



AXYS

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BATCH SUMMARY

Batch ID: WG35528	Date: 25-Feb-2011
Analysis Type: PCB Congener	Matrix Type: Tissue
BATCH MAKEUP	
Contract: 4574 Samples: L15870-2 Schoppee-10F	Blank: WG35528-101 Reference or Spike: WG35528-102 Duplicate:
Comments: <div style="border: 1px solid black; padding: 5px;"> <p>1. Data are not blank corrected.</p> <p>2. A disturbance of the mass ion used to monitor instrument performance (lock -mass) greater than method specifications was observed in the OPR (AXYS ID WG35528 -102) near the retention time corresponding to labeled 13C-PCB 202 and has been flagged with a 'G'. Labeled 13C-PCB 202 is only used to quantify native PCB-202 which would be equally affected, therefore data are not considered affected by this variance.</p> </div>	

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February 1993

FQA-006 Rev. 2. 18-Jul-1994



AXYS METHOD MLA-010 Rev 10

Form 3A
PCB CONGENERS INITIAL CALIBRATION RELATIVE RESPONSES

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

CS0 Data Filename: N/A
CS1 Data Filename: PB1C_055 S: 9
CS2 Data Filename: PB1C_055 S: 8
CS3 Data Filename: PB1C_055 S: 6
CS4 Data Filename: PB1C_055 S: 5
CS5 Data Filename: PB1C_055 S: 4
CS6 Data Filename: N/A

RELATIVE RESPONSE (RR)

COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	RELATIVE RESPONSE (RR)						MEAN RR	CV ² (%RSD)
				CS0	CS1	CS2	CS3	CS4	CS5		
2-MoCB	1				1.11	1.09	1.07	1.11	1.10	1.10	1.35
4-MoCB	3				1.07	1.04	1.04	1.05	1.06	1.05	1.32
2,2'-DiCB	4				0.90	0.90	0.88	0.91	0.91	0.90	1.07
4,4'-DiCB	15				0.96	0.93	0.93	0.95	0.94	0.94	1.24
2,2',6-TriCB	19				1.02	1.01	0.99	1.02	1.00	1.01	1.38
3,4,4'-TriCB	37				1.00	0.99	0.97	0.98	0.99	0.99	1.31
2,2',6,6'-TeCB	54				0.96	0.98	0.99	1.02	1.01	0.99	2.03
3,3',4,4'-TeCB	77				1.05	1.05	1.01	1.05	1.04	1.04	1.54
3,4,4',5-TeCB	81				0.98	0.97	0.96	1.01	0.99	0.98	1.99
2,2',4,6,6'-PeCB	104				1.00	1.01	1.02	1.04	1.03	1.02	1.51
2,3,3',4,4'-PeCB	105				1.03	1.00	0.99	1.01	1.01	1.01	1.36
2,3,4,4',5-PeCB	114				1.05	0.99	0.99	1.01	0.99	1.01	2.48
2,3',4,4',5-PeCB	118				1.00	0.98	0.94	0.96	0.97	0.97	2.33
2',3,4,4',5-PeCB	123				1.00	0.93	0.93	0.96	0.95	0.95	2.98
3,3',4,4',5-PeCB	126				1.00	1.03	0.99	1.01	1.01	1.01	1.52
2,2',4,4',6,6'-HxCB	155				0.94	0.96	0.93	0.97	0.97	0.95	2.27
2,3,3',4,4',5-HxCB	156	156 + 157	C		1.02	1.05	1.02	1.04	1.02	1.03	1.53
2,3,3',4,4',5'-HxCB	157	156 + 157	C156								
2,3',4,4',5,5'-HxCB	167				1.04	1.01	1.02	1.04	1.03	1.03	1.41
3,3',4,4',5,5'-HxCB	169				1.01	1.03	1.02	1.01	1.01	1.02	0.78
2,2',3,4',5,6,6'-HpCB	188				1.00	0.95	0.93	0.94	0.94	0.95	3.14
2,3,3',4,4',5,5'-HpCB	189				1.00	1.03	0.99	0.98	0.98	0.99	1.99
2,2',3,3',5,5',6,6'-OxCB	202				0.85	0.91	0.88	0.90	0.89	0.89	2.42
2,3,3',4,4',5,5',6-OxCB	205				0.97	1.06	0.99	0.99	0.98	1.00	3.52
2,2',3,3',4,4',5,5',6-NoCB	206				1.14	1.13	1.11	1.09	1.07	1.11	2.53
2,2',3,3',4,5,5',6,6'-NoCB	208				1.03	1.02	1.02	1.02	1.01	1.02	0.63
2,2',3,3',4,4',5,5',6,6'-DeCB	209				0.99	1.03	1.00	1.01	0.98	1.00	1.80

(1) Where applicable, custom lab flags have been used on this report; C = co-eluting congener.

(2) For contract CV specifications, see Section 10.4.4, Method 1668A.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Jason MacKenzie _____

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Report Filename: 1668_PCB1668_08-Feb-2011_PB1C_Form3A_GS39703.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 3B
PCB CONGENERS INITIAL CALIBRATION RELATIVE RESPONSES

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
 V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

CS0 Data Filename: N/A
CS1 Data Filename: PB1C_055 S: 9
CS2 Data Filename: PB1C_055 S: 8
CS3 Data Filename: PB1C_055 S: 6
CS4 Data Filename: PB1C_055 S: 5
CS5 Data Filename: PB1C_055 S: 4
CS6 Data Filename: N/A

RELATIVE RESPONSE (RR)

COMPOUND	IUPAC NO. 1	CO- ELUTIONS	LAB FLAG ²	RELATIVE RESPONSE (RR)						MEAN RR	CV ³ (%RSD)
				CS0	CS1	CS2	CS3	CS4	CS5		
13C12-2-MoCB	1L			1.00	1.02	1.02	1.02	1.03	1.02	0.93	
13C12-4-MoCB	3L			0.95	0.95	0.94	0.97	0.99	0.96	1.91	
13C12-2,2'-DiCB	4L			0.66	0.65	0.64	0.66	0.66	0.65	1.10	
13C12-4,4'-DiCB	15L			0.95	0.94	0.93	0.98	1.02	0.96	4.08	
13C12-2,2',6-TriCB	19L			0.58	0.59	0.58	0.59	0.60	0.59	1.39	
13C12-3,4,4'-TriCB	37L			1.46	1.41	1.43	1.51	1.57	1.47	4.26	
13C12-2,2',6,6'-TeCB	54L			1.31	1.33	1.34	1.32	1.33	1.33	0.88	
13C12-3,3',4,4'-TeCB	77L			1.16	1.08	1.12	1.19	1.25	1.16	5.54	
13C12-3,4,4',5-TeCB	81L			1.20	1.15	1.16	1.23	1.29	1.21	4.71	
13C12-2,2',4,6,6'-PeCB	104L			1.50	1.54	1.51	1.49	1.53	1.51	1.22	
13C12-2,3,3',4,4'-PeCB	105L			1.25	1.23	1.23	1.31	1.36	1.28	4.62	
13C12-2,3,4,4',5-PeCB	114L			1.25	1.24	1.24	1.33	1.38	1.29	4.94	
13C12-2,3',4,4',5-PeCB	118L			1.31	1.32	1.30	1.38	1.41	1.34	3.66	
13C12-2',3,4,4',5-PeCB	123L			1.33	1.32	1.28	1.36	1.40	1.34	3.50	
13C12-3,3',4,4',5-PeCB	126L			1.14	1.12	1.12	1.22	1.28	1.18	5.87	
13C12-2,2',4,4',6,6'-HxCB	155L			1.67	1.68	1.72	1.64	1.67	1.68	1.76	
13C12-2,3,3',4,4',5-HxCB	156L	156L + 157L	C	1.22	1.17	1.24	1.23	1.31	1.23	4.08	
13C12-2,3,3',4,4',5'-HxCB	157L	156L + 157L	C156L								
13C12-2,3',4,4',5,5'-HxCB	167L			1.20	1.19	1.20	1.22	1.26	1.21	2.12	
13C12-3,3',4,4',5,5'-HxCB	169L			1.20	1.14	1.19	1.18	1.23	1.19	2.79	
13C12-2,2',3,4',5,6,6'-HpCB	188L			1.80	1.82	1.77	1.82	1.93	1.83	3.26	
13C12-2,3,3',4,4',5,5'-HpCB	189L			1.51	1.47	1.49	1.50	1.54	1.50	1.88	
13C12-2,2',3,3',5,5',6,6'-OxCB	202L			1.54	1.59	1.54	1.62	1.73	1.60	4.76	
13C12-2,3,3',4,4',5,5',6-OxCB	205L			1.30	1.29	1.30	1.30	1.32	1.30	0.89	
13C12-2,2',3,3',4,4',5,5',6-NoCB	206L			0.80	0.79	0.80	0.79	0.80	0.80	1.04	
13C12-2,2',3,3',4,5,5',6,6'-NoCB	208L			1.17	1.17	1.15	1.16	1.20	1.17	1.49	
13C12-2,2',3,3',4,4',5,5',6,6'-DeCB	209L			0.93	0.92	0.92	0.89	0.89	0.91	1.74	
CLEAN-UP STANDARD											
13C12-2,4,4'-TriCB	28L			1.59	1.58	1.59	1.58	1.55	1.58	0.94	
13C12-2,3,3',5,5'-PeCB	111L			1.27	1.27	1.26	1.30	1.33	1.28	2.24	
13C12-2,2',3,3',5,5',6-HpCB	178L			0.93	0.95	0.94	0.94	0.96	0.94	1.21	

(1) Suffix "L" indicates labeled compound.

(2) Where applicable, custom lab flags have been used on this report; C = co-eluting congener.

(3) For contract CV specifications, see Section 10.4.4, Method 1668A.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Jason MacKenzie _____



AXYS METHOD MLA-010 Rev 10

Form 3C
PCB CONGENER INITIAL CALIBRATION ION ABUNDANCE RATIOS

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

CS0 Data Filename: N/A
CS1 Data Filename: PB1C_055 S: 9
CS2 Data Filename: PB1C_055 S: 8
CS3 Data Filename: PB1C_055 S: 6
CS4 Data Filename: PB1C_055 S: 5
CS5 Data Filename: PB1C_055 S: 4
CS6 Data Filename: N/A

COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	M/Z's FORMING RATIO ²	ION ABUNDANCE RATIO						QC LIMITS ²
					CS0	CS1	CS2	CS3	CS4	CS5	
2-MoCB	1			M/M+2	3.05	3.10	3.07	3.08	3.10		2.66-3.60
4-MoCB	3			M/M+2	3.06	3.05	3.09	3.08	3.08		2.66-3.60
2,2'-DiCB	4			M/M+2	1.64	1.49	1.53	1.55	1.53		1.33-1.79
4,4'-DiCB	15			M/M+2	1.54	1.55	1.52	1.54	1.54		1.33-1.79
2,2',6-TriCB	19			M/M+2	1.11	1.05	1.08	1.08	1.06		0.88-1.20
3,4,4'-TriCB	37			M/M+2	1.05	1.05	1.05	1.04	1.04		0.88-1.20
2,2',6,6'-TeCB	54			M/M+2	0.76	0.81	0.79	0.80	0.79		0.65-0.89
3,3',4,4'-TeCB	77			M/M+2	0.83	0.79	0.77	0.77	0.79		0.65-0.89
3,4,4',5-TeCB	81			M/M+2	0.74	0.78	0.77	0.78	0.79		0.65-0.89
2,2',4,6,6'-PeCB	104			M+2/M+4	1.57	1.58	1.54	1.54	1.55		1.32-1.78
2,3,3',4,4'-PeCB	105			M+2/M+4	1.53	1.62	1.55	1.56	1.55		1.32-1.78
2,3,4,4',5-PeCB	114			M+2/M+4	1.68	1.60	1.53	1.56	1.57		1.32-1.78
2,3',4,4',5-PeCB	118			M+2/M+4	1.49	1.57	1.60	1.56	1.56		1.32-1.78
2',3,4,4',5-PeCB	123			M+2/M+4	1.58	1.62	1.56	1.56	1.56		1.32-1.78
3,3',4,4',5-PeCB	126			M+2/M+4	1.46	1.70	1.55	1.56	1.55		1.32-1.78
2,2',4,4',6,6'-HxCB	155			M+2/M+4	1.23	1.30	1.26	1.27	1.27		1.05-1.43
2,3,3',4,4',5-HxCB	156	156 + 157	C	M+2/M+4	1.22	1.24	1.26	1.25	1.26		1.05-1.43
2,3,3',4,4',5'-HxCB	157	156 + 157	C156								
2,3',4,4',5,5'-HxCB	167			M+2/M+4	1.22	1.32	1.28	1.25	1.25		1.05-1.43
3,3',4,4',5,5'-HxCB	169			M+2/M+4	1.23	1.23	1.24	1.25	1.26		1.05-1.43
2,2',3,4',5,6,6'-HpCB	188			M+2/M+4	1.17	1.06	1.04	1.04	1.04		0.89-1.21
2,3,3',4,4',5,5'-HpCB	189			M+2/M+4	1.05	1.07	1.06	1.05	1.06		0.89-1.21
2,2',3,3',5,5',6,6'-OcCB	202			M+2/M+4	0.83	0.88	0.91	0.90	0.89		0.76-1.02
2,3,3',4,4',5,5',6-OcCB	205			M+2/M+4	0.84	0.90	0.91	0.89	0.91		0.76-1.02
2,2',3,3',4,4',5,5',6-NoCB	206			M+2/M+4	0.87	0.82	0.78	0.79	0.79		0.65-0.89
2,2',3,3',4,5,5',6,6'-NoCB	208			M+2/M+4	0.72	0.78	0.80	0.79	0.79		0.65-0.89
2,2',3,3',4,4',5,5',6,6'-DeCB	209			M+2/M+4	0.67	0.69	0.71	0.69	0.69		0.59-0.79

(1) Where applicable, custom lab flags have been used on this report; C = co-eluting congener.

(2) See Table 8 Method 1668A for m/z specifications and ion abundance ratio control limits.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Jason MacKenzie _____

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Report Filename: 1668_PCB1668_08-Feb-2011_PB1C_Form3C_GS39703.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 3D
PCB CONGENER INITIAL CALIBRATION ION ABUNDANCE RATIOS

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

CS0 Data Filename: N/A
CS1 Data Filename: PB1C_055 S: 9
CS2 Data Filename: PB1C_055 S: 8
CS3 Data Filename: PB1C_055 S: 6
CS4 Data Filename: PB1C_055 S: 5
CS5 Data Filename: PB1C_055 S: 4
CS6 Data Filename: N/A

LABELLED COMPOUND	IUPAC NO. ¹	CO- ELUTIONS	LAB FLAG ²	M/Z's FORMING RATIO ³	ION ABUNDANCE RATIO						QC LIMITS ³
					CS0	CS1	CS2	CS3	CS4	CS5	
13C12-2-MoCB	1L			M/M+2	3.19	3.19	3.17	3.17	3.17		2.66-3.60
13C12-4-MoCB	3L			M/M+2	3.16	3.15	3.16	3.14	3.13		2.66-3.60
13C12-2,2'-DiCB	4L			M/M+2	1.58	1.58	1.58	1.58	1.57		1.33-1.79
13C12-4,4'-DiCB	15L			M/M+2	1.58	1.56	1.58	1.58	1.58		1.33-1.79
13C12-2,2',6-TriCB	19L			M/M+2	1.03	1.03	1.03	1.04	1.03		0.88-1.20
13C12-3,4,4'-TriCB	37L			M/M+2	1.04	1.04	1.04	1.04	1.05		0.88-1.20
13C12-2,2',6,6'-TeCB	54L			M/M+2	0.79	0.80	0.78	0.81	0.79		0.65-0.89
13C12-3,3',4,4'-TeCB	77L			M/M+2	0.79	0.81	0.78	0.80	0.77		0.65-0.89
13C12-3,4,4',5-TeCB	81L			M/M+2	0.80	0.76	0.77	0.80	0.77		0.65-0.89
13C12-2,2',4,6,6'-PeCB	104L			M+2/M+4	1.57	1.58	1.58	1.55	1.55		1.32-1.78
13C12-2,3,3',4,4'-PeCB	105L			M+2/M+4	1.59	1.57	1.58	1.58	1.57		1.32-1.78
13C12-2,3,4,4',5-PeCB	114L			M+2/M+4	1.57	1.57	1.59	1.59	1.58		1.32-1.78
13C12-2,3',4,4',5-PeCB	118L			M+2/M+4	1.55	1.57	1.56	1.58	1.56		1.32-1.78
13C12-2',3,4,4',5-PeCB	123L			M+2/M+4	1.59	1.57	1.57	1.58	1.56		1.32-1.78
13C12-3,3',4,4',5-PeCB	126L			M+2/M+4	1.60	1.57	1.59	1.58	1.54		1.32-1.78
13C12-2,2',4,4',6,6'-HxCB	155L			M+2/M+4	1.22	1.23	1.22	1.22	1.22		1.05-1.43
13C12-2,3,3',4,4',5-HxCB	156L	156L + 157L	C	M+2/M+4	1.27	1.26	1.26	1.27	1.26		1.05-1.43
13C12-2,3,3',4,4',5'-HxCB	157L	156L + 157L	C156L								
13C12-2,3',4,4',5,5'-HxCB	167L			M+2/M+4	1.26	1.28	1.27	1.27	1.28		1.05-1.43
13C12-3,3',4,4',5,5'-HxCB	169L			M+2/M+4	1.26	1.28	1.29	1.26	1.28		1.05-1.43
13C12-2,2',3,4',5,6,6'-HpCB	188L			M+2/M+4	1.04	1.05	1.04	1.05	1.06		0.89-1.21
13C12-2,3,3',4,4',5,5'-HpCB	189L			M+2/M+4	1.05	1.05	1.04	1.06	1.06		0.89-1.21
13C12-2,2',3,3',5,5',6-OcCB	202L			M+2/M+4	0.90	0.89	0.92	0.92	0.92		0.76-1.02
13C12-2,3,3',4,4',5,5',6-OcCB	205L			M+2/M+4	0.91	0.92	0.91	0.93	0.91		0.76-1.02
13C12-2,2',3,3',4,4',5,5',6-NoCB	206L			M+2/M+4	0.79	0.78	0.79	0.79	0.81		0.65-0.89
13C12-2,2',3,3',4,5,5',6,6'-NoCB	208L			M+2/M+4	0.80	0.77	0.79	0.78	0.78		0.65-0.89
13C12-2,2',3,3',4,4',5,5',6,6'-DeCB	209L			M+4/M+6	1.18	1.15	1.15	1.19	1.17		0.99-1.33
CLEAN-UP STANDARD											
13C12-2,4,4'-TriCB	28L			M/M+2	1.04	1.05	1.05	1.05	1.05		0.88-1.20
13C12-2,3,3',5,5'-PeCB	111L			M+2/M+4	1.62	1.56	1.57	1.58	1.59		1.32-1.78
13C12-2,2',3,3',5,5',6-HpCB	178L			M+2/M+4	1.06	1.04	1.01	1.05	1.04		0.89-1.21

(1) Suffix "L" indicates labeled compound.

(2) Where applicable, custom lab flags have been used on this report; C = co-eluting congener.

(3) See Table 8 Method 1668A for m/z specifications and ion abundance ratio control limits.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Jason MacKenzie _____



AXYS METHOD MLA-010 Rev 10

Form 1A
HOMOLOGUE TOTAL PCB ANALYSIS REPORT

CLIENT SAMPLE NO.
Schoppee-10F
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Matrix: TISSUE

Sample Receipt Date: 14-Dec-2010

Extraction Date: 10-Feb-2011

Analysis Date: 23-Feb-2011 **Time:** 01:28:19

Extract Volume (uL): 20

Injection Volume (uL): 1.0

Dilution Factor: N/A

Concentration Units: pg/g (wet weight basis)

Project No. L13452

Lab Sample I.D.: L15870-2 R

Sample Size: 10.2 g (wet)

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

Sample Data Filename: PB1C_078 S: 6

Blank Data Filename: PB1C_078 S: 5

Cal. Ver. Data Filename: PB1C_078 S: 1

% Moisture: 78.1

% Lipid: 1.71

PCB HOMOLOGUE GROUP	LAB FLAG ¹	CONC. FOUND
Total Monochloro Biphenyls		1.34
Total Dichloro Biphenyls		13.1
Total Trichloro Biphenyls		148
Total Tetrachloro Biphenyls		1010
Total Pentachloro Biphenyls		4430
Total Hexachloro Biphenyls		8890
Total Heptachloro Biphenyls		3860
Total Octachloro Biphenyls		836
Total Nonachloro Biphenyls		160
Decachloro Biphenyl		43.8
TOTAL PCBs		19400

(1) Where applicable, custom lab flags have been used on this report.

(2) All header information pertains to the initial instrumental analysis of the sample extract. Additional sample datafiles listed refer to secondary analysis of the sample extract.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.



AXYS METHOD MLA-010 Rev 10

Form 1A
HOMOLOGUE TOTAL PCB ANALYSIS REPORT

CLIENT SAMPLE NO.
Schoppee-10F
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Matrix: TISSUE

Sample Receipt Date: 14-Dec-2010

Extraction Date: 10-Feb-2011

Analysis Date: 23-Feb-2011 **Time:** 01:28:19

Extract Volume (uL): 20

Injection Volume (uL): 1.0

Dilution Factor: N/A

Concentration Units: pg/g (dry weight basis)

Project No. L13452

Lab Sample I.D.: L15870-2 R

Sample Size: 2.35 g (dry)

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

Sample Data Filename: PB1C_078 S: 6

Blank Data Filename: PB1C_078 S: 5

Cal. Ver. Data Filename: PB1C_078 S: 1

% Moisture: 78.1
% Lipid: 1.71

PCB HOMOLOGUE GROUP	LAB FLAG ¹	CONC. FOUND
Total Monochloro Biphenyls		5.83
Total Dichloro Biphenyls		57.3
Total Trichloro Biphenyls		644
Total Tetrachloro Biphenyls		4400
Total Pentachloro Biphenyls		19300
Total Hexachloro Biphenyls		38700
Total Heptachloro Biphenyls		16800
Total Octachloro Biphenyls		3650
Total Nonachloro Biphenyls		698
Decachloro Biphenyl		191
TOTAL PCBs		84500

(1) Where applicable, custom lab flags have been used on this report.

(2) All header information pertains to the initial instrumental analysis of the sample extract. Additional sample datafiles listed refer to secondary analysis of the sample extract.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

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For Axy Internal Use Only [XSL Template: Form1668HTII.xsl; Created: 25-Feb-2011 15:21:20; Application: XMLTransformer-1.11.1;
Report Filename: 1668_PCB1668_HomTotals-TEQs_L15870-2_Form1AHT_SJ1265434_Dry.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 1A
HOMOLOGUE TOTAL PCB ANALYSIS REPORT

CLIENT SAMPLE NO.
Schoppee-10F
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Project No. L13452

Lab Sample I.D.: L15870-2 R

Matrix: TISSUE

Sample Size: 0.174 g (lipid)

Sample Receipt Date: 14-Dec-2010

Initial Calibration Date: 08-Feb-2011

Extraction Date: 10-Feb-2011

Instrument ID: HR GC/MS

Analysis Date: 23-Feb-2011 Time: 01:28:19

GC Column ID: SPB OCTYL

Extract Volume (uL): 20

Sample Data Filename: PB1C_078 S: 6

Injection Volume (uL): 1.0

Blank Data Filename: PB1C_078 S: 5

Dilution Factor: N/A

Cal. Ver. Data Filename: PB1C_078 S: 1

Concentration Units: pg/g (lipid weight basis)

% Moisture: 78.1
% Lipid: 1.71

PCB HOMOLOGUE GROUP

LAB
FLAG ¹CONC.
FOUND

Total Monochloro Biphenyls

78.8

Total Dichloro Biphenyls

774

Total Trichloro Biphenyls

8700

Total Tetrachloro Biphenyls

59400

Total Pentachloro Biphenyls

261000

Total Hexachloro Biphenyls

523000

Total Heptachloro Biphenyls

227000

Total Octachloro Biphenyls

49200

Total Nonachloro Biphenyls

9420

Decachloro Biphenyl

2580

TOTAL PCBs

1140000

(1) Where applicable, custom lab flags have been used on this report.

(2) All header information pertains to the initial instrumental analysis of the sample extract. Additional sample datafiles listed refer to secondary analysis of the sample extract.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Alina Tarnauceanu_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axy Internal Use Only [XSL Template: Form1668HTII.xsl; Created: 25-Feb-2011 15:21:20; Application: XMLTransformer-1.11.1;
Report Filename: 1668_PCB1668_HomTotals-TEQs_L15870-2_Form1AHT_SJ1265434_Lipid.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 1C
PCB CONGENER TEQ ANALYSIS REPORT

CLIENT SAMPLE NO.
Schoppee-10F

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574
Matrix: TISSUE
Sample Size: 10.2 g (wet)
Concentration Units: pg/g (wet weight basis)

Sample Collection: N/A
Project No.: L13452
Lab Sample I.D.: L15870-2 R
GC Column ID(s): SPB OCTYL
Sample Data Filename(s): PB1C_078 S: 6

COMPOUND	IUPAC NO.	COELUTIONS	LAB FLAG ¹	CONC. FOUND	DETECTION LIMIT	WHO 2005 TEF	TEQ		
							U=0	U=1/2 DL	U=DL
3,3',4,4'-TeCB	77			15.3	0.244	0.0001	1.53e-03	1.53e-03	1.53e-03
3,4,4',5-TeCB	81		U		0.243	0.0003	0.00e+00	3.65e-05	7.29e-05
2,3,3',4,4'-PeCB	105			357	0.954	0.00003	1.07e-02	1.07e-02	1.07e-02
2,3,4,4',5-PeCB	114			13.4	1.03	0.00003	4.02e-04	4.02e-04	4.02e-04
2,3',4,4',5-PeCB	118			919	1.03	0.00003	2.76e-02	2.76e-02	2.76e-02
2',3,4,4',5-PeCB	123			10.5	1.10	0.00003	3.15e-04	3.15e-04	3.15e-04
3,3',4,4',5-PeCB	126			5.27	1.03	0.1	5.27e-01	5.27e-01	5.27e-01
2,3,3',4,4',5-HxCB	156	156 + 157	C	152	0.779	0.00003	4.56e-03	4.56e-03	4.56e-03
2,3,3',4,4',5'-HxCB	157	156 + 157	C156						
2,3',4,4',5,5'-HxCB	167			73.4	0.589	0.00003	2.20e-03	2.20e-03	2.20e-03
3,3',4,4',5,5'-HxCB	169		U		2.26	0.03	0.00e+00	3.39e-02	6.78e-02
2,3,3',4,4',5,5'-HpCB	189			11.6	0.164	0.00003	3.48e-04	3.48e-04	3.48e-04
TOTAL TEQ							0.575	0.609	0.643

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; C = co-eluting congener.
(2) Concentrations that do not meet quantification criteria are not included in the TEQ calculations.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.



AXYS METHOD MLA-010 Rev 10

Form 1C
PCB CONGENER TEQ ANALYSIS REPORT

CLIENT SAMPLE NO.
Schoppee-10F

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574
Matrix: TISSUE
Sample Size: 2.35 g (dry)
Concentration Units: pg/g (dry weight basis)

Sample Collection: N/A
Project No.: L13452
Lab Sample I.D.: L15870-2 R
GC Column ID(s): SPB OCTYL
Sample Data Filename(s): PB1C_078 S: 6

COMPOUND	IUPAC NO.	COELUTIONS	LAB FLAG ¹	CONC. FOUND	DETECTION LIMIT	WHO 2005 TEF	TEQ		
							U=0	U=1/2 DL	U=DL
3,3',4,4'-TeCB	77			66.7	1.06	0.0001	6.67e-03	6.67e-03	6.67e-03
3,4,4',5-TeCB	81		U		1.06	0.0003	0.00e+00	1.59e-04	3.18e-04
2,3,3',4,4'-PeCB	105			1560	4.16	0.00003	4.68e-02	4.68e-02	4.68e-02
2,3,4,4',5-PeCB	114			58.4	4.49	0.00003	1.75e-03	1.75e-03	1.75e-03
2,3',4,4',5-PeCB	118			4010	4.49	0.00003	1.20e-01	1.20e-01	1.20e-01
2',3,4,4',5-PeCB	123			45.8	4.80	0.00003	1.37e-03	1.37e-03	1.37e-03
3,3',4,4',5-PeCB	126			23.0	4.49	0.1	2.30e+00	2.30e+00	2.30e+00
2,3,3',4,4',5-HxCB	156	156 + 157	C	663	3.40	0.00003	1.99e-02	1.99e-02	1.99e-02
2,3,3',4,4',5'-HxCB	157	156 + 157	C156						
2,3',4,4',5,5'-HxCB	167			320	2.57	0.00003	9.60e-03	9.60e-03	9.60e-03
3,3',4,4',5,5'-HxCB	169		U		9.85	0.03	0.00e+00	1.48e-01	2.96e-01
2,3,3',4,4',5,5'-HpCB	189			50.6	0.715	0.00003	1.52e-03	1.52e-03	1.52e-03
TOTAL TEQ							2.51	2.66	2.80

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; C = co-eluting congener.
(2) Concentrations that do not meet quantification criteria are not included in the TEQ calculations.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: 1668TEQ.xsl; Created: 25-Feb-2011 15:21:20; Application: XMLTransformer-1.11.1;
Report Filename: 1668_PCB1668_HomTotals-TEQs_L15870-2_TEQ_SJ1265434_Dry.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 1C
PCB CONGENER TEQ ANALYSIS REPORT

CLIENT SAMPLE NO.
Schoppee-10F

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574
Matrix: TISSUE
Sample Size: 0.174 g (lipid)
Concentration Units: pg/g (lipid weight basis)

Sample Collection: N/A
Project No.: L13452
Lab Sample I.D.: L15870-2 R
GC Column ID(s): SPB OCTYL
Sample Data Filename(s): PB1C_078 S: 6

COMPOUND	IUPAC NO.	COELUTIONS	LAB FLAG ¹	CONC. FOUND	DETECTION LIMIT	WHO 2005 TEF	TEQ		
							U=0	U=1/2 DL	U=DL
3,3',4,4'-TeCB	77			900	14.3	0.0001	9.00e-02	9.00e-02	9.00e-02
3,4,4',5-TeCB	81		U		14.3	0.0003	0.00e+00	2.15e-03	4.29e-03
2,3,3',4,4'-PeCB	105			21100	56.2	0.00003	6.33e-01	6.33e-01	6.33e-01
2,3,4,4',5-PeCB	114			788	60.6	0.00003	2.36e-02	2.36e-02	2.36e-02
2,3',4,4',5-PeCB	118			54100	60.6	0.00003	1.62e+00	1.62e+00	1.62e+00
2',3,4,4',5-PeCB	123			618	64.8	0.00003	1.85e-02	1.85e-02	1.85e-02
3,3',4,4',5-PeCB	126			310	60.6	0.1	3.10e+01	3.10e+01	3.10e+01
2,3,3',4,4',5-HxCB	156	156 + 157	C	8950	45.9	0.00003	2.69e-01	2.69e-01	2.69e-01
2,3,3',4,4',5'-HxCB	157	156 + 157	C156						
2,3',4,4',5,5'-HxCB	167			4320	34.7	0.00003	1.30e-01	1.30e-01	1.30e-01
3,3',4,4',5,5'-HxCB	169		U		133	0.03	0.00e+00	2.00e+00	3.99e+00
2,3,3',4,4',5,5'-HpCB	189			683	9.65	0.00003	2.05e-02	2.05e-02	2.05e-02
TOTAL TEQ							33.8	35.8	37.8

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; C = co-eluting congener.
(2) Concentrations that do not meet quantification criteria are not included in the TEQ calculations.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: 1668TEQ.xsl; Created: 25-Feb-2011 15:21:20; Application: XMLTransformer-1.11.1;
Report Filename: 1668_PCB1668_HomTotals-TEQs_L15870-2_TEQ_SJ1265434_Lipid.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 1A
HOMOLOGUE TOTAL PCB ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Project No. N/A

Lab Sample I.D.: WG35528-101

Matrix: CANOLA OIL

Sample Size: 10.0 g

Sample Receipt Date: N/A

Initial Calibration Date: 08-Feb-2011

Extraction Date: 10-Feb-2011

Instrument ID: HR GC/MS

Analysis Date: 23-Feb-2011 Time: 00:23:57

GC Column ID: SPB OCTYL

Extract Volume (uL): 20

Sample Data Filename: PB1C_078 S: 5

Injection Volume (uL): 1.0

Blank Data Filename: PB1C_078 S: 5

Dilution Factor: N/A

Cal. Ver. Data Filename: PB1C_078 S: 1

Concentration Units: pg/g

PCB HOMOLOGUE GROUP	LAB FLAG ¹	CONC. FOUND
Total Monochloro Biphenyls		1.06
Total Dichloro Biphenyls		1.25
Total Trichloro Biphenyls		0.518
Total Tetrachloro Biphenyls		0.690
Total Pentachloro Biphenyls		0.117
Total Hexachloro Biphenyls	U	
Total Heptachloro Biphenyls		0.175
Total Octachloro Biphenyls	U	
Total Nonachloro Biphenyls	U	
Decachloro Biphenyl	U	
TOTAL PCBs		3.81

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.

(2) All header information pertains to the initial instrumental analysis of the sample extract. Additional sample datafiles listed refer to secondary analysis of the sample extract.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axy Internal Use Only [XSL Template: Form1668HTII.xsl; Created: 25-Feb-2011 15:21:20; Application: XMLTransformer-1.11.1;
Report Filename: 1668_PCB1668_HomTotals-TEQs_WG35528-101_Form1AHT_SJ1265431.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 1A
HOMOLOGUE TOTAL PCB ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Matrix: CANOLA OIL

Sample Receipt Date: N/A

Extraction Date: 10-Feb-2011

Analysis Date: 23-Feb-2011 **Time:** 00:23:57

Extract Volume (uL): 20

Injection Volume (uL): 1.0

Dilution Factor: N/A

Concentration Units: pg/g (dry weight basis)

Project No. N/A

Lab Sample I.D.: WG35528-101

Sample Size: 2.00 g (dry)

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

Sample Data Filename: PB1C_078 S: 5

Blank Data Filename: PB1C_078 S: 5

Cal. Ver. Data Filename: PB1C_078 S: 1

PCB HOMOLOGUE GROUP	LAB FLAG ¹	CONC. FOUND
Total Monochloro Biphenyls		5.31
Total Dichloro Biphenyls		6.25
Total Trichloro Biphenyls		2.59
Total Tetrachloro Biphenyls		3.46
Total Pentachloro Biphenyls		0.585
Total Hexachloro Biphenyls	U	
Total Heptachloro Biphenyls		0.875
Total Octachloro Biphenyls	U	
Total Nonachloro Biphenyls	U	
Decachloro Biphenyl	U	
TOTAL PCBs		19.1

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.

(2) All header information pertains to the initial instrumental analysis of the sample extract. Additional sample datafiles listed refer to secondary analysis of the sample extract.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axy Internal Use Only [XSL Template: Form1668HTII.xsl; Created: 25-Feb-2011 15:21:20; Application: XMLTransformer-1.11.1;
Report Filename: 1668_PCB1668_HomTotals-TEQs_WG35528-101_Form1AHT_SJ1265431_Dry.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 1A
HOMOLOGUE TOTAL PCB ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Matrix: CANOLA OIL

Sample Receipt Date: N/A

Extraction Date: 10-Feb-2011

Analysis Date: 23-Feb-2011 **Time:** 00:23:57

Extract Volume (uL): 20

Injection Volume (uL): 1.0

Dilution Factor: N/A

Concentration Units: pg/g (lipid weight basis)

Project No. N/A

Lab Sample I.D.: WG35528-101

Sample Size: 0.200 g (lipid)

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

Sample Data Filename: PB1C_078 S: 5

Blank Data Filename: PB1C_078 S: 5

Cal. Ver. Data Filename: PB1C_078 S: 1

PCB HOMOLOGUE GROUP	LAB FLAG ¹	CONC. FOUND
Total Monochloro Biphenyls		53.1
Total Dichloro Biphenyls		62.5
Total Trichloro Biphenyls		25.9
Total Tetrachloro Biphenyls		34.6
Total Pentachloro Biphenyls		5.85
Total Hexachloro Biphenyls	U	
Total Heptachloro Biphenyls		8.75
Total Octachloro Biphenyls	U	
Total Nonachloro Biphenyls	U	
Decachloro Biphenyl	U	
TOTAL PCBs		191

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.

(2) All header information pertains to the initial instrumental analysis of the sample extract. Additional sample datafiles listed refer to secondary analysis of the sample extract.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.



AXYS METHOD MLA-010 Rev 10

Form 1C
PCB CONGENER TEQ ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Sample Collection: N/A

Project No. N/A

Matrix: CANOLA OIL

Lab Sample I.D.: WG35528-101

Sample Size: 10.0 g

GC Column ID(s): SPB OCTYL

Concentration Units: pg/g

Sample Data Filename(s): PB1C_078 S: 5

COMPOUND	IUPAC NO.	COELUTIONS	LAB FLAG ¹	CONC. FOUND	DETECTION LIMIT	WHO 2005 TEF	TEQ		
							U=0	U=1/2 DL	U=DL
3,3',4,4'-TeCB	77		U		0.0835	0.0001	0.00e+00	4.18e-06	8.35e-06
3,4,4',5-TeCB	81		U		0.0885	0.0003	0.00e+00	1.33e-05	2.66e-05
2,3,3',4,4'-PeCB	105		U		0.0833	0.00003	0.00e+00	1.25e-06	2.50e-06
2,3,4,4',5-PeCB	114		U		0.0882	0.00003	0.00e+00	1.32e-06	2.65e-06
2,3',4,4',5-PeCB	118			0.117	0.0932	0.00003	3.51e-06	3.51e-06	3.51e-06
2',3,4,4',5-PeCB	123		U		0.0958	0.00003	0.00e+00	1.44e-06	2.87e-06
3,3',4,4',5-PeCB	126		U		0.0875	0.1	0.00e+00	4.38e-03	8.75e-03
2,3,3',4,4',5-HxCB	156	156 + 157	C U		0.0792	0.00003	0.00e+00	1.19e-06	2.38e-06
2,3,3',4,4',5'-HxCB	157	156 + 157	C156						
2,3',4,4',5,5'-HxCB	167		U		0.0636	0.00003	0.00e+00	9.54e-07	1.91e-06
3,3',4,4',5,5'-HxCB	169		U		0.0567	0.03	0.00e+00	8.51e-04	1.70e-03
2,3,3',4,4',5,5'-HpCB	189		U		0.0559	0.00003	0.00e+00	8.39e-07	1.68e-06
TOTAL TEQ									
							0.000004	0.00525	0.0105

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; C = co-eluting congener.
(2) Concentrations that do not meet quantification criteria are not included in the TEQ calculations.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: 1668TEQ.xsl; Created: 25-Feb-2011 15:21:20; Application: XMLTransformer-1.11.1;
Report Filename: 1668_PCB1668_HomTotals-TEQs_WG35528-101_TEQ_SJ1265431.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 1C
PCB CONGENER TEQ ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Sample Collection: N/A

Project No. N/A

Matrix: CANOLA OIL

Lab Sample I.D.: WG35528-101

Sample Size: 2.00 g (dry)

GC Column ID(s): SPB OCTYL

Concentration Units: pg/g (dry weight basis)

Sample Data Filename(s): PB1C_078 S: 5

COMPOUND	IUPAC NO.	COELUTIONS	LAB FLAG ¹	CONC. FOUND	DETECTION LIMIT	WHO 2005 TEF	TEQ			
							U=0	U=1/2 DL	U=DL	
3,3',4,4'-TeCB	77		U		0.418	0.0001	0.00e+00	2.09e-05	4.18e-05	
3,4,4',5-TeCB	81		U		0.443	0.0003	0.00e+00	6.65e-05	1.33e-04	
2,3,3',4,4'-PeCB	105		U		0.417	0.00003	0.00e+00	6.26e-06	1.25e-05	
2,3,4,4',5-PeCB	114		U		0.441	0.00003	0.00e+00	6.62e-06	1.32e-05	
2,3',4,4',5-PeCB	118			0.585	0.466	0.00003	1.76e-05	1.76e-05	1.76e-05	
2',3,4,4',5-PeCB	123		U		0.479	0.00003	0.00e+00	7.19e-06	1.44e-05	
3,3',4,4',5-PeCB	126		U		0.438	0.1	0.00e+00	2.19e-02	4.38e-02	
2,3,3',4,4',5-HxCB	156	156 + 157	C U		0.396	0.00003	0.00e+00	5.94e-06	1.19e-05	
2,3,3',4,4',5'-HxCB	157	156 + 157	C156							
2,3',4,4',5,5'-HxCB	167		U		0.318	0.00003	0.00e+00	4.77e-06	9.54e-06	
3,3',4,4',5,5'-HxCB	169		U		0.284	0.03	0.00e+00	4.26e-03	8.52e-03	
2,3,3',4,4',5,5'-HpCB	189		U		0.280	0.00003	0.00e+00	4.20e-06	8.40e-06	
TOTAL TEQ								0.0000176	0.0263	0.0526

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; C = co-eluting congener.
(2) Concentrations that do not meet quantification criteria are not included in the TEQ calculations.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: 1668TEQ.xsl; Created: 25-Feb-2011 15:21:20; Application: XMLTransformer-1.11.1;
Report Filename: 1668_PCB1668_HomTotals-TEQs_WG35528-101_TEQ_SJ1265431_Dry.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 1C
PCB CONGENER TEQ ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Sample Collection: N/A

Project No. N/A

Matrix: CANOLA OIL

Lab Sample I.D.: WG35528-101

Sample Size: 0.200 g (lipid)

GC Column ID(s): SPB OCTYL

Concentration Units: pg/g (lipid weight basis)

Sample Data Filename(s): PB1C_078 S: 5

COMPOUND	IUPAC NO.	COELUTIONS	LAB FLAG ¹	CONC. FOUND	DETECTION LIMIT	WHO 2005 TEF	TEQ		
							U=0	U=1/2 DL	U=DL
3,3',4,4'-TeCB	77		U		4.18	0.0001	0.00e+00	2.09e-04	4.18e-04
3,4,4',5-TeCB	81		U		4.43	0.0003	0.00e+00	6.65e-04	1.33e-03
2,3,3',4,4'-PeCB	105		U		4.17	0.00003	0.00e+00	6.26e-05	1.25e-04
2,3,4,4',5-PeCB	114		U		4.41	0.00003	0.00e+00	6.62e-05	1.32e-04
2,3',4,4',5-PeCB	118			5.85	4.66	0.00003	1.76e-04	1.76e-04	1.76e-04
2',3,4,4',5-PeCB	123		U		4.79	0.00003	0.00e+00	7.19e-05	1.44e-04
3,3',4,4',5-PeCB	126		U		4.38	0.1	0.00e+00	2.19e-01	4.38e-01
2,3,3',4,4',5-HxCB	156	156 + 157	C U		3.96	0.00003	0.00e+00	5.94e-05	1.19e-04
2,3,3',4,4',5'-HxCB	157	156 + 157	C156						
2,3',4,4',5,5'-HxCB	167		U		3.18	0.00003	0.00e+00	4.77e-05	9.54e-05
3,3',4,4',5,5'-HxCB	169		U		2.84	0.03	0.00e+00	4.26e-02	8.52e-02
2,3,3',4,4',5,5'-HpCB	189		U		2.80	0.00003	0.00e+00	4.20e-05	8.40e-05
TOTAL TEQ									
							0.000176	0.263	0.526

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; C = co-eluting congener.
(2) Concentrations that do not meet quantification criteria are not included in the TEQ calculations.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: 1668TEQ.xsl; Created: 25-Feb-2011 15:21:20; Application: XMLTransformer-1.11.1;
Report Filename: 1668_PCB1668_HomTotals-TEQs_WG35528-101_TEQ_SJ1265431_Lipid.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 4A
PCB CONGENER CALIBRATION VERIFICATION

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 08-Feb-2011 VER Data Filename: PB1C_078 S: 1
 Instrument ID: HR GC/MS Analysis Date: 22-Feb-2011
 GC Column ID: SPB OCTYL Analysis Time: 20:06:22

COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	MZ's FORMING RATIO ²	ION ABUND. RATIO	QC LIMITS ³	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
2-MoCB	1			M/M+2	3.13	2.66-3.60	23.6	17.5 - 32.5
4-MoCB	3			M/M+2	3.12	2.66-3.60	25.2	17.5 - 32.5
2,2'-DiCB	4			M/M+2	1.55	1.33-1.79	26.4	17.5 - 32.5
4,4'-DiCB	15			M/M+2	1.55	1.33-1.79	26.9	21.4 - 39.8
2,2',6-TriCB	19			M/M+2	1.06	0.88-1.20	26.0	17.5 - 32.5
3,4,4'-TriCB	37			M/M+2	1.04	0.88-1.20	25.0	17.5 - 32.5
2,2',6,6'-TeCB	54			M/M+2	0.79	0.65-0.89	52.1	35.0 - 65.0
3,3',4,4'-TeCB	77			M/M+2	0.78	0.65-0.89	50.0	35.0 - 65.0
3,4,4',5-TeCB	81			M/M+2	0.76	0.65-0.89	56.7	35.0 - 65.0
2,2',4,6,6'-PeCB	104			M+2/M+4	1.56	1.32-1.78	51.8	35.0 - 65.0
2,3,3',4,4'-PeCB	105			M+2/M+4	1.50	1.32-1.78	53.2	35.0 - 65.0
2,3,4,4',5-PeCB	114			M+2/M+4	1.56	1.32-1.78	52.4	35.0 - 65.0
2,3',4,4',5-PeCB	118			M+2/M+4	1.52	1.32-1.78	49.6	35.0 - 65.0
2',3,4,4',5-PeCB	123			M+2/M+4	1.55	1.32-1.78	55.9	35.0 - 65.0
3,3',4,4',5-PeCB	126			M+2/M+4	1.58	1.32-1.78	53.3	39.0 - 72.4
2,2',4,4',6,6'-HxCB	155			M+2/M+4	1.30	1.05-1.43	52.6	35.0 - 65.0
2,3,3',4,4',5-HxCB	156	156 + 157	C	M+2/M+4	1.26	1.05-1.43	105	70.0 - 130
2,3,3',4,4',5'-HxCB	157	156 + 157	C156					
2,3',4,4',5,5'-HxCB	167			M+2/M+4	1.28	1.05-1.43	57.9	35.0 - 65.0
3,3',4,4',5,5'-HxCB	169			M+2/M+4	1.32	1.05-1.43	55.5	35.0 - 65.0
2,2',3,4',5,6,6'-HpCB	188			M+2/M+4	1.04	0.89-1.21	47.8	35.0 - 65.0
2,3,3',4,4',5,5'-HpCB	189			M+2/M+4	1.04	0.89-1.21	47.5	35.0 - 65.0
2,2',3,3',5,5',6,6'-OxCB	202			M+2/M+4	0.90	0.76-1.02	78.6	58.9 - 110
2,3,3',4,4',5,5',6-OxCB	205			M+2/M+4	0.90	0.76-1.02	76.5	52.5 - 97.5
2,2',3,3',4,4',5,5',6-NoCB	206			M+2/M+4	0.78	0.65-0.89	70.6	52.5 - 97.5
2,2',3,3',4,5,5',6,6'-NoCB	208			M+2/M+4	0.79	0.65-0.89	75.9	58.7 - 109
2,2',3,3',4,4',5,5',6,6'-DeCB	209			M+2/M+4	0.71	0.59-0.79	74.6	52.5 - 97.5

(1) Where applicable, custom lab flags have been used on this report; C = co-eluting congener.

(2) See Table 8, Method 1668A, for m/z specifications.

(3) Ion Abundance Ratio Control Limits as specified in Table 8, Method 1668A.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Jason MacKenzie _____

For Axys Internal Use Only [XSL Template: Form16684A.xsl; Created: 25-Feb-2011 15:20:48; Application: XMLTransformer-1.11.1;
Report Filename: 1668_PCB1668_PB1C_078S1__Form4A_SJ1265422.html; Workgroup: WG35528; Design ID: 1193]

AXYS METHOD MLA-010 Rev 10

Form 4B
PCB CONGENER CALIBRATION VERIFICATION

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 08-Feb-2011 VER Data Filename: PB1C_078 S: 1
 Instrument ID: HR GC/MS Analysis Date: 22-Feb-2011
 GC Column ID: SPB OCTYL Analysis Time: 20:06:22

LABELLED COMPOUND	IUPAC NO. 1	CO-ELUTIONS	LAB FLAG 2	MZ's FORMING RATIO 3	ION ABUND. RATIO	QC LIMITS 4	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL)
13C12-2-MoCB	1L			M/M+2	3.16	2.66-3.60	102	50.0 - 150
13C12-4-MoCB	3L			M/M+2	3.16	2.66-3.60	100	50.0 - 150
13C12-2,2'-DiCB	4L			M/M+2	1.58	1.33-1.79	98.8	50.0 - 150
13C12-4,4'-DiCB	15L			M/M+2	1.58	1.33-1.79	96.0	50.0 - 150
13C12-2,2',6-TriCB	19L			M/M+2	1.03	0.88-1.20	91.8	50.0 - 150
13C12-3,4,4'-TriCB	37L			M/M+2	1.07	0.88-1.20	108	50.0 - 150
13C12-2,2',6,6'-TeCB	54L			M/M+2	0.79	0.65-0.89	107	50.0 - 150
13C12-3,3',4,4'-TeCB	77L			M/M+2	0.79	0.65-0.89	90.0	50.0 - 150
13C12-3,4,4',5'-TeCB	81L			M/M+2	0.78	0.65-0.89	89.3	50.0 - 150
13C12-2,2',4,6,6'-PeCB	104L			M+2/M+4	1.58	1.32-1.78	102	50.0 - 150
13C12-2,3,3',4,4'-PeCB	105L			M+2/M+4	1.56	1.32-1.78	102	50.0 - 150
13C12-2,3,4,4',5'-PeCB	114L			M+2/M+4	1.60	1.32-1.78	102	50.0 - 150
13C12-2,3',4,4',5'-PeCB	118L			M+2/M+4	1.59	1.32-1.78	98.0	50.0 - 150
13C12-2',3,4,4',5'-PeCB	123L			M+2/M+4	1.58	1.32-1.78	100	50.0 - 150
13C12-3,3',4,4',5'-PeCB	126L			M+2/M+4	1.61	1.32-1.78	95.7	50.0 - 150
13C12-2,2',4,4',6,6'-HxCB	155L			M+2/M+4	1.24	1.05-1.43	99.2	50.0 - 150
13C12-2,3,3',4,4',5'-HxCB	156L	156L + 157L	C	M+2/M+4	1.27	1.05-1.43	187	100 - 300
13C12-2,3,3',4,4',5'-HxCB	157L	156L + 157L	C156L					
13C12-2,3',4,4',5,5'-HxCB	167L			M+2/M+4	1.27	1.05-1.43	92.4	50.0 - 150
13C12-3,3',4,4',5,5'-HxCB	169L			M+2/M+4	1.28	1.05-1.43	89.6	50.0 - 150
13C12-2,2',3,4',5,6,6'-HpCB	188L			M+2/M+4	1.06	0.89-1.21	103	50.0 - 150
13C12-2,3,3',4,4',5,5'-HpCB	189L			M+2/M+4	1.04	0.89-1.21	107	50.0 - 150
13C12-2,2',3,3',5,5',6,6'-OxCB	202L			M+2/M+4	0.91	0.76-1.02	92.3	50.0 - 150
13C12-2,3,3',4,4',5,5',6-OxCB	205L			M+2/M+4	0.90	0.76-1.02	102	50.0 - 150
13C12-2,2',3,3',4,4',5,5',6-NoCB	206L			M+2/M+4	0.79	0.65-0.89	103	50.0 - 150
13C12-2,2',3,3',4,5,5',6,6'-NoCB	208L			M+2/M+4	0.77	0.65-0.89	97.7	50.0 - 150
13C12-2,2',3,3',4,4',5,5',6,6'-DeCB	209L			M+4/M+6	1.19	0.99-1.33	109	50.0 - 150

CLEAN-UP STANDARD

13C12-2,4,4'-TriCB	28L			M/M+2	1.05	0.88-1.20	110	60.0 - 130
13C12-2,3,3',5,5'-PeCB	111L			M+2/M+4	1.57	1.32-1.78	94.7	60.0 - 130
13C12-2,2',3,3',5,5',6-HpCB	178L			M+2/M+4	1.07	0.89-1.21	91.3	60.0 - 130

(1) Suffix "L" indicates labeled compound.

(2) Where applicable, custom lab flags have been used on this report; C = co-eluting congener.

(3) See Table 8, Method 1668A, for m/z specifications.

(4) Ion Abundance Ratio Control Limits as specified in Table 8, Method 1668A.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Jason MacKenzie _____



AXYS METHOD MLA-010 Rev 10

Form 6A
PCB CONGENER RELATIVE RETENTION TIMES

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
 V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 08-Feb-2011

VER Data Filename: PB1C_078 S: 1

Instrument ID: HR GC/MS

Analysis Date: 22-Feb-2011

GC Column ID: SPB OCTYL

Analysis Time: 20:06:22

COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	RETENTION TIME REFERENCE	IUPAC NO. ²	RRT	RRT QC LIMITS
2-MoCB	1			13C12-2-MoCB	1L	1.001	0.999-1.004
4-MoCB	3			13C12-4-MoCB	3L	1.000	0.999-1.004
2,2'-DiCB	4			13C12-2,2'-DiCB	4L	1.001	0.999-1.004
4,4'-DiCB	15			13C12-4,4'-DiCB	15L	1.001	0.999-1.002
2,2',6-TriCB	19			13C12-2,2',6-TriCB	19L	1.001	0.999-1.003
3,4,4'-TriCB	37			13C12-3,4,4'-TriCB	37L	1.001	0.999-1.002
2,2',6,6'-TeCB	54			13C12-2,2',6,6'-TeCB	54L	1.000	0.999-1.002
3,3',4,4'-TeCB	77			13C12-3,3',4,4'-TeCB	77L	1.000	1.000-1.001
3,4,4',5-TeCB	81			13C12-3,4,4',5-TeCB	81L	1.000	1.000-1.001
2,2',4,6,6'-PeCB	104			13C12-2,2',4,6,6'-PeCB	104L	1.001	0.999-1.002
2,3,3',4,4'-PeCB	105			13C12-2,3,3',4,4'-PeCB	105L	1.001	1.000-1.001
2,3,4,4',5-PeCB	114			13C12-2,3,4,4',5-PeCB	114L	1.000	1.000-1.001
2,3',4,4',5-PeCB	118			13C12-2,3',4,4',5-PeCB	118L	1.000	1.000-1.001
2',3,4,4',5-PeCB	123			13C12-2',3,4,4',5-PeCB	123L	1.000	1.000-1.001
3,3',4,4',5-PeCB	126			13C12-3,3',4,4',5-PeCB	126L	1.000	1.000-1.001
2,2',4,4',6,6'-HxCB	155			13C12-2,2',4,4',6,6'-HxCB	155L	1.001	0.999-1.002
2,3,3',4,4',5-HxCB	156	156 + 157	C	13C12-2,3,3',4,4',5-HxCB and 13C12-2,3,3',4,4',5'-HxCB	156L/157L	1.000	0.998-1.003
2,3,3',4,4',5'-HxCB	157	156 + 157	C156				
2,3',4,4',5,5'-HxCB	167			13C12-2,3',4,4',5,5'-HxCB	167L	1.000	1.000-1.001
3,3',4,4',5,5'-HxCB	169			13C12-3,3',4,4',5,5'-HxCB	169L	1.000	1.000-1.001
2,2',3,4',5,6,6'-HpCB	188			13C12-2,2',3,4',5,6,6'-HpCB	188L	1.000	1.000-1.001
2,3,3',4,4',5,5'-HpCB	189			13C12-2,3,3',4,4',5,5'-HpCB	189L	1.001	1.000-1.001
2,2',3,3',5,5',6,6'-OcCB	202			13C12-2,2',3,3',5,5',6,6'-OcCB	202L	1.000	1.000-1.001
2,3,3',4,4',5,5',6-OcCB	205			13C12-2,3,3',4,4',5,5',6-OcCB	205L	1.001	1.000-1.001
2,2',3,3',4,4',5,5',6-NoCB	206			13C12-2,2',3,3',4,4',5,5',6-NoCB	206L	1.001	1.000-1.001
2,2',3,3',4,5,5',6,6'-NoCB	208			13C12-2,2',3,3',4,5,5',6,6'-NoCB	208L	1.000	1.000-1.001
2,2',3,3',4,4',5,5',6,6'-DeCB	209			13C12-2,2',3,3',4,4',5,5',6,6'-DeCB	209L	1.001	1.000-1.001

(1) Where applicable, custom lab flags have been used on this report; C = co-eluting congener.

(2) Suffix "L" indicates labeled compound

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Jason MacKenzie _____

For Axys Internal Use Only [XSL Template: Form16686A.xsl; Created: 25-Feb-2011 15:20:48; Application: XMLTransformer-1.11.1;
 Report Filename: 1668_PCB1668_PB1C_078S1__Form6A_SJ1265422.html; Workgroup: WG35528; Design ID: 1193]



AXYS METHOD MLA-010 Rev 10

Form 6B
PCB CONGENER RELATIVE RETENTION TIMES

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 08-Feb-2011 VER Data Filename: PB1C_078 S: 1
 Instrument ID: HR GC/MS Analysis Date: 22-Feb-2011
 GC Column ID: SPB OCTYL Analysis Time: 20:06:22

LABELED COMPOUND	IUPAC NO. ¹	CO-ELUTIONS	LAB FLAG ²	RETENTION TIME REFERENCE	IUPAC NO. ¹	RRT	RRT QC LIMITS
13C12-2-MoCB	1L			13C12-2,5-DiCB	9L	0.719	0.688-0.750
13C12-4-MoCB	3L			13C12-2,5-DiCB	9L	0.857	0.826-0.889
13C12-2,2'-DiCB	4L			13C12-2,5-DiCB	9L	0.874	0.843-0.905
13C12-4,4'-DiCB	15L			13C12-2,5-DiCB	9L	1.253	1.222-1.284
13C12-2,2',6-TriCB	19L			13C12-2,5-DiCB	9L	1.073	1.042-1.104
13C12-3,4,4'-TriCB	37L			13C12-2,2',5,5'-TeCB	52L	1.090	1.070-1.110
13C12-2,2',6,6'-TeCB	54L			13C12-2,2',5,5'-TeCB	52L	0.812	0.799-0.825
13C12-3,3',4,4'-TeCB	77L			13C12-2,2',5,5'-TeCB	52L	1.394	1.380-1.407
13C12-3,4,4',5-TeCB	81L			13C12-2,2',5,5'-TeCB	52L	1.371	1.357-1.384
13C12-2,2',4,6,6'-PeCB	104L			13C12-2,2',4,5,5'-PeCB	101L	0.809	0.799-0.820
13C12-2,3,3',4,4'-PeCB	105L			13C12-2,2',4,5,5'-PeCB	101L	1.199	1.189-1.209
13C12-2,3,4,4',5-PeCB	114L			13C12-2,2',4,5,5'-PeCB	101L	1.178	1.168-1.189
13C12-2,3',4,4',5-PeCB	118L			13C12-2,2',4,5,5'-PeCB	101L	1.161	1.150-1.171
13C12-2',3,4,4',5-PeCB	123L			13C12-2,2',4,5,5'-PeCB	101L	1.150	1.140-1.161
13C12-3,3',4,4',5-PeCB	126L			13C12-2,2',4,5,5'-PeCB	101L	1.299	1.289-1.310
13C12-2,2',4,4',6,6'-HxCB	155L			13C12-2,2',3,4,4',5'-HxCB	138L	0.787	0.778-0.795
13C12-2,3,3',4,4',5-HxCB	156L	156L + 157L	C	13C12-2,2',3,4,4',5'-HxCB	138L	1.107	1.099-1.115
13C12-2,3,3',4,4',5'-HxCB	157L	156L + 157L	C156L				
13C12-2,3',4,4',5,5'-HxCB	167L			13C12-2,2',3,4,4',5'-HxCB	138L	1.077	1.069-1.085
13C12-3,3',4,4',5,5'-HxCB	169L			13C12-2,2',3,4,4',5'-HxCB	138L	1.190	1.182-1.198
13C12-2,2',3,4',5,6,6'-HpCB	188L			13C12-2,2',3,3',4,4',5,5'-OcCB	194L	0.713	0.707-0.719
13C12-2,3,3',4,4',5,5'-HpCB	189L			13C12-2,2',3,3',4,4',5,5'-OcCB	194L	0.959	0.952-0.965
13C12-2,2',3,3',5,5',6,6'-OcCB	202L			13C12-2,2',3,3',4,4',5,5'-OcCB	194L	0.818	0.812-0.825
13C12-2,3,3',4,4',5,5',6-OcCB	205L			13C12-2,2',3,3',4,4',5,5'-OcCB	194L	1.009	1.000-1.019
13C12-2,2',3,3',4,4',5,5',6-NoCB	206L			13C12-2,2',3,3',4,4',5,5'-OcCB	194L	1.044	1.034-1.053
13C12-2,2',3,3',4,5,5',6,6'-NoCB	208L			13C12-2,2',3,3',4,4',5,5'-OcCB	194L	0.950	0.943-0.956
13C12-2,2',3,3',4,4',5,5',6,6'-DeCB	209L			13C12-2,2',3,3',4,4',5,5'-OcCB	194L	1.075	1.066-1.085

CLEANUP STANDARD

13C12-2,4,4'-TriCB	28L			13C12-2,2',5,5'-TeCB	52L	0.924	0.911-0.938
13C12-2,3,3',5,5'-PeCB	111L			13C12-2,2',4,5,5'-PeCB	101L	1.087	1.077-1.097
13C12-2,2',3,3',5,5',6-HpCB	178L			13C12-2,2',3,4,4',5'-HxCB	138L	1.011	1.003-1.020

(1) Suffix "L" indicates labeled compound

(2) Where applicable, custom lab flags have been used on this report; C = co-eluting congener.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Jason MacKenzie _____



AXYS METHOD MLA-010 Rev 10

Form 3A

PCB CONGENER INITIAL CALIBRATION RELATIVE RESPONSES,
ION ABUNDANCE RATIOS, AND RELATIVE RETENTION TIMES

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 08-Feb-2011

CAL Data Filename: PB1C_078 S: 1

Instrument ID: HR GC/MS

Analysis Date: 22-Feb-2011

GC Column ID: SPB OCTYL

Analysis Time: 20:06:22

COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	RRF	MZ's FORMING RATIO ²	ION ABUND. RATIO	RATIO QC LIMITS ³	RRT	RRT QC LIMITS
3-MoCB	2			1.07	M/M+2	3.12	2.66-3.60	0.988	0.984 - 0.992
2,3-DiCB	5			1.14	M/M+2	1.56	1.33-1.79	1.198	1.194 - 1.201
2,3'-DiCB	6			1.23	M/M+2	1.55	1.33-1.79	1.175	1.171 - 1.179
2,4-DiCB	7			1.19	M/M+2	1.56	1.33-1.79	1.157	1.154 - 1.161
2,4'-DiCB	8			1.30	M/M+2	1.56	1.33-1.79	1.207	1.204 - 1.211
2,5-DiCB	9			1.26	M/M+2	1.55	1.33-1.79	1.145	1.142 - 1.149
2,6-DiCB	10			1.24	M/M+2	1.55	1.33-1.79	1.013	1.010 - 1.017
3,3'-DiCB	11			1.16	M/M+2	1.57	1.33-1.79	0.968	0.966 - 0.971
3,4-DiCB	12	12 + 13	C	1.14	M/M+2	1.55	1.33-1.79	0.985	0.983 - 0.988
3,4'-DiCB	13	12 + 13	C12						
3,5-DiCB	14			1.22	M/M+2	1.56	1.33-1.79	0.925	0.923 - 0.928
2,2',3-TriCB	16			0.74	M/M+2	1.15	0.88-1.20	1.166	1.163 - 1.169
2,2',4-TriCB	17			0.89	M/M+2	1.06	0.88-1.20	1.139	1.136 - 1.142
2,2',5-TriCB	18	18 + 30	C	1.07	M/M+2	1.06	0.88-1.20	1.113	1.110 - 1.115
2,3,3'-TriCB	20	20 + 28	C	1.29	M/M+2	1.05	0.88-1.20	0.849	0.846 - 0.852
2,3,4-TriCB	21	21 + 33	C	1.33	M/M+2	1.05	0.88-1.20	0.856	0.853 - 0.859
2,3,4'-TriCB	22			1.21	M/M+2	1.05	0.88-1.20	0.873	0.871 - 0.875
2,3,5-TriCB	23			1.23	M/M+2	1.03	0.88-1.20	1.282	1.279 - 1.285
2,3,6-TriCB	24			1.20	M/M+2	1.01	0.88-1.20	1.159	1.156 - 1.162
2,3',4-TriCB	25			1.47	M/M+2	1.03	0.88-1.20	0.825	0.823 - 0.827
2,3',5-TriCB	26	26 + 29	C	1.30	M/M+2	1.04	0.88-1.20	1.301	1.296 - 1.306
2,3',6-TriCB	27			1.30	M/M+2	1.07	0.88-1.20	1.151	1.148 - 1.154
2,4,4'-TriCB	28	20 + 28	C20						
2,4,5-TriCB	29	26 + 29	C26						
2,4,6-TriCB	30	18 + 30	C18						
2,4',5-TriCB	31			1.38	M/M+2	1.03	0.88-1.20	0.837	0.836 - 0.839
2,4',6-TriCB	32			1.39	M/M+2	1.04	0.88-1.20	1.197	1.194 - 1.200
2',3,4-TriCB	33	21 + 33	C21						
2',3,5-TriCB	34			1.28	M/M+2	1.04	0.88-1.20	1.273	1.270 - 1.275
3,3',4-TriCB	35			1.18	M/M+2	1.04	0.88-1.20	0.985	0.983 - 0.987
3,3',5-TriCB	36			1.33	M/M+2	1.04	0.88-1.20	0.932	0.930 - 0.934
3,4,5-TriCB	38			1.29	M/M+2	1.03	0.88-1.20	0.968	0.966 - 0.970
3,4',5-TriCB	39			1.29	M/M+2	1.04	0.88-1.20	0.945	0.943 - 0.947
2,2',3,3'-TeCB	40	40 + 41 + 71	C	0.87	M/M+2	0.78	0.65-0.89	1.334	1.330 - 1.338
2,2',3,4-TeCB	41	40 + 41 + 71	C40						
2,2',3,4'-TeCB	42			0.84	M/M+2	0.79	0.65-0.89	1.310	1.307 - 1.312
2,2',3,5-TeCB	43			0.72	M/M+2	0.77	0.65-0.89	1.244	1.242 - 1.247
2,2',3,5'-TeCB	44	44 + 47 + 65	C	0.98	M/M+2	0.79	0.65-0.89	1.285	1.280 - 1.289
2,2',3,6-TeCB	45	45 + 51	C	0.92	M/M+2	0.79	0.65-0.89	1.146	1.142 - 1.150
2,2',3,6'-TeCB	46			0.80	M/M+2	0.78	0.65-0.89	1.159	1.157 - 1.162
2,2',4,4'-TeCB	47	44 + 47 + 65	C44						
2,2',4,5-TeCB	48			0.88	M/M+2	0.81	0.65-0.89	1.272	1.270 - 1.275
2,2',4,5'-TeCB	49	49 + 69	C	1.05	M/M+2	0.79	0.65-0.89	1.256	1.252 - 1.260
2,2',4,6-TeCB	50	50 + 53	C	0.95	M/M+2	0.79	0.65-0.89	1.110	1.106 - 1.114
2,2',4,6'-TeCB	51	45 + 51	C45						
2,2',5,5'-TeCB	52			0.97	M/M+2	0.78	0.65-0.89	1.233	1.231 - 1.235
2,2',5,6'-TeCB	53	50 + 53	C50						
2,3,3',4-TeCB	55			1.04	M/M+2	0.77	0.65-0.89	0.890	0.888 - 0.891
2,3,3',4'-TeCB	56			1.07	M/M+2	0.76	0.65-0.89	0.906	0.904 - 0.907



COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	RRF	MZ's FORMING RATIO ²	ION ABUND. RATIO	RATIO QC LIMITS ³	RRT	RRT QC LIMITS
2,3,3',5'-TeCB	57			1.15	M/M+2	0.78	0.65-0.89	0.844	0.843 - 0.846
2,3,3',5'-TeCB	58			1.14	M/M+2	0.78	0.65-0.89	0.852	0.850 - 0.853
2,3,3',6'-TeCB	59	59 + 62 + 75	C	1.18	M/M+2	0.79	0.65-0.89	1.299	1.295 - 1.303
2,3,4,4'-TeCB	60			1.03	M/M+2	0.77	0.65-0.89	0.912	0.910 - 0.913
2,3,4,5'-TeCB	61	61 + 70 + 74 + 76	C	1.17	M/M+2	0.77	0.65-0.89	0.875	0.872 - 0.878
2,3,4,6'-TeCB	62	59 + 62 + 75	C59						
2,3,4',5'-TeCB	63			1.23	M/M+2	0.78	0.65-0.89	0.865	0.863 - 0.866
2,3,4',6'-TeCB	64			1.20	M/M+2	0.79	0.65-0.89	1.347	1.344 - 1.349
2,3,5,6'-TeCB	65	44 + 47 + 65	C44						
2,3',4,4'-TeCB	66			1.24	M/M+2	0.76	0.65-0.89	0.885	0.883 - 0.886
2,3',4,5'-TeCB	67			1.34	M/M+2	0.78	0.65-0.89	0.857	0.855 - 0.858
2,3',4,5'-TeCB	68			1.24	M/M+2	0.77	0.65-0.89	0.832	0.831 - 0.834
2,3',4,6'-TeCB	69	49 + 69	C49						
2,3',4',5'-TeCB	70	61 + 70 + 74 + 76	C61						
2,3',4',6'-TeCB	71	40 + 41 + 71	C40						
2,3',5,5'-TeCB	72			1.25	M/M+2	0.78	0.65-0.89	0.823	0.822 - 0.825
2,3',5,6'-TeCB	73			1.21	M/M+2	0.77	0.65-0.89	1.240	1.238 - 1.243
2,4,4',5'-TeCB	74	61 + 70 + 74 + 76	C61						
2,4,4',6'-TeCB	75	59 + 62 + 75	C59						
2',3,4,5'-TeCB	76	61 + 70 + 74 + 76	C61						
3,3',4,5'-TeCB	78			1.02	M/M+2	0.76	0.65-0.89	0.987	0.985 - 0.988
3,3',4,5'-TeCB	79			1.27	M/M+2	0.77	0.65-0.89	0.970	0.969 - 0.972
3,3',5,5'-TeCB	80			1.20	M/M+2	0.78	0.65-0.89	0.924	0.922 - 0.925
2,2',3,3',4'-PeCB	82			0.64	M+2/M+4	1.58	1.32-1.78	0.934	0.933 - 0.936
2,2',3,3',5'-PeCB	83	83 + 99	C	0.71	M+2/M+4	1.62	1.32-1.78	0.884	0.882 - 0.887
2,2',3,3',6'-PeCB	84			0.69	M+2/M+4	1.59	1.32-1.78	1.163	1.161 - 1.165
2,2',3,4,4'-PeCB	85	85 + 116 + 117	C	0.87	M+2/M+4	1.59	1.32-1.78	0.920	0.917 - 0.923
2,2',3,4,5'-PeCB	86	86 + 87 + 97 + 108 + 119 + 125	C	0.85	M+2/M+4	1.57	1.32-1.78	0.901	0.897 - 0.904
2,2',3,4,5'-PeCB	87	86 + 87 + 97 + 108 + 119 + 125	C86						
2,2',3,4,6'-PeCB	88	88 + 91	C	0.78	M+2/M+4	1.55	1.32-1.78	1.152	1.148 - 1.156
2,2',3,4,6'-PeCB	89			0.72	M+2/M+4	1.53	1.32-1.78	1.182	1.180 - 1.184
2,2',3,4',5'-PeCB	90	90 + 101 + 113	C	0.85	M+2/M+4	1.63	1.32-1.78	0.869	0.867 - 0.871
2,2',3,4',6'-PeCB	91	88 + 91	C88						
2,2',3,5,5'-PeCB	92			0.73	M+2/M+4	1.59	1.32-1.78	0.853	0.852 - 0.855
2,2',3,5,6'-PeCB	93	93 + 95 + 98 + 100 + 102	C	0.80	M+2/M+4	1.60	1.32-1.78	1.128	1.118 - 1.139
2,2',3,5,6'-PeCB	94			0.73	M+2/M+4	1.60	1.32-1.78	1.102	1.100 - 1.104
2,2',3,5',6'-PeCB	95	93 + 95 + 98 + 100 + 102	C93						
2,2',3,6,6'-PeCB	96			1.20	M+2/M+4	1.55	1.32-1.78	1.016	1.013 - 1.019
2,2',3',4,5'-PeCB	97	86 + 87 + 97 + 108 + 119 + 125	C86						
2,2',3',4,6'-PeCB	98	93 + 95 + 98 + 100 + 102	C93						
2,2',4,4',5'-PeCB	99	83 + 99	C83						
2,2',4,4',6'-PeCB	100	93 + 95 + 98 + 100 + 102	C93						
2,2',4,5,5'-PeCB	101	90 + 101 + 113	C90						
2,2',4,5,6'-PeCB	102	93 + 95 + 98 + 100 + 102	C93						
2,2',4,5',6'-PeCB	103			0.89	M+2/M+4	1.54	1.32-1.78	1.093	1.091 - 1.095
2,3,3',4,5'-PeCB	106			0.99	M+2/M+4	1.54	1.32-1.78	1.004	1.003 - 1.005
2,3,3',4',5'-PeCB	107	107 + 124	C	0.97	M+2/M+4	1.57	1.32-1.78	0.990	0.988 - 0.992
2,3,3',4,5'-PeCB	108	86 + 87 + 97 + 108 + 119 + 125	C86						
2,3,3',4,6'-PeCB	109			1.12	M+2/M+4	1.56	1.32-1.78	0.997	0.996 - 0.998
2,3,3',4',6'-PeCB	110	110 + 115	C	0.97	M+2/M+4	1.60	1.32-1.78	0.926	0.924 - 0.929
2,3,3',5,5'-PeCB	111			0.94	M+2/M+4	1.54	1.32-1.78	0.945	0.944 - 0.947
2,3,3',5,6'-PeCB	112			1.00	M+2/M+4	1.61	1.32-1.78	0.889	0.888 - 0.890
2,3,3',5',6'-PeCB	113	90 + 101 + 113	C90						
2,3,4,4',6'-PeCB	115	110 + 115	C110						
2,3,4,5,6'-PeCB	116	85 + 116 + 117	C85						
2,3,4',5,6'-PeCB	117	85 + 116 + 117	C85						
2,3',4,4',6'-PeCB	119	86 + 87 + 97 + 108 + 119 + 125	C86						
2,3',4,5,5'-PeCB	120			1.00	M+2/M+4	1.55	1.32-1.78	0.958	0.957 - 0.960
2,3',4,5',6'-PeCB	121			1.00	M+2/M+4	1.58	1.32-1.78	1.198	1.196 - 1.200
2',3,3',4,5'-PeCB	122			0.92	M+2/M+4	1.56	1.32-1.78	1.010	1.009 - 1.012
2',3,4,5,5'-PeCB	124	107 + 124	C107						
2',3,4,5,6'-PeCB	125	86 + 87 + 97 + 108 + 119 + 125	C86						



COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	RRF	MZ's FORMING RATIO ²	ION ABUND. RATIO	RATIO QC LIMITS ³	RRT	RRT QC LIMITS
3,3',4,5,5'-PeCB	127			0.94	M+2/M+4	1.48	1.32-1.78	1.040	1.039 - 1.041
2,2',3,3',4,4'-HxCB	128	128 + 166	C	0.92	M+2/M+4	1.27	1.05-1.43	0.959	0.957 - 0.960
2,2',3,3',4,5-HxCB	129	129 + 138 + 160 + 163	C	0.94	M+2/M+4	1.27	1.05-1.43	0.930	0.927 - 0.933
2,2',3,3',4,5'-HxCB	130			0.78	M+2/M+4	1.24	1.05-1.43	0.913	0.912 - 0.914
2,2',3,3',4,6-HxCB	131			0.81	M+2/M+4	1.25	1.05-1.43	1.159	1.157 - 1.160
2,2',3,3',4,6'-HxCB	132			0.80	M+2/M+4	1.26	1.05-1.43	1.174	1.171 - 1.177
2,2',3,3',5,5'-HxCB	133			0.85	M+2/M+4	1.28	1.05-1.43	1.190	1.189 - 1.192
2,2',3,3',5,6-HxCB	134	134 + 143	C	0.85	M+2/M+4	1.27	1.05-1.43	1.141	1.139 - 1.144
2,2',3,3',5,6'-HxCB	135	135 + 151 + 154	C	0.94	M+2/M+4	1.25	1.05-1.43	1.106	1.101 - 1.112
2,2',3,3',6,6'-HxCB	136			1.30	M+2/M+4	1.29	1.05-1.43	1.024	1.022 - 1.026
2,2',3,4,4',5-HxCB	137			0.86	M+2/M+4	1.25	1.05-1.43	0.919	0.918 - 0.920
2,2',3,4,4',5'-HxCB	138	129 + 138 + 160 + 163	C129						
2,2',3,4,4',6-HxCB	139	139 + 140	C	0.93	M+2/M+4	1.25	1.05-1.43	1.152	1.149 - 1.155
2,2',3,4,4',6'-HxCB	140	139 + 140	C139						
2,2',3,4,5,5'-HxCB	141			0.85	M+2/M+4	1.28	1.05-1.43	0.904	0.903 - 0.905
2,2',3,4,5,6-HxCB	142			0.86	M+2/M+4	1.27	1.05-1.43	1.164	1.162 - 1.165
2,2',3,4,5,6'-HxCB	143	134 + 143	C134						
2,2',3,4,5,6-HxCB	144			0.93	M+2/M+4	1.25	1.05-1.43	1.121	1.119 - 1.122
2,2',3,4,6,6'-HxCB	145			1.22	M+2/M+4	1.26	1.05-1.43	1.034	1.032 - 1.035
2,2',3,4',5,5'-HxCB	146			1.02	M+2/M+4	1.25	1.05-1.43	0.884	0.883 - 0.886
2,2',3,4',5,6-HxCB	147	147 + 149	C	0.94	M+2/M+4	1.25	1.05-1.43	1.132	1.130 - 1.135
2,2',3,4',5,6'-HxCB	148			0.95	M+2/M+4	1.26	1.05-1.43	1.083	1.082 - 1.085
2,2',3,4',5,6-HxCB	149	147 + 149	C147						
2,2',3,4',6,6'-HxCB	150			1.30	M+2/M+4	1.26	1.05-1.43	1.013	1.011 - 1.014
2,2',3,5,5',6-HxCB	151	135 + 151 + 154	C135						
2,2',3,5,6,6'-HxCB	152			1.38	M+2/M+4	1.24	1.05-1.43	1.007	1.005 - 1.008
2,2',4,4',5,5'-HxCB	153	153 + 168	C	1.11	M+2/M+4	1.29	1.05-1.43	0.900	0.898 - 0.901
2,2',4,4',5,6'-HxCB	154	135 + 151 + 154	C135						
2,3,3',4,4',6-HxCB	158			1.19	M+2/M+4	1.27	1.05-1.43	0.938	0.937 - 0.939
2,3,3',4,5,5'-HxCB	159			1.07	M+2/M+4	1.25	1.05-1.43	0.982	0.981 - 0.983
2,3,3',4,5,6-HxCB	160	129 + 138 + 160 + 163	C129						
2,3,3',4,5,6'-HxCB	161			1.21	M+2/M+4	1.27	1.05-1.43	0.888	0.887 - 0.889
2,3,3',4',5,5'-HxCB	162			1.03	M+2/M+4	1.26	1.05-1.43	0.989	0.988 - 0.990
2,3,3',4',5,6-HxCB	163	129 + 138 + 160 + 163	C129						
2,3,3',4',5,6'-HxCB	164			1.07	M+2/M+4	1.28	1.05-1.43	0.922	0.921 - 0.923
2,3,3',5,5',6-HxCB	165			1.05	M+2/M+4	1.26	1.05-1.43	0.879	0.878 - 0.880
2,3,4,4',5,6-HxCB	166	128 + 166	C128						
2,3',4,4',5,6-HxCB	168	153 + 168	C153						
2,2',3,3',4,4',5-HpCB	170			0.56	M+2/M+4	1.03	0.89-1.21	0.937	0.936 - 0.938
2,2',3,3',4,4',6-HpCB	171	171 + 173	C	0.61	M+2/M+4	1.02	0.89-1.21	1.162	1.160 - 1.164
2,2',3,3',4,5,5'-HpCB	172			0.58	M+2/M+4	1.05	0.89-1.21	0.897	0.897 - 0.898
2,2',3,3',4,5,6-HpCB	173	171 + 173	C171						
2,2',3,3',4,5,6'-HpCB	174			0.64	M+2/M+4	1.07	0.89-1.21	1.133	1.132 - 1.134
2,2',3,3',4,5',6-HpCB	175			0.70	M+2/M+4	1.04	0.89-1.21	1.102	1.101 - 1.103
2,2',3,3',4,6,6'-HpCB	176			0.94	M+2/M+4	1.06	0.89-1.21	1.034	1.033 - 1.036
2,2',3,3',4',5,6-HpCB	177			0.65	M+2/M+4	1.02	0.89-1.21	1.145	1.144 - 1.146
2,2',3,3',5,5',6-HpCB	178			0.65	M+2/M+4	1.03	0.89-1.21	1.085	1.083 - 1.086
2,2',3,3',5,6,6'-HpCB	179			0.98	M+2/M+4	1.04	0.89-1.21	1.010	1.008 - 1.011
2,2',3,4,4',5,5'-HpCB	180	180 + 193	C	0.71	M+2/M+4	1.04	0.89-1.21	0.910	0.909 - 0.911
2,2',3,4,4',5,6-HpCB	181			0.63	M+2/M+4	1.03	0.89-1.21	1.156	1.155 - 1.157
2,2',3,4,4',5,6'-HpCB	182			0.68	M+2/M+4	1.05	0.89-1.21	1.115	1.114 - 1.116
2,2',3,4,4',5,6-HpCB	183	183 + 185	C	0.67	M+2/M+4	1.05	0.89-1.21	1.128	1.126 - 1.129
2,2',3,4,4',6,6'-HpCB	184			1.00	M+2/M+4	1.01	0.89-1.21	1.024	1.023 - 1.025
2,2',3,4,5,5',6-HpCB	185	183 + 185	C183						
2,2',3,4,5,6,6'-HpCB	186			0.90	M+2/M+4	1.04	0.89-1.21	1.047	1.046 - 1.048
2,2',3,4',5,5',6-HpCB	187			0.71	M+2/M+4	1.04	0.89-1.21	1.109	1.108 - 1.111
2,3,3',4,4',5,6-HpCB	190			0.76	M+2/M+4	1.03	0.89-1.21	0.947	0.946 - 0.948
2,3,3',4,4',5,6'-HpCB	191			0.80	M+2/M+4	1.03	0.89-1.21	0.918	0.917 - 0.919
2,3,3',4,5,5',6-HpCB	192			0.71	M+2/M+4	1.04	0.89-1.21	0.903	0.902 - 0.904
2,3,3',4',5,5',6-HpCB	193	180 + 193	C180						
2,2',3,3',4,4',5,5'-OcCB	194			0.82	M+2/M+4	0.90	0.76-1.02	0.991	0.990 - 0.992
2,2',3,3',4,4',5,6-OcCB	195			0.76	M+2/M+4	0.90	0.76-1.02	0.946	0.945 - 0.947
2,2',3,3',4,4',5,6'-OcCB	196			0.72	M+2/M+4	0.90	0.76-1.02	0.916	0.915 - 0.917



COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	RRF	MZ's FORMING RATIO ²	ION ABUND. RATIO	RATIO QC LIMITS ³	RRT	RRT QC LIMITS
2,2',3,3',4,4',6,6'-OcCB	197	197 + 200	C	1.01	M+2/M+4	0.90	0.76-1.02	1.046	1.043 - 1.048
2,2',3,3',4,5,5',6-OcCB	198	198 + 199	C	0.70	M+2/M+4	0.90	0.76-1.02	1.113	1.111 - 1.115
2,2',3,3',4,5,5',6'-OcCB	199	198 + 199	C198						
2,2',3,3',4,5,6,6'-OcCB	200	197 + 200	C197						
2,2',3,3',4,5',6,6'-OcCB	201			1.03	M+2/M+4	0.90	0.76-1.02	1.022	1.020 - 1.024
2,2',3,4,4',5,5',6-OcCB	203			0.76	M+2/M+4	0.92	0.76-1.02	0.920	0.919 - 0.921
2,2',3,4,4',5,6,6'-OcCB	204			1.00	M+2/M+4	0.90	0.76-1.02	1.039	1.037 - 1.040
2,2',3,3',4,4',5,6,6'-NoCB	207			1.20	M+2/M+4	0.80	0.65-0.89	1.020	1.019 - 1.021

(1) Where applicable, custom lab flags have been used on this report.

(2) See Table 8, Method 1668A, for m/z specifications.

(3) Ion Abundance Ratio Control Limits as specified in Table 8, Method 1668A.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Jason MacKenzie _____

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AXYS METHOD MLA-010 Rev 10

Form 3B

PCB CONGENER INITIAL CALIBRATION RELATIVE RESPONSES,
ION ABUNDANCE RATIOS, AND RELATIVE RETENTION TIMES

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 08-Feb-2011

CAL Data Filename: PB1C_078 S: 1

Instrument ID: HR GC/MS

Analysis Date: 22-Feb-2011

GC Column ID: SPB OCTYL

Analysis Time: 20:06:22

LABELLED COMPOUND	IUPAC NO. ¹	CO-ELUTIONS	LAB FLAG ²	RRF	MZ's FORMING RATIO ³	ION ABUND. RATIO	RATIO QC LIMITS ⁴	RRT	RRT QC LIMITS
13C12-2-MoCB	1L			1.03	M/M+2	3.16	2.66-3.60	0.719	0.703 - 0.735
13C12-4-MoCB	3L			0.96	M/M+2	3.16	2.66-3.60	0.857	0.842 - 0.873
13C12-2,2'-DiCB	4L			0.65	M/M+2	1.58	1.33-1.79	0.874	0.858 - 0.890
13C12-4,4'-DiCB	15L			0.93	M/M+2	1.58	1.33-1.79	1.253	1.237 - 1.268
13C12-2,2',6'-TriCB	19L			0.54	M/M+2	1.03	0.88-1.20	1.073	1.057 - 1.088
13C12-3,4,4'-TriCB	37L			1.59	M/M+2	1.07	0.88-1.20	1.090	1.080 - 1.100
13C12-2,2',6,6'-TeCB	54L			1.42	M/M+2	0.79	0.65-0.89	0.812	0.805 - 0.819
13C12-3,3',4,4'-TeCB	77L			1.04	M/M+2	0.79	0.65-0.89	1.394	1.387 - 1.400
13C12-3,4,4',5'-TeCB	81L			1.08	M/M+2	0.78	0.65-0.89	1.371	1.364 - 1.377
13C12-2,2',4,6,6'-PeCB	104L			1.54	M+2/M+4	1.58	1.32-1.78	0.809	0.804 - 0.814
13C12-2,3,3',4,4'-PeCB	105L			1.30	M+2/M+4	1.56	1.32-1.78	1.199	1.194 - 1.204
13C12-2,3,4,4',5'-PeCB	114L			1.31	M+2/M+4	1.60	1.32-1.78	1.178	1.173 - 1.184
13C12-2,3',4,4',5'-PeCB	118L			1.32	M+2/M+4	1.59	1.32-1.78	1.161	1.156 - 1.166
13C12-2',3,4,4',5'-PeCB	123L			1.34	M+2/M+4	1.58	1.32-1.78	1.150	1.145 - 1.156
13C12-3,3',4,4',5'-PeCB	126L			1.13	M+2/M+4	1.61	1.32-1.78	1.299	1.294 - 1.305
13C12-2,2',4,4',6,6'-HxCB	155L			1.67	M+2/M+4	1.24	1.05-1.43	0.787	0.782 - 0.791
13C12-2,3,3',4,4',5'-HxCB	156L	156L + 157L	C	1.15	M+2/M+4	1.27	1.05-1.43	1.107	1.103 - 1.111
13C12-2,3,3',4,4',5'-HxCB	157L	156L + 157L	C156L						
13C12-2,3',4,4',5,5'-HxCB	167L			1.12	M+2/M+4	1.27	1.05-1.43	1.077	1.073 - 1.081
13C12-3,3',4,4',5,5'-HxCB	169L			1.06	M+2/M+4	1.28	1.05-1.43	1.190	1.186 - 1.194
13C12-2,2',3,3',4,4',5'-HpCB	170L			0.94	M+2/M+4	1.04	0.89-1.21	0.898	0.894 - 0.902
13C12-2,2',3,4,4',5,5'-HpCB	180L			1.12	M+2/M+4	1.04	0.89-1.21	0.873	0.869 - 0.877
13C12-2,2',3,4,4',5,6,6'-HpCB	188L			1.88	M+2/M+4	1.06	0.89-1.21	0.713	0.709 - 0.717
13C12-2,3,3',4,4',5,5'-HpCB	189L			1.60	M+2/M+4	1.04	0.89-1.21	0.959	0.954 - 0.964
13C12-2,2',3,3',5,5',6,6'-OxCB	202L			1.48	M+2/M+4	0.91	0.76-1.02	0.818	0.814 - 0.822
13C12-2,3,3',4,4',5,5',6-OxCB	205L			1.33	M+2/M+4	0.90	0.76-1.02	1.009	1.004 - 1.014
13C12-2,2',3,3',4,4',5,5',6-NoCB	206L			0.82	M+2/M+4	0.79	0.65-0.89	1.043	1.038 - 1.048
13C12-2,2',3,3',4,4',5,5',6,6'-NoCB	208L			1.14	M+2/M+4	0.77	0.65-0.89	0.949	0.944 - 0.954

(1) Suffix "L" indicates labeled compound

(2) Where applicable, custom lab flags have been used on this report.

(3) See Table 8, Method 1668A, for m/z specifications.

(4) Ion Abundance Ratio Control Limits as specified in Table 8, Method 1668A.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Jason MacKenzie _____



AXYS METHOD MLA-010 Rev 10

Form 1A
PCB CONGENER ANALYSIS REPORTCLIENT SAMPLE NO.
Schoppee-10F
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Matrix: TISSUE

Sample Receipt Date: 14-Dec-2010

Extraction Date: 10-Feb-2011

Analysis Date: 23-Feb-2011 Time: 01:28:19

Extract Volume (uL): 20

Injection Volume (uL): 1.0

Dilution Factor: N/A

Concentration Units: pg/g (wet weight basis)

Project No. L13452

Lab Sample I.D.: L15870-2 R

Sample Size: 10.2 g (wet)

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

Sample Data Filename: PB1C_078 S: 6

Blank Data Filename: PB1C_078 S: 5

Cal. Ver. Data Filename: PB1C_078 S: 1

% Moisture: 78.1

% Lipid: 1.71

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2-MoCB	1		B	0.340	0.0488 (Q)	2.95	1.001
3-MoCB	2		B	0.495	0.0488 (Q)	3.13	0.988
4-MoCB	3		B	0.503	0.0488 (Q)	3.30	1.000
2,2'-DiCB	4			1.29	0.291 (S)	1.36	1.001
2,3-DiCB	5		U		0.222 (S)		
2,3'-DiCB	6			0.839	0.205 (S)	1.33	1.175
2,4-DiCB	7		K	0.270	0.211 (S)	1.02	1.159
2,4'-DiCB	8		B	3.64	0.194 (S)	1.57	1.207
2,5-DiCB	9			0.284	0.200 (S)	1.54	1.145
2,6-DiCB	10		U		0.202 (S)		
3,3'-DiCB	11		B	6.53	0.218 (S)	1.51	0.968
3,4-DiCB	12	12 + 13	C U		0.221 (S)		
3,4'-DiCB	13	12 + 13	C12				
3,5-DiCB	14		U		0.207 (S)		
4,4'-DiCB	15			0.542	0.259 (S)	1.53	1.000
2,2',3-TriCB	16			2.01	0.133 (S)	1.08	1.165
2,2',4-TriCB	17			1.73	0.109 (S)	1.02	1.138
2,2',5-TriCB	18	18 + 30	C B	9.02	0.0915 (S)	1.04	1.113
2,2',6-TriCB	19			0.715	0.108 (S)	0.97	1.001
2,3,3'-TriCB	20	20 + 28	C B	64.9	0.0582 (S)	1.03	0.849
2,3,4-TriCB	21	21 + 33	C B	6.63	0.0564 (S)	1.04	0.858
2,3,4'-TriCB	22		B	10.4	0.0622 (S)	1.02	0.873
2,3,5-TriCB	23		U		0.0610 (S)		
2,3,6-TriCB	24			0.193	0.0817 (S)	1.18	1.158
2,3',4-TriCB	25			2.51	0.0513 (S)	1.09	0.826
2,3',5-TriCB	26	26 + 29	C	7.43	0.0579 (S)	0.99	1.300
2,3',6-TriCB	27			1.08	0.0755 (S)	1.14	1.150
2,4,4'-TriCB	28	20 + 28	C20				
2,4,5-TriCB	29	26 + 29	C26				
2,4,6-TriCB	30	18 + 30	C18				
2,4',5-TriCB	31		B	35.2	0.0546 (S)	1.03	0.838
2,4',6-TriCB	32		B	2.40	0.0540 (S)	1.01	1.197
2',3,4-TriCB	33	21 + 33	C21				
2',3,5-TriCB	34			0.101	0.0589 (S)	1.02	1.273
3,3',4-TriCB	35		K	0.104	0.0637 (S)	1.49	0.986
3,3',5-TriCB	36		K	0.136	0.0567 (S)	0.88	0.932
3,4,4'-TriCB	37			2.88	0.0702 (S)	1.04	1.001
3,4,5-TriCB	38			0.199	0.0585 (S)	1.08	0.970
3,4',5-TriCB	39			0.434	0.0585 (S)	0.97	0.946



This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',3,3'-TeCB	40	40 + 41 + 71	C	24.5	0.0762 (S)	0.77	1.336
2,2',3,4'-TeCB	41	40 + 41 + 71	C40				
2,2',3,4'-TeCB	42			20.0	0.0797 (S)	0.78	1.310
2,2',3,5'-TeCB	43			1.68	0.0924 (S)	0.85	1.245
2,2',3,5'-TeCB	44	44 + 47 + 65	C B	137	0.0680 (S)	0.80	1.285
2,2',3,6'-TeCB	45	45 + 51	C B	2.52	0.0721 (S)	0.82	1.145
2,2',3,6'-TeCB	46			0.563	0.0829 (S)	0.68	1.160
2,2',4,4'-TeCB	47	44 + 47 + 65	C44				
2,2',4,5'-TeCB	48			2.47	0.0759 (S)	0.76	1.273
2,2',4,5'-TeCB	49	49 + 69	C	50.1	0.0633 (S)	0.79	1.258
2,2',4,6'-TeCB	50	50 + 53	C	3.39	0.0699 (S)	0.81	1.110
2,2',4,6'-TeCB	51	45 + 51	C45				
2,2',5,5'-TeCB	52		B	139	0.0683 (S)	0.79	1.233
2,2',5,6'-TeCB	53	50 + 53	C50				
2,2',6,6'-TeCB	54		U		0.0688 (S)		
2,3,3',4'-TeCB	55			1.21	0.240 (S)	0.74	0.890
2,3,3',4'-TeCB	56			30.6	0.233 (S)	0.75	0.905
2,3,3',5'-TeCB	57			1.61	0.216 (S)	0.81	0.845
2,3,3',5'-TeCB	58			1.39	0.218 (S)	0.80	0.852
2,3,3',6'-TeCB	59	59 + 62 + 75	C	11.4	0.0563 (S)	0.80	1.301
2,3,4,4'-TeCB	60			47.6	0.241 (S)	0.77	0.912
2,3,4,5'-TeCB	61	61 + 70 + 74 + 76	C B	276	0.213 (S)	0.76	0.875
2,3,4,6'-TeCB	62	59 + 62 + 75	C59				
2,3,4',5'-TeCB	63			12.9	0.201 (S)	0.78	0.865
2,3,4',6'-TeCB	64			34.2	0.0553 (S)	0.79	1.347
2,3,5,6'-TeCB	65	44 + 47 + 65	C44				
2,3',4,4'-TeCB	66		B	169	0.201 (S)	0.77	0.885
2,3',4,5'-TeCB	67			3.37	0.185 (S)	0.79	0.857
2,3',4,5'-TeCB	68			6.34	0.201 (S)	0.78	0.832
2,3',4,6'-TeCB	69	49 + 69	C49				
2,3',4',5'-TeCB	70	61 + 70 + 74 + 76	C61				
2,3',4',6'-TeCB	71	40 + 41 + 71	C40				
2,3',5,5'-TeCB	72			7.39	0.198 (S)	0.75	0.823
2,3',5',6'-TeCB	73		U		0.0550 (S)		
2,4,4',5'-TeCB	74	61 + 70 + 74 + 76	C61				
2,4,4',6'-TeCB	75	59 + 62 + 75	C59				
2',3,4,5'-TeCB	76	61 + 70 + 74 + 76	C61				
3,3',4,4'-TeCB	77			15.3	0.244 (S)	0.77	1.000
3,3',4,5'-TeCB	78		U		0.244 (S)		
3,3',4,5'-TeCB	79			9.80	0.196 (S)	0.74	0.971
3,3',5,5'-TeCB	80		K	0.812	0.207 (S)	1.04	0.924
3,4,4',5'-TeCB	81		K	0.807	0.243 (S)	0.63	1.000
2,2',3,3',4'-PeCB	82			30.3	0.174 (S)	1.50	0.934
2,2',3,3',5'-PeCB	83	83 + 99	C	662	0.157 (S)	1.60	0.886
2,2',3,3',6'-PeCB	84			30.0	0.163 (S)	1.55	1.163
2,2',3,4,4'-PeCB	85	85 + 116 + 117	C	177	0.128 (S)	1.60	0.920
2,2',3,4,5'-PeCB	86	86 + 87 + 97 + 108 + 119 + 125	C	317	0.132 (S)	1.55	0.902
2,2',3,4,5'-PeCB	87	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3,4,6'-PeCB	88	88 + 91	C	43.2	0.144 (S)	1.60	1.153
2,2',3,4,6'-PeCB	89			0.945	0.155 (S)	1.56	1.182
2,2',3,4',5'-PeCB	90	90 + 101 + 113	C B	857	0.132 (S)	1.58	0.870
2,2',3,4',6'-PeCB	91	88 + 91	C88				
2,2',3,5,5'-PeCB	92			169	0.153 (S)	1.61	0.853
2,2',3,5,6'-PeCB	93	93 + 95 + 98 + 100 + 102	C B	202	0.140 (S)	1.55	1.120
2,2',3,5,6'-PeCB	94			1.08	0.153 (S)	1.36	1.102
2,2',3,5',6'-PeCB	95	93 + 95 + 98 + 100 + 102	C93				
2,2',3,6,6'-PeCB	96			0.140	0.0586 (S)	1.61	1.015
2,2',3',4,5'-PeCB	97	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3',4,6'-PeCB	98	93 + 95 + 98 + 100 + 102	C93				
2,2',4,4',5'-PeCB	99	83 + 99	C83				



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',4,4',6-PeCB	100	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5,5'-PeCB	101	90 + 101 + 113	C90				
2,2',4,5,6'-PeCB	102	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5',6-PeCB	103			4.99	0.126 (S)	1.56	1.093
2,2',4,6,6'-PeCB	104		U		0.0889 (S)		
2,3,3',4,4'-PeCB	105			357	0.954 (S)	1.57	1.001
2,3,3',4,5-PeCB	106		U		1.07 (S)		
2,3,3',4',5-PeCB	107	107 + 124	C	23.7	1.09 (S)	1.56	0.991
2,3,3',4,5'-PeCB	108	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3,3',4,6-PeCB	109			108	0.944 (S)	1.55	0.997
2,3,3',4',6-PeCB	110	110 + 115	C B	471	0.116 (S)	1.61	0.925
2,3,3',5,5'-PeCB	111			4.51	0.120 (S)	1.61	0.945
2,3,3',5,6-PeCB	112		U		0.112 (S)		
2,3,3',5',6-PeCB	113	90 + 101 + 113	C90				
2,3,4,4',5-PeCB	114			13.4	1.03 (S)	1.57	1.001
2,3,4,4',6-PeCB	115	110 + 115	C110				
2,3,4,5,6-PeCB	116	85 + 116 + 117	C85				
2,3,4',5,6-PeCB	117	85 + 116 + 117	C85				
2,3',4,4',5-PeCB	118		B	919	1.03 (S)	1.57	1.001
2,3',4,4',6-PeCB	119	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3',4,5,5'-PeCB	120			17.4	0.112 (S)	1.60	0.958
2,3',4,5',6-PeCB	121			1.86	0.112 (S)	1.48	1.199
2',3,3',4,5-PeCB	122			4.12	1.15 (S)	1.55	1.011
2',3,4,4',5-PeCB	123			10.5	1.10 (S)	1.50	1.001
2',3,4,5,5'-PeCB	124	107 + 124	C107				
2',3,4,5,6'-PeCB	125	86 + 87 + 97 + 108 + 119 + 125	C86				
3,3',4,4',5-PeCB	126			5.27	1.03 (S)	1.57	1.000
3,3',4,5,5'-PeCB	127			2.91	1.13 (S)	1.38	1.041
2,2',3,3',4,4'-HxCB	128	128 + 166	C	265	0.707 (S)	1.27	0.959
2,2',3,3',4,5-HxCB	129	129 + 138 + 160 + 163	C B	2550	0.691 (S)	1.27	0.929
2,2',3,3',4,5'-HxCB	130			127	0.838 (S)	1.26	0.913
2,2',3,3',4,6-HxCB	131			5.18	0.804 (S)	1.24	1.159
2,2',3,3',4,6'-HxCB	132			169	0.817 (S)	1.27	1.174
2,2',3,3',5,5'-HxCB	133			63.4	0.761 (S)	1.29	1.190
2,2',3,3',5,6-HxCB	134	134 + 143	C	36.9	0.763 (S)	1.24	1.139
2,2',3,3',5,6'-HxCB	135	135 + 151 + 154	C	380	0.0834 (S)	1.25	1.104
2,2',3,3',6,6'-HxCB	136			30.2	0.0608 (S)	1.24	1.024
2,2',3,4,4',5-HxCB	137			46.5	0.752 (S)	1.32	0.918
2,2',3,4,4',5'-HxCB	138	129 + 138 + 160 + 163	C129				
2,2',3,4,4',6-HxCB	139	139 + 140	C	23.3	0.696 (S)	1.20	1.152
2,2',3,4,4',6'-HxCB	140	139 + 140	C139				
2,2',3,4,5,5'-HxCB	141			97.0	0.765 (S)	1.28	0.903
2,2',3,4,5,6-HxCB	142		U		0.757 (S)		
2,2',3,4,5,6'-HxCB	143	134 + 143	C134				
2,2',3,4,5',6-HxCB	144			26.7	0.0849 (S)	1.28	1.121
2,2',3,4,6,6'-HxCB	145			0.086	0.0647 (S)	1.40	1.034
2,2',3,4',5,5'-HxCB	146			625	0.639 (S)	1.26	0.884
2,2',3,4',5,6-HxCB	147	147 + 149	C B	740	0.692 (S)	1.24	1.133
2,2',3,4',5,6'-HxCB	148			7.45	0.0829 (S)	1.37	1.083
2,2',3,4',5',6-HxCB	149	147 + 149	C147				
2,2',3,4',6,6'-HxCB	150			1.68	0.0605 (S)	1.31	1.013
2,2',3,5,5',6-HxCB	151	135 + 151 + 154	C135				
2,2',3,5,6,6'-HxCB	152			0.094	0.0571 (S)	1.38	1.007
2,2',4,4',5,5'-HxCB	153	153 + 168	C B	3280	0.585 (S)	1.26	0.899
2,2',4,4',5,6'-HxCB	154	135 + 151 + 154	C135				
2,2',4,4',6,6'-HxCB	155			5.23	0.0850 (S)	1.18	1.001
2,3,3',4,4',5-HxCB	156	156 + 157	C	152	0.779 (S)	1.24	1.000
2,3,3',4,4',5'-HxCB	157	156 + 157	C156				
2,3,3',4,4',6-HxCB	158			101	0.547 (S)	1.25	0.938
2,3,3',4,5,5'-HxCB	159			8.65	0.607 (S)	1.28	0.981
2,3,3',4,5,6-HxCB	160	129 + 138 + 160 + 163	C129				



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,3,3',4,5',6-HxCB	161		U		0.535 (S)		
2,3,3',4',5,5'-HxCB	162			11.8	0.630 (S)	1.27	0.989
2,3,3',4',5,6-HxCB	163	129 + 138 + 160 + 163	C129				
2,3,3',4',5',6-HxCB	164			54.3	0.609 (S)	1.25	0.921
2,3,3',5,5',6-HxCB	165			7.34	0.621 (S)	1.20	0.878
2,3,4,4',5,6-HxCB	166	128 + 166	C128				
2,3',4,4',5,5'-HxCB	167			73.4	0.589 (S)	1.25	1.000
2,3',4,4',5',6-HxCB	168	153 + 168	C153				
3,3',4,4',5,5'-HxCB	169		U		2.26 (S)		
2,2',3,3',4,4',5-HpCB	170			317	0.105 (S)	1.04	0.936
2,2',3,3',4,4',6-HpCB	171	171 + 173	C	98.4	0.0963 (S)	1.02	1.162
2,2',3,3',4,5,5'-HpCB	172			72.2	0.101 (S)	1.03	0.897
2,2',3,3',4,5,6-HpCB	173	171 + 173	C171				
2,2',3,3',4,5,6'-HpCB	174			149	0.0908 (S)	1.04	1.133
2,2',3,3',4,5',6-HpCB	175			20.8	0.0834 (S)	1.05	1.102
2,2',3,3',4,6,6'-HpCB	176			21.3	0.0621 (S)	1.02	1.034
2,2',3,3',4',5,6-HpCB	177			296	0.0902 (S)	1.05	1.145
2,2',3,3',5,5',6-HpCB	178			187	0.0897 (S)	1.04	1.085
2,2',3,3',5,6,6'-HpCB	179			90.2	0.0597 (S)	1.05	1.010
2,2',3,4,4',5,5'-HpCB	180	180 + 193	C B	901	0.0819 (S)	1.03	0.910
2,2',3,4,4',5,6-HpCB	181			2.68	0.0919 (S)	1.05	1.156
2,2',3,4,4',5,6'-HpCB	182			6.26	0.0853 (S)	1.06	1.116
2,2',3,4,4',5',6-HpCB	183	183 + 185	C	310	0.0866 (S)	1.04	1.126
2,2',3,4,4',6,6'-HpCB	184			3.09	0.0584 (S)	1.01	1.025
2,2',3,4,5,5',6-HpCB	185	183 + 185	C183				
2,2',3,4,5,6,6'-HpCB	186		U		0.0650 (S)		
2,2',3,4',5,5',6-HpCB	187		B	1300	0.0816 (S)	1.03	1.109
2,2',3,4',5,6,6'-HpCB	188			6.44	0.0707 (S)	0.97	1.001
2,3,3',4,4',5,5'-HpCB	189			11.6	0.164 (S)	1.02	1.000
2,3,3',4,4',5,6-HpCB	190			55.4	0.0766 (S)	1.03	0.947
2,3,3',4,4',5',6-HpCB	191			11.4	0.0726 (S)	0.99	0.918
2,3,3',4,5,5',6-HpCB	192		U		0.0816 (S)		
2,3,3',4',5,5',6-HpCB	193	180 + 193	C180				
2,2',3,3',4,4',5,5'-OxCB	194			134	0.123 (S)	0.89	0.991
2,2',3,3',4,4',5,6-OxCB	195			38.7	0.133 (S)	0.88	0.946
2,2',3,3',4,4',5,6'-OxCB	196		B	86.4	0.0972 (S)	0.92	0.916
2,2',3,3',4,4',6,6'-OxCB	197	197 + 200	C	22.3	0.0694 (S)	0.87	1.045
2,2',3,3',4,5,5',6-OxCB	198	198 + 199	C	261	0.100 (S)	0.92	1.115
2,2',3,3',4,5,5',6'-OxCB	199	198 + 199	C198				
2,2',3,3',4,5,6,6'-OxCB	200	197 + 200	C197				
2,2',3,3',4,5',6,6'-OxCB	201			38.4	0.0680 (S)	0.89	1.023
2,2',3,3',5,5',6,6'-OxCB	202			132	0.0816 (S)	0.91	1.000
2,2',3,4,4',5,5',6-OxCB	203			116	0.0918 (S)	0.89	0.920
2,2',3,4,4',5,6,6'-OxCB	204			0.552	0.0701 (S)	0.82	1.039
2,3,3',4,4',5,5',6-OxCB	205			6.53	0.0975 (S)	0.88	1.001
2,2',3,3',4,4',5,5',6-NoCB	206			94.9	0.311 (S)	0.78	1.001
2,2',3,3',4,4',5,6,6'-NoCB	207			17.1	0.238 (S)	0.79	1.020
2,2',3,3',4,5,5',6,6'-NoCB	208			48.0	0.236 (S)	0.79	1.001
2,2',3,3',4,4',5,5',6,6'-DeCB	209		B	43.8	0.117 (S)	0.67	1.000

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in sample and the associated blank; C = co-eluting congener.

(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = contract defined limit.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____



AXYS METHOD MLA-010 Rev 10

Form 1A
PCB CONGENER ANALYSIS REPORTCLIENT SAMPLE NO.
Schoppee-10F
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Matrix: TISSUE

Sample Receipt Date: 14-Dec-2010

Extraction Date: 10-Feb-2011

Analysis Date: 23-Feb-2011 Time: 01:28:19

Extract Volume (uL): 20

Injection Volume (uL): 1.0

Dilution Factor: N/A

Concentration Units: pg/g (dry weight basis)

Project No. L13452

Lab Sample I.D.: L15870-2 R

Sample Size: 2.35 g (dry)

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

Sample Data Filename: PB1C_078 S: 6

Blank Data Filename: PB1C_078 S: 5

Cal. Ver. Data Filename: PB1C_078 S: 1

% Moisture: 78.1

% Lipid: 1.71

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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2-MoCB	1		B	1.48	0.213 (Q)	2.95	1.001
3-MoCB	2		B	2.16	0.213 (Q)	3.13	0.988
4-MoCB	3		B	2.19	0.213 (Q)	3.30	1.000
2,2'-DiCB	4			5.62	1.27 (S)	1.36	1.001
2,3-DiCB	5		U		0.968 (S)		
2,3'-DiCB	6			3.66	0.894 (S)	1.33	1.175
2,4-DiCB	7		K	1.18	0.920 (S)	1.02	1.159
2,4'-DiCB	8		B	15.9	0.846 (S)	1.57	1.207
2,5-DiCB	9			1.24	0.872 (S)	1.54	1.145
2,6-DiCB	10		U		0.881 (S)		
3,3'-DiCB	11		B	28.5	0.950 (S)	1.51	0.968
3,4-DiCB	12	12 + 13	C U		0.963 (S)		
3,4'-DiCB	13	12 + 13	C12				
3,5-DiCB	14		U		0.902 (S)		
4,4'-DiCB	15			2.36	1.13 (S)	1.53	1.000
2,2',3-TriCB	16			8.76	0.580 (S)	1.08	1.165
2,2',4-TriCB	17			7.54	0.475 (S)	1.02	1.138
2,2',5-TriCB	18	18 + 30	C B	39.3	0.399 (S)	1.04	1.113
2,2',6-TriCB	19			3.12	0.471 (S)	0.97	1.001
2,3,3'-TriCB	20	20 + 28	C B	283	0.254 (S)	1.03	0.849
2,3,4-TriCB	21	21 + 33	C B	28.9	0.246 (S)	1.04	0.858
2,3,4'-TriCB	22		B	45.3	0.271 (S)	1.02	0.873
2,3,5-TriCB	23		U		0.266 (S)		
2,3,6-TriCB	24			0.841	0.356 (S)	1.18	1.158
2,3',4-TriCB	25			10.9	0.224 (S)	1.09	0.826
2,3',5-TriCB	26	26 + 29	C	32.4	0.252 (S)	0.99	1.300
2,3',6-TriCB	27			4.71	0.329 (S)	1.14	1.150
2,4,4'-TriCB	28	20 + 28	C20				
2,4,5-TriCB	29	26 + 29	C26				
2,4,6-TriCB	30	18 + 30	C18				
2,4',5-TriCB	31		B	153	0.238 (S)	1.03	0.838
2,4',6-TriCB	32		B	10.5	0.235 (S)	1.01	1.197
2',3,4-TriCB	33	21 + 33	C21				
2',3,5-TriCB	34			0.440	0.257 (S)	1.02	1.273
3,3',4-TriCB	35		K	0.453	0.278 (S)	1.49	0.986
3,3',5-TriCB	36		K	0.593	0.247 (S)	0.88	0.932
3,4,4'-TriCB	37			12.6	0.306 (S)	1.04	1.001
3,4,5-TriCB	38			0.868	0.255 (S)	1.08	0.970
3,4',5-TriCB	39			1.89	0.255 (S)	0.97	0.946



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',3,3'-TeCB	40	40 + 41 + 71	C	107	0.332 (S)	0.77	1.336
2,2',3,4'-TeCB	41	40 + 41 + 71	C40				
2,2',3,4'-TeCB	42			87.2	0.347 (S)	0.78	1.310
2,2',3,5'-TeCB	43			7.32	0.403 (S)	0.85	1.245
2,2',3,5'-TeCB	44	44 + 47 + 65	C B	597	0.296 (S)	0.80	1.285
2,2',3,6'-TeCB	45	45 + 51	C B	11.0	0.314 (S)	0.82	1.145
2,2',3,6'-TeCB	46			2.45	0.361 (S)	0.68	1.160
2,2',4,4'-TeCB	47	44 + 47 + 65	C44				
2,2',4,5'-TeCB	48			10.8	0.331 (S)	0.76	1.273
2,2',4,5'-TeCB	49	49 + 69	C	218	0.276 (S)	0.79	1.258
2,2',4,6'-TeCB	50	50 + 53	C	14.8	0.305 (S)	0.81	1.110
2,2',4,6'-TeCB	51	45 + 51	C45				
2,2',5,5'-TeCB	52		B	606	0.298 (S)	0.79	1.233
2,2',5,6'-TeCB	53	50 + 53	C50				
2,2',6,6'-TeCB	54		U		0.300 (S)		
2,3,3',4'-TeCB	55			5.28	1.05 (S)	0.74	0.890
2,3,3',4'-TeCB	56			133	1.02 (S)	0.75	0.905
2,3,3',5'-TeCB	57			7.02	0.942 (S)	0.81	0.845
2,3,3',5'-TeCB	58			6.06	0.950 (S)	0.80	0.852
2,3,3',6'-TeCB	59	59 + 62 + 75	C	49.7	0.245 (S)	0.80	1.301
2,3,4,4'-TeCB	60			208	1.05 (S)	0.77	0.912
2,3,4,5'-TeCB	61	61 + 70 + 74 + 76	C B	1200	0.929 (S)	0.76	0.875
2,3,4,6'-TeCB	62	59 + 62 + 75	C59				
2,3,4',5'-TeCB	63			56.2	0.876 (S)	0.78	0.865
2,3,4',6'-TeCB	64			149	0.241 (S)	0.79	1.347
2,3,5,6'-TeCB	65	44 + 47 + 65	C44				
2,3',4,4'-TeCB	66		B	737	0.876 (S)	0.77	0.885
2,3',4,5'-TeCB	67			14.7	0.807 (S)	0.79	0.857
2,3',4,5'-TeCB	68			27.6	0.876 (S)	0.78	0.832
2,3',4,6'-TeCB	69	49 + 69	C49				
2,3',4',5'-TeCB	70	61 + 70 + 74 + 76	C61				
2,3',4',6'-TeCB	71	40 + 41 + 71	C40				
2,3',5,5'-TeCB	72			32.2	0.863 (S)	0.75	0.823
2,3',5,6'-TeCB	73		U		0.240 (S)		
2,4,4',5'-TeCB	74	61 + 70 + 74 + 76	C61				
2,4,4',6'-TeCB	75	59 + 62 + 75	C59				
2',3,4,5'-TeCB	76	61 + 70 + 74 + 76	C61				
3,3',4,4'-TeCB	77			66.7	1.06 (S)	0.77	1.000
3,3',4,5'-TeCB	78		U		1.06 (S)		
3,3',4,5'-TeCB	79			42.7	0.854 (S)	0.74	0.971
3,3',5,5'-TeCB	80		K	3.54	0.902 (S)	1.04	0.924
3,4,4',5'-TeCB	81		K	3.52	1.06 (S)	0.63	1.000
2,2',3,3',4'-PeCB	82			132	0.759 (S)	1.50	0.934
2,2',3,3',5'-PeCB	83	83 + 99	C	2890	0.684 (S)	1.60	0.886
2,2',3,3',6'-PeCB	84			131	0.711 (S)	1.55	1.163
2,2',3,4,4'-PeCB	85	85 + 116 + 117	C	772	0.558 (S)	1.60	0.920
2,2',3,4,5'-PeCB	86	86 + 87 + 97 + 108 + 119 + 125	C	1380	0.575 (S)	1.55	0.902
2,2',3,4,5'-PeCB	87	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3,4,6'-PeCB	88	88 + 91	C	188	0.628 (S)	1.60	1.153
2,2',3,4,6'-PeCB	89			4.12	0.676 (S)	1.56	1.182
2,2',3,4',5'-PeCB	90	90 + 101 + 113	C B	3740	0.575 (S)	1.58	0.870
2,2',3,4',6'-PeCB	91	88 + 91	C88				
2,2',3,5,5'-PeCB	92			737	0.667 (S)	1.61	0.853
2,2',3,5,6'-PeCB	93	93 + 95 + 98 + 100 + 102	C B	881	0.610 (S)	1.55	1.120
2,2',3,5,6'-PeCB	94			4.71	0.667 (S)	1.36	1.102
2,2',3,5',6'-PeCB	95	93 + 95 + 98 + 100 + 102	C93				
2,2',3,6,6'-PeCB	96			0.610	0.255 (S)	1.61	1.015
2,2',3',4,5'-PeCB	97	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3',4,6'-PeCB	98	93 + 95 + 98 + 100 + 102	C93				
2,2',4,4',5'-PeCB	99	83 + 99	C83				



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',4,4',6-PeCB	100	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5,5'-PeCB	101	90 + 101 + 113	C90				
2,2',4,5,6'-PeCB	102	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5',6-PeCB	103			21.8	0.549 (S)	1.56	1.093
2,2',4,6,6'-PeCB	104		U		0.388 (S)		
2,3,3',4,4'-PeCB	105			1560	4.16 (S)	1.57	1.001
2,3,3',4,5-PeCB	106		U		4.66 (S)		
2,3,3',4',5-PeCB	107	107 + 124	C	103	4.75 (S)	1.56	0.991
2,3,3',4,5'-PeCB	108	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3,3',4,6-PeCB	109			471	4.12 (S)	1.55	0.997
2,3,3',4',6-PeCB	110	110 + 115	C B	2050	0.506 (S)	1.61	0.925
2,3,3',5,5'-PeCB	111			19.7	0.523 (S)	1.61	0.945
2,3,3',5,6-PeCB	112		U		0.488 (S)		
2,3,3',5',6-PeCB	113	90 + 101 + 113	C90				
2,3,4,4',5-PeCB	114			58.4	4.49 (S)	1.57	1.001
2,3,4,4',6-PeCB	115	110 + 115	C110				
2,3,4,5,6-PeCB	116	85 + 116 + 117	C85				
2,3,4',5,6-PeCB	117	85 + 116 + 117	C85				
2,3',4,4',5-PeCB	118		B	4010	4.49 (S)	1.57	1.001
2,3',4,4',6-PeCB	119	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3',4,5,5'-PeCB	120			75.9	0.488 (S)	1.60	0.958
2,3',4,5',6-PeCB	121			8.11	0.488 (S)	1.48	1.199
2',3,3',4,5-PeCB	122			18.0	5.01 (S)	1.55	1.011
2',3,4,4',5-PeCB	123			45.8	4.80 (S)	1.50	1.001
2',3,4,5,5'-PeCB	124	107 + 124	C107				
2',3,4,5,6'-PeCB	125	86 + 87 + 97 + 108 + 119 + 125	C86				
3,3',4,4',5-PeCB	126			23.0	4.49 (S)	1.57	1.000
3,3',4,5,5'-PeCB	127			12.7	4.93 (S)	1.38	1.041
2,2',3,3',4,4'-HxCB	128	128 + 166	C	1160	3.08 (S)	1.27	0.959
2,2',3,3',4,5-HxCB	129	129 + 138 + 160 + 163	C B	11100	3.01 (S)	1.27	0.929
2,2',3,3',4,5'-HxCB	130			554	3.65 (S)	1.26	0.913
2,2',3,3',4,6-HxCB	131			22.6	3.51 (S)	1.24	1.159
2,2',3,3',4,6'-HxCB	132			737	3.56 (S)	1.27	1.174
2,2',3,3',5,5'-HxCB	133			276	3.32 (S)	1.29	1.190
2,2',3,3',5,6-HxCB	134	134 + 143	C	161	3.33 (S)	1.24	1.139
2,2',3,3',5,6'-HxCB	135	135 + 151 + 154	C	1660	0.364 (S)	1.25	1.104
2,2',3,3',6,6'-HxCB	136			132	0.265 (S)	1.24	1.024
2,2',3,4,4',5-HxCB	137			203	3.28 (S)	1.32	0.918
2,2',3,4,4',5'-HxCB	138	129 + 138 + 160 + 163	C129				
2,2',3,4,4',6-HxCB	139	139 + 140	C	102	3.03 (S)	1.20	1.152
2,2',3,4,4',6'-HxCB	140	139 + 140	C139				
2,2',3,4,5,5'-HxCB	141			423	3.34 (S)	1.28	0.903
2,2',3,4,5,6-HxCB	142		U		3.30 (S)		
2,2',3,4,5,6'-HxCB	143	134 + 143	C134				
2,2',3,4,5',6-HxCB	144			116	0.370 (S)	1.28	1.121
2,2',3,4,6,6'-HxCB	145			0.375	0.282 (S)	1.40	1.034
2,2',3,4',5,5'-HxCB	146			2720	2.79 (S)	1.26	0.884
2,2',3,4',5,6-HxCB	147	147 + 149	C B	3230	3.02 (S)	1.24	1.133
2,2',3,4',5,6'-HxCB	148			32.5	0.361 (S)	1.37	1.083
2,2',3,4',5',6-HxCB	149	147 + 149	C147				
2,2',3,4',6,6'-HxCB	150			7.32	0.264 (S)	1.31	1.013
2,2',3,5,5',6-HxCB	151	135 + 151 + 154	C135				
2,2',3,5,6,6'-HxCB	152			0.410	0.249 (S)	1.38	1.007
2,2',4,4',5,5'-HxCB	153	153 + 168	C B	14300	2.55 (S)	1.26	0.899
2,2',4,4',5,6'-HxCB	154	135 + 151 + 154	C135				
2,2',4,4',6,6'-HxCB	155			22.8	0.371 (S)	1.18	1.001
2,3,3',4,4',5-HxCB	156	156 + 157	C	663	3.40 (S)	1.24	1.000
2,3,3',4,4',5'-HxCB	157	156 + 157	C156				
2,3,3',4,4',6-HxCB	158			440	2.38 (S)	1.25	0.938
2,3,3',4,5,5'-HxCB	159			37.7	2.65 (S)	1.28	0.981
2,3,3',4,5,6-HxCB	160	129 + 138 + 160 + 163	C129				



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,3,3',4,5',6-HxCB	161		U		2.33 (S)		
2,3,3',4',5,5'-HxCB	162			51.4	2.75 (S)	1.27	0.989
2,3,3',4',5,6-HxCB	163	129 + 138 + 160 + 163	C129				
2,3,3',4',5',6-HxCB	164			237	2.66 (S)	1.25	0.921
2,3,3',5,5',6-HxCB	165			32.0	2.71 (S)	1.20	0.878
2,3,4,4',5,6-HxCB	166	128 + 166	C128				
2,3',4,4',5,5'-HxCB	167			320	2.57 (S)	1.25	1.000
2,3',4,4',5',6-HxCB	168	153 + 168	C153				
3,3',4,4',5,5'-HxCB	169		U		9.85 (S)		
2,2',3,3',4,4',5-HpCB	170			1380	0.458 (S)	1.04	0.936
2,2',3,3',4,4',6-HpCB	171	171 + 173	C	429	0.420 (S)	1.02	1.162
2,2',3,3',4,5,5'-HpCB	172			315	0.440 (S)	1.03	0.897
2,2',3,3',4,5,6-HpCB	173	171 + 173	C171				
2,2',3,3',4,5,6'-HpCB	174			650	0.396 (S)	1.04	1.133
2,2',3,3',4,5',6-HpCB	175			90.7	0.364 (S)	1.05	1.102
2,2',3,3',4,6,6'-HpCB	176			92.9	0.271 (S)	1.02	1.034
2,2',3,3',4',5,6-HpCB	177			1290	0.393 (S)	1.05	1.145
2,2',3,3',5,5',6-HpCB	178			815	0.391 (S)	1.04	1.085
2,2',3,3',5,6,6'-HpCB	179			393	0.260 (S)	1.05	1.010
2,2',3,4,4',5,5'-HpCB	180	180 + 193	C B	3930	0.357 (S)	1.03	0.910
2,2',3,4,4',5,6-HpCB	181			11.7	0.401 (S)	1.05	1.156
2,2',3,4,4',5,6'-HpCB	182			27.3	0.372 (S)	1.06	1.116
2,2',3,4,4',5',6-HpCB	183	183 + 185	C	1350	0.378 (S)	1.04	1.126
2,2',3,4,4',6,6'-HpCB	184			13.5	0.255 (S)	1.01	1.025
2,2',3,4,5,5',6-HpCB	185	183 + 185	C183				
2,2',3,4,5,6,6'-HpCB	186		U		0.283 (S)		
2,2',3,4',5,5',6-HpCB	187		B	5670	0.356 (S)	1.03	1.109
2,2',3,4',5,6,6'-HpCB	188			28.1	0.308 (S)	0.97	1.001
2,3,3',4,4',5,5'-HpCB	189			50.6	0.715 (S)	1.02	1.000
2,3,3',4,4',5,6-HpCB	190			242	0.334 (S)	1.03	0.947
2,3,3',4,4',5',6-HpCB	191			49.7	0.317 (S)	0.99	0.918
2,3,3',4,5,5',6-HpCB	192		U		0.356 (S)		
2,3,3',4',5,5',6-HpCB	193	180 + 193	C180				
2,2',3,3',4,4',5,5'-OxCB	194			584	0.536 (S)	0.89	0.991
2,2',3,3',4,4',5,6-OxCB	195			169	0.580 (S)	0.88	0.946
2,2',3,3',4,4',5,6'-OxCB	196		B	377	0.424 (S)	0.92	0.916
2,2',3,3',4,4',6,6'-OxCB	197	197 + 200	C	97.2	0.303 (S)	0.87	1.045
2,2',3,3',4,5,5',6-OxCB	198	198 + 199	C	1140	0.436 (S)	0.92	1.115
2,2',3,3',4,5,5',6'-OxCB	199	198 + 199	C198				
2,2',3,3',4,5,6,6'-OxCB	200	197 + 200	C197				
2,2',3,3',4,5',6,6'-OxCB	201			167	0.296 (S)	0.89	1.023
2,2',3,3',5,5',6,6'-OxCB	202			575	0.356 (S)	0.91	1.000
2,2',3,4,4',5,5',6-OxCB	203			506	0.400 (S)	0.89	0.920
2,2',3,4,4',5,6,6'-OxCB	204			2.41	0.306 (S)	0.82	1.039
2,3,3',4,4',5,5',6-OxCB	205			28.5	0.425 (S)	0.88	1.001
2,2',3,3',4,4',5,5',6-NoCB	206			414	1.36 (S)	0.78	1.001
2,2',3,3',4,4',5,6,6'-NoCB	207			74.6	1.04 (S)	0.79	1.020
2,2',3,3',4,5,5',6,6'-NoCB	208			209	1.03 (S)	0.79	1.001
2,2',3,3',4,4',5,5',6,6'-DeCB	209		B	191	0.510 (S)	0.67	1.000

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in sample and the associated blank; C = co-eluting congener.

(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = contract defined limit.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____



AXYS METHOD MLA-010 Rev 10

Form 1A
PCB CONGENER ANALYSIS REPORT

CLIENT SAMPLE NO.
Schoppee-10F
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574
Matrix: TISSUE
Sample Receipt Date: 14-Dec-2010
Extraction Date: 10-Feb-2011
Analysis Date: 23-Feb-2011 Time: 01:28:19
Extract Volume (uL): 20
Injection Volume (uL): 1.0
Dilution Factor: N/A
Concentration Units: pg/g (lipid weight basis)

Project No. L13452
Lab Sample I.D.: L15870-2 R
Sample Size: 0.174 g (lipid)
Initial Calibration Date: 08-Feb-2011
Instrument ID: HR GC/MS
GC Column ID: SPB OCTYL
Sample Data Filename: PB1C_078 S: 6
Blank Data Filename: PB1C_078 S: 5
Cal. Ver. Data Filename: PB1C_078 S: 1
% Moisture: 78.1
% Lipid: 1.71

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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2-MoCB	1		B	20.0	2.88 (Q)	2.95	1.001
3-MoCB	2		B	29.2	2.88 (Q)	3.13	0.988
4-MoCB	3		B	29.6	2.88 (Q)	3.30	1.000
2,2'-DiCB	4			75.9	17.1 (S)	1.36	1.001
2,3-DiCB	5		U		13.1 (S)		
2,3'-DiCB	6			49.4	12.1 (S)	1.33	1.175
2,4-DiCB	7		K	15.9	12.4 (S)	1.02	1.159
2,4'-DiCB	8		B	215	11.4 (S)	1.57	1.207
2,5-DiCB	9			16.7	11.8 (S)	1.54	1.145
2,6-DiCB	10		U		11.9 (S)		
3,3'-DiCB	11		B	385	12.8 (S)	1.51	0.968
3,4-DiCB	12	12 + 13	C U		13.0 (S)		
3,4'-DiCB	13	12 + 13	C12				
3,5-DiCB	14		U		12.2 (S)		
4,4'-DiCB	15			31.9	15.3 (S)	1.53	1.000
2,2',3-TriCB	16			118	7.83 (S)	1.08	1.165
2,2',4-TriCB	17			102	6.41 (S)	1.02	1.138
2,2',5-TriCB	18	18 + 30	C B	531	5.39 (S)	1.04	1.113
2,2',6-TriCB	19			42.1	6.36 (S)	0.97	1.001
2,3,3'-TriCB	20	20 + 28	C B	3820	3.43 (S)	1.03	0.849
2,3,4-TriCB	21	21 + 33	C B	390	3.32 (S)	1.04	0.858
2,3,4'-TriCB	22		B	611	3.66 (S)	1.02	0.873
2,3,5-TriCB	23		U		3.59 (S)		
2,3,6-TriCB	24			11.4	4.81 (S)	1.18	1.158
2,3',4-TriCB	25			147	3.02 (S)	1.09	0.826
2,3',5-TriCB	26	26 + 29	C	437	3.40 (S)	0.99	1.300
2,3',6-TriCB	27			63.6	4.44 (S)	1.14	1.150
2,4,4'-TriCB	28	20 + 28	C20				
2,4,5-TriCB	29	26 + 29	C26				
2,4,6-TriCB	30	18 + 30	C18				
2,4',5-TriCB	31		B	2070	3.21 (S)	1.03	0.838
2,4',6-TriCB	32		B	142	3.17 (S)	1.01	1.197
2',3,4-TriCB	33	21 + 33	C21				
2',3,5-TriCB	34			5.94	3.47 (S)	1.02	1.273
3,3',4-TriCB	35		K	6.11	3.75 (S)	1.49	0.986
3,3',5-TriCB	36		K	8.00	3.33 (S)	0.88	0.932
3,4,4'-TriCB	37			170	4.13 (S)	1.04	1.001
3,4,5-TriCB	38			11.7	3.44 (S)	1.08	0.970
3,4',5-TriCB	39			25.5	3.44 (S)	0.97	0.946



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',3,3'-TeCB	40	40 + 41 + 71	C	1440	4.48 (S)	0.77	1.336
2,2',3,4'-TeCB	41	40 + 41 + 71	C40				
2,2',3,4'-TeCB	42			1180	4.68 (S)	0.78	1.310
2,2',3,5'-TeCB	43			98.8	5.44 (S)	0.85	1.245
2,2',3,5'-TeCB	44	44 + 47 + 65	C B	8060	4.00 (S)	0.80	1.285
2,2',3,6'-TeCB	45	45 + 51	C B	148	4.24 (S)	0.82	1.145
2,2',3,6'-TeCB	46			33.1	4.87 (S)	0.68	1.160
2,2',4,4'-TeCB	47	44 + 47 + 65	C44				
2,2',4,5'-TeCB	48			146	4.47 (S)	0.76	1.273
2,2',4,5'-TeCB	49	49 + 69	C	2940	3.73 (S)	0.79	1.258
2,2',4,6'-TeCB	50	50 + 53	C	200	4.12 (S)	0.81	1.110
2,2',4,6'-TeCB	51	45 + 51	C45				
2,2',5,5'-TeCB	52		B	8180	4.02 (S)	0.79	1.233
2,2',5,6'-TeCB	53	50 + 53	C50				
2,2',6,6'-TeCB	54		U		4.05 (S)		
2,3,3',4'-TeCB	55			71.3	14.2 (S)	0.74	0.890
2,3,3',4'-TeCB	56			1800	13.8 (S)	0.75	0.905
2,3,3',5'-TeCB	57			94.8	12.7 (S)	0.81	0.845
2,3,3',5'-TeCB	58			81.8	12.8 (S)	0.80	0.852
2,3,3',6'-TeCB	59	59 + 62 + 75	C	671	3.31 (S)	0.80	1.301
2,3,4,4'-TeCB	60			2810	14.2 (S)	0.77	0.912
2,3,4,5'-TeCB	61	61 + 70 + 74 + 76	C B	16200	12.5 (S)	0.76	0.875
2,3,4,6'-TeCB	62	59 + 62 + 75	C59				
2,3,4',5'-TeCB	63			759	11.8 (S)	0.78	0.865
2,3,4',6'-TeCB	64			2010	3.25 (S)	0.79	1.347
2,3,5,6'-TeCB	65	44 + 47 + 65	C44				
2,3',4,4'-TeCB	66		B	9950	11.8 (S)	0.77	0.885
2,3',4,5'-TeCB	67			198	10.9 (S)	0.79	0.857
2,3',4,5'-TeCB	68			373	11.8 (S)	0.78	0.832
2,3',4,6'-TeCB	69	49 + 69	C49				
2,3',4',5'-TeCB	70	61 + 70 + 74 + 76	C61				
2,3',4',6'-TeCB	71	40 + 41 + 71	C40				
2,3',5,5'-TeCB	72			435	11.6 (S)	0.75	0.823
2,3',5',6'-TeCB	73		U		3.24 (S)		
2,4,4',5'-TeCB	74	61 + 70 + 74 + 76	C61				
2,4,4',6'-TeCB	75	59 + 62 + 75	C59				
2',3,4,5'-TeCB	76	61 + 70 + 74 + 76	C61				
3,3',4,4'-TeCB	77			900	14.3 (S)	0.77	1.000
3,3',4,5'-TeCB	78		U		14.3 (S)		
3,3',4,5'-TeCB	79			576	11.5 (S)	0.74	0.971
3,3',5,5'-TeCB	80		K	47.8	12.2 (S)	1.04	0.924
3,4,4',5'-TeCB	81		K	47.5	14.3 (S)	0.63	1.000
2,2',3,3',4'-PeCB	82			1780	10.2 (S)	1.50	0.934
2,2',3,3',5'-PeCB	83	83 + 99	C	39000	9.23 (S)	1.60	0.886
2,2',3,3',6'-PeCB	84			1770	9.60 (S)	1.55	1.163
2,2',3,4,4'-PeCB	85	85 + 116 + 117	C	10400	7.53 (S)	1.60	0.920
2,2',3,4,5'-PeCB	86	86 + 87 + 97 + 108 + 119 + 125	C	18600	7.76 (S)	1.55	0.902
2,2',3,4,5'-PeCB	87	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3,4,6'-PeCB	88	88 + 91	C	2540	8.48 (S)	1.60	1.153
2,2',3,4,6'-PeCB	89			55.6	9.13 (S)	1.56	1.182
2,2',3,4',5'-PeCB	90	90 + 101 + 113	C B	50500	7.76 (S)	1.58	0.870
2,2',3,4',6'-PeCB	91	88 + 91	C88				
2,2',3,5,5'-PeCB	92			9950	9.00 (S)	1.61	0.853
2,2',3,5,6'-PeCB	93	93 + 95 + 98 + 100 + 102	C B	11900	8.23 (S)	1.55	1.120
2,2',3,5,6'-PeCB	94			63.6	9.00 (S)	1.36	1.102
2,2',3,5',6'-PeCB	95	93 + 95 + 98 + 100 + 102	C93				
2,2',3,6,6'-PeCB	96			8.23	3.44 (S)	1.61	1.015
2,2',3',4,5'-PeCB	97	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3',4,6'-PeCB	98	93 + 95 + 98 + 100 + 102	C93				
2,2',4,4',5'-PeCB	99	83 + 99	C83				



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',4,4',6-PeCB	100	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5,5'-PeCB	101	90 + 101 + 113	C90				
2,2',4,5,6'-PeCB	102	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5',6-PeCB	103			294	7.41 (S)	1.56	1.093
2,2',4,6,6'-PeCB	104		U		5.24 (S)		
2,3,3',4,4'-PeCB	105			21100	56.2 (S)	1.57	1.001
2,3,3',4,5-PeCB	106		U		62.9 (S)		
2,3,3',4',5-PeCB	107	107 + 124	C	1390	64.1 (S)	1.56	0.991
2,3,3',4,5'-PeCB	108	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3,3',4,6-PeCB	109			6360	55.6 (S)	1.55	0.997
2,3,3',4',6-PeCB	110	110 + 115	C B	27700	6.83 (S)	1.61	0.925
2,3,3',5,5'-PeCB	111			266	7.06 (S)	1.61	0.945
2,3,3',5,6-PeCB	112		U		6.59 (S)		
2,3,3',5',6-PeCB	113	90 + 101 + 113	C90				
2,3,4,4',5-PeCB	114			788	60.6 (S)	1.57	1.001
2,3,4,4',6-PeCB	115	110 + 115	C110				
2,3,4,5,6-PeCB	116	85 + 116 + 117	C85				
2,3,4',5,6-PeCB	117	85 + 116 + 117	C85				
2,3',4,4',5-PeCB	118		B	54100	60.6 (S)	1.57	1.001
2,3',4,4',6-PeCB	119	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3',4,5,5'-PeCB	120			1020	6.59 (S)	1.60	0.958
2,3',4,5',6-PeCB	121			109	6.59 (S)	1.48	1.199
2',3,3',4,5-PeCB	122			243	67.6 (S)	1.55	1.011
2',3,4,4',5-PeCB	123			618	64.8 (S)	1.50	1.001
2',3,4,5,5'-PeCB	124	107 + 124	C107				
2',3,4,5,6'-PeCB	125	86 + 87 + 97 + 108 + 119 + 125	C86				
3,3',4,4',5-PeCB	126			310	60.6 (S)	1.57	1.000
3,3',4,5,5'-PeCB	127			171	66.5 (S)	1.38	1.041
2,2',3,3',4,4'-HxCB	128	128 + 166	C	15700	41.6 (S)	1.27	0.959
2,2',3,3',4,5-HxCB	129	129 + 138 + 160 + 163	C B	150000	40.6 (S)	1.27	0.929
2,2',3,3',4,5'-HxCB	130			7480	49.3 (S)	1.26	0.913
2,2',3,3',4,6-HxCB	131			305	47.4 (S)	1.24	1.159
2,2',3,3',4,6'-HxCB	132			9950	48.1 (S)	1.27	1.174
2,2',3,3',5,5'-HxCB	133			3730	44.8 (S)	1.29	1.190
2,2',3,3',5,6-HxCB	134	134 + 143	C	2170	45.0 (S)	1.24	1.139
2,2',3,3',5,6'-HxCB	135	135 + 151 + 154	C	22400	4.91 (S)	1.25	1.104
2,2',3,3',6,6'-HxCB	136			1780	3.58 (S)	1.24	1.024
2,2',3,4,4',5-HxCB	137			2740	44.3 (S)	1.32	0.918
2,2',3,4,4',5'-HxCB	138	129 + 138 + 160 + 163	C129				
2,2',3,4,4',6-HxCB	139	139 + 140	C	1380	40.9 (S)	1.20	1.152
2,2',3,4,4',6'-HxCB	140	139 + 140	C139				
2,2',3,4,5,5'-HxCB	141			5710	45.1 (S)	1.28	0.903
2,2',3,4,5,6-HxCB	142		U		44.5 (S)		
2,2',3,4,5,6'-HxCB	143	134 + 143	C134				
2,2',3,4,5',6-HxCB	144			1570	4.99 (S)	1.28	1.121
2,2',3,4,6,6'-HxCB	145			5.06	3.81 (S)	1.40	1.034
2,2',3,4',5,5'-HxCB	146			36700	37.7 (S)	1.26	0.884
2,2',3,4',5,6-HxCB	147	147 + 149	C B	43600	40.8 (S)	1.24	1.133
2,2',3,4',5,6'-HxCB	148			439	4.87 (S)	1.37	1.083
2,2',3,4',5',6-HxCB	149	147 + 149	C147				
2,2',3,4',6,6'-HxCB	150			98.8	3.56 (S)	1.31	1.013
2,2',3,5,5',6-HxCB	151	135 + 151 + 154	C135				
2,2',3,5,6,6'-HxCB	152			5.53	3.36 (S)	1.38	1.007
2,2',4,4',5,5'-HxCB	153	153 + 168	C B	193000	34.4 (S)	1.26	0.899
2,2',4,4',5,6'-HxCB	154	135 + 151 + 154	C135				
2,2',4,4',6,6'-HxCB	155			308	5.01 (S)	1.18	1.001
2,3,3',4,4',5-HxCB	156	156 + 157	C	8950	45.9 (S)	1.24	1.000
2,3,3',4,4',5'-HxCB	157	156 + 157	C156				
2,3,3',4,4',6-HxCB	158			5940	32.1 (S)	1.25	0.938
2,3,3',4,5,5'-HxCB	159			509	35.8 (S)	1.28	0.981
2,3,3',4,5,6-HxCB	160	129 + 138 + 160 + 163	C129				



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,3,3',4,5',6-HxCB	161		U		31.5 (S)		
2,3,3',4',5,5'-HxCB	162			694	37.1 (S)	1.27	0.989
2,3,3',4',5,6-HxCB	163	129 + 138 + 160 + 163	C129				
2,3,3',4',5',6-HxCB	164			3200	35.9 (S)	1.25	0.921
2,3,3',5,5',6-HxCB	165			432	36.6 (S)	1.20	0.878
2,3,4,4',5,6-HxCB	166	128 + 166	C128				
2,3',4,4',5,5'-HxCB	167			4320	34.7 (S)	1.25	1.000
2,3',4,4',5',6-HxCB	168	153 + 168	C153				
3,3',4,4',5,5'-HxCB	169		U		133 (S)		
2,2',3,3',4,4',5-HpCB	170			18600	6.18 (S)	1.04	0.936
2,2',3,3',4,4',6-HpCB	171	171 + 173	C	5790	5.67 (S)	1.02	1.162
2,2',3,3',4,5,5'-HpCB	172			4250	5.94 (S)	1.03	0.897
2,2',3,3',4,5,6-HpCB	173	171 + 173	C171				
2,2',3,3',4,5,6'-HpCB	174			8770	5.35 (S)	1.04	1.133
2,2',3,3',4,5',6-HpCB	175			1220	4.91 (S)	1.05	1.102
2,2',3,3',4,6,6'-HpCB	176			1250	3.66 (S)	1.02	1.034
2,2',3,3',4',5,6-HpCB	177			17400	5.31 (S)	1.05	1.145
2,2',3,3',5,5',6-HpCB	178			11000	5.28 (S)	1.04	1.085
2,2',3,3',5,6,6'-HpCB	179			5310	3.51 (S)	1.05	1.010
2,2',3,4,4',5,5'-HpCB	180	180 + 193	C B	53100	4.82 (S)	1.03	0.910
2,2',3,4,4',5,6-HpCB	181			158	5.41 (S)	1.05	1.156
2,2',3,4,4',5,6'-HpCB	182			369	5.02 (S)	1.06	1.116
2,2',3,4,4',5',6-HpCB	183	183 + 185	C	18200	5.10 (S)	1.04	1.126
2,2',3,4,4',6,6'-HpCB	184			182	3.44 (S)	1.01	1.025
2,2',3,4,5,5',6-HpCB	185	183 + 185	C183				
2,2',3,4,5,6,6'-HpCB	186		U		3.82 (S)		
2,2',3,4',5,5',6-HpCB	187		B	76500	4.81 (S)	1.03	1.109
2,2',3,4',5,6,6'-HpCB	188			379	4.16 (S)	0.97	1.001
2,3,3',4,4',5,5'-HpCB	189			683	9.65 (S)	1.02	1.000
2,3,3',4,4',5,6-HpCB	190			3270	4.51 (S)	1.03	0.947
2,3,3',4,4',5',6-HpCB	191			671	4.28 (S)	0.99	0.918
2,3,3',4,5,5',6-HpCB	192		U		4.81 (S)		
2,3,3',4',5,5',6-HpCB	193	180 + 193	C180				
2,2',3,3',4,4',5,5'-OxCB	194			7880	7.24 (S)	0.89	0.991
2,2',3,3',4,4',5,6-OxCB	195			2280	7.83 (S)	0.88	0.946
2,2',3,3',4,4',5,6'-OxCB	196		B	5090	5.72 (S)	0.92	0.916
2,2',3,3',4,4',6,6'-OxCB	197	197 + 200	C	1310	4.09 (S)	0.87	1.045
2,2',3,3',4,5,5',6-OxCB	198	198 + 199	C	15400	5.89 (S)	0.92	1.115
2,2',3,3',4,5,5',6'-OxCB	199	198 + 199	C198				
2,2',3,3',4,5,6,6'-OxCB	200	197 + 200	C197				
2,2',3,3',4,5',6,6'-OxCB	201			2250	4.00 (S)	0.89	1.023
2,2',3,3',5,5',6,6'-OxCB	202			7760	4.81 (S)	0.91	1.000
2,2',3,4,4',5,5',6-OxCB	203			6830	5.40 (S)	0.89	0.920
2,2',3,4,4',5,6,6'-OxCB	204			32.5	4.13 (S)	0.82	1.039
2,3,3',4,4',5,5',6-OxCB	205			385	5.74 (S)	0.88	1.001
2,2',3,3',4,4',5,5',6-NoCB	206			5590	18.4 (S)	0.78	1.001
2,2',3,3',4,4',5,6,6'-NoCB	207			1010	14.0 (S)	0.79	1.020
2,2',3,3',4,5,5',6,6'-NoCB	208			2820	13.9 (S)	0.79	1.001
2,2',3,3',4,4',5,5',6,6'-DeCB	209		B	2580	6.88 (S)	0.67	1.000

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in sample and the associated blank; C = co-eluting congener.

(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = contract defined limit.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____



AXYS METHOD MLA-010 Rev 10

Form 2
PCB CONGENER ANALYSIS REPORTCLIENT SAMPLE NO.
Schoppee-10F
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574
Matrix: TISSUE
Sample Receipt Date: 14-Dec-2010
Extraction Date: 10-Feb-2011
Analysis Date: 23-Feb-2011 Time: 01:28:19
Extract Volume (uL): 20
Injection Volume (uL): 1.0
Dilution Factor: N/A
Concentration Units: pg absolute

Project No. L13452
Lab Sample I.D.: L15870-2 R
Sample Size: 10.2 g (wet)
Initial Calibration Date: 08-Feb-2011
Instrument ID: HR GC/MS
GC Column ID: SPB OCTYL
Sample Data Filename: PB1C_078 S: 6
Blank Data Filename: PB1C_078 S: 5
Cal. Ver. Data Filename: PB1C_078 S: 1
% Moisture: 78.1
% Lipid: 1.71

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LABELLED COMPOUND	IUPAC NO. 1	CO-ELUTIONS	LAB FLAG 2	SPIKE CONC.	CONC. FOUND	R(%) 3	ION ABUND. RATIO	RRT
13C12-2-MoCB	1L			2000	1120	55.9	3.19	0.719
13C12-4-MoCB	3L			2000	1120	56.0	3.15	0.857
13C12-2,2'-DiCB	4L			2000	1100	55.1	1.60	0.874
13C12-4,4'-DiCB	15L			2000	955	47.7	1.58	1.253
13C12-2,2',6-TriCB	19L			2000	1010	50.4	1.05	1.074
13C12-3,4,4'-TriCB	37L			2000	1780	88.9	1.03	1.089
13C12-2,2',6,6'-TeCB	54L			2000	1400	70.1	0.79	0.811
13C12-3,3',4,4'-TeCB	77L			2000	2010	100	0.81	1.394
13C12-3,4,4',5'-TeCB	81L			2000	1980	99.2	0.76	1.370
13C12-2,2',4,6,6'-PeCB	104L			2000	1110	55.4	1.58	0.809
13C12-2,3,3',4,4'-PeCB	105L			2000	2190	109	1.60	1.199
13C12-2,3,4,4',5'-PeCB	114L			2000	1970	98.6	1.61	1.178
13C12-2,3',4,4',5'-PeCB	118L			2000	1930	96.3	1.59	1.161
13C12-2',3,4,4',5'-PeCB	123L			2000	1860	92.8	1.58	1.151
13C12-3,3',4,4',5'-PeCB	126L			2000	2200	110	1.60	1.300
13C12-2,2',4,4',6,6'-HxCB	155L			2000	1050	52.3	1.29	0.786
13C12-2,3,3',4,4',5'-HxCB	156L	156L + 157L	C	4000	3560	89.0	1.28	1.107
13C12-2,3,3',4,4',5'-HxCB	157L	156L + 157L	C156L					
13C12-2,3',4,4',5,5'-HxCB	167L			2000	1680	83.8	1.29	1.077
13C12-3,3',4,4',5,5'-HxCB	169L			2000	1930	96.7	1.27	1.190
13C12-2,2',3,3',4,4',5'-HpCB	170L			2000	1730	86.5	1.08	0.897
13C12-2,2',3,4,4',5,5'-HpCB	180L			2000	1700	84.9	1.06	0.873
13C12-2,2',3,4',5,6,6'-HpCB	188L			2000	1170	58.3	1.05	0.713
13C12-2,3,3',4,4',5,5'-HpCB	189L			2000	1910	95.5	1.03	0.959
13C12-2,2',3,3',5,5',6,6'-OxCB	202L			2000	1370	68.7	0.89	0.818
13C12-2,3,3',4,4',5,5',6-OxCB	205L			2000	1810	90.7	0.90	1.009
13C12-2,2',3,3',4,4',5,5',6-NoCB	206L			2000	1790	89.3	0.79	1.044
13C12-2,2',3,3',4,5,5',6,6'-NoCB	208L			2000	1670	83.6	0.78	0.949
13C12-2,2',3,3',4,4',5,5',6,6'-DeCB	209L			2000	1760	88.0	1.21	1.075
CLEANUP STANDARD								
13C12-2,4,4'-TriCB	28L			2000	1590	79.3	1.07	0.924
13C12-2,3,3',5,5'-PeCB	111L			2000	1620	80.9	1.56	1.087
13C12-2,2',3,3',5,5',6-HpCB	178L			2000	1510	75.6	1.03	1.012

(1) Suffix "L" indicates labeled compound.

(2) Where applicable, custom lab flags have been used on this report; C = co-eluting congener.

(3) R% = percent recovery of labeled compounds.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____



AXYS METHOD MLA-010 Rev 10

Form 1A
PCB CONGENER ANALYSIS REPORTCLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Matrix: CANOLA OIL

Sample Receipt Date: N/A

Extraction Date: 10-Feb-2011

Analysis Date: 23-Feb-2011 Time: 00:23:57

Extract Volume (uL): 20

Injection Volume (uL): 1.0

Dilution Factor: N/A

Concentration Units: pg/g

Project No. N/A

Lab Sample I.D.: WG35528-101

Sample Size: 10.0 g

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

Sample Data Filename: PB1C_078 S: 5

Blank Data Filename: PB1C_078 S: 5

Cal. Ver. Data Filename: PB1C_078 S: 1

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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2-MoCB	1			0.177	0.0515 (S)	2.87	1.001
3-MoCB	2			0.387	0.0539 (S)	3.41	0.989
4-MoCB	3			0.496	0.0562 (S)	2.87	1.001
2,2'-DiCB	4		U		0.428 (S)		
2,3-DiCB	5		U		0.286 (S)		
2,3'-DiCB	6		U		0.264 (S)		
2,4-DiCB	7		U		0.272 (S)		
2,4'-DiCB	8		K	0.337	0.250 (S)	1.00	1.207
2,5-DiCB	9		U		0.258 (S)		
2,6-DiCB	10		U		0.261 (S)		
3,3'-DiCB	11			1.25	0.280 (S)	1.59	0.969
3,4-DiCB	12	12 + 13	C U		0.285 (S)		
3,4'-DiCB	13	12 + 13	C12				
3,5-DiCB	14		U		0.266 (S)		
4,4'-DiCB	15		U		0.305 (S)		
2,2',3-TriCB	16		U		0.137 (S)		
2,2',4-TriCB	17		U		0.113 (S)		
2,2',5-TriCB	18	18 + 30	C K	0.193	0.0944 (S)	1.30	1.113
2,2',6-TriCB	19		U		0.122 (S)		
2,3,3'-TriCB	20	20 + 28	C	0.240	0.0646 (S)	1.15	0.849
2,3,4-TriCB	21	21 + 33	C K	0.151	0.0626 (S)	1.62	0.857
2,3,4'-TriCB	22			0.094	0.0691 (S)	0.91	0.873
2,3,5-TriCB	23		U		0.0678 (S)		
2,3,6-TriCB	24		U		0.0844 (S)		
2,3',4-TriCB	25		U		0.0570 (S)		
2,3',5-TriCB	26	26 + 29	C U		0.0642 (S)		
2,3',6-TriCB	27		U		0.0780 (S)		
2,4,4'-TriCB	28	20 + 28	C20				
2,4,5-TriCB	29	26 + 29	C26				
2,4,6-TriCB	30	18 + 30	C18				
2,4',5-TriCB	31			0.184	0.0606 (S)	1.06	0.838
2,4',6-TriCB	32		K	0.073	0.0600 (S)	1.40	1.198
2',3,4-TriCB	33	21 + 33	C21				
2',3,5-TriCB	34		U		0.0653 (S)		
3,3',4-TriCB	35		U		0.0707 (S)		
3,3',5-TriCB	36		U		0.0629 (S)		
3,4,4'-TriCB	37		U		0.0733 (S)		
3,4,5-TriCB	38		U		0.0649 (S)		
3,4',5-TriCB	39		U		0.0649 (S)		



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',3,3'-TeCB	40	40 + 41 + 71	C U		0.0960 (S)		
2,2',3,4'-TeCB	41	40 + 41 + 71	C40				
2,2',3,4'-TeCB	42		U		0.100 (S)		
2,2',3,5'-TeCB	43		U		0.116 (S)		
2,2',3,5'-TeCB	44	44 + 47 + 65	C	0.449	0.0856 (S)	0.70	1.285
2,2',3,6'-TeCB	45	45 + 51	C K	0.102	0.0908 (S)	0.90	1.148
2,2',3,6'-TeCB	46		U		0.105 (S)		
2,2',4,4'-TeCB	47	44 + 47 + 65	C44				
2,2',4,5'-TeCB	48		U		0.0956 (S)		
2,2',4,5'-TeCB	49	49 + 69	C U		0.0798 (S)		
2,2',4,6'-TeCB	50	50 + 53	C U		0.0880 (S)		
2,2',4,6'-TeCB	51	45 + 51	C45				
2,2',5,5'-TeCB	52			0.144	0.0860 (S)	0.69	1.234
2,2',5,6'-TeCB	53	50 + 53	C50				
2,2',6,6'-TeCB	54		U		0.0894 (S)		
2,3,3',4'-TeCB	55		U		0.0857 (S)		
2,3,3',4'-TeCB	56		U		0.0833 (S)		
2,3,3',5'-TeCB	57		U		0.0773 (S)		
2,3,3',5'-TeCB	58		U		0.0779 (S)		
2,3,3',6'-TeCB	59	59 + 62 + 75	C U		0.0710 (S)		
2,3,4,4'-TeCB	60		U		0.0860 (S)		
2,3,4,5'-TeCB	61	61 + 70 + 74 + 76	C K	0.209	0.0761 (S)	0.54	0.876
2,3,4,6'-TeCB	62	59 + 62 + 75	C59				
2,3,4',5'-TeCB	63		U		0.0720 (S)		
2,3,4',6'-TeCB	64		U		0.0696 (S)		
2,3,5,6'-TeCB	65	44 + 47 + 65	C44				
2,3',4,4'-TeCB	66			0.097	0.0717 (S)	0.67	0.885
2,3',4,5'-TeCB	67		U		0.0662 (S)		
2,3',4,5'-TeCB	68		U		0.0718 (S)		
2,3',4,6'-TeCB	69	49 + 69	C49				
2,3',4',5'-TeCB	70	61 + 70 + 74 + 76	C61				
2,3',4',6'-TeCB	71	40 + 41 + 71	C40				
2,3',5,5'-TeCB	72		U		0.0709 (S)		
2,3',5',6'-TeCB	73		U		0.0693 (S)		
2,4,4',5'-TeCB	74	61 + 70 + 74 + 76	C61				
2,4,4',6'-TeCB	75	59 + 62 + 75	C59				
2',3,4,5'-TeCB	76	61 + 70 + 74 + 76	C61				
3,3',4,4'-TeCB	77		U		0.0835 (S)		
3,3',4,5'-TeCB	78		U		0.0873 (S)		
3,3',4,5'-TeCB	79		U		0.0700 (S)		
3,3',5,5'-TeCB	80		U		0.0739 (S)		
3,4,4',5'-TeCB	81		U		0.0885 (S)		
2,2',3,3',4'-PeCB	82		U		0.151 (S)		
2,2',3,3',5'-PeCB	83	83 + 99	C U		0.136 (S)		
2,2',3,3',6'-PeCB	84		U		0.142 (S)		
2,2',3,4,4'-PeCB	85	85 + 116 + 117	C U		0.111 (S)		
2,2',3,4,5'-PeCB	86	86 + 87 + 97 + 108 + 119 + 125	C U		0.114 (S)		
2,2',3,4,5'-PeCB	87	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3,4,6'-PeCB	88	88 + 91	C U		0.125 (S)		
2,2',3,4,6'-PeCB	89		U		0.134 (S)		
2,2',3,4',5'-PeCB	90	90 + 101 + 113	C K	0.155	0.114 (S)	1.99	0.871
2,2',3,4',6'-PeCB	91	88 + 91	C88				
2,2',3,5,5'-PeCB	92		U		0.133 (S)		
2,2',3,5,6'-PeCB	93	93 + 95 + 98 + 100 + 102	C K	0.131	0.121 (S)	1.08	1.119
2,2',3,5,6'-PeCB	94		U		0.133 (S)		
2,2',3,5',6'-PeCB	95	93 + 95 + 98 + 100 + 102	C93				
2,2',3,6,6'-PeCB	96		U		0.0708 (S)		
2,2',3',4,5'-PeCB	97	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3',4,6'-PeCB	98	93 + 95 + 98 + 100 + 102	C93				
2,2',4,4',5'-PeCB	99	83 + 99	C83				



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',4,4',6-PeCB	100	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5,5'-PeCB	101	90 + 101 + 113	C90				
2,2',4,5,6'-PeCB	102	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5',6-PeCB	103		U		0.110 (S)		
2,2',4,6,6'-PeCB	104		U		0.119 (S)		
2,3,3',4,4'-PeCB	105		U		0.0833 (S)		
2,3,3',4,5-PeCB	106		U		0.0949 (S)		
2,3,3',4',5-PeCB	107	107 + 124	C U		0.0970 (S)		
2,3,3',4,5'-PeCB	108	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3,3',4,6-PeCB	109		U		0.0840 (S)		
2,3,3',4',6-PeCB	110	110 + 115	C K	0.119	0.100 (S)	2.04	0.925
2,3,3',5,5'-PeCB	111		U		0.104 (S)		
2,3,3',5,6-PeCB	112		U		0.0972 (S)		
2,3,3',5',6-PeCB	113	90 + 101 + 113	C90				
2,3,4,4',5-PeCB	114		U		0.0882 (S)		
2,3,4,4',6-PeCB	115	110 + 115	C110				
2,3,4,5,6-PeCB	116	85 + 116 + 117	C85				
2,3,4',5,6-PeCB	117	85 + 116 + 117	C85				
2,3',4,4',5-PeCB	118			0.117	0.0932 (S)	1.50	1.001
2,3',4,4',6-PeCB	119	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3',4,5,5'-PeCB	120		U		0.0972 (S)		
2,3',4,5',6-PeCB	121		U		0.0972 (S)		
2',3,3',4,5-PeCB	122		U		0.102 (S)		
2',3,4,4',5-PeCB	123		U		0.0958 (S)		
2',3,4,5,5'-PeCB	124	107 + 124	C107				
2',3,4,5,6'-PeCB	125	86 + 87 + 97 + 108 + 119 + 125	C86				
3,3',4,4',5-PeCB	126		U		0.0875 (S)		
3,3',4,5,5'-PeCB	127		U		0.100 (S)		
2,2',3,3',4,4'-HxCB	128	128 + 166	C U		0.0759 (S)		
2,2',3,3',4,5-HxCB	129	129 + 138 + 160 + 163	C K	0.077	0.0742 (S)	0.54	0.929
2,2',3,3',4,5'-HxCB	130		U		0.0900 (S)		
2,2',3,3',4,6-HxCB	131		U		0.0863 (S)		
2,2',3,3',4,6'-HxCB	132		U		0.0877 (S)		
2,2',3,3',5,5'-HxCB	133		U		0.0817 (S)		
2,2',3,3',5,6-HxCB	134	134 + 143	C U		0.0820 (S)		
2,2',3,3',5,6'-HxCB	135	135 + 151 + 154	C U		0.0779 (S)		
2,2',3,3',6,6'-HxCB	136		U		0.0568 (S)		
2,2',3,4,4',5-HxCB	137		U		0.0808 (S)		
2,2',3,4,4',5'-HxCB	138	129 + 138 + 160 + 163	C129				
2,2',3,4,4',6-HxCB	139	139 + 140	C U		0.0747 (S)		
2,2',3,4,4',6'-HxCB	140	139 + 140	C139				
2,2',3,4,5,5'-HxCB	141		U		0.0822 (S)		
2,2',3,4,5,6-HxCB	142		U		0.0812 (S)		
2,2',3,4,5,6'-HxCB	143	134 + 143	C134				
2,2',3,4,5',6-HxCB	144		U		0.0793 (S)		
2,2',3,4,6,6'-HxCB	145		U		0.0605 (S)		
2,2',3,4',5,5'-HxCB	146		U		0.0686 (S)		
2,2',3,4',5,6-HxCB	147	147 + 149	C K	0.140	0.0744 (S)	0.57	1.133
2,2',3,4',5,6'-HxCB	148		U		0.0774 (S)		
2,2',3,4',5',6-HxCB	149	147 + 149	C147				
2,2',3,4',6,6'-HxCB	150		U		0.0565 (S)		
2,2',3,5,5',6-HxCB	151	135 + 151 + 154	C135				
2,2',3,5,6,6'-HxCB	152		U		0.0533 (S)		
2,2',4,4',5,5'-HxCB	153	153 + 168	C K	0.114	0.0628 (S)	1.05	0.899
2,2',4,4',5,6'-HxCB	154	135 + 151 + 154	C135				
2,2',4,4',6,6'-HxCB	155		U		0.0940 (S)		
2,3,3',4,4',5-HxCB	156	156 + 157	C U		0.0792 (S)		
2,3,3',4,4',5'-HxCB	157	156 + 157	C156				
2,3,3',4,4',6-HxCB	158		U		0.0588 (S)		
2,3,3',4,5,5'-HxCB	159		U		0.0652 (S)		
2,3,3',4,5,6-HxCB	160	129 + 138 + 160 + 163	C129				



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,3,3',4,5',6-HxCB	161		U		0.0574 (S)		
2,3,3',4',5,5'-HxCB	162		U		0.0676 (S)		
2,3,3',4',5,6-HxCB	163	129 + 138 + 160 + 163	C129				
2,3,3',4',5',6-HxCB	164		U		0.0654 (S)		
2,3,3',5,5',6-HxCB	165		U		0.0666 (S)		
2,3,4,4',5,6-HxCB	166	128 + 166	C128				
2,3',4,4',5,5'-HxCB	167		U		0.0636 (S)		
2,3',4,4',5',6-HxCB	168	153 + 168	C153				
3,3',4,4',5,5'-HxCB	169		U		0.0567 (S)		
2,2',3,3',4,4',5-HpCB	170		U		0.105 (S)		
2,2',3,3',4,4',6-HpCB	171	171 + 173	C U		0.0968 (S)		
2,2',3,3',4,5,5'-HpCB	172		U		0.102 (S)		
2,2',3,3',4,5,6-HpCB	173	171 + 173	C171				
2,2',3,3',4,5,6'-HpCB	174		U		0.0912 (S)		
2,2',3,3',4,5',6-HpCB	175		U		0.0838 (S)		
2,2',3,3',4,6,6'-HpCB	176		U		0.0624 (S)		
2,2',3,3',4,5,6-HpCB	177		U		0.0906 (S)		
2,2',3,3',5,5',6-HpCB	178		U		0.0901 (S)		
2,2',3,3',5,6,6'-HpCB	179		U		0.0600 (S)		
2,2',3,4,4',5,5'-HpCB	180	180 + 193	C	0.086	0.0823 (S)	1.09	0.911
2,2',3,4,4',5,6-HpCB	181		U		0.0923 (S)		
2,2',3,4,4',5,6'-HpCB	182		U		0.0857 (S)		
2,2',3,4,4',5',6-HpCB	183	183 + 185	C U		0.0870 (S)		
2,2',3,4,4',6,6'-HpCB	184		U		0.0587 (S)		
2,2',3,4,5,5',6-HpCB	185	183 + 185	C183				
2,2',3,4,5,6,6'-HpCB	186		U		0.0653 (S)		
2,2',3,4',5,5',6-HpCB	187		U	0.089	0.0820 (S)	1.19	1.110
2,2',3,4',5,6,6'-HpCB	188		U		0.0759 (S)		
2,3,3',4,4',5,5'-HpCB	189		U		0.0559 (S)		
2,3,3',4,4',5,6-HpCB	190		U		0.0770 (S)		
2,3,3',4,4',5',6-HpCB	191		U		0.0729 (S)		
2,3,3',4,5,5',6-HpCB	192		U		0.0820 (S)		
2,3,3',4',5,5',6-HpCB	193	180 + 193	C180				
2,2',3,3',4,4',5,5'-OxCB	194		U		0.0705 (S)		
2,2',3,3',4,4',5,6-OxCB	195		U		0.0762 (S)		
2,2',3,3',4,4',5,6'-OxCB	196		K	0.105	0.0883 (S)	0.21	0.917
2,2',3,3',4,4',6,6'-OxCB	197	197 + 200	C U		0.0631 (S)		
2,2',3,3',4,5,5',6-OxCB	198	198 + 199	C U		0.0910 (S)		
2,2',3,3',4,5,5',6'-OxCB	199	198 + 199	C198				
2,2',3,3',4,5,6,6'-OxCB	200	197 + 200	C197				
2,2',3,3',4,5',6,6'-OxCB	201		U		0.0618 (S)		
2,2',3,3',5,5',6,6'-OxCB	202		U		0.0777 (S)		
2,2',3,4,4',5,5',6-OxCB	203		U		0.0834 (S)		
2,2',3,4,4',5,6,6'-OxCB	204		U		0.0637 (S)		
2,3,3',4,4',5,5',6-OxCB	205		U		0.0537 (S)		
2,2',3,3',4,4',5,5',6-NoCB	206		U		0.304 (S)		
2,2',3,3',4,4',5,6,6'-NoCB	207		U		0.247 (S)		
2,2',3,3',4,5,5',6,6'-NoCB	208		U		0.259 (S)		
2,2',3,3',4,4',5,5',6,6'-DeCB	209		K	0.114	0.0878 (S)	1.10	1.000

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; C = co-eluting congener.

(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = contract defined limit.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____



AXYS METHOD MLA-010 Rev 10

Form 1A
PCB CONGENER ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574
Matrix: CANOLA OIL
Sample Receipt Date: N/A
Extraction Date: 10-Feb-2011
Analysis Date: 23-Feb-2011 Time: 00:23:57
Extract Volume (uL): 20
Injection Volume (uL): 1.0
Dilution Factor: N/A
Concentration Units: pg/g (dry weight basis)

Project No. N/A
Lab Sample I.D.: WG35528-101
Sample Size: 2.00 g (dry)
Initial Calibration Date: 08-Feb-2011
Instrument ID: HR GC/MS
GC Column ID: SPB OCTYL
Sample Data Filename: PB1C_078 S: 5
Blank Data Filename: PB1C_078 S: 5
Cal. Ver. Data Filename: PB1C_078 S: 1

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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2-MoCB	1			0.885	0.258 (S)	2.87	1.001
3-MoCB	2			1.94	0.270 (S)	3.41	0.989
4-MoCB	3			2.48	0.281 (S)	2.87	1.001
2,2'-DiCB	4		U		2.14 (S)		
2,3-DiCB	5		U		1.43 (S)		
2,3'-DiCB	6		U		1.32 (S)		
2,4-DiCB	7		U		1.36 (S)		
2,4'-DiCB	8		K	1.69	1.25 (S)	1.00	1.207
2,5-DiCB	9		U		1.29 (S)		
2,6-DiCB	10		U		1.31 (S)		
3,3'-DiCB	11			6.25	1.40 (S)	1.59	0.969
3,4-DiCB	12	12 + 13	C U		1.43 (S)		
3,4'-DiCB	13	12 + 13	C12				
3,5-DiCB	14		U		1.33 (S)		
4,4'-DiCB	15		U		1.53 (S)		
2,2',3-TriCB	16		U		0.685 (S)		
2,2',4-TriCB	17		U		0.565 (S)		
2,2',5-TriCB	18	18 + 30	C K	0.965	0.472 (S)	1.30	1.113
2,2',6-TriCB	19		U		0.610 (S)		
2,3,3'-TriCB	20	20 + 28	C	1.20	0.323 (S)	1.15	0.849
2,3,4-TriCB	21	21 + 33	C K	0.755	0.313 (S)	1.62	0.857
2,3,4'-TriCB	22			0.470	0.346 (S)	0.91	0.873
2,3,5-TriCB	23		U		0.339 (S)		
2,3,6-TriCB	24		U		0.422 (S)		
2,3',4-TriCB	25		U		0.285 (S)		
2,3',5-TriCB	26	26 + 29	C U		0.321 (S)		
2,3',6-TriCB	27		U		0.390 (S)		
2,4,4'-TriCB	28	20 + 28	C20				
2,4,5-TriCB	29	26 + 29	C26				
2,4,6-TriCB	30	18 + 30	C18				
2,4',5-TriCB	31			0.920	0.303 (S)	1.06	0.838
2,4',6-TriCB	32		K	0.365	0.300 (S)	1.40	1.198
2',3,4-TriCB	33	21 + 33	C21				
2',3,5-TriCB	34		U		0.327 (S)		
3,3',4-TriCB	35		U		0.354 (S)		
3,3',5-TriCB	36		U		0.315 (S)		
3,4,4'-TriCB	37		U		0.367 (S)		
3,4,5-TriCB	38		U		0.325 (S)		
3,4',5-TriCB	39		U		0.325 (S)		



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',3,3'-TeCB	40	40 + 41 + 71	C U		0.480 (S)		
2,2',3,4'-TeCB	41	40 + 41 + 71	C40				
2,2',3,4'-TeCB	42		U		0.500 (S)		
2,2',3,5'-TeCB	43		U		0.580 (S)		
2,2',3,5'-TeCB	44	44 + 47 + 65	C	2.25	0.428 (S)	0.70	1.285
2,2',3,6'-TeCB	45	45 + 51	C K	0.510	0.454 (S)	0.90	1.148
2,2',3,6'-TeCB	46		U		0.525 (S)		
2,2',4,4'-TeCB	47	44 + 47 + 65	C44				
2,2',4,5'-TeCB	48		U		0.478 (S)		
2,2',4,5'-TeCB	49	49 + 69	C U		0.399 (S)		
2,2',4,6'-TeCB	50	50 + 53	C U		0.440 (S)		
2,2',4,6'-TeCB	51	45 + 51	C45				
2,2',5,5'-TeCB	52			0.720	0.430 (S)	0.69	1.234
2,2',5,6'-TeCB	53	50 + 53	C50				
2,2',6,6'-TeCB	54		U		0.447 (S)		
2,3,3',4'-TeCB	55		U		0.429 (S)		
2,3,3',4'-TeCB	56		U		0.417 (S)		
2,3,3',5'-TeCB	57		U		0.387 (S)		
2,3,3',5'-TeCB	58		U		0.390 (S)		
2,3,3',6'-TeCB	59	59 + 62 + 75	C U		0.355 (S)		
2,3,4,4'-TeCB	60		U		0.430 (S)		
2,3,4,5'-TeCB	61	61 + 70 + 74 + 76	C K	1.05	0.381 (S)	0.54	0.876
2,3,4,6'-TeCB	62	59 + 62 + 75	C59				
2,3,4',5'-TeCB	63		U		0.360 (S)		
2,3,4',6'-TeCB	64		U		0.348 (S)		
2,3,5,6'-TeCB	65	44 + 47 + 65	C44				
2,3',4,4'-TeCB	66			0.485	0.359 (S)	0.67	0.885
2,3',4,5'-TeCB	67		U		0.331 (S)		
2,3',4,5'-TeCB	68		U		0.359 (S)		
2,3',4,6'-TeCB	69	49 + 69	C49				
2,3',4',5'-TeCB	70	61 + 70 + 74 + 76	C61				
2,3',4',6'-TeCB	71	40 + 41 + 71	C40				
2,3',5,5'-TeCB	72		U		0.355 (S)		
2,3',5',6'-TeCB	73		U		0.347 (S)		
2,4,4',5'-TeCB	74	61 + 70 + 74 + 76	C61				
2,4,4',6'-TeCB	75	59 + 62 + 75	C59				
2',3,4,5'-TeCB	76	61 + 70 + 74 + 76	C61				
3,3',4,4'-TeCB	77		U		0.418 (S)		
3,3',4,5'-TeCB	78		U		0.437 (S)		
3,3',4,5'-TeCB	79		U		0.350 (S)		
3,3',5,5'-TeCB	80		U		0.370 (S)		
3,4,4',5'-TeCB	81		U		0.443 (S)		
2,2',3,3',4'-PeCB	82		U		0.755 (S)		
2,2',3,3',5'-PeCB	83	83 + 99	C U		0.680 (S)		
2,2',3,3',6'-PeCB	84		U		0.710 (S)		
2,2',3,4,4'-PeCB	85	85 + 116 + 117	C U		0.555 (S)		
2,2',3,4,5'-PeCB	86	86 + 87 + 97 + 108 + 119 + 125	C U		0.570 (S)		
2,2',3,4,5'-PeCB	87	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3,4,6'-PeCB	88	88 + 91	C U		0.625 (S)		
2,2',3,4,6'-PeCB	89		U		0.670 (S)		
2,2',3,4',5'-PeCB	90	90 + 101 + 113	C K	0.775	0.570 (S)	1.99	0.871
2,2',3,4',6'-PeCB	91	88 + 91	C88				
2,2',3,5,5'-PeCB	92		U		0.665 (S)		
2,2',3,5,6'-PeCB	93	93 + 95 + 98 + 100 + 102	C K	0.655	0.605 (S)	1.08	1.119
2,2',3,5,6'-PeCB	94		U		0.665 (S)		
2,2',3,5',6'-PeCB	95	93 + 95 + 98 + 100 + 102	C93				
2,2',3,6,6'-PeCB	96		U		0.354 (S)		
2,2',3',4,5'-PeCB	97	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3',4,6'-PeCB	98	93 + 95 + 98 + 100 + 102	C93				
2,2',4,4',5'-PeCB	99	83 + 99	C83				



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',4,4',6-PeCB	100	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5,5'-PeCB	101	90 + 101 + 113	C90				
2,2',4,5,6'-PeCB	102	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5',6-PeCB	103		U		0.550 (S)		
2,2',4,6,6'-PeCB	104		U		0.595 (S)		
2,3,3',4,4'-PeCB	105		U		0.417 (S)		
2,3,3',4,5-PeCB	106		U		0.475 (S)		
2,3,3',4',5-PeCB	107	107 + 124	C U		0.485 (S)		
2,3,3',4,5'-PeCB	108	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3,3',4,6-PeCB	109		U		0.420 (S)		
2,3,3',4',6-PeCB	110	110 + 115	C K	0.595	0.500 (S)	2.04	0.925
2,3,3',5,5'-PeCB	111		U		0.520 (S)		
2,3,3',5,6-PeCB	112		U		0.486 (S)		
2,3,3',5',6-PeCB	113	90 + 101 + 113	C90				
2,3,4,4',5-PeCB	114		U		0.441 (S)		
2,3,4,4',6-PeCB	115	110 + 115	C110				
2,3,4,5,6-PeCB	116	85 + 116 + 117	C85				
2,3,4',5,6-PeCB	117	85 + 116 + 117	C85				
2,3',4,4',5-PeCB	118			0.585	0.466 (S)	1.50	1.001
2,3',4,4',6-PeCB	119	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3',4,5,5'-PeCB	120		U		0.486 (S)		
2,3',4,5',6-PeCB	121		U		0.486 (S)		
2',3,3',4,5-PeCB	122		U		0.510 (S)		
2',3,4,4',5-PeCB	123		U		0.479 (S)		
2',3,4,5,5'-PeCB	124	107 + 124	C107				
2',3,4,5,6'-PeCB	125	86 + 87 + 97 + 108 + 119 + 125	C86				
3,3',4,4',5-PeCB	126		U		0.438 (S)		
3,3',4,5,5'-PeCB	127		U		0.500 (S)		
2,2',3,3',4,4'-HxCB	128	128 + 166	C U		0.380 (S)		
2,2',3,3',4,5-HxCB	129	129 + 138 + 160 + 163	C K	0.385	0.371 (S)	0.54	0.929
2,2',3,3',4,5'-HxCB	130		U		0.450 (S)		
2,2',3,3',4,6-HxCB	131		U		0.432 (S)		
2,2',3,3',4,6'-HxCB	132		U		0.439 (S)		
2,2',3,3',5,5'-HxCB	133		U		0.409 (S)		
2,2',3,3',5,6-HxCB	134	134 + 143	C U		0.410 (S)		
2,2',3,3',5,6'-HxCB	135	135 + 151 + 154	C U		0.390 (S)		
2,2',3,3',6,6'-HxCB	136		U		0.284 (S)		
2,2',3,4,4',5-HxCB	137		U		0.404 (S)		
2,2',3,4,4',5'-HxCB	138	129 + 138 + 160 + 163	C129				
2,2',3,4,4',6-HxCB	139	139 + 140	C U		0.374 (S)		
2,2',3,4,4',6'-HxCB	140	139 + 140	C139				
2,2',3,4,5,5'-HxCB	141		U		0.411 (S)		
2,2',3,4,5,6-HxCB	142		U		0.406 (S)		
2,2',3,4,5,6'-HxCB	143	134 + 143	C134				
2,2',3,4,5',6-HxCB	144		U		0.397 (S)		
2,2',3,4,6,6'-HxCB	145		U		0.303 (S)		
2,2',3,4',5,5'-HxCB	146		U		0.343 (S)		
2,2',3,4',5,6-HxCB	147	147 + 149	C K	0.700	0.372 (S)	0.57	1.133
2,2',3,4',5,6'-HxCB	148		U		0.387 (S)		
2,2',3,4',5',6-HxCB	149	147 + 149	C147				
2,2',3,4',6,6'-HxCB	150		U		0.283 (S)		
2,2',3,5,5',6-HxCB	151	135 + 151 + 154	C135				
2,2',3,5,6,6'-HxCB	152		U		0.267 (S)		
2,2',4,4',5,5'-HxCB	153	153 + 168	C K	0.570	0.314 (S)	1.05	0.899
2,2',4,4',5,6'-HxCB	154	135 + 151 + 154	C135				
2,2',4,4',6,6'-HxCB	155		U		0.470 (S)		
2,3,3',4,4',5-HxCB	156	156 + 157	C U		0.396 (S)		
2,3,3',4,4',5'-HxCB	157	156 + 157	C156				
2,3,3',4,4',6-HxCB	158		U		0.294 (S)		
2,3,3',4,5,5'-HxCB	159		U		0.326 (S)		
2,3,3',4,5,6-HxCB	160	129 + 138 + 160 + 163	C129				



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,3,3',4,5',6-HxCB	161		U		0.287 (S)		
2,3,3',4',5,5'-HxCB	162		U		0.338 (S)		
2,3,3',4',5,6-HxCB	163	129 + 138 + 160 + 163	C129				
2,3,3',4',5',6-HxCB	164		U		0.327 (S)		
2,3,3',5,5',6-HxCB	165		U		0.333 (S)		
2,3,4,4',5,6-HxCB	166	128 + 166	C128				
2,3',4,4',5,5'-HxCB	167		U		0.318 (S)		
2,3',4,4',5',6-HxCB	168	153 + 168	C153				
3,3',4,4',5,5'-HxCB	169		U		0.284 (S)		
2,2',3,3',4,4',5-HpCB	170		U		0.525 (S)		
2,2',3,3',4,4',6-HpCB	171	171 + 173	C U		0.484 (S)		
2,2',3,3',4,5,5'-HpCB	172		U		0.510 (S)		
2,2',3,3',4,5,6-HpCB	173	171 + 173	C171				
2,2',3,3',4,5,6'-HpCB	174		U		0.456 (S)		
2,2',3,3',4,5',6-HpCB	175		U		0.419 (S)		
2,2',3,3',4,6,6'-HpCB	176		U		0.312 (S)		
2,2',3,3',4,5,6-HpCB	177		U		0.453 (S)		
2,2',3,3',5,5',6-HpCB	178		U		0.451 (S)		
2,2',3,3',5,6,6'-HpCB	179		U		0.300 (S)		
2,2',3,4,4',5,5'-HpCB	180	180 + 193	C	0.430	0.412 (S)	1.09	0.911
2,2',3,4,4',5,6-HpCB	181		U		0.462 (S)		
2,2',3,4,4',5,6'-HpCB	182		U		0.429 (S)		
2,2',3,4,4',5',6-HpCB	183	183 + 185	C U		0.435 (S)		
2,2',3,4,4',6,6'-HpCB	184		U		0.294 (S)		
2,2',3,4,5,5',6-HpCB	185	183 + 185	C183				
2,2',3,4,5,6,6'-HpCB	186		U		0.327 (S)		
2,2',3,4',5,5',6-HpCB	187			0.445	0.410 (S)	1.19	1.110
2,2',3,4',5,6,6'-HpCB	188		U		0.380 (S)		
2,3,3',4,4',5,5'-HpCB	189		U		0.280 (S)		
2,3,3',4,4',5,6-HpCB	190		U		0.385 (S)		
2,3,3',4,4',5',6-HpCB	191		U		0.365 (S)		
2,3,3',4,5,5',6-HpCB	192		U		0.410 (S)		
2,3,3',4',5,5',6-HpCB	193	180 + 193	C180				
2,2',3,3',4,4',5,5'-OxCB	194		U		0.353 (S)		
2,2',3,3',4,4',5,6-OxCB	195		U		0.381 (S)		
2,2',3,3',4,4',5,6'-OxCB	196		K	0.525	0.442 (S)	0.21	0.917
2,2',3,3',4,4',6-OxCB	197	197 + 200	C U		0.316 (S)		
2,2',3,3',4,5,5',6-OxCB	198	198 + 199	C U		0.455 (S)		
2,2',3,3',4,5,5',6'-OxCB	199	198 + 199	C198				
2,2',3,3',4,5,6,6'-OxCB	200	197 + 200	C197				
2,2',3,3',4,5',6,6'-OxCB	201		U		0.309 (S)		
2,2',3,3',5,5',6,6'-OxCB	202		U		0.389 (S)		
2,2',3,4,4',5,5',6-OxCB	203		U		0.417 (S)		
2,2',3,4,4',5,6,6'-OxCB	204		U		0.319 (S)		
2,3,3',4,4',5,5',6-OxCB	205		U		0.269 (S)		
2,2',3,3',4,4',5,5',6-NoCB	206		U		1.52 (S)		
2,2',3,3',4,4',5,6,6'-NoCB	207		U		1.24 (S)		
2,2',3,3',4,5,5',6,6'-NoCB	208		U		1.30 (S)		
2,2',3,3',4,4',5,5',6,6'-DeCB	209		K	0.570	0.439 (S)	1.10	1.000

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; C = co-eluting congener.

(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = contract defined limit.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Alina Tarnauceanu_____



AXYS METHOD MLA-010 Rev 10

Form 1A
PCB CONGENER ANALYSIS REPORTCLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574

Matrix: CANOLA OIL

Sample Receipt Date: N/A

Extraction Date: 10-Feb-2011

Analysis Date: 23-Feb-2011 Time: 00:23:57

Extract Volume (uL): 20

Injection Volume (uL): 1.0

Dilution Factor: N/A

Concentration Units: pg/g (lipid weight basis)

Project No. N/A

Lab Sample I.D.: WG35528-101

Sample Size: 0.200 g (lipid)

Initial Calibration Date: 08-Feb-2011

Instrument ID: HR GC/MS

GC Column ID: SPB OCTYL

Sample Data Filename: PB1C_078 S: 5

Blank Data Filename: PB1C_078 S: 5

Cal. Ver. Data Filename: PB1C_078 S: 1

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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2-MoCB	1			8.85	2.58 (S)	2.87	1.001
3-MoCB	2			19.4	2.70 (S)	3.41	0.989
4-MoCB	3			24.8	2.81 (S)	2.87	1.001
2,2'-DiCB	4		U		21.4 (S)		
2,3-DiCB	5		U		14.3 (S)		
2,3'-DiCB	6		U		13.2 (S)		
2,4-DiCB	7		U		13.6 (S)		
2,4'-DiCB	8		K	16.9	12.5 (S)	1.00	1.207
2,5-DiCB	9		U		12.9 (S)		
2,6-DiCB	10		U		13.1 (S)		
3,3'-DiCB	11			62.5	14.0 (S)	1.59	0.969
3,4-DiCB	12	12 + 13	C U		14.3 (S)		
3,4'-DiCB	13	12 + 13	C12				
3,5-DiCB	14		U		13.3 (S)		
4,4'-DiCB	15		U		15.3 (S)		
2,2',3-TriCB	16		U		6.85 (S)		
2,2',4-TriCB	17		U		5.65 (S)		
2,2',5-TriCB	18	18 + 30	C K	9.65	4.72 (S)	1.30	1.113
2,2',6-TriCB	19		U		6.10 (S)		
2,3,3'-TriCB	20	20 + 28	C	12.0	3.23 (S)	1.15	0.849
2,3,4-TriCB	21	21 + 33	C K	7.55	3.13 (S)	1.62	0.857
2,3,4'-TriCB	22			4.70	3.46 (S)	0.91	0.873
2,3,5-TriCB	23		U		3.39 (S)		
2,3,6-TriCB	24		U		4.22 (S)		
2,3',4-TriCB	25		U		2.85 (S)		
2,3',5-TriCB	26	26 + 29	C U		3.21 (S)		
2,3',6-TriCB	27		U		3.90 (S)		
2,4,4'-TriCB	28	20 + 28	C20				
2,4,5-TriCB	29	26 + 29	C26				
2,4,6-TriCB	30	18 + 30	C18				
2,4',5-TriCB	31			9.20	3.03 (S)	1.06	0.838
2,4',6-TriCB	32		K	3.65	3.00 (S)	1.40	1.198
2',3,4-TriCB	33	21 + 33	C21				
2',3,5-TriCB	34		U		3.27 (S)		
3,3',4-TriCB	35		U		3.54 (S)		
3,3',5-TriCB	36		U		3.15 (S)		
3,4,4'-TriCB	37		U		3.67 (S)		
3,4,5-TriCB	38		U		3.25 (S)		
3,4',5-TriCB	39		U		3.25 (S)		



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COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,2',3,3'-TeCB	40	40 + 41 + 71	C U		4.80 (S)		
2,2',3,4'-TeCB	41	40 + 41 + 71	C40				
2,2',3,4'-TeCB	42		U		5.00 (S)		
2,2',3,5'-TeCB	43		U		5.80 (S)		
2,2',3,5'-TeCB	44	44 + 47 + 65	C	22.5	4.28 (S)	0.70	1.285
2,2',3,6'-TeCB	45	45 + 51	C K	5.10	4.54 (S)	0.90	1.148
2,2',3,6'-TeCB	46		U		5.25 (S)		
2,2',4,4'-TeCB	47	44 + 47 + 65	C44				
2,2',4,5'-TeCB	48		U		4.78 (S)		
2,2',4,5'-TeCB	49	49 + 69	C U		3.99 (S)		
2,2',4,6'-TeCB	50	50 + 53	C U		4.40 (S)		
2,2',4,6'-TeCB	51	45 + 51	C45				
2,2',5,5'-TeCB	52			7.20	4.30 (S)	0.69	1.234
2,2',5,6'-TeCB	53	50 + 53	C50				
2,2',6,6'-TeCB	54		U		4.47 (S)		
2,3,3',4'-TeCB	55		U		4.29 (S)		
2,3,3',4'-TeCB	56		U		4.17 (S)		
2,3,3',5'-TeCB	57		U		3.87 (S)		
2,3,3',5'-TeCB	58		U		3.90 (S)		
2,3,3',6'-TeCB	59	59 + 62 + 75	C U		3.55 (S)		
2,3,4,4'-TeCB	60		U		4.30 (S)		
2,3,4,5'-TeCB	61	61 + 70 + 74 + 76	C K	10.5	3.81 (S)	0.54	0.876
2,3,4,6'-TeCB	62	59 + 62 + 75	C59				
2,3,4',5'-TeCB	63		U		3.60 (S)		
2,3,4',6'-TeCB	64		U		3.48 (S)		
2,3,5,6'-TeCB	65	44 + 47 + 65	C44				
2,3',4,4'-TeCB	66			4.85	3.59 (S)	0.67	0.885
2,3',4,5'-TeCB	67		U		3.31 (S)		
2,3',4,5'-TeCB	68		U		3.59 (S)		
2,3',4,6'-TeCB	69	49 + 69	C49				
2,3',4',5'-TeCB	70	61 + 70 + 74 + 76	C61				
2,3',4',6'-TeCB	71	40 + 41 + 71	C40				
2,3',5,5'-TeCB	72		U		3.55 (S)		
2,3',5',6'-TeCB	73		U		3.47 (S)		
2,4,4',5'-TeCB	74	61 + 70 + 74 + 76	C61				
2,4,4',6'-TeCB	75	59 + 62 + 75	C59				
2',3,4,5'-TeCB	76	61 + 70 + 74 + 76	C61				
3,3',4,4'-TeCB	77		U		4.18 (S)		
3,3',4,5'-TeCB	78		U		4.37 (S)		
3,3',4,5'-TeCB	79		U		3.50 (S)		
3,3',5,5'-TeCB	80		U		3.70 (S)		
3,4,4',5'-TeCB	81		U		4.43 (S)		
2,2',3,3',4'-PeCB	82		U		7.55 (S)		
2,2',3,3',5'-PeCB	83	83 + 99	C U		6.80 (S)		
2,2',3,3',6'-PeCB	84		U		7.10 (S)		
2,2',3,4,4'-PeCB	85	85 + 116 + 117	C U		5.55 (S)		
2,2',3,4,5'-PeCB	86	86 + 87 + 97 + 108 + 119 + 125	C U		5.70 (S)		
2,2',3,4,5'-PeCB	87	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3,4,6'-PeCB	88	88 + 91	C U		6.25 (S)		
2,2',3,4,6'-PeCB	89		U		6.70 (S)		
2,2',3,4',5'-PeCB	90	90 + 101 + 113	C K	7.75	5.70 (S)	1.99	0.871
2,2',3,4',6'-PeCB	91	88 + 91	C88				
2,2',3,5,5'-PeCB	92		U		6.65 (S)		
2,2',3,5,6'-PeCB	93	93 + 95 + 98 + 100 + 102	C K	6.55	6.05 (S)	1.08	1.119
2,2',3,5,6'-PeCB	94		U		6.65 (S)		
2,2',3,5',6'-PeCB	95	93 + 95 + 98 + 100 + 102	C93				
2,2',3,6,6'-PeCB	96		U		3.54 (S)		
2,2',3',4,5'-PeCB	97	86 + 87 + 97 + 108 + 119 + 125	C86				
2,2',3',4,6'-PeCB	98	93 + 95 + 98 + 100 + 102	C93				
2,2',4,4',5'-PeCB	99	83 + 99	C83				



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2,2',4,4',6-PeCB	100	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5,5'-PeCB	101	90 + 101 + 113	C90				
2,2',4,5,6'-PeCB	102	93 + 95 + 98 + 100 + 102	C93				
2,2',4,5',6-PeCB	103		U		5.50 (S)		
2,2',4,6,6'-PeCB	104		U		5.95 (S)		
2,3,3',4,4'-PeCB	105		U		4.17 (S)		
2,3,3',4,5-PeCB	106		U		4.75 (S)		
2,3,3',4',5-PeCB	107	107 + 124	C U		4.85 (S)		
2,3,3',4,5'-PeCB	108	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3,3',4,6-PeCB	109		U		4.20 (S)		
2,3,3',4',6-PeCB	110	110 + 115	C K	5.95	5.00 (S)	2.04	0.925
2,3,3',5,5'-PeCB	111		U		5.20 (S)		
2,3,3',5,6-PeCB	112		U		4.86 (S)		
2,3,3',5',6-PeCB	113	90 + 101 + 113	C90				
2,3,4,4',5-PeCB	114		U		4.41 (S)		
2,3,4,4',6-PeCB	115	110 + 115	C110				
2,3,4,5,6-PeCB	116	85 + 116 + 117	C85				
2,3,4',5,6-PeCB	117	85 + 116 + 117	C85				
2,3',4,4',5-PeCB	118			5.85	4.66 (S)	1.50	1.001
2,3',4,4',6-PeCB	119	86 + 87 + 97 + 108 + 119 + 125	C86				
2,3',4,5,5'-PeCB	120		U		4.86 (S)		
2,3',4,5',6-PeCB	121		U		4.86 (S)		
2',3,3',4,5-PeCB	122		U		5.10 (S)		
2',3,4,4',5-PeCB	123		U		4.79 (S)		
2',3,4,5,5'-PeCB	124	107 + 124	C107				
2',3,4,5,6'-PeCB	125	86 + 87 + 97 + 108 + 119 + 125	C86				
3,3',4,4',5-PeCB	126		U		4.38 (S)		
3,3',4,5,5'-PeCB	127		U		5.00 (S)		
2,2',3,3',4,4'-HxCB	128	128 + 166	C U		3.80 (S)		
2,2',3,3',4,5-HxCB	129	129 + 138 + 160 + 163	C K	3.85	3.71 (S)	0.54	0.929
2,2',3,3',4,5'-HxCB	130		U		4.50 (S)		
2,2',3,3',4,6-HxCB	131		U		4.32 (S)		
2,2',3,3',4,6'-HxCB	132		U		4.39 (S)		
2,2',3,3',5,5'-HxCB	133		U		4.09 (S)		
2,2',3,3',5,6-HxCB	134	134 + 143	C U		4.10 (S)		
2,2',3,3',5,6'-HxCB	135	135 + 151 + 154	C U		3.90 (S)		
2,2',3,3',6,6'-HxCB	136		U		2.84 (S)		
2,2',3,4,4',5-HxCB	137		U		4.04 (S)		
2,2',3,4,4',5'-HxCB	138	129 + 138 + 160 + 163	C129				
2,2',3,4,4',6-HxCB	139	139 + 140	C U		3.74 (S)		
2,2',3,4,4',6'-HxCB	140	139 + 140	C139				
2,2',3,4,5,5'-HxCB	141		U		4.11 (S)		
2,2',3,4,5,6-HxCB	142		U		4.06 (S)		
2,2',3,4,5,6'-HxCB	143	134 + 143	C134				
2,2',3,4,5',6-HxCB	144		U		3.97 (S)		
2,2',3,4,6,6'-HxCB	145		U		3.03 (S)		
2,2',3,4',5,5'-HxCB	146		U		3.43 (S)		
2,2',3,4',5,6-HxCB	147	147 + 149	C K	7.00	3.72 (S)	0.57	1.133
2,2',3,4',5,6'-HxCB	148		U		3.87 (S)		
2,2',3,4',5',6-HxCB	149	147 + 149	C147				
2,2',3,4',6,6'-HxCB	150		U		2.83 (S)		
2,2',3,5,5',6-HxCB	151	135 + 151 + 154	C135				
2,2',3,5,6,6'-HxCB	152		U		2.67 (S)		
2,2',4,4',5,5'-HxCB	153	153 + 168	C K	5.70	3.14 (S)	1.05	0.899
2,2',4,4',5,6'-HxCB	154	135 + 151 + 154	C135				
2,2',4,4',6,6'-HxCB	155		U		4.70 (S)		
2,3,3',4,4',5-HxCB	156	156 + 157	C U		3.96 (S)		
2,3,3',4,4',5'-HxCB	157	156 + 157	C156				
2,3,3',4,4',6-HxCB	158		U		2.94 (S)		
2,3,3',4,5,5'-HxCB	159		U		3.26 (S)		
2,3,3',4,5,6-HxCB	160	129 + 138 + 160 + 163	C129				



This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	CONC. FOUND	REPORTING LIMIT (RL) ²	ION ABUND. RATIO	RRT
2,3,3',4,5',6-HxCB	161		U		2.87 (S)		
2,3,3',4',5,5'-HxCB	162		U		3.38 (S)		
2,3,3',4',5,6-HxCB	163	129 + 138 + 160 + 163	C129				
2,3,3',4',5',6-HxCB	164		U		3.27 (S)		
2,3,3',5,5',6-HxCB	165		U		3.33 (S)		
2,3,4,4',5,6-HxCB	166	128 + 166	C128				
2,3',4,4',5,5'-HxCB	167		U		3.18 (S)		
2,3',4,4',5',6-HxCB	168	153 + 168	C153				
3,3',4,4',5,5'-HxCB	169		U		2.84 (S)		
2,2',3,3',4,4',5-HpCB	170		U		5.25 (S)		
2,2',3,3',4,4',6-HpCB	171	171 + 173	C U		4.84 (S)		
2,2',3,3',4,5,5'-HpCB	172		U		5.10 (S)		
2,2',3,3',4,5,6-HpCB	173	171 + 173	C171				
2,2',3,3',4,5,6'-HpCB	174		U		4.56 (S)		
2,2',3,3',4,5',6-HpCB	175		U		4.19 (S)		
2,2',3,3',4,6,6'-HpCB	176		U		3.12 (S)		
2,2',3,3',4,5,6-HpCB	177		U		4.53 (S)		
2,2',3,3',5,5',6-HpCB	178		U		4.51 (S)		
2,2',3,3',5,6,6'-HpCB	179		U		3.00 (S)		
2,2',3,4,4',5,5'-HpCB	180	180 + 193	C	4.30	4.12 (S)	1.09	0.911
2,2',3,4,4',5,6-HpCB	181		U		4.62 (S)		
2,2',3,4,4',5,6'-HpCB	182		U		4.29 (S)		
2,2',3,4,4',5',6-HpCB	183	183 + 185	C U		4.35 (S)		
2,2',3,4,4',6,6'-HpCB	184		U		2.94 (S)		
2,2',3,4,5,5',6-HpCB	185	183 + 185	C183				
2,2',3,4,5,6,6'-HpCB	186		U		3.27 (S)		
2,2',3,4',5,5',6-HpCB	187			4.45	4.10 (S)	1.19	1.110
2,2',3,4',5,6,6'-HpCB	188		U		3.80 (S)		
2,3,3',4,4',5,5'-HpCB	189		U		2.80 (S)		
2,3,3',4,4',5,6-HpCB	190		U		3.85 (S)		
2,3,3',4,4',5',6-HpCB	191		U		3.65 (S)		
2,3,3',4,5,5',6-HpCB	192		U		4.10 (S)		
2,3,3',4',5,5',6-HpCB	193	180 + 193	C180				
2,2',3,3',4,4',5,5'-OxCB	194		U		3.53 (S)		
2,2',3,3',4,4',5,6-OxCB	195		U		3.81 (S)		
2,2',3,3',4,4',5,6'-OxCB	196		K	5.25	4.42 (S)	0.21	0.917
2,2',3,3',4,4',6,6'-OxCB	197	197 + 200	C U		3.16 (S)		
2,2',3,3',4,5,5',6-OxCB	198	198 + 199	C U		4.55 (S)		
2,2',3,3',4,5,5',6'-OxCB	199	198 + 199	C198				
2,2',3,3',4,5,6,6'-OxCB	200	197 + 200	C197				
2,2',3,3',4,5',6,6'-OxCB	201		U		3.09 (S)		
2,2',3,3',5,5',6,6'-OxCB	202		U		3.89 (S)		
2,2',3,4,4',5,5',6-OxCB	203		U		4.17 (S)		
2,2',3,4,4',5,6,6'-OxCB	204		U		3.19 (S)		
2,3,3',4,4',5,5',6-OxCB	205		U		2.69 (S)		
2,2',3,3',4,4',5,5',6-NoCB	206		U		15.2 (S)		
2,2',3,3',4,4',5,6,6'-NoCB	207		U		12.4 (S)		
2,2',3,3',4,5,5',6,6'-NoCB	208		U		13.0 (S)		
2,2',3,3',4,4',5,5',6,6'-DeCB	209		K	5.70	4.39 (S)	1.10	1.000

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; C = co-eluting congener.

(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = contract defined limit.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____



AXYS METHOD MLA-010 Rev 10

Form 2
PCB CONGENER ANALYSIS REPORTCLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4574
Matrix: CANOLA OIL
Sample Receipt Date: N/A
Extraction Date: 10-Feb-2011
Analysis Date: 23-Feb-2011 Time: 00:23:57
Extract Volume (uL): 20
Injection Volume (uL): 1.0
Dilution Factor: N/A
Concentration Units: pg absolute

Project No. N/A
Lab Sample I.D.: WG35528-101
Sample Size: 10.0 g
Initial Calibration Date: 08-Feb-2011
Instrument ID: HR GC/MS
GC Column ID: SPB OCTYL
Sample Data Filename: PB1C_078 S: 5
Blank Data Filename: PB1C_078 S: 5
Cal. Ver. Data Filename: PB1C_078 S: 1

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

LABELLED COMPOUND	IUPAC NO. ¹	CO-ELUTIONS	LAB FLAG ²	SPIKE CONC.	CONC. FOUND	R(%) ³	ION ABUND. RATIO	RRT
13C12-2-MoCB	1L			2000	725	36.3	3.21	0.718
13C12-4-MoCB	3L			2000	818	40.9	3.19	0.856
13C12-2,2'-DiCB	4L			2000	787	39.3	1.58	0.874
13C12-4,4'-DiCB	15L			2000	873	43.7	1.61	1.252
13C12-2,2',6-TriCB	19L			2000	810	40.5	1.04	1.073
13C12-3,4,4'-TriCB	37L			2000	1680	83.9	1.06	1.090
13C12-2,2',6,6'-TeCB	54L			2000	1320	65.8	0.79	0.811
13C12-3,3',4,4'-TeCB	77L			2000	2070	104	0.77	1.394
13C12-3,4,4',5'-TeCB	81L			2000	1890	94.6	0.75	1.371
13C12-2,2',4,6,6'-PeCB	104L			2000	1040	51.8	1.56	0.809
13C12-2,3,3',4,4'-PeCB	105L			2000	2260	113	1.60	1.199
13C12-2,3,4,4',5'-PeCB	114L			2000	2120	106	1.59	1.178
13C12-2,3',4,4',5'-PeCB	118L			2000	1960	98.2	1.57	1.161
13C12-2',3,4,4',5'-PeCB	123L			2000	2010	100	1.60	1.150
13C12-3,3',4,4',5'-PeCB	126L			2000	2410	121	1.57	1.299
13C12-2,2',4,4',6,6'-HxCB	155L			2000	983	49.2	1.22	0.787
13C12-2,3,3',4,4',5'-HxCB	156L	156L + 157L	C	4000	4040	101	1.27	1.107
13C12-2,3,3',4,4',5'-HxCB	157L	156L + 157L	C156L					
13C12-2,3',4,4',5,5'-HxCB	167L			2000	1880	93.9	1.27	1.077
13C12-3,3',4,4',5,5'-HxCB	169L			2000	2190	109	1.27	1.190
13C12-2,2',3,3',4,4',5'-HpCB	170L			2000	1720	86.1	1.04	0.897
13C12-2,2',3,4,4',5,5'-HpCB	180L			2000	1610	80.5	1.05	0.873
13C12-2,2',3,4',5,6,6'-HpCB	188L			2000	1080	54.1	1.04	0.713
13C12-2,3,3',4,4',5,5'-HpCB	189L			2000	1960	98.2	1.02	0.959
13C12-2,2',3,3',5,5',6,6'-OxCB	202L			2000	1290	64.7	0.91	0.818
13C12-2,3,3',4,4',5,5',6-OxCB	205L			2000	1850	92.6	0.90	1.009
13C12-2,2',3,3',4,4',5,5',6-NoCB	206L			2000	1790	89.5	0.79	1.043
13C12-2,2',3,3',4,5,5',6,6'-NoCB	208L			2000	1570	78.6	0.79	0.949
13C12-2,2',3,3',4,4',5,5',6,6'-DeCB	209L			2000	1690	84.4	1.16	1.075
CLEANUP STANDARD								
13C12-2,4,4'-TriCB	28L			2000	1360	67.8	1.05	0.924
13C12-2,3,3',5,5'-PeCB	111L			2000	1610	80.7	1.58	1.087
13C12-2,2',3,3',5,5',6-HpCB	178L			2000	1540	77.2	1.05	1.011

(1) Suffix "L" indicates labeled compound.

(2) Where applicable, custom lab flags have been used on this report; C = co-eluting congener.

(3) R% = percent recovery of labeled compounds.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Alina Tarnauceanu_____



AXYS METHOD MLA-010 Rev 10

Form 8A
PCB CONGENER ONGOING PRECISION AND RECOVERY (OPR)

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
 V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4574	Lab Sample I.D.:	WG35528-102
Matrix:	CANOLA OIL	Initial Calibration Date:	08-Feb-2011
Extraction Date:	10-Feb-2011	Instrument ID:	HR GC/MS
Analysis Date:	22-Feb-2011 Time: 21:10:43	GC Column ID:	SPB OCTYL
Extract Volume (uL):	20	OPR Data Filename:	PB1C_078 S: 2
Injection Volume (uL):	1.0	Blank Data Filename:	PB1C_078 S: 5
Dilution Factor:	N/A	Cal. Ver. Data Filename:	PB1C_078 S: 1

CONCENTRATIONS REPORTED ARE CONCENTRATIONS IN EXTRACT, BASED ON A 20 uL EXTRACT VOLUME.

COMPOUND	IUPAC NO.	CO-ELUTIONS	LAB FLAG ¹	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
2-MoCB	1			3.12	50.0	50.9	25.0 - 75.0	102
4-MoCB	3			3.10	50.0	50.5	25.0 - 75.0	101
2,2'-DiCB	4			1.53	50.0	51.6	25.0 - 75.0	103
4,4'-DiCB	15			1.52	50.0	51.5	25.0 - 75.0	103
2,2',6-TriCB	19			1.07	50.0	51.7	25.0 - 75.0	103
3,4,4'-TriCB	37			1.03	50.0	51.1	25.0 - 75.0	102
2,2',6,6'-TeCB	54			0.81	50.0	52.8	25.0 - 75.0	106
3,3',4,4'-TeCB	77			0.77	50.0	53.2	25.0 - 75.0	106
3,4,4',5-TeCB	81			0.78	50.0	52.9	25.0 - 75.0	106
2,2',4,6,6'-PeCB	104			1.56	50.0	51.8	25.0 - 75.0	104
2,3,3',4,4'-PeCB	105			1.56	50.0	53.1	25.0 - 75.0	106
2,3,4,4',5-PeCB	114			1.54	50.0	51.0	25.0 - 75.0	102
2,3',4,4',5-PeCB	118			1.56	50.0	50.4	25.0 - 75.0	101
2',3,4,4',5-PeCB	123			1.51	50.0	50.7	25.0 - 75.0	101
3,3',4,4',5-PeCB	126			1.59	50.0	51.4	25.0 - 75.0	103
2,2',4,4',6,6'-HxCB	155			1.27	50.0	51.3	25.0 - 75.0	103
2,3,3',4,4',5-HxCB	156	156 + 157	C	1.29	100	102	50.0 - 150	102
2,3,3',4,4',5'-HxCB	157	156 + 157	C156					
2,3',4,4',5,5'-HxCB	167			1.24	50.0	50.7	25.0 - 75.0	101
3,3',4,4',5,5'-HxCB	169			1.23	50.0	50.1	25.0 - 75.0	100
2,2',3,4',5,6,6'-HpCB	188			1.04	50.0	50.7	25.0 - 75.0	101
2,3,3',4,4',5,5'-HpCB	189			1.01	50.0	48.0	25.0 - 75.0	95.9
2,2',3,3',5,5',6,6'-OcCB	202		G	0.89	50.0	49.0	25.0 - 75.0	97.9
2,3,3',4,4',5,5',6-OcCB	205			0.90	50.0	49.9	25.0 - 75.0	99.7
2,2',3,3',4,4',5,5',6-NoCB	206			0.79	50.0	50.6	25.0 - 75.0	101
2,2',3,3',4,5,5',6,6'-NoCB	208			0.78	50.0	50.2	25.0 - 75.0	100
2,2',3,3',4,4',5,5',6,6'-DeCB	209			0.70	50.0	50.5	25.0 - 75.0	101

(1) Where applicable, custom lab flags have been used on this report; G = lock mass interference present; C = co-eluting congener.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.



AXYS METHOD MLA-010 Rev 10

Form 8B

PCB CONGENER ONGOING PRECISION AND RECOVERY (OPR)

AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4574	Lab Sample I.D.:	WG35528-102
Matrix:	CANOLA OIL	Initial Calibration Date:	08-Feb-2011
Extraction Date:	10-Feb-2011	Instrument ID:	HR GC/MS
Analysis Date:	22-Feb-2011 Time: 21:10:43	GC Column ID:	SPB OCTYL
Extract Volume (uL):	20	OPR Data Filename:	PB1C_078 S: 2
Injection Volume (uL):	1.0	Blank Data Filename:	PB1C_078 S: 5
Dilution Factor:	N/A	Cal. Ver. Data Filename:	PB1C_078 S: 1

CONCENTRATIONS REPORTED ARE CONCENTRATIONS IN EXTRACT, BASED ON A 20 uL EXTRACT VOLUME.

LABELLED COMPOUND	IUPAC NO. ¹	CO-ELUTIONS	LAB FLAG ²	ION ABUND. RATIO	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS (ng/mL)	% RECOVERY
13C12-2-MoCB	1L			3.18	100	39.9	15.0 - 140	39.9
13C12-4-MoCB	3L			3.13	100	44.6	15.0 - 140	44.6
13C12-2,2'-DiCB	4L			1.60	100	44.0	30.0 - 140	44.0
13C12-4,4'-DiCB	15L			1.60	100	53.5	30.0 - 140	53.5
13C12-2,2',6-TriCB	19L			1.05	100	46.4	30.0 - 140	46.4
13C12-3,4,4'-TriCB	37L			1.06	100	79.3	30.0 - 140	79.3
13C12-2,2',6,6'-TeCB	54L			0.79	100	69.6	30.0 - 140	69.6
13C12-3,3',4,4'-TeCB	77L			0.80	100	79.7	30.0 - 140	79.7
13C12-3,4,4',5-TeCB	81L			0.80	100	75.4	30.0 - 140	75.4
13C12-2,2',4,6,6'-PeCB	104L			1.60	100	70.5	30.0 - 140	70.5
13C12-2,3,3',4,4'-PeCB	105L			1.59	100	112	30.0 - 140	112
13C12-2,3,4,4',5-PeCB	114L			1.63	100	103	30.0 - 140	103
13C12-2,3',4,4',5-PeCB	118L			1.60	100	96.6	30.0 - 140	96.6
13C12-2',3,4,4',5-PeCB	123L			1.62	100	98.6	30.0 - 140	98.6
13C12-3,3',4,4',5-PeCB	126L			1.60	100	116	30.0 - 140	116
13C12-2,2',4,4',6,6'-HxCB	155L			1.21	100	57.3	30.0 - 140	57.3
13C12-2,3,3',4,4',5-HxCB	156L	156L + 157L	C	1.26	200	205	60.0 - 280	102
13C12-2,3,3',4,4',5'-HxCB	157L	156L + 157L	C156L					
13C12-2,3',4,4',5,5'-HxCB	167L			1.29	100	95.2	30.0 - 140	95.2
13C12-3,3',4,4',5,5'-HxCB	169L			1.28	100	110	30.0 - 140	110
13C12-2,2',3,4',5,6,6'-HpCB	188L			1.04	100	61.0	30.0 - 140	61.0
13C12-2,3,3',4,4',5,5'-HpCB	189L			1.04	100	103	30.0 - 140	103
13C12-2,2',3,3',5,5',6,6'-OcCB	202L		G	0.91	100	73.4	30.0 - 140	73.4
13C12-2,3,3',4,4',5,5',6-OcCB	205L			0.90	100	93.5	30.0 - 140	93.5
13C12-2,2',3,3',4,4',5,5',6-NoCB	206L			0.80	100	89.1	30.0 - 140	89.1
13C12-2,2',3,3',4,5,5',6,6'-NoCB	208L			0.78	100	87.8	30.0 - 140	87.8
13C12-2,2',3,3',4,4',5,5',6,6'-DeCB	209L			1.20	100	94.9	30.0 - 140	94.9

CLEANUP STANDARD

13C12-2,4,4'-TriCB	28L			1.06	100	78.5	40.0 - 125	78.5
13C12-2,3,3',5,5'-PeCB	111L			1.61	100	80.0	40.0 - 125	80.0
13C12-2,2',3,3',5,5',6-HpCB	178L			1.05	100	80.6	40.0 - 125	80.6

(1) Suffix "L" indicates labeled compound.

(2) Where applicable, custom lab flags have been used on this report; G = lock mass interference present; C = co-eluting congener.

These data are validated and reported as accurate and in accord with AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____ Alina Tarnauceanu _____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.



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Table 1
NELAP Accreditation Held by AXYS Analytical Services Ltd.

Matrix Codes for Table 1

NPW = Non-Potable Water
DrW = Drinking Water
S = Solid
T = Tissue

Accreditation Method Codes and Explanation for Table 1

Code No.	Accreditation Certificate Method Reference	Applicable AXYS Method and Description
1	EPA 1613B	MLA-017, performance based implementation of EPA1613B (GC/HRMS)
2	EPA 8290	MLA-017, performance based implementation of EPA 8290 (GC/HRMS)
3	AXYS MLA-017	MLA-017, performance based implementation of EPA 1613B, 8290 (GC/HRMS)
4	EPA 608	MLA-007, performance based implementation of EPA 608 (GC/ECD)
5	EPA 8270C	MLA-007, performance based modification of 8270C (GC/LRMS)
6	EPA 8081A	MLA-007, performance based implementation of EPA 8081A (GC/ECD)
7	EPA 1668A	MLA-010, performance based implementation of EPA 1668A (GC/HRMS)
8	SM 6630B	MLA-007, performance based implementation of SM 18-20 6630B (GC/ECD)
9	EPA 1625B	MLA-021, performance based modification of EPA 1625B (GC/LRMS)
11	EPA 625	MLA-007, performance based modification of EPA 625 (GC/LRMS)
12	AXYS MLA-041	MLA-041, laboratory performance based method (LC/MS-MS)
13	AXYS MLA-043	MLA-043, laboratory performance based method (LC/MS-MS)
14	AXYS MLA-060	MLA-060, laboratory performance based method (LC/MS-MS)
20	EPA 8270C	MLA-021, performance based modification of EPA 8270C (GC/LRMS)

TABLE 1	New York State Department of Health		California Department of Public Health		State of Florida Department of Health				State of New Jersey Department of Environmental Protection			
	Lab ID 11674 NELAP Primary		Lab ID 01138CA NELAP Secondary		Lab ID E871007 NELAP Primary				Lab ID CANA005 NELAP Secondary			
	NP W	S	NP W	S	Dr. W	NP W	S	T	Dr. W	NP W	S	T
PCDD/F - Polychlorinated Dioxins and Furans												
Dioxins			1									
Dioxins and Dibenzofurans				2								
1,2,3,4,6,7,8-HpCDD			1	2		1, 2, 3	2, 3	2, 3		1	2	2
1,2,3,4,6,7,8-HpCDF			1	2		1, 2, 3	2, 3	2, 3		1	2	2
1,2,3,4,7,8,9-HpCDF			1	2		1, 2, 3	2, 3	2, 3		1	2	2
1,2,3,4,7,8-HxCDD			1	2		1, 2, 3	2, 3	2, 3		1	2	2
1,2,3,4,7,8-HxCDF			1	2		1, 2, 3	2, 3	2, 3		1	2	2

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TABLE 1	New York State Department of Health		California Department of Public Health		State of Florida Department of Health				State of New Jersey Department of Environmental Protection			
	Lab ID 11674 NELAP Primary		Lab ID 01138CA NELAP Secondary		Lab ID E871007 NELAP Primary				Lab ID CANA005 NELAP Secondary			
	NP W	S	NP W	S	Dr. W	NP W	S	T	Dr. W	NP W	S	T
1,2,3,6,7,8-HxCDD			1	2		1, 2, 3	2, 3	2, 3		1	2	2
1,2,3,6,7,8-HxCDF			1	2		1, 2, 3	2, 3	2, 3		1	2	2
1,2,3,7,8,9-HxCDD			1	2		1, 2, 3	2, 3	2, 3		1	2	2
1,2,3,7,8,9-HxCDF			1	2		1, 2, 3	2, 3	2, 3		1	2	2
1,2,3,7,8-PeCDD			1	2		1, 2, 3	2, 3	2, 3		1	2	2
1,2,3,7,8-PeCDF			1	2		1, 2, 3	2, 3	2, 3		1	2	2
2,3,4,6,7,8-HxCDF			1	2		1, 2, 3	2, 3	2, 3		1	2	2
2,3,4,7,8-PeCDF			1	2		1, 2, 3	2, 3	2, 3		1	2	2
2,3,7,8-TCDD	1		1	2		1, 2, 3	2, 3	2, 3		1	2	2
2,3,7,8-TCDF			1	2		1, 2, 3	2, 3	2, 3		1	2	2
OCDD			1	2		1, 2, 3	2, 3	2, 3		1	2	2
OCDF			1	2		1, 2, 3	2, 3	2, 3		1	2	2
Total TCDD			1			1, 2, 3	2, 3	2, 3			2	2
Total TCDF			1			1, 2, 3	2, 3	2, 3			2	2
Total PeCDD			1			1, 2, 3	2, 3	2, 3			2	2
Total PeCDF			1			1, 2, 3	2, 3	2, 3			2	2
Total HxCDD			1			1, 2, 3	2, 3	2, 3			2	2
Total HxCDF			1			1, 2, 3	2, 3	2, 3			2	2
Total HpCDD			1			1, 2, 3	2, 3	2, 3			2	2
Total HpCDF			1			1, 2, 3	2, 3	2, 3			2	2
PCBs – Polychlorinated biphenyls												
PCB 1 2-Chlorobiphenyl	7	7								7	7	
PCB 3 4-Chlorobiphenyl	7	7								7	7	
PCB 4 2,2'-Dichlorobiphenyl	7	7								7	7	
PCB 5 2,3-Dichlorobiphenyl	7	7								7	7	
PCB 15 4,4'-Dichlorobiphenyl	7	7								7	7	
PCB 18 2,2',5-Trichlorobiphenyl	7	7								7	7	
PCB 19 2,2',6-Trichlorobiphenyl	7	7								7	7	
PCB 31 2,4',5-Trichlorobiphenyl	7	7								7	7	
PCB 37 3,4,4'-Trichlorobiphenyl	7	7								7	7	
PCB 44 2,2',3,5'-Tetrachlorobiphenyl	7	7								7	7	
PCB 52 2,2',5,5'-Tetrachlorobiphenyl	7	7								7	7	
PCB 54 2,2',6,6'-Tetrachlorobiphenyl	7	7								7	7	
PCB 66 2,3',4,4'-Tetrachlorobiphenyl	7	7								7	7	
PCB 77 3,3',4,4'-Tetrachlorobiphenyl	7	7								7	7	
PCB 81 3,4,4',5-Tetrachlorobiphenyl	7	7								7	7	

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TABLE 1	New York State Department of Health		California Department of Public Health		State of Florida Department of Health				State of New Jersey Department of Environmental Protection			
	Lab ID 11674 NELAP Primary		Lab ID 01138CA NELAP Secondary		Lab ID E871007 NELAP Primary				Lab ID CANA005 NELAP Secondary			
	NP W	S	NP W	S	Dr. W	NP W	S	T	Dr. W	NP W	S	T
PCB 87	2,2',3,4,5'-Pentachlorobiphenyl	7	7							7	7	
PCB 101	2,2',4,5,5'-Pentachlorobiphenyl	7	7							7	7	
PCB 104	2,2',4,6,6'-Pentachlorobiphenyl	7	7							7	7	
PCB 105	2,3,3',4,4'-Pentachlorobiphenyl	7	7							7	7	
PCB 109	2,3,3',4,6-Pentachlorobiphenyl	7	7							7	7	
PCB 114	2,3,4,4',5-Pentachlorobiphenyl	7	7							7	7	
PCB 118	2,3',4,4',5-Pentachlorobiphenyl	7	7							7	7	
PCB 123	2,3',4,4',5'-Pentachlorobiphenyl	7	7							7	7	
PCB 124	2,3',4',5,5'-Pentachlorobiphenyl									7	7	
PCB 126	3,3',4,4',5-Pentachlorobiphenyl	7	7							7	7	
PCB 138	2,2',3,4,4',5'-Hexachlorobiphenyl	7	7							7	7	
PCB 141	2,2',3,4,5,5'-Hexachlorobiphenyl	7	7							7	7	
PCB 151	2,2',3,5,5',6-Hexachlorobiphenyl	7	7							7	7	
PCB 153	2,2',4,4',5,5'-Hexachlorobiphenyl	7	7							7	7	
PCB 155	2,2',4,4',6,6'-Hexachlorobiphenyl	7	7							7	7	
PCB 156	2,3,3',4,4',5-Hexachlorobiphenyl		7							7		
PCB 157	2,3,3',4,4',5'-Hexachlorobiphenyl	7	7							7	7	
PCB 167	2,3',4,4',5,5'-Hexachlorobiphenyl	7	7							7	7	
PCB 169	3,3',4,4',5,5'-Hexachlorobiphenyl	7	7							7	7	
PCB 170	2,2',3,3',4,4',5-Heptachlorobiphenyl	7	7							7	7	
PCB 180	2,2',3,4,4',5,5'-Heptachlorobiphenyl	7	7							7	7	
PCB 183	2,2',3,4,4',5',6-Heptachlorobiphenyl	7	7							7	7	
PCB 187	2,2',3,4',5,5',6-Heptachlorobiphenyl	7	7							7	7	
PCB 188	2,2',3,4',5,6,6'-Heptachlorobiphenyl	7	7							7	7	
PCB 189	2,3,3',4,4',5,5'-Heptachlorobiphenyl	7	7							7	7	
PCB 202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	7	7							7	7	
PCB 205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	7	7							7		
PCB 206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	7	7							7	7	
PCB 208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	7	7							7	7	
PCB 209	Decachlorobiphenyl	7	7							7	7	
Aroclor 1260		7, 11	5, 7	11	5							
Aroclor 1254		7, 11	5, 7	11	5							
Aroclor 1221		7, 11	5, 7	11	5							
Aroclor 1232		7, 11	5, 7	11	5							
Aroclor 1248		7, 11	5, 7	11	5							
Aroclor 1016		7, 11	5, 7	11	5							
Aroclor 1242		7, 11	5, 7	11	5							

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TABLE 1	New York State Department of Health		California Department of Public Health		State of Florida Department of Health				State of New Jersey Department of Environmental Protection			
	Lab ID 11674 NELAP Primary		Lab ID 01138CA NELAP Secondary		Lab ID E871007 NELAP Primary				Lab ID CANA005 NELAP Secondary			
	NP W	S	NP W	S	Dr. W	NP W	S	T	Dr. W	NP W	S	T
Pesticides												
4,4'-DDD	11	5	11	5								
4,4'-DDE	11	5	11	5								
4,4'-DDT	11	5	11	5								
Aldrin	11	5	11	5								
Alpha-HCH	11	5	11	5								
Beta-HCH	11	5	11	5								
cis-Chlordane (alpha-Chlordane)	5	5										
Chlordane, technical	11	5	11	5								
Delta-HCH	11	5	11	5								
Dieldrin	4	6	4	6								
Endosulphan I	4	6	4	6								
Endosulphan II	4	6	4	6								
Endosulphan sulphate	4	6	4	6								
Endrin	4	6	4	6								
Endrin aldehyde	4	6	4	6								
trans-Chlordane (gamma-Chlordane)	5	5										
Gamma-HCH (Lindane)	11	5	11	5								
Heptachlor	11	5	11	5								
Heptachlor epoxide	4	6	4	6								
Hexachlorobenzene	9	5	9	5								
Methoxychlor	4,8	6	8	6								
Mirex	5											
PFC – Perfluorinated Organic Compounds												
Perfluorobutanoate (PFBA)					14	14	12	13				
Perfluoropentanoate (PFPeA)					14	14	12	13				
Perfluorohexanoate (PFHxA)					14	14	12	13				
Perfluoroheptanoate (PFHpA)					14	14	12	13				
Perfluorooctanoate (PFOA)					14	14	12	13	14	14	12	13
Perfluorononanoate (PFNA)					14	14	12	13				
Perfluorodecanoate (PFDA)					14	14	12	13				
Perfluoroundecanoate (PFUnA)					14	14	12	13				
Perfluorododecanoate (PFDoA)					14	14	12	13				
Perfluorobutanesulfonate (PFBS)					14	14	12	13				

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TABLE 1	New York State Department of Health		California Department of Public Health		State of Florida Department of Health				State of New Jersey Department of Environmental Protection			
	Lab ID 11674 NELAP Primary		Lab ID 01138CA NELAP Secondary		Lab ID E871007 NELAP Primary				Lab ID CANA005 NELAP Secondary			
	NP W	S	NP W	S	Dr. W	NP W	S	T	Dr. W	NP W	S	T
Perfluorohexanesulfonate (PFHxS)					14	14	12	13				
Perfluorooctanesulfonate (PFOS)					14	14	12	13	14	14	12	13
Perfluorooctane sulfonamide (PFOSA)					14	14	12	13				
PAH												
Anthracene	9	20	9	20								
Pyrene	9	20	9	20								
Benzo[ghi]perylene	9	20	9	20								
Indeno[1,2,3-cd]pyrene	9	20	9	20								
Benzo[b]fluoranthene	9	20	9	20								
Fluoranthene	9	20	9	20								
Benzo[k]fluoranthene	9	20	9	20								
Acenaphthylene	9	20	9	20								
Chrysene	9	20	9	20								
Benzo[a]pyrene	9	20	9	20								
Dibenz[ah]anthracene	9	20	9	20								
Benzo[a]anthracene	9	20	9	20								
Acenaphthene	9	20	9	20								
Phenanthrene	9	20	9	20								
Fluorene	9	20	9	20								
Naphthalene	9	20	9	20								

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**Table 2:
Canadian and US State Specific Accreditation Held by AXYS Analytical Services Ltd.**

Matrix Codes for Table 2

NP W = Non-Potable Water

Dr. W = Drinking Water

W = Aqueous

S = Solid

T = Tissue

Accreditation Method Codes and Explanation for Table 2

<u>Code No.</u>	<u>Accreditation Certificate Method Reference</u>	<u>Applicable AXYS Method and Description</u>
1	EPA 1613	MLA-017 Performance based implementation of EPA 1613B (GC/HRMS)
3	AXYS MLA-017	MLA-017 Performance based implementation of EPA 1613B (GC/HRMS)
7	EPA 1668A	MLA-010 Performance based implementation of EPA 1668A (GC/HRMS)
10	AXYS MLA-007	MLA-007, Performance based modification of EPA 8270C, 8081A (GC/LRMS and GC/ECD)
12	AXYS MLA-041	MLA-041 Laboratory performance based method (LC/MS-MS)
13	AXYS MLA-043	MLA-043 Laboratory performance based method (LC/MS-MS)
14	AXYS MLA-060	MLA-060 Laboratory performance based method (LC/MS-MS)
15	AXYS MLA-010	MLA-010 Performance based implementation of EPA 1668A (GC/HRMS)
16	AXYS MLA-028	MLA-028 Laboratory performance based method (GC/HRMS)
17	AXYS MLA-033	MLA-033 Performance based implementation of EPA 1614 (GC/HRMS)
18	AXYS MLA-021	MLA-021 Performance based modification of EPA 8270C (GC/LRMS)
19	AXYS MLA-075	MLA-075 Performance based implementation of EPA 1694 (LC/MS-MS)

TABLE 2	Canadian Association for Laboratory Accreditation (CALA)			Washington State Department of Ecology		Minnesota Department of Health	
	Accreditation No.: A 2637			Lab. ID: C404		LAB ID: 232-99-430	
	W	S	T	NP W	S	Dr. W	NP W
PCDD/F - Polychlorinated Dioxins and Furans							
1,2,3,4,6,7,8-HpCDD	3	3	3	1	1		
1,2,3,4,6,7,8-HpCDF	3	3	3	1	1		
1,2,3,4,7,8,9-HpCDF	3	3	3	1	1		
1,2,3,4,7,8-HxCDD	3	3	3	1	1		
1,2,3,4,7,8-HxCDF	3	3	3	1	1		
1,2,3,6,7,8-HxCDD	3	3	3	1	1		
1,2,3,6,7,8-HxCDF	3	3	3	1	1		
1,2,3,7,8,9-HxCDD	3	3	3	1	1		
1,2,3,7,8,9-HxCDF	3	3	3	1	1		
1,2,3,7,8-PeCDD	3	3	3	1	1		
1,2,3,7,8-PeCDF	3	3	3	1	1		
2,3,4,6,7,8-HxCDF	3	3	3	1	1		
2,3,4,7,8-PeCDF	3	3	3	1	1		
2,3,7,8-TCDD	3	3	3	1	1		
2,3,7,8-TCDF	3	3	3	1	1		
OCDD	3	3	3	1	1		
OCDF	3	3	3	1	1		
Total TCDD				1	1		
Total TCDF				1	1		
Total PeCDD				1	1		
Total PeCDF				1	1		
Total HxCDD				1	1		

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Total HxCDF				1	1		
Total HpCDD				1	1		
Total HpCDF				1	1		
Total PCDD				1	1		
Total PCDF				1	1		
Total PCDD + PCDF				1	1		
PCBs – Polychlorinated biphenyls							
PCB 1	2-Chlorobiphenyl	15	15	15	7	7	
PCB 2	3-Chlorobiphenyl	15	15	15	7	7	
PCB 3	4-Chlorobiphenyl	15	15	15	7	7	
PCB 4	2,2'-Dichlorobiphenyl	15	15	15	7	7	
PCB 5	2,3-Dichlorobiphenyl	15	15	15	7	7	
PCB 6	2,3'-Dichlorobiphenyl	15	15	15	7	7	
PCB 7	2,4-Dichlorobiphenyl	15	15	15	7	7	
PCB 8	2,4'-Dichlorobiphenyl	15	15	15	7	7	
PCB 8/5		10	10	10			
PCB 9	2,5-Dichlorobiphenyl	15	15	15	7	7	
PCB 10	2,6-Dichlorobiphenyl	15	15	15	7	7	
PCB 11	3,3'-Dichlorobiphenyl	15	15	15	7	7	
PCB 12	3,4-Dichlorobiphenyl	15	15	15	7	7	
PCB 13	3,4'-Dichlorobiphenyl	15	15	15	7	7	
PCB 14	3,5-Dichlorobiphenyl	15	15	15	7	7	
PCB 15	4,4'-Dichlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 16	2,2',3-Trichlorobiphenyl	15	15	15	7	7	
PCB 16/32		10	10	10			
PCB 17	2,2',4-Trichlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 18	2,2',5-Trichlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 19	2,2',6-Trichlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 20	2,3,3'-Trichlorobiphenyl	15	15	15	7	7	
PCB 21	2,3,4-Trichlorobiphenyl	15	15	15	7	7	
PCB 22	2,3,4'-Trichlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 23	2,3,5-Trichlorobiphenyl	15	15	15	7	7	
PCB 24	2,3,6-Trichlorobiphenyl	15	15	15	7	7	
PCB 24/27		10	10	10			
PCB 25	2,3',4-Trichlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 26	2,3',5-Trichlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 27	2,3',6-Trichlorobiphenyl	15	15	15	7	7	
PCB 28	2,4,4'-Trichlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 29	2,4,5-Trichlorobiphenyl	15	15	15	7	7	
PCB 30	2,4,6-Trichlorobiphenyl	15	15	15	7	7	
PCB 31	2,4',5-Trichlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 32	2,4',6-Trichlorobiphenyl	15	15	15	7	7	
PCB 33	2,3',4'-Trichlorobiphenyl	15	15	15	7	7	
PCB 33/20/21		18	10	10			
PCB 34	2,3',5'-Trichlorobiphenyl	15	15	15	7	7	
PCB 35	3,3',4-Trichlorobiphenyl	15	15	15	7	7	
PCB 36	3,3',5-Trichlorobiphenyl	15	15	15	7	7	
PCB 37	3,4,4'-Trichlorobiphenyl	15	15	15	7	7	
PCB 38	3,4,5-Trichlorobiphenyl	15	15	15	7	7	
PCB 39	3,4',5-Trichlorobiphenyl	15	15	15	7	7	
PCB 40	2,2',3,3'-Tetrachlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 41	2,2',3,4-Tetrachlorobiphenyl	15	15	15	7	7	
PCB 41/71/64/68		10	10	10			
PCB 42	2,2',3,4'-Tetrachlorobiphenyl	15	15	15	7	7	
PCB 42/59		10	10	10			
PCB 43	2,2',3,5-Tetrachlorobiphenyl	15	15	15	7	7	
PCB 44	2,2',3,5'-Tetrachlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 45	2,2',3,6-Tetrachlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 46	2,2',3,6'-Tetrachlorobiphenyl	10, 15	10, 15	10, 15	7	7	
PCB 47	2,2',4,4'-Tetrachlorobiphenyl	15	15	15	7	7	
PCB 47/48/75		10	10	10			
PCB 48	2,2',4,5-Tetrachlorobiphenyl	15	15	15	7	7	



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PCB 49	2,2',4,5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 49/43		10	10	10				
PCB 50	2,2',4,6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 51	2,2',4,6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 52	2,2',5,5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 52/73		10	10	10				
PCB 53	2,2',5,6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 54	2,2',6,6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 55	2,3,3',4'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 56	2,3,3',4'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 56/60		10	10	10				
PCB 57	2,3,3',5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 58	2,3,3',5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 59	2,3,3',6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 60	2,3,4,4'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 61	2,3,4,5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 62	2,3,4,6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 63	2,3,4',5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 64	2,3,4',6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 65	2,3,5,6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 66	2,3',4,4'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 66/80		10	10	10				
PCB 67	2,3',4,5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 68	2,3',4,5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 69	2,3',4,6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 70	2,3',4',5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 70/76		10	10	10				
PCB 71	2,3',4',6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 72	2,3',5,5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 73	2,3',5',6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 74	2,4,4',5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 74/61		10	10	10				
PCB 75	2,4,4',6'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 76	2,3',4',5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 77	3,3',4,4'-Tetrachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 78	3,3',4,5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 79	3,3',4,5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 80	3,3',5,5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 81	3,4,4',5'-Tetrachlorobiphenyl	15	15	15	7	7		
PCB 82	2,2',3,3',4'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 83	2,2',3,3',5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 83/108		10	10	10				
PCB 84	2,2',3,3',6'-Pentachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 85	2,2',3,4,4'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 85/120		10	10	10				
PCB 86	2,2',3,4,5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 87	2,2',3,4,5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 87/115/116		10	10	10				
PCB 88	2,2',3,4,6'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 89	2,2',3,4,6'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 90	2,2',3,4',5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 91	2,2',3,4',6'-Pentachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 92	2,2',3,5,5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 93	2,2',3,5,6'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 94	2,2',3,5,6'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 95	2,2',3,5',6'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 95/93		10	10	10				
PCB 96	2,2',3,6,6'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 97	2,2',3,4',5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 97/86		10	10	10				
PCB 98	2,2',3,4',6'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 99	2,2',4,4',5'-Pentachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 100	2,2',4,4',6'-Pentachlorobiphenyl	15	15	15	7	7		



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PCB 101	2,2',4,5,5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 101/90/89		10	10	10				
PCB 102	2,2',4,5,6'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 103	2,2',4,5',6-Pentachlorobiphenyl	15	15	15	7	7		
PCB 104	2,2',4,6,6'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 105	2,3,3',4,4'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 105/127		10	10	10				
PCB 106	2,3,3',4,5-Pentachlorobiphenyl	15	15	15	7	7		
PCB 107	2,3,3',4',5-Pentachlorobiphenyl	15	15	15	7	7		
PCB 107/109		10	10	10				
PCB 108	2,3,3',4,5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 109	2,3,3',4,6-Pentachlorobiphenyl	15	15	15	7	7		
PCB 110	2,3,3',4',6-Pentachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 111	2,3,3',5,5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 112	2,3,3',5,6-Pentachlorobiphenyl	15	15	15	7	7		
PCB 113	2,3,3',5',6-Pentachlorobiphenyl	15	15	15	7	7		
PCB 114	2,3,4,4',5-Pentachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 115	2,3,4,4',6-Pentachlorobiphenyl	15	15	15	7	7		
PCB 116	2,3,4,5,6-Pentachlorobiphenyl	15	15	15	7	7		
PCB 117	2,3,4',5,6-Pentachlorobiphenyl	15	15	15	7	7		
PCB 118	2,3',4,4',5-Pentachlorobiphenyl	15	15	15	7	7		
PCB 118/116		10	10	10				
PCB 119	2,3',4,4',6-Pentachlorobiphenyl	15	15	15	7	7		
PCB 120	2,3',4,5,5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 121	2,3',4,5',6-Pentachlorobiphenyl	15	15	15	7	7		
PCB 122	2,3,3',4',5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 123	2,3',4,4',5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 124	2,3',4',5,5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 125	2,3',4',5',6-Pentachlorobiphenyl	15	15	15	7	7		
PCB 126	3,3',4,4',5-Pentachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 127	3,3',4,5,5'-Pentachlorobiphenyl	15	15	15	7	7		
PCB 128	2,2',3,3',4,4'-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 129	2,2',3,3',4,5-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 130	2,2',3,3',4,5'-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 131	2,2',3,3',4,6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 131/142		10	10	10				
PCB 132	2,2',3,3',4,6'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 133	2,2',3,3',5,5'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 134	2,2',3,3',5,6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 134/143		10	10	10				
PCB 135	2,2',3,3',5,6'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 136	2,2',3,3',6,6'-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 137	2,2',3,4,4',5-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 138	2,2',3,4,4',5'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 138/163/164		10	10	10				
PCB 139	2,2',3,4,4',6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 140	2,2',3,4,4',6'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 141	2,2',3,4,5,5'-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 142	2,2',3,4,5,6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 143	2,2',3,4,5,6'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 144	2,2',3,4,5',6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 144/135		10	10	10				
PCB 145	2,2',3,4,6,6'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 146	2,2',3,4',5,5'-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 147	2,2',3,4',5,6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 148	2,2',3,4',5,6'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 149	2,2',3,4',5',6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 149/139		10	10	10				
PCB 150	2,2',3,4',6,6'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 151	2,2',3,5,5',6-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 152	2,2',3,5,6,6'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 153	2,2',4,4',5,5'-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 154	2,2',4,4',5,6'-Hexachlorobiphenyl	15	15	15	7	7		



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PCB 155	2,2',4,4',6,6'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 156	2,3,3',4,4',5-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 157	2,3,3',4,4',5'-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 158	2,3,3',4,4',6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 158/160		10	10	10				
PCB 159	2,3,3',4,5,5'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 160	2,3,3',4,5,6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 161	2,3,3',4,5',6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 162	2,3,3',4',5,5'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 163	2,3,3',4',5,6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 164	2,3,3',4',5',6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 165	2,3,3',5,5',6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 166	2,3,4,4',5,6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 167	2,3',4,4',5,5'-Hexachlorobiphenyl	15	15	15	7	7		
PCB 168	2,3',4,4',5',6-Hexachlorobiphenyl	15	15	15	7	7		
PCB 169	3,3',4,4',5,5'-Hexachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 170	2,2',3,3',4,4',5-Heptachlorobiphenyl	15	15	15	7	7		
PCB 170/190		10	10	10				
PCB 171	2,2',3,3',4,4',6-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 172	2,2',3,3',4,5,5'-Heptachlorobiphenyl	15	15	15	7	7		
PCB 172/192		10	10	10				
PCB 173	2,2',3,3',4,5,6-Heptachlorobiphenyl	15	15	15	7	7		
PCB 174	2,2',3,3',4,5,6'-Heptachlorobiphenyl	15	15	15	7	7		
PCB 174/181		10	10	10				
PCB 175	2,2',3,3',4,5',6-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 176	2,2',3,3',4,6,6'-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 177	2,2',3,3',4,5',6'-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 178	2,2',3,3',5,5',6-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 179	2,2',3,3',5,6,6'-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 180	2,2',3,4,4',5,5'-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 181	2,2',3,4,4',5,6-Heptachlorobiphenyl	15	15	15	7	7		
PCB 182	2,2',3,4,4',5,6'-Heptachlorobiphenyl	15	15	15	7	7		
PCB 183	2,2',3,4,4',5',6-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 184	2,2',3,4,4',6,6'-Heptachlorobiphenyl	15	15	15	7	7		
PCB 185	2,2',3,4,5,5',6-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 186	2,2',3,4,5,6,6'-Heptachlorobiphenyl	15	15	15	7	7		
PCB 187	2,2',3,4',5,5',6-Heptachlorobiphenyl	15	15	15	7	7		
PCB 187/182		10	10	10				
PCB 188	2,2',3,4',5,6,6'-Heptachlorobiphenyl	15	15	15	7	7		
PCB 189	2,3,3',4,4',5,5'-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 190	2,3,3',4,4',5,6-Heptachlorobiphenyl	15	15	15	7	7		
PCB 191	2,3,3',4,4',5',6-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 192	2,3,3',4,5,5',6-Heptachlorobiphenyl	15	15	15	7	7		
PCB 193	2,3,3',4',5,5',6-Heptachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 195	2,2',3,3',4,4',5,6-Octachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 196	2,2',3,3',4,4',5,6'-Octachlorobiphenyl	15	15	15	7	7		
PCB 196/203		10	10	10				
PCB 197	2,2',3,3',4,4',6,6'-Octachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 198	2,2',3,3',4,5,5',6-Octachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 199	2,2',3,3',4,5,5',6'-Octachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 200	2,2',3,3',4,5,6,6'-Octachlorobiphenyl	15	15	15	7	7		
PCB 201	2,2',3,3',4,5',6,6'-Octachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	15	15	15	7	7		
PCB 203	2,2',3,4,4',5,5',6-Octachlorobiphenyl	15	15	15	7	7		
PCB 204	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	15	15	15	7	7		
PCB 205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 207	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
PCB 209	Decachlorobiphenyl	10, 15	10, 15	10, 15	7	7		
Total Monochlorobiphenyls		15	15	15				
Total Dichlorobiphenyls		10, 15	10, 15	10, 15				



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Total Trichlorobiphenyls	10, 15	10, 15	10, 15				
Total Tetrachlorobiphenyls	10, 15	10, 15	10, 15				
Total Pentachlorobiphenyls	10, 15	10, 15	10, 15				
Total Hexachlorobiphenyls	10, 15	10, 15	10, 15				
Total Heptachlorobiphenyls	10, 15	10, 15	10, 15				
Total Octachlorobiphenyls	10, 15	10, 15	10, 15				
Total Nonachlorobiphenyls	10, 15	10, 15	10, 15				
Total Decachlorobiphenyls	10	10	10				
Total Polychlorinated biphenyls	10	10	10		7		
Aroclors							
Aroclor 1260	10	10	10	7	7		
Aroclor 1254	10	10	10	7	7		
Aroclor 1268	10	10	10				
Aroclor 1221	10	10	10	7	7		
Aroclor 1232	10	10	10	7	7		
Aroclor 1248	10	10	10	7	7		
Aroclor 1016				7	7		
Aroclor 1242				7	7		
Aroclor 1242/1016	10	10	10				
Pesticides							
2,4'-DDD	10, 16	10, 16	10, 16	16			
2,4'-DDE	10, 16	10, 16	10, 16	16			
2,4'-DDT	10, 16	10, 16	10, 16	16			
4,4'-DDD	10, 16	10, 16	10, 16	16			
4,4'-DDE	10, 16	10, 16	10, 16	16			
4,4'-DDT	10, 16	10, 16	10, 16	16			
Aldrin	10, 16	10, 16	10, 16	16			
Alpha-HCH	10, 16	10, 16	10, 16	16			
Beta-HCH	10, 16	10, 16	10, 16	16			
cis-Chlordane (alpha-Chlordane)	10, 16	10, 16	10, 16	16			
cis-Nonachlor	10, 16	10, 16	10, 16	16			
Delta-HCH	10, 16	10, 16	10, 16	16			
Dieldrin	10, 16	10, 16	10, 16	16			
Endosulphan I	10, 16	10, 16	10, 16	16			
Endosulphan II	10, 16	10, 16	10, 16	16			
Endosulphan sulphate	10, 16	10, 16	10, 16	16			
Endrin	10, 16	10, 16	10, 16	16			
Endrin aldehyde	10, 16	10, 16	16	16			
Endrin ketone	10, 16	10, 16	10, 16	16			
Gamma-HCH (Lindane)	10, 16	10, 16	10, 16	16			
Heptachlor	10, 16	10, 16	10, 16	16			
Heptachlor epoxide	10, 16	10, 16	10, 16	16			
Hexachlorobenzene	10, 16	10, 16	10, 16	16			
Hexachlorobutadiene		16	16				
Methoxychlor	10, 16	10, 16	10, 16	16			
Mirex	10, 16	10, 16	10, 16	16			
Oxychlordane	10, 16	10, 16	10, 16	16			
Toxaphene	10	10	10				
trans-Chlordane (gamma-Chlordane)	10, 16	10, 16	10, 16	16			
trans-Nonachlor	16	10, 16	10, 16	16			
BDE - Brominated Diphenylethers							
BDE 7 2,4-dibromodiphenylether	17	17	17				
BDE 8 2,4'-dibromodiphenylether	17	17	17				
BDE 10 2,6-dibromodiphenylether	17	17	17				
BDE 11 3,3'-dibromodiphenylether	17	17	17				
BDE 12 3,4-dibromodiphenylether	17	17	17				
BDE 13 3,4'-dibromodiphenylether	17	17	17				
BDE 15 4,4'-dibromodiphenylether	17	17	17				
BDE 17 2,2',4-tribromodiphenylether	17	17	17				
BDE 25 2,3',4-tribromodiphenylether	17	17	17				

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BDE 28	2,4,4'-tribromodiphenylether	17	17	17				
BDE 30	2,4,6-tribromodiphenylether	17	17	17				
BDE-33	2',3,4-tribromodiphenylether	17	17	17				
BDE 35	3,3',4-tribromodiphenylether	17	17	17				
BDE 37	3,4,4'-tribromodiphenylether	17	17	17				
BDE 47	2,2',4,4'-tetrabromodiphenylether	17	17	17				
BDE 49	2,2',4,5'-tetrabromodiphenylether	17	17	17				
BDE 66	2,3',4,4'-tetrabromodiphenylether	17	17	17				
BDE 75	2,4,4',6-tetrabromodiphenylether	17	17	17				
BDE 77	3,3',4,4'-tetrabromodiphenylether	17	17	17				
BDE 85	2,2',3,4,4'-pentabromodiphenylether	17	17	17				
BDE 99	2,2',4,4',5-pentabromodiphenylether	17	17	17				
BDE 100	2,2',4,4',6-pentabromodiphenylether	17	17	17				
BDE 105	2,3,3',4,4'-pentabromodiphenylether	17	17	17				
BDE 116	2,3,4,5,6-pentabromodiphenylether	17	17	17				
BDE 119	2,3',4,4',6-pentabromodiphenylether	17	17	17				
BDE 126	3,3',4,4',5-pentabromodiphenylether	17	17	17				
BDE 140	2,2',3,4,4',6'-hexabromodiphenylether	17	17	17				
BDE 153	2,2',4,4',5,5'-hexabromodiphenylether	17	17	17				
BDE 154	2,2',4,4',5',6-hexabromodiphenylether	17	17	17				
BDE 155	2,2',4,4',6,6'-hexabromodiphenylether	17	17	17				
BDE 166	2,3,4,4',5,6-hexabromodiphenylether	17	17	17				
BDE 181	2,2',3,4,4',5,6-heptabromodiphenylether	17	17	17				
BDE-183	2,2',3,4,4',5',6-heptabromodiphenylether	17	17	17				
BDE 190	2,3,3',4,4',5,6-heptabromodiphenylether	17	17	17				
BDE 206	2,2',3,3',4,4',5,5',6-nonabromodiphenylether	17	17	17				
BDE 207	2,2',3,3',4,4',5,6,6'-nonabromodiphenylether	17	17	17				
BDE 208	2,2',3,3',4,5,5',6,6'-nonabromodiphenylether	17	17	17				
BDE 209	Decabromodiphenylether	17	17	17				
PFC – Perfluorinated Organic Compounds								
Perfluorobutanoate (PFBA)		14	12	13			14	14
Perfluoropentanoate (PFPeA)		14	12	13				14
Perfluorohexanoate (PFHxA)		14	12	13				14
Perfluoroheptanoate (PFHpA)		14	12	13				14
Perfluorooctanoate (PFOA)		14	12	13			14	14
Perfluorononanoate (PFNA)		14	12	13				14
Perfluorodecanoate (PFDA)		14	12	13				14
Perfluoroundecanoate (PFUnA)		14	12	13				14
Perfluorododecanoate (PFDoA)		14	12	13				14
Perfluorobutanesulfonate (PFBS)		14	12	13				14
Perfluorohexanesulfonate (PFHxS)		14	12	13				14
Perfluorooctanesulfonate (PFOS)		14	12	13			14	14
Perfluorooctane sulfonamide (PFOSA)		14	12	13				
PAH								
Anthracene			18	18				
Pyrene			18	18				
Benzo[ghi]perylene			18	18				
Benzo[e]pyrene			18	18				
Indeno[1,2,3-cd]pyrene			18	18				
Perylene			18	18				
Benzo[b]fluoranthene			18	18				
Fluoranthene			18	18				
Benzo[k]fluoranthene				18				
Acenaphthylene			18	18				
Chrysene			18	18				
Benzo[a]pyrene			18	18				
Dibenz[ah]anthracene			18	18				
Benz[a]anthracene			18	18				
Acenaphthene			18	18				
Phenanthrene			18	18				
Fluorene			18	18				

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Naphthalene		18	18				
PPCP (Pharmaceutical and Personal Care Products)							
Acetaminophen	19	19					
Azithromycin	19	19					
Caffeine	19	19					
Carbadox	19	19					
Carbamazepine	19	19					
Cefotaxime	19	19					
Ciprofloxacin	19	19					
Clarithromycin	19	19					
Clinafloxacin	19	19					
Cloxacillin	19	19					
Dehydronifedipine	19	19					
Digoxigenin	19	19					
Digoxin	19	19					
Diltiazem	19	19					
1,7-Dimethylxanthine	19	19					
Diphenhydramine	19	19					
Enrofloxacin	19	19					
Erythromycin	19	19					
Flumequine	19	19					
Fluoxetine	19	19					
Lincomycin	19	19					
Lomefloxacin	19	19					
Miconazole	19	19					
Norfloxacin	19	19					
Norgestimate	19	19					
Ofloxacin	19	19					
Ormetoprim	19	19					
Oxacillin	19	19					
Oxolinic acid	19	19					
Penicillin G	19	19					
Penicillin V	19	19					
Roxithromycin	19	19					
Sarafloxacin	19	19					
Sulfachloropyridazine	19	19					
Sulfadiazine	19	19					
Sulfadimethoxine	19	19					
Sulfamerazine	19	19					
Sulfamethazine	19	19					
Sulfamethizole	19	19					
Sulfamethoxazole	19	19					
Sulfanilamide	19	19					
Sulfathiazole	19	19					
Thiabendazole	19	19					
Trimethoprim	19	19					
Tylosin	19	19					
Virginiamycin	19	19					
Anhydrochlortetracycline (ACTC)	19	19					
Anhydrotetracycline (ATC)	19	19					
Chlortetracycline (CTC)	19	19					
Demeclocycline	19	19					
Doxycycline	19	19					
4-Epianhydrochlortetracycline (EACTC)	19	19					
4-Epianhydrotetracycline (EATC)	19	19					
4-Epichlortetracycline (ECTC)	19	19					
4-Epioxytetracycline (EOTC)	19	19					
4-Epitetracycline (ETC)	19	19					
Isochlortetracycline (ICTC)	19	19					
Minocycline	19	19					
Oxytetracycline (OTC)	19	19					

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Tetracycline (TC)	19	19					
Bisphenol A	19	19					
Furosemide	19	19					
Gemfibrozil	19	19					
Glipizide	19	19					
Glyburide	19	19					
Hydrochlorothiazide	19	19					
2-hydroxy-ibuprofen	19	19					
Ibuprofen	19	19					
Naproxen	19	19					
Triclocarban	19	19					
Triclosan	19	19					
Warfarin	19	19					
Albuterol	19	19					
Amphetamine	19	19					
Atenolol	19	19					
Atorvastatin	19	19					
Cimetidine	19	19					
Clonidine	19	19					
Codeine	19	19					
Cotinine	19	19					
Enalapril	19	19					
Hydrocodone	19	19					
Metformin	19	19					
Oxycodone	19	19					
Ranitidine	19	19					
Triamterene	19	19					
Alprazolam	19	19					
Amitriptyline	19	19					
Amlodipine	19	19					
Benzoyllecgonine	19	19					
Benzotropine	19	19					
Betamethasone	19	19					
Cocaine	19	19					
DEET (N,N-diethyl-m-toluamide)	19	19					
Desmethyldiltiazem	19	19					
Diazepam	19	19					
Fluocinonide	19	19					
Fluticasone propionate	19	19					
Hydrocortisone	19	19					
10-hydroxy-amitriptyline	19	19					
Meprobamate	19	19					
Methylprednisolone	19	19					
Metoprolol	19	19					
Norfluoxetine	19	19					
Norverapamil	19	19					
Paroxetine	19	19					
Prednisolone	19	19					
Prednisone	19	19					
Promethazine	19	19					
Propoxyphene	19	19					
Propranolol	19	19					
Sertraline	19	19					
Simvastatin	19	19					
Theophylline	19	19					
Trenbolone	19	19					
Trenbolone acetate	19	19					
Valsartan	19	19					
Verapamil	19	19					

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Table 1 and Table 2 - Explanation of Terms Used:

- NELAP = National Environmental Laboratory Accreditation Program
- Non-potable water = water not fit for consumption without treatment as it may contain pollutants, contaminants, minerals or infective agents. Surface water, ground water, rainwater, effluents as well as any other non-drinking water sources are included in this category.
- Solid = environmental solid sample. Soil, sediment, biosolids, hazardous waste, mixed phase samples with significant solids content are included in this category.
- Performance based implementation = methodology follows method reference with no significant modifications and meets method reference data quality standard.
- Performance based modification = methodology has been modified from that of the method reference protocol but meets method reference accuracy standard. The suitability of the methodology for any method prescriptive applications should be assessed based on the modifications made and the specific work requirements.
- GC/LRMS = gas chromatography, low resolution mass spectrometry detection
- GC/HRMS = gas chromatography, high resolution mass spectrometry detection
- GC/ECD = gas chromatography, electron capture detection
- LC/MS-MS = liquid chromatography, mass spectrometry-mass spectrometry detection