123689D	85.6				
1469D	20.6		12478D	3.22	J	123469D	12.6				
1247D...[4]	3.78		12379D	6.66		123478D	2.72	J			
1378D	0.696	J	12369D...[3]	20		123678D	5.95				
1268D	0.594	J	12346/12347D	0.895	J	123467D	4.82				
1478D	0.314	J	12378D	1.17	J	123789D	13.6		<b>Conc.</b>	675	
1279D	1.29		12367D	[0.912]	J				<b>EMPC</b>	675	
1234/1269D	5.64		12389D	2.87	J						
1236D	0.218	J							<b>Octa-Dioxin</b>	<b>Conc</b>	<b>Qualifiers</b>
1237/1238D	4.65									<b>(pg/g)</b>	
1239D	0.754								OCDD	1470	
2378D	0.445	J									
1278D	[0.376]	J									
1267D	0.785										
1289D	1.67										
<b>Conc.</b>	107		<b>Conc.</b>	89.1		<b>Conc.</b>	436				
<b>EMPC</b>	107		<b>EMPC</b>	90		<b>EMPC</b>	436				



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ITEF TEQs	Conc.	EMPC
TEQ: ND=0	7.01	7.1
TEQ: ND=DL/2	7.04	7.11
TEQ: ND=DL	7.06	7.12
	<b>Conc.</b>	<b>EMPC</b>
<b>Total PCDD/Fs</b>	2,910	2,910

Checkcode: 358-677-WXK

Report Created: 02-Dec-2014 09:53 Analyst: AC

# Sample ID: 110914-1

# Method 8290A

Client Data			Sample Data			Laboratory Data			Date Received: 11-Nov-2014		
Name: Friends of Perdido Bay			Matrix:			Lab Project ID: A7343			Date Extracted: 19-Nov-2014		
Project ID: 1109141			Weight/Volume: 7.15 g			Lab Sample ID: A7343_12796_DF_001			Date Analyzed: 28-Nov-2014		
Date Collected: 09/Nov/2014			% Solid: 23.8 %			QC Batch No.: 12796			Time Analyzed: 23:39:06		
Split:			-			Dilution: -					
Tetra-Furans	Conc. (pg/g)	Qualifiers	Penta-Furans	Conc. (pg/g)	Qualifiers	Hexa-Furans	Conc (pg/g)	Qualifiers	Hepta-Furans	Conc (pg/g)	Qualifiers
1368F	2.95		13468/12468F	5.26		123468F	1.08	J	1234678F	4.57	
1468F	0.425	J	13678F...[3]	0.407	J	124678/134678F	3.21	J	1234679F	0.436	J
2468F	82.7		12368F...[3]	[0.722]	J	134679F	(0.13)		1234689F	5.42	
1346/1246F	0.673	J	14678F	[0.689]	J	124679F	0.309	J	1234789F	0.255	J
1347F...[3]	0.466	J	13479F	(0.15)		124689F	2.01	J			
1348F	(0.156)		13469/12479F	(0.15)		123467F	(0.13)				
1248F...[3]	0.949		12346F	(0.15)		123478F	[0.298]	J			
1268F	0.776		23468/12469F	0.723	J	123678F	0.347	J			
1467F	0.289	J	12347F	(0.15)		123479F	(0.13)				
1478F	[0.23]	J	12348F	(0.15)		123469F	(0.13)				
1369/1237F	[0.216]	J	12378F	[0.193]	J	123679F	(0.13)				
2467F	[0.185]	J	12678/12367F	0.264	J	234678F	[0.483]	J	<b>Conc.</b>	10.7	
2368F	0.594	J	12379F	(0.15)		234678/123689F	0		<b>EMPC</b>	10.7	
1238F...[5]	0.437	J	12679F	(0.15)		123689F	(0.13)				
1278F	0.911		23467/12369F	(0.15)		123789F	(0.188)		<b>Octa-Furan</b>	<b>Conc</b>	<b>Qualifiers</b>
1349F	(0.156)		23478F	0.308	J	123789/123489F	0			(pg/g)	
1267F	0.2	J	23478/12489F	0		123489F	(0.13)		<b>OCDF</b>	5.34	J
2346/1249F	(0.156)		12489F	(0.15)							
2347/1279F	(0.156)		12349F	(0.15)							
2348F	(0.156)		12389F	(0.15)							
2378F	0.753										
2367/3467F	0.639	J									
1269F	(0.156)										
1239F	(0.156)										
1289F	[0.358]	J									
<b>Conc.</b>	92.7		<b>Conc.</b>	6.96		<b>Conc.</b>	6.95				
<b>EMPC</b>	93.7		<b>EMPC</b>	8.56		<b>EMPC</b>	7.73				

Checkcode: 358-677-WXK


Report Created: 02-Dec-2014 09:53 Analyst: AC



**Sample ID: 110914-1** **TEQ Summary** **Method 8290A**

Client Project Name:	Friends of Perdido Bay	Matrix:	Solid	Lab Sample ID:	A7343_12796_DF_001
Client Project ID:	1109141	Weight/Volume:	7.15 g	QC Batch No.:	12796
Date Collected:	09-Nov-2014	Split:	-	Date Extracted:	19-Nov-2014
Date Received:	11-Nov-2014	Dilution:	-	Date Analyzed:	28-Nov-2014 23:39
Lab Project No:	A7343	Units	pg/g		

Analyte	Result	Qualifiers	DLs	I-TEQ	WHO-1998	WHO-2005
2378-TCDD	0.445	J	0.188	0.445	0.445	0.445
12378-PeCDD	1.17	J	0.466	0.587	1.17	1.17
123478-HxCDD	2.72	J	0.625	0.272	0.272	0.272
123678-HxCDD	5.95		0.594	0.595	0.595	0.595
123789-HxCDD	13.6		0.776	1.36	1.36	1.36
1234678-HpCDD	196		0.312	1.96	1.96	1.96
OCDD	1470		1.78	1.47	0.147	0.442
2378-TCDF	0.753		0.156	0.0753	0.0753	0.0753
12378-PeCDF	[0.193]	J	0.148	[0.00964]	[0.00964]	[0.00578]
23478-PeCDF	0.308	J	0.152	0.154	0.154	0.0924
123478-HxCDF	[0.298]	J	0.119	[0.0298]	[0.0298]	[0.0298]
123678-HxCDF	0.347	J	0.105	0.0347	0.0347	0.0347
234678-HxCDF	[0.483]	J	0.127	[0.0483]	[0.0483]	[0.0483]
123789-HxCDF	(0.188)		0.188	(0.0188)	(0.0188)	(0.0188)
1234678-HpCDF	4.57		0.105	0.0457	0.0457	0.0457
1234789-HpCDF	0.255	J	0.225	0.00255	0.00255	0.00255
OCDF	5.34	J	0.473	0.00534	0.000534	0.0016

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	EMPC = 0, ND = 0	7.01	6.27	6.5
	EMPC = 0, ND = DL / 2	7.04	6.29	6.52
	EMPC = 0, ND = DL	7.06	6.32	6.55
	EMPC = 0, < J-level = 0	5.51	4.18	4.48
	EMPC = EMPC, ND = 0	7.1	6.35	6.58
	EMPC = EMPC, ND = DL / 2	7.11	6.36	6.59
	EMPC = EMPC, ND = DL	7.12	6.37	6.6
	EMPC = EMPC, < J-level = 0	5.51	4.18	4.48

<b>PCB Report</b>		<b>Method 1668A</b>	
Analyte	Method Blank A7343_12796	110914-1	
	pg/g	pg/g	
PCB-77	(0.327)	8.21	
PCB-81	(0.302)	(0.496)	
PCB-105	0.317	37	
PCB-114	(0.222)	1.68	
PCB-118	[0.841]	105	
PCB-123	(0.237)	1.73	
PCB-126	(0.314)	(1.11)	
PCB-156/157	(0.285)	15.5	
PCB-167	(0.213)	7.18	
PCB-169	(0.311)	(1.17)	
PCB-189	(0.24)	[1.18]	
Total Mono-CB	1.91	60.7	
Total Di-CB	17.7	65.6	
Total Tri-CB	1.46	42.1	
Total Tetra-CB	7.29	208	
Total Penta-CB	8.06	576	
Total Hexa-CB	1.75	606	
Total Hepta-CB	0.84	232	
Total Octa-CB	(0.187)	106	
Total Nona-CB	(0.16)	5.75	
Total Deca-CB	(0.197)	11.8	
<b>TEQs (WHO 2005 M/H)</b>			
ND = 0; EMPC = 0	0.0000095	0.00585	
ND = 0; EMPC = EMPC	0.0000347	0.00589	
ND = DL/2; EMPC = 0	0.0204	0.079	
ND = DL/2; EMPC = EMPC	0.0205	0.079	
ND = DL; EMPC = 0	0.0409	0.152	
ND = DL; EMPC = EMPC	0.0409	0.152	

Checkcode

838-219-NQZ/A

811-806-QCH/A

() = DL  
[] = EMPC

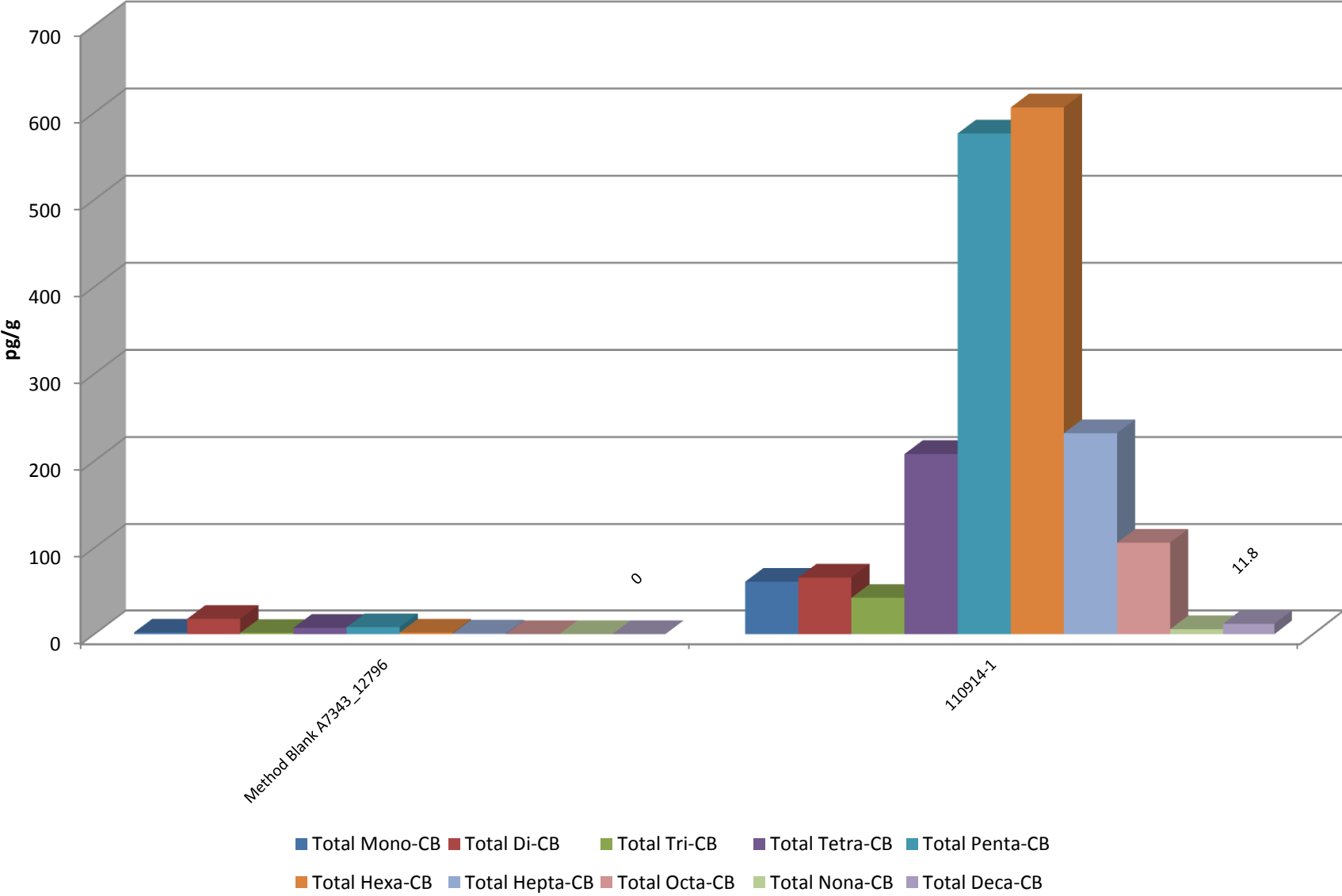
PCB Recoveries		Method 1668A
Standard	Method Blank A7343_12796	110914-1
ES PCB-1	83.9	79.9
ES PCB-3	94	90.4
ES PCB-4	96.7	91.2
ES PCB-15	100	98.7
ES PCB-19	95.8	84.8
ES PCB-39	101	103
ES PCB-54	99	89.4
ES PCB-77	92.5	99.8
ES PCB-81	91.9	110
ES PCB-104	107	121
ES PCB-105	101	120
ES PCB-114	101	145
ES PCB-118	98	144
ES PCB-123	96.5	140
ES PCB-126	91.1	67.7
ES PCB-153	98.9	98.1
ES PCB-155	100	87.5
ES PCB-156/157	96.4	79.5
ES PCB-167	90.7	90.9
ES PCB-169	77.4	46
ES PCB-170	102	94.6
ES PCB-180	98.5	101
ES PCB-188	105	92.7
ES PCB-189	99.3	108
ES PCB-202	95.1	82.7
ES PCB-205	101	89.1
ES PCB-206	101	83.7
ES PCB-208	104	94
ES PCB-209	105	95.5

Checkcode

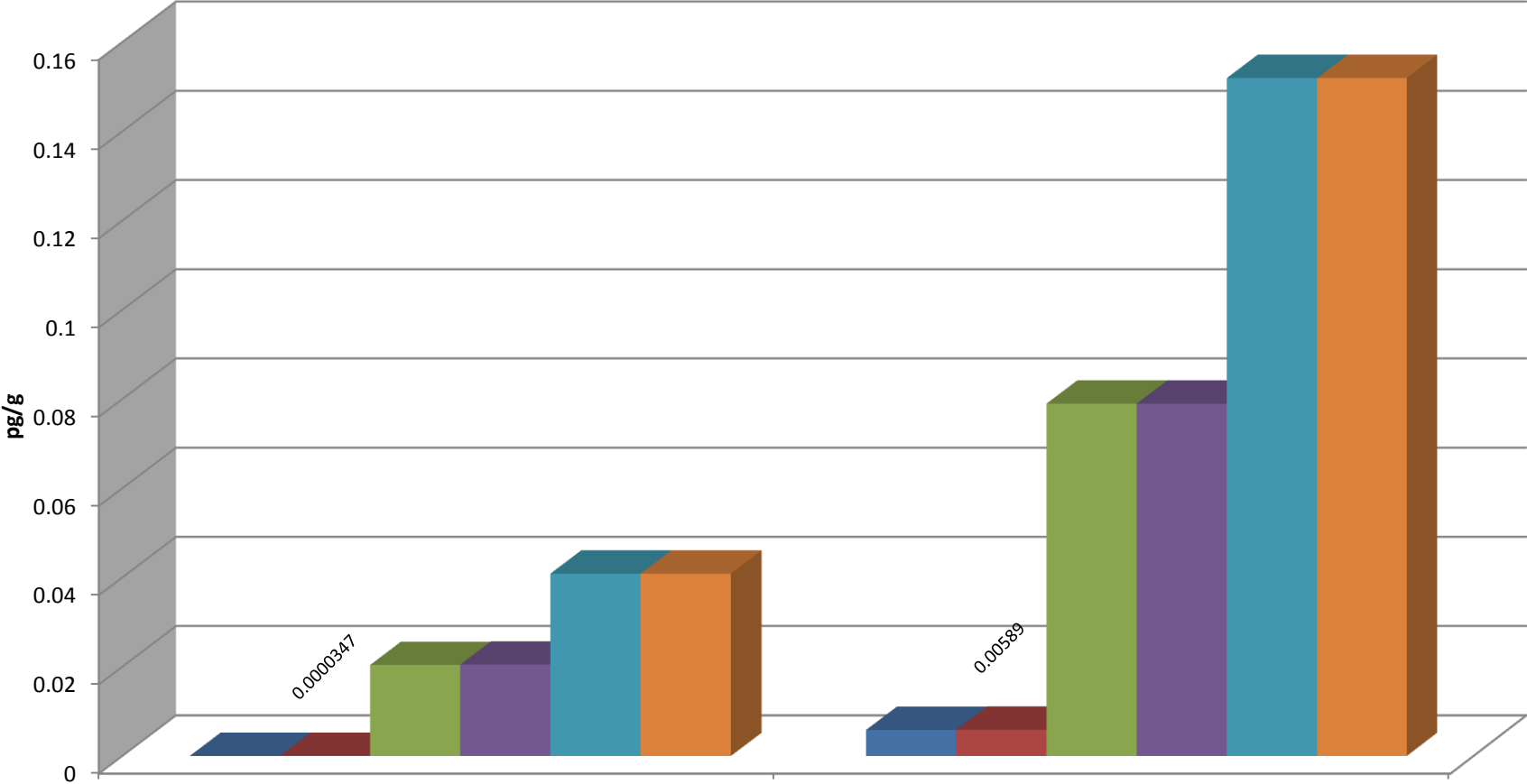
838-219-NQZ/A

811-806-QCH/A

PCB Homologues  
Project ID: 1109141  
A7343



PCB TEQ  
Project ID: 1109141  
A7343



Method Blank A7343\_12796

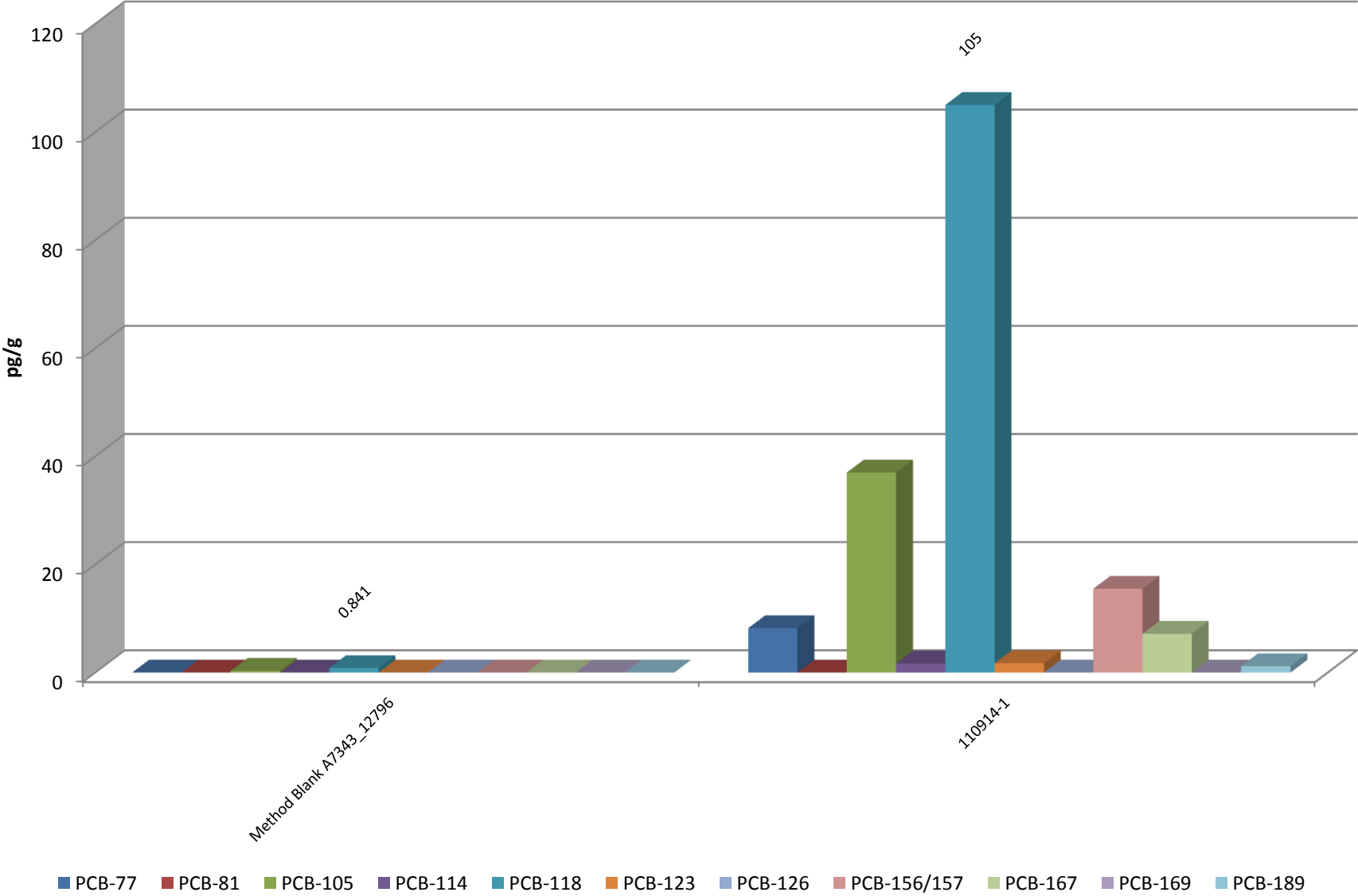
110914-1

0.000347

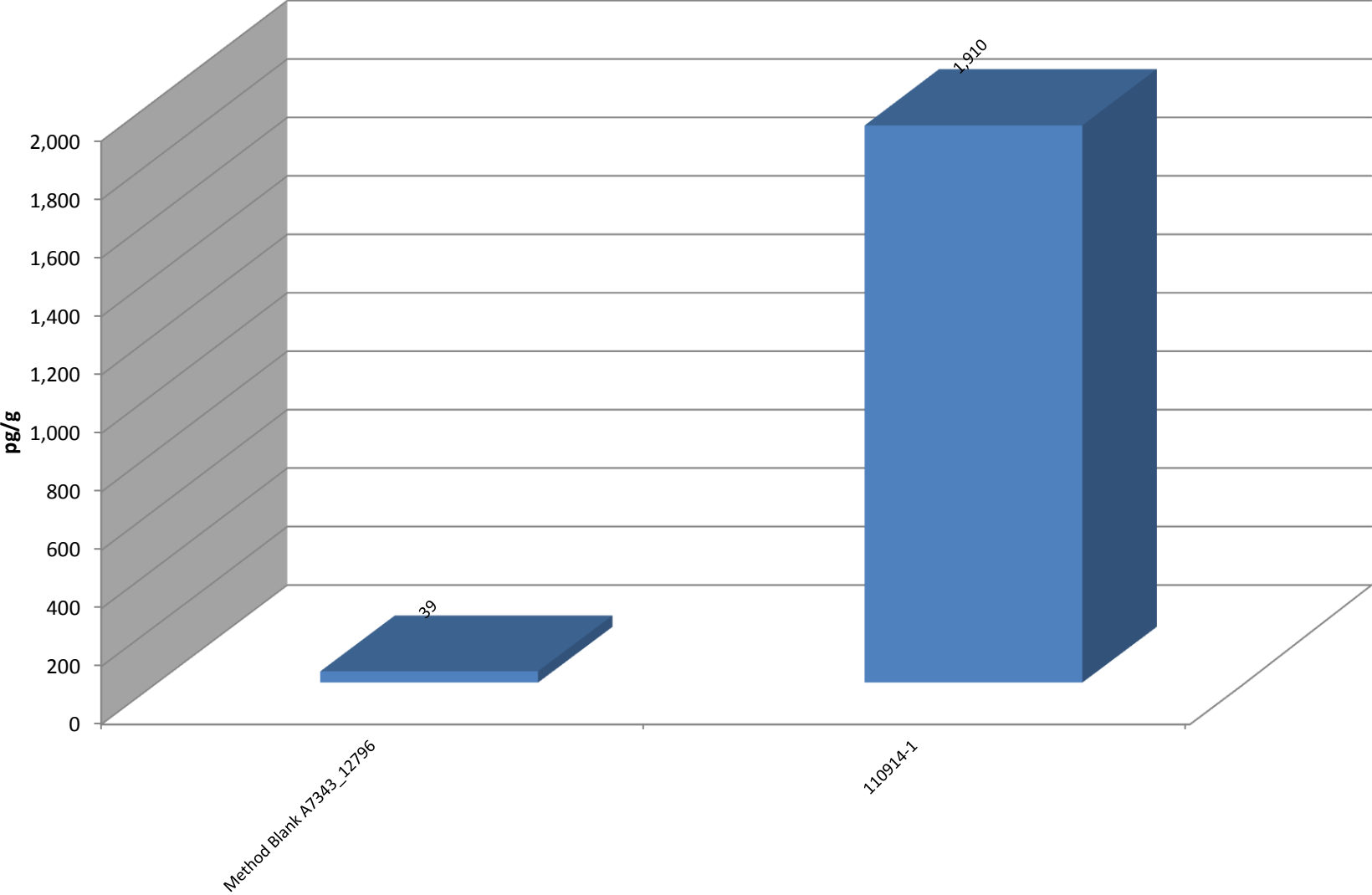
0.00589

■ ND = 0; EMPC = 0 ■ ND = 0; EMPC = EMPC ■ ND = DL/2; EMPC = 0 ■ ND = DL/2; EMPC = EMPC ■ ND = DL; EMPC = 0 ■ ND = DL; EMPC = EMPC

PCB WHO  
Project ID: 1109141  
A7343

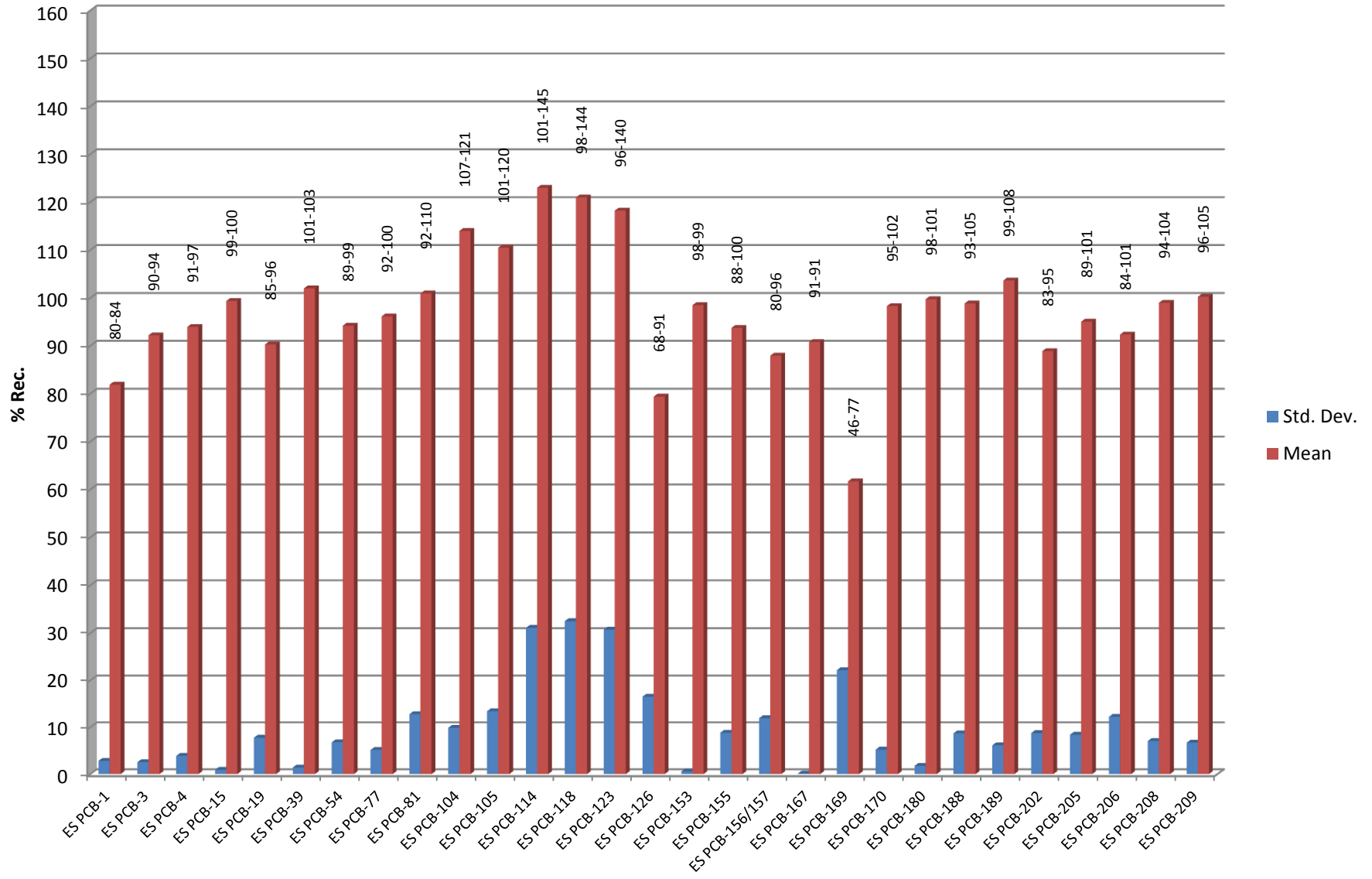


**Total PCBs**  
**Project ID: 1109141**  
**A7343**



**Sample**

**Mean Recoveries of Extraction Standards (N=2)**  
**Project ID: 1109141**  
**A7343**





# Sample ID: Method Blank A7343\_12796

# Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	Friends of Perdido Bay	Matrix:	Solid	Project No.:	A7343	Date Received:	n/a
Project ID:	1109141	Weight/Volume:	10.00 g	Sample ID:	MB1_12796_PCB_SDS	Date Extracted:	19-Nov-2014
Date Collected:	n/a	% Solid	n/a	QC Batch No.:	12796	Date Analyzed:	03-Dec-2014
Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery	
	pg/g	pg/g	pg/g			%	
PCB-77 33'44'-TeCB	ND	0.327			ES PCB-1	83.9	
PCB-81 344'5'-TeCB	ND	0.302			ES PCB-3	94	
PCB-105 233'44'-PeCB	0.317			J	ES PCB-4	96.7	
PCB-114 2344'5'-PeCB	ND	0.222			ES PCB-15	100	
PCB-118 23'44'5'-PeCB	EMPC		0.841	J	ES PCB-19	95.8	
PCB-123 23'44'5'-PeCB	ND	0.237			ES PCB-37	101	
PCB-126 33'44'5'-PeCB	ND	0.314			ES PCB-54	99	
PCB-156/157 233'44'5'/233'44'5'-HxCB	ND	0.285		C	ES PCB-77	92.5	
PCB-167 23'44'55'-HxCB	ND	0.213			ES PCB-81	91.9	
PCB-169 33'44'55'-HxCB	ND	0.311			ES PCB-104	107	
PCB-189 233'44'55'-HpCB	ND	0.24			ES PCB-105	101	
					ES PCB-114	101	
<b>TEQs (WHO 2005 M/H)</b>					ES PCB-118	98	
					ES PCB-123	96.5	
ND = 0	0.0000095		0.0000347		ES PCB-126	91.1	
ND = 0.5 x DL	0.0204		0.0205		ES PCB-153	98.9	
ND = DL	0.0409		0.0409		ES PCB-155	100	
					ES PCB-156/157	96.4	
					ES PCB-167	90.7	
<b>Totals</b>					ES PCB-169	77.4	
Mono-CB	1.91		2.62		ES PCB-170	102	
Di-CB	17.7				ES PCB-180	98.5	
Tri-CB	1.46		3.16		ES PCB-188	105	
Tetra-CB	7.29		8.19		ES PCB-189	99.3	
Penta-CB	8.06		9.96		ES PCB-202	95.1	
Hexa-CB	1.75		4.15		ES PCB-205	101	
Hepta-CB	0.84		1.02		ES PCB-206	101	
Octa-CB	ND	0.187			ES PCB-208	104	
Nona-CB	ND	0.16			ES PCB-209	105	
Deca-CB	ND	0.197			CS PCB-28	108	
					CS PCB-111	105	
Total PCB (Mono-Deca)	39		46.8		CS PCB-178	104	



**Sample ID: Method Blank A7343\_12796**

**Method 1668A**

Client Data			Sample Data			Laboratory Data						
Name:	Friends of Perdido Bay		Matrix:	Solid		Project No.:	A7343		Date Received:	n/a		
Project ID:	1109141		Weight/Volume:	10.00 g		Sample ID:	MB1_12796_PCB_SDS		Date Extracted:	19-Nov-2014		
Date Collected:	n/a		% Solid	n/a		QC Batch No.:	12796		Date Analyzed:	03-Dec-2014		
			Units	pg/g		Checkcode:	838-219-NQZ/A		Time Analyzed:	16:17:50		

Mono	Conc.	Qualifiers	Tri	Conc.	Qualifiers	Tetra	Conc.	Qualifiers	Tetra	Conc.	Qualifiers
PCB-1	0.986	J	PCB-19	(0.503)		PCB-54	(0.27)		PCB-72	(0.248)	
PCB-2	0.926	J	PCB-30/18	[0.609]	J EMPC C	PCB-50/53	(0.305)	C	PCB-68	(0.234)	
PCB-3	[0.704]	J EMPC	PCB-17	(0.394)		PCB-45	(0.353)		PCB-57	(0.257)	
			PCB-27	(0.292)		PCB-51	(0.303)		PCB-58	(0.251)	
<b>Conc.</b>	1.91		PCB-24	(0.303)		PCB-46	(0.38)		PCB-67	(0.247)	
<b>EMPC</b>	2.62		PCB-16	(0.554)		PCB-52	2.47		PCB-63	(0.228)	
			PCB-32	(0.281)		PCB-73	(0.23)		PCB-61/70/74/76	1.36	J C
<b>Di</b>	<b>Conc.</b>	<b>Qualifiers</b>	PCB-34	(0.324)		PCB-43	(0.397)		PCB-66	[0.566]	J EMPC
PCB-4	(0.47)		PCB-23	(0.32)		PCB-69/49	0.993	J C	PCB-55	(0.266)	
PCB-10	(0.296)		PCB-26/29	(0.314)	C	PCB-48	(0.305)		PCB-56	(0.266)	
PCB-9	(0.914)		PCB-25	(0.317)		PCB-44/47/65	1.99	J C	PCB-60	(0.262)	
PCB-7	(0.813)		PCB-31	[0.695]	J EMPC	PCB-59/62/75	(0.225)	C	PCB-80	(0.22)	
PCB-6	(0.861)		PCB-28/20	0.944	J C	PCB-42	(0.333)		PCB-79	(0.24)	
PCB-5	(0.877)		PCB-21/33	0.516	J C	PCB-41	(0.399)		PCB-78	(0.277)	
PCB-8	(0.833)		PCB-22	[0.395]	J EMPC	PCB-71/40	0.472	J C	PCB-81	(0.302)	
PCB-14	(0.724)		PCB-36	(0.31)		PCB-64	[0.338]	J EMPC	PCB-77	(0.327)	
PCB-11	17.7		PCB-39	(0.297)							
PCB-13/12	(0.832)	C	PCB-38	(0.333)							
PCB-15	(0.873)		PCB-35	(0.336)							
			PCB-37	(0.413)							
<b>Conc.</b>	17.7		<b>Conc.</b>	1.46					<b>Conc.</b>	7.29	
<b>EMPC</b>	17.7		<b>EMPC</b>	3.16					<b>EMPC</b>	8.19	



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Totals	Conc.	EMPC
Mono-Tri	21	23.4
Tetra-Hexa	17.1	22.3
Hepta-Deca	0.84	1.02
Mono-Deca	39	46.8



**Sample ID: Method Blank A7343\_12796** **Method 1668A**

Penta	Conc.	Qualifiers	Penta	Conc.	Qualifiers	Hexa	Conc.	Qualifiers	Hexa	Conc.	Qualifiers
PCB-104	(0.157)		PCB-108/119/86/97/125/87	1.18	J C	PCB-155	(0.138)		PCB-165	(0.156)	
PCB-96	(0.155)		PCB-117	(0.216)		PCB-152	(0.129)		PCB-146	(0.177)	
PCB-103	(0.263)		PCB-116/85	(0.243)	C	PCB-150	(0.128)		PCB-161	(0.144)	
PCB-94	(0.306)		PCB-110	1.82		PCB-136	[0.337]	J EMPC	PCB-153/168	0.787	J C
PCB-95	2		PCB-115	(0.22)		PCB-145	(0.134)		PCB-141	(0.195)	
PCB-100/93	(0.268)	C	PCB-82	(0.339)		PCB-148	(0.181)		PCB-130	(0.217)	
PCB-102	(0.273)		PCB-111	(0.203)		PCB-151/135	0.456	J C	PCB-137	(0.179)	
PCB-98	(0.309)		PCB-120	(0.202)		PCB-154	(0.164)		PCB-164	(0.146)	
PCB-88	(0.263)		PCB-107/124	(0.218)	C	PCB-144	(0.183)		PCB-163/138/129	[0.988]	J EMPC C
PCB-91	(0.305)		PCB-109	(0.197)		PCB-147/149	[1.07]	J EMPC C	PCB-160	(0.154)	
PCB-84	[0.684]	J EMPC	PCB-123	(0.237)		PCB-134	(0.226)		PCB-158	(0.138)	
PCB-89	(0.312)		PCB-106	(0.226)		PCB-143	(0.191)		PCB-128/166	(0.222)	C
PCB-121	(0.201)		PCB-118	[0.841]	J EMPC	PCB-139/140	(0.179)	C	PCB-159	(0.19)	
PCB-92	[0.372]	J EMPC	PCB-122	(0.222)		PCB-131	(0.214)		PCB-162	(0.186)	
PCB-113/90/101	1.83	J C	PCB-114	(0.222)		PCB-142	(0.208)		PCB-167	(0.213)	
PCB-83	(0.354)		PCB-105	0.317	J	PCB-132	0.509	J	PCB-156/157	(0.285)	C
PCB-99	0.912	J	PCB-127	(0.221)		PCB-133	(0.195)		PCB-169	(0.311)	
PCB-112	(0.22)		PCB-126	(0.314)							
			<b>Conc.</b>	8.06					<b>Conc.</b>	1.75	
			<b>EMPC</b>	9.96					<b>EMPC</b>	4.15	

Hepta	Conc.	Qualifiers	Hepta	Conc.	Qualifiers	Octa	Conc.	Qualifiers	Nona	Conc.	Qualifiers
PCB-188	(0.131)		PCB-174	(0.26)		PCB-202	(0.175)		PCB-208	(0.129)	
PCB-179	[0.179]	J EMPC	PCB-177	(0.269)		PCB-201	(0.161)		PCB-207	(0.119)	
PCB-184	(0.14)		PCB-181	(0.237)		PCB-204	(0.171)		PCB-206	(0.19)	
PCB-176	(0.124)		PCB-171/173	(0.268)	C	PCB-197	(0.157)				
PCB-186	(0.133)		PCB-172	(0.265)		PCB-200	(0.176)		<b>Conc.</b>	0	
PCB-178	(0.183)		PCB-192	(0.206)		PCB-198/199	(0.246)	C	<b>EMPC</b>	0	
PCB-175	(0.239)		PCB-180/193	0.472	J C	PCB-196	(0.233)				
PCB-187	0.368	J	PCB-191	(0.193)		PCB-203	(0.229)		<b>Deca</b>	<b>Conc.</b>	<b>Qualifiers</b>
PCB-182	(0.218)		PCB-170	(0.272)		PCB-195	(0.235)		PCB-209	(0.197)	
PCB-183	(0.205)		PCB-190	(0.206)		PCB-194	(0.227)				
PCB-185	(0.251)		PCB-189	(0.24)		PCB-205	(0.2)				
			<b>Conc.</b>	0.84		<b>Conc.</b>	0				
			<b>EMPC</b>	1.02		<b>EMPC</b>	0				

# Sample ID: 110914-1

# Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	Friends of Perdido Bay	Matrix:	Solid	Project No.:	A7343	Date Received:	11-Nov-2014
Project ID:	1109141	Weight/Volume:	7.15 g	Sample ID:	A7343_12796_PCB_001	Date Extracted:	19-Nov-2014
Date Collected:	09-Nov-2014	% Solid	23.8 %	QC Batch No.:	12796	Date Analyzed:	03-Dec-2014
Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery	
	pg/g	pg/g	pg/g			%	
PCB-77 33'44'-TeCB	8.21				ES PCB-1	79.9	
PCB-81 344'5'-TeCB	ND	0.496			ES PCB-3	90.4	
PCB-105 233'44'-PeCB	37				ES PCB-4	91.2	
PCB-114 2344'5'-PeCB	1.68				ES PCB-15	98.7	
PCB-118 23'44'5'-PeCB	105				ES PCB-19	84.8	
PCB-123 23'44'5'-PeCB	1.73				ES PCB-37	103	
PCB-126 33'44'5'-PeCB	ND	1.11			ES PCB-54	89.4	
PCB-156/157 233'44'5'/233'44'5'-HxCB	15.5			C	ES PCB-77	99.8	
PCB-167 23'44'55'-HxCB	7.18				ES PCB-81	110	
PCB-169 33'44'55'-HxCB	ND	1.17			ES PCB-104	121	
PCB-189 233'44'55'-HpCB	EMPC		1.18	J	ES PCB-105	120	
					ES PCB-114	145	
<b>TEQs (WHO 2005 M/H)</b>					ES PCB-118	144	
					ES PCB-123	140	
ND = 0	0.00585		0.00589		ES PCB-126	67.7	
ND = 0.5 x DL	0.079		0.079		ES PCB-153	98.1	
ND = DL	0.152		0.152		ES PCB-155	87.5	
					ES PCB-156/157	79.5	
<b>Totals</b>					ES PCB-167	90.9	
Mono-CB	60.7				ES PCB-169	46	
Di-CB	65.6				ES PCB-170	94.6	
Tri-CB	42.1		57.1		ES PCB-180	101	
Tetra-CB	208		209		ES PCB-188	92.7	
Penta-CB	576		578		ES PCB-189	108	
Hexa-CB	606		611		ES PCB-202	82.7	
Hepta-CB	232		233		ES PCB-205	89.1	
Octa-CB	106		108		ES PCB-206	83.7	
Nona-CB	5.75		8.3		ES PCB-208	94	
Deca-CB	11.8				ES PCB-209	95.5	
					CS PCB-28	118	
Total PCB (Mono-Deca)	1,910		1,940		CS PCB-111	138	
					CS PCB-178	91.5	



# Sample ID: 110914-1

# Method 1668A

Client Data			Sample Data			Laboratory Data						
Name:	Friends of Perdido Bay		Matrix:	Solid		Project No.:	A7343		Date Received:	11-Nov-2014		
Project ID:	1109141		Weight/Volume:	7.15 g		Sample ID:	A7343_12796_PCB_001		Date Extracted:	19-Nov-2014		
Date Collected:	09-Nov-2014		% Solid	23.8 %		QC Batch No.:	12796		Date Analyzed:	03-Dec-2014		
			Units	pg/g		Checkcode:	811-806-QCH/A		Time Analyzed:	19:02:55		

Mono	Conc.	Qualifiers	Tri	Conc.	Qualifiers	Tetra	Conc.	Qualifiers	Tetra	Conc.	Qualifiers
PCB-1	3.61	B	PCB-19	(1.13)		PCB-54	(0.404)		PCB-72	1.47	
PCB-2	49.6		PCB-30/18	5.91	B C	PCB-50/53	1.86	J C	PCB-68	1.36	J
PCB-3	7.46		PCB-17	[3.77]	EMPC	PCB-45	0.973	J	PCB-57	(0.421)	
			PCB-27	(0.656)		PCB-51	1.64		PCB-58	0.771	J
<b>Conc.</b>	60.7		PCB-24	(0.681)		PCB-46	0.707	J	PCB-67	1.47	
<b>EMPC</b>	60.7		PCB-16	[2.87]	EMPC	PCB-52	44.7		PCB-63	[0.608]	J EMPC
			PCB-32	[2.63]	EMPC	PCB-73	(0.334)		PCB-61/70/74/76	53.6	C
<b>Di</b>	<b>Conc.</b>	<b>Qualifiers</b>	PCB-34	(0.994)		PCB-43	(0.578)		PCB-66	21.6	
PCB-4	3.1		PCB-23	(0.982)		PCB-69/49	9.45	B C	PCB-55	[0.534]	J EMPC
PCB-10	(0.39)		PCB-26/29	2.83	C	PCB-48	1.89		PCB-56	8.92	
PCB-9	(0.707)		PCB-25	1.66		PCB-44/47/65	27.5	C	PCB-60	1.82	
PCB-7	0.921	J	PCB-31	8.86		PCB-59/62/75	1.21	J C	PCB-80	(0.36)	
PCB-6	1.5		PCB-28/20	11.9	C	PCB-42	4.4		PCB-79	1.19	J
PCB-5	(0.679)		PCB-21/33	7.14	C	PCB-41	(0.581)		PCB-78	(0.454)	
PCB-8	6.85		PCB-22	3.77	B	PCB-71/40	7.48	C	PCB-81	(0.496)	
PCB-14	3.28		PCB-36	(0.949)		PCB-64	6.02		PCB-77	8.21	
PCB-11	40.5	B	PCB-39	(0.911)							
PCB-13/12	2.12	J C	PCB-38	(1.02)							
PCB-15	7.29		PCB-35	(1.03)							
			PCB-37	[5.69]	EMPC						
<b>Conc.</b>	65.6		<b>Conc.</b>	42.1					<b>Conc.</b>	208	
<b>EMPC</b>	65.6		<b>EMPC</b>	57.1					<b>EMPC</b>	209	



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Totals	Conc.	EMPC
Mono-Tri	168	183
Tetra-Hexa	1,390	1,400
Hepta-Deca	356	361
Mono-Deca	1,910	1,940



**Sample ID: 110914-1**

**Method 1668A**

Penta	Conc.	Qualifiers	Penta	Conc.	Qualifiers	Hexa	Conc.	Qualifiers	Hexa	Conc.	Qualifiers
PCB-104	(0.351)		PCB-108/119/86/97/125/87	58.3	C	PCB-155	(0.257)		PCB-165	(0.218)	
PCB-96	(0.347)		PCB-117	1.93		PCB-152	(0.241)		PCB-146	23.5	
PCB-103	(0.417)		PCB-116/85	14.6	C	PCB-150	0.531	J	PCB-161	(0.2)	
PCB-94	(0.486)		PCB-110	118		PCB-136	16.7		PCB-153/168	137	C
PCB-95	26.6		PCB-115	[1.44]	EMPC	PCB-145	(0.251)		PCB-141	19.9	
PCB-100/93	1.07	J C	PCB-82	8.24		PCB-148	(0.252)		PCB-130	12.4	
PCB-102	2.27		PCB-111	1.05	J	PCB-151/135	2.45	J B C	PCB-137	6.07	
PCB-98	(0.49)		PCB-120	(0.321)		PCB-154	(0.228)		PCB-164	13.9	
PCB-88	14.2		PCB-107/124	4.55	C	PCB-144	[3.72]	EMPC	PCB-163/138/129	173	C
PCB-91	16.4		PCB-109	10		PCB-147/149	108	C	PCB-160	(0.214)	
PCB-84	(0.539)		PCB-123	1.73		PCB-134	6.05		PCB-158	13.2	
PCB-89	(0.495)		PCB-106	(0.359)		PCB-143	(0.266)		PCB-128/166	4.76	C
PCB-121	(0.318)		PCB-118	105		PCB-139/140	2.14	J C	PCB-159	[1]	J EMPC
PCB-92	17.6		PCB-122	[1.25]	J EMPC	PCB-131	1.48		PCB-162	0.815	J
PCB-113/90/101	72.5	C	PCB-114	1.68		PCB-142	38.6		PCB-167	7.18	
PCB-83	4.01		PCB-105	37		PCB-132	(0.284)		PCB-156/157	15.5	C
PCB-99	59.9		PCB-127	(0.441)		PCB-133	3.17		PCB-169	(1.17)	
PCB-112	(0.349)		PCB-126	(1.11)							
			<b>Conc.</b>	576					<b>Conc.</b>	606	
			<b>EMPC</b>	578					<b>EMPC</b>	611	

Hepta	Conc.	Qualifiers	Hepta	Conc.	Qualifiers	Octa	Conc.	Qualifiers	Nona	Conc.	Qualifiers
PCB-188	(0.281)		PCB-174	30.3		PCB-202	3.4		PCB-208	[2.55]	EMPC
PCB-179	10.6		PCB-177	22.7		PCB-201	1.67		PCB-207	(0.529)	
PCB-184	(0.301)		PCB-181	(0.459)		PCB-204	(0.501)		PCB-206	5.75	
PCB-176	3.46		PCB-171/173	11.9	C	PCB-197	1.93				
PCB-186	(0.284)		PCB-172	5.87		PCB-200	(0.516)		<b>Conc.</b>	5.75	
PCB-178	6.81		PCB-192	(0.399)		PCB-198/199	5.35	C	<b>EMPC</b>	8.3	
PCB-175	0.983	J	PCB-180/193	58.6	C	PCB-196	49.3				
PCB-187	27		PCB-191	(0.374)		PCB-203	23.8		<b>Deca</b>	<b>Conc.</b>	<b>Qualifiers</b>
PCB-182	(0.422)		PCB-170	30.4		PCB-195	6.08		PCB-209	11.8	
PCB-183	19		PCB-190	4.53		PCB-194	14.3				
PCB-185	(0.487)		PCB-189	[1.18]	J EMPC	PCB-205	[1.69]	EMPC			
			<b>Conc.</b>	232		<b>Conc.</b>	106				
			<b>EMPC</b>	233		<b>EMPC</b>	108				