

December 31, 2013

FAL Project ID: 8224

Mr. Mark Katchen
Phylmar Group
2342 Manning Avenue
Los Angeles, CA 90064

Dear Mr. Katchen,

Attached are the results for Frontier Analytical Laboratory project **8224**. This corresponds to your project number **365-002A** and project name **MHS Monitoring**. Fifteen Polyurethane Foam/XAD-2 (PUF/XAD) cartridges were received on 12/24/2013 in good condition. All fifteen samples were extracted and analyzed by EPA Method 1668C for all 209 polychlorinated biphenyls (PCBs). In addition, the total PCB concentration is listed in the upper right hand portion of page one of each sample data page. **Please note the results are reported in pg/sample**. The results have not been adjusted for the volume of air that was collected. The Phylmar Group requested a **RUSH** turnaround time of five business days for project **8224**.

The following report consists of an Analytical Data section and a Sample Receipt section. The Analytical Data section contains our project-sample tracking log and the analytical results. The Sample Receipt section contains your chain of custody, our sample login form and the sample photo. The attached results are specifically for the samples referenced in this report only. These results shall not be reproduced except in full. Frontier Analytical Laboratory's NELAP Certificate number is 02113CA. This report has been emailed to you as a PDF file. A hardcopy will not be sent to you unless specifically requested.

If you have any questions regarding project **8224**, please contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,



Bradley B. Silverbush
Director of Operations

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **8224**

Received on: **12/24/2013**

Project Due: **01/03/2014**

Storage: **R2**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
8224-001-SA	0	365-002A	A1	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-002-SA	0	365-002A	A2	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-003-SA	0	365-002A	A3	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-004-SA	0	365-002A	A4	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-005-SA	0	365-002A	A5	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-006-SA	0	365-002A	A6A	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-007-SA	0	365-002A	A6B	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-008-SA	0	365-002A	A7	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-009-SA	0	365-002A	A8	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-010-SA	0	365-002A	A9	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-011-SA	0	365-002A	A10	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-012-SA	0	365-002A	A11	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-013-SA	0	365-002A	A12	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-014-SA	0	365-002A	A13	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013
8224-015-SA	0	365-002A	A14	EPA 1668 PCB	PUF	12/21/2013	NP	12/28/2013

FAL
Sample ID

Notes

8224-013-SA

'Sample arrived broken - will proceed with analysis as sample not compromised. '

Modified EPA Method 1668

PCBs



FAL ID: 8224-001-MB
Client ID: Method Blank
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: NA
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013
Total Conc: 47.9

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	ND	3.39			PCB-51	ND	8.23		
PCB-2	ND	4.70			PCB-52	ND	6.68	C	69
PCB-3	ND	3.83			PCB-53	ND	8.33		
PCB-4	ND	7.38			PCB-54	ND	4.52		
PCB-5	ND	6.32			PCB-55	ND	5.91		
PCB-6	ND	5.53			PCB-56	ND	7.24	C	60
PCB-7	ND	5.97			PCB-57	ND	5.78		
PCB-8	ND	5.79			PCB-58	ND	6.44		
PCB-9	ND	5.64			PCB-59	-	-	C042	42
PCB-10	ND	5.47			PCB-60	-	-	C056	56
PCB-11	47.9	-			PCB-61	ND	6.19	C	70
PCB-12	ND	6.20			PCB-62	ND	7.23		
PCB-13	ND	5.97			PCB-63	ND	5.85		
PCB-14	ND	5.89			PCB-64	-	-	C041	41/71/72
PCB-15	ND	4.40			PCB-65	ND	6.12		
PCB-16	ND	4.11			PCB-66	ND	5.50	C	76
PCB-17	ND	5.15			PCB-67	ND	5.48		
PCB-18	ND	5.89			PCB-68	ND	5.64		
PCB-19	ND	4.35			PCB-69	-	-	C052	52
PCB-20	ND	7.24	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	ND	7.61			PCB-72	-	-	C041	41/64/71
PCB-23	ND	8.03			PCB-73	ND	7.01		
PCB-24	ND	4.28			PCB-74	ND	4.31		
PCB-25	ND	7.08			PCB-75	-	-	C048	48
PCB-26	ND	7.50			PCB-76	-	-	C066	66
PCB-27	ND	3.64			PCB-77	ND	5.99		
PCB-28	ND	6.80			PCB-78	ND	7.76		
PCB-29	ND	7.33			PCB-79	ND	7.73		
PCB-30	ND	3.77			PCB-80	ND	4.89		
PCB-31	ND	7.24			PCB-81	ND	7.38		
PCB-32	ND	3.85			PCB-82	ND	12.5		
PCB-33	-	-	C020	20/21	PCB-83	ND	9.07	C	112
PCB-34	ND	7.51			PCB-84	ND	10.6	C	92
PCB-35	ND	7.46			PCB-85	ND	8.75	C	116
PCB-36	ND	7.43			PCB-86	ND	9.12		
PCB-37	ND	5.48			PCB-87	ND	7.72	C	117/125
PCB-38	ND	7.18			PCB-88	ND	9.59	C	91
PCB-39	ND	7.85			PCB-89	ND	11.1		
PCB-40	ND	10.6			PCB-90	ND	9.49	C	101
PCB-41	ND	6.18	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	ND	6.81	C	59	PCB-92	-	-	C084	84
PCB-43	ND	7.09	C	49	PCB-93	ND	9.89		
PCB-44	ND	7.26			PCB-94	ND	11.4		
PCB-45	ND	9.01			PCB-95	ND	8.73		
PCB-46	ND	9.42			PCB-96	ND	7.30		
PCB-47	ND	7.57			PCB-97	ND	9.98		
PCB-48	ND	6.46	C	75	PCB-98	ND	8.63	C	102
PCB-49	-	-	C043	43	PCB-99	ND	9.75		
PCB-50	ND	8.01			PCB-100	ND	9.42		

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Modified EPA Method 1668

PCBs



FAL ID: 8224-001-MB
Client ID: Method Blank
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: NA
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	ND	12.9		
PCB-102	-	-	C098	98	PCB-152	ND	7.15		
PCB-103	ND	8.64			PCB-153	ND	10.2		
PCB-104	ND	5.46			PCB-154	ND	7.93		
PCB-105	ND	6.00			PCB-155	ND	5.10		
PCB-106	ND	7.08	C	118	PCB-156	ND	9.19		
PCB-107	ND	6.33	C	108	PCB-157	ND	10.1		
PCB-108	-	-	C107	107	PCB-158	ND	9.36	C	160
PCB-109	ND	8.24			PCB-159	ND	8.84		
PCB-110	ND	5.65			PCB-160	-	-	C158	158
PCB-111	ND	6.99	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	7.74			PCB-163	-	-	C138	138/164
PCB-114	ND	6.87			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	9.37		
PCB-117	-	-	C087	87/125	PCB-167	ND	10.1		
PCB-118	-	-	C106	106	PCB-168	ND	9.80		
PCB-119	ND	7.11			PCB-169	ND	6.63		
PCB-120	ND	6.58			PCB-170	ND	12.1		
PCB-121	ND	8.24			PCB-171	ND	10.9		
PCB-122	ND	6.46			PCB-172	ND	11.5		
PCB-123	ND	6.38			PCB-173	ND	12.6		
PCB-124	ND	6.52			PCB-174	ND	10.5		
PCB-125	-	-	C087	87/117	PCB-175	ND	10.9		
PCB-126	ND	5.68			PCB-176	ND	7.83		
PCB-127	ND	6.37			PCB-177	ND	12.2		
PCB-128	ND	11.8	C	162	PCB-178	ND	11.0		
PCB-129	ND	14.5			PCB-179	ND	7.75		
PCB-130	ND	13.8			PCB-180	ND	10.1		
PCB-131	ND	13.2	C	133	PCB-181	ND	11.8		
PCB-132	ND	11.4	C	161	PCB-182	ND	9.97	C	187
PCB-133	-	-	C131	131	PCB-183	ND	10.1		
PCB-134	ND	13.6	C	143	PCB-184	ND	7.94		
PCB-135	ND	14.5			PCB-185	ND	11.2		
PCB-136	ND	7.54			PCB-186	ND	8.44		
PCB-137	ND	13.7			PCB-187	-	-	C182	182
PCB-138	ND	8.87	C	163/164	PCB-188	ND	6.48		
PCB-139	ND	12.1	C	149	PCB-189	ND	5.68		
PCB-140	ND	12.0			PCB-190	ND	8.54		
PCB-141	ND	12.2			PCB-191	ND	8.45		
PCB-142	ND	14.2			PCB-192	ND	9.33		
PCB-143	-	-	C134	134	PCB-193	ND	8.16		
PCB-144	ND	10.6			PCB-194	ND	7.18		
PCB-145	ND	7.71			PCB-195	ND	8.02		
PCB-146	ND	10.5	C	165	PCB-196	ND	8.28	C	203
PCB-147	ND	11.9			PCB-197	ND	6.58		
PCB-148	ND	8.94			PCB-198	ND	9.50		
PCB-149	-	-	C139	139	PCB-199	ND	9.33		
PCB-150	ND	7.58			PCB-200	ND	6.23		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-001-MB
Client ID: Method Blank
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: NA
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	6.47		
PCB-202	ND	5.07		
PCB-203	-	-	C196	196
PCB-204	ND	6.19		
PCB-205	ND	4.21		
PCB-206	ND	5.26		
PCB-207	ND	5.13		
PCB-208	ND	3.42		
PCB-209	ND	3.56		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	99.8	5.00 - 145	
13C-PCB-3	95.7	5.00 - 145	
13C-PCB-4	98.6	5.00 - 145	
13C-PCB-15	97.5	5.00 - 145	
13C-PCB-19	100	5.00 - 145	
13C-PCB-37	93.1	5.00 - 145	
13C-PCB-54	105	5.00 - 145	
13C-PCB-77	93.9	10.0 - 145	
13C-PCB-81	97.4	10.0 - 145	
13C-PCB-104	97.2	10.0 - 145	
13C-PCB-105	105	10.0 - 145	
13C-PCB-114	106	10.0 - 145	
13C-PCB-118	103	10.0 - 145	
13C-PCB-123	109	10.0 - 145	
13C-PCB-126	99.9	10.0 - 145	
13C-PCB-155	104	10.0 - 145	
13C-PCB-156	97.8	10.0 - 145	
13C-PCB-157	101	10.0 - 145	
13C-PCB-167	101	10.0 - 145	
13C-PCB-169	96.4	10.0 - 145	
13C-PCB-188	99.2	10.0 - 145	
13C-PCB-189	100	10.0 - 145	
13C-PCB-202	103	10.0 - 145	
13C-PCB-205	103	10.0 - 145	
13C-PCB-206	96.6	10.0 - 145	
13C-PCB-208	110	10.0 - 145	
13C-PCB-209	112	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	108	5.00 - 145	
13C-PCB-111	105	10.0 - 145	
13C-PCB-178	111	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-001-OPR
Client ID: OPR
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: NA
Amount: 1.00 sample

ICal: 1668FAL4-10-24-13
GC Column: DB1
Units: ng/ml

Acquired: 12-27-2013

Compound	% Recovery	QC Limits	Qual	Internal Standards	% Recovery	QC Limits	Qual
PCB-1	111	60.0 - 135		13C-PCB-1	81.3	15.0 - 145	
PCB-3	118	60.0 - 135		13C-PCB-3	73.8	15.0 - 145	
PCB-4	112	60.0 - 135		13C-PCB-4	89.0	15.0 - 145	
PCB-15	117	60.0 - 135		13C-PCB-15	83.6	15.0 - 145	
PCB-19	114	60.0 - 135		13C-PCB-19	81.0	15.0 - 145	
PCB-37	115	60.0 - 135		13C-PCB-37	89.9	15.0 - 145	
PCB-54	107	60.0 - 135		13C-PCB-54	100	15.0 - 145	
PCB-77	114	60.0 - 135		13C-PCB-77	88.7	40.0 - 145	
PCB-81	119	60.0 - 135		13C-PCB-81	87.5	40.0 - 145	
PCB-104	117	60.0 - 135		13C-PCB-104	76.0	40.0 - 145	
PCB-105	113	60.0 - 135		13C-PCB-105	104	40.0 - 145	
PCB-114	114	60.0 - 135		13C-PCB-114	106	40.0 - 145	
PCB-118	112	60.0 - 135		13C-PCB-118	102	40.0 - 145	
PCB-123	111	60.0 - 135		13C-PCB-123	112	40.0 - 145	
PCB-126	122	60.0 - 135		13C-PCB-126	101	40.0 - 145	
PCB-155	121	60.0 - 135		13C-PCB-155	78.3	40.0 - 145	
PCB-156	122	60.0 - 135		13C-PCB-156	92.8	40.0 - 145	
PCB-157	124	60.0 - 135		13C-PCB-157	90.4	40.0 - 145	
PCB-167	123	60.0 - 135		13C-PCB-167	90.9	40.0 - 145	
PCB-169	122	60.0 - 135		13C-PCB-169	96.6	40.0 - 145	
PCB-188	126	60.0 - 135		13C-PCB-188	88.5	40.0 - 145	
PCB-189	120	60.0 - 135		13C-PCB-189	94.8	40.0 - 145	
PCB-202	114	60.0 - 135		13C-PCB-202	89.7	40.0 - 145	
PCB-205	129	60.0 - 135		13C-PCB-205	79.7	40.0 - 145	
PCB-206	127	60.0 - 135		13C-PCB-206	77.7	40.0 - 145	
PCB-208	124	60.0 - 135		13C-PCB-208	78.5	40.0 - 145	
PCB-209	126	60.0 - 135		13C-PCB-209	68.6	40.0 - 145	
				Pre-Spike Standard	% Recovery	QC limits	Qual
				13C-PCB-28	102	15.0 - 145	
				13C-PCB-111	84.8	40.0 - 145	
				13C-PCB-178	94.7	40.0 - 145	

Analyst: 

Date: 12/31/2013

Reviewed By: 

Date: 12/31/2013

Modified EPA Method 1668 PCBs



FAL ID: 8224-001-SA
Client ID: A1
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013
Total Conc: 97700

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	435	-			PCB-51	113	-		
PCB-2	105	-			PCB-52	4140	-	C	69
PCB-3	319	-			PCB-53	396	-		
PCB-4	479	-			PCB-54	ND	4.70		
PCB-5	ND	7.31			PCB-55	53.6	-		
PCB-6	254	-			PCB-56	977	-	C	60
PCB-7	81.9	-			PCB-57	ND	6.01		
PCB-8	1340	-			PCB-58	ND	6.69		
PCB-9	87.8	-			PCB-59	-	-	C042	42
PCB-10	18.1	-	J		PCB-60	-	-	C056	56
PCB-11	2150	-	B		PCB-61	3410	-	C	70
PCB-12	25.0	-	J		PCB-62	ND	7.51		
PCB-13	52.1	-			PCB-63	66.4	-		
PCB-14	ND	6.81			PCB-64	-	-	C041	41/71/72
PCB-15	232	-			PCB-65	ND	6.35		
PCB-16	594	-			PCB-66	1560	-	C	76
PCB-17	907	-			PCB-67	36.9	-	J	
PCB-18	3070	-			PCB-68	12.2	-	J	
PCB-19	141	-			PCB-69	-	-	C052	52
PCB-20	1380	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	761	-			PCB-72	-	-	C041	41/64/71
PCB-23	ND	7.75			PCB-73	ND	7.28		
PCB-24	27.0	-	J		PCB-74	702	-		
PCB-25	107	-			PCB-75	-	-	C048	48
PCB-26	348	-			PCB-76	-	-	C066	66
PCB-27	103	-			PCB-77	124	-		
PCB-28	2180	-			PCB-78	20.4	-	J	
PCB-29	ND	7.08			PCB-79	71.2	-		
PCB-30	ND	5.48			PCB-80	ND	5.09		
PCB-31	2540	-			PCB-81	138	-		
PCB-32	550	-			PCB-82	653	-		
PCB-33	-	-	C020	20/21	PCB-83	285	-	C	112
PCB-34	ND	7.25			PCB-84	3100	-	C	92
PCB-35	23.2	-	J		PCB-85	800	-	C	116
PCB-36	ND	7.18			PCB-86	ND	13.7		
PCB-37	216	-			PCB-87	2600	-	C	117/125
PCB-38	17.8	-	J		PCB-88	1510	-	C	91
PCB-39	ND	7.59			PCB-89	61.0	-		
PCB-40	258	-			PCB-90	8200	-	C	101
PCB-41	1600	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	483	-	C	59	PCB-92	-	-	C084	84
PCB-43	1620	-	C	49	PCB-93	ND	7.34		
PCB-44	2020	-			PCB-94	33.6	-	J	
PCB-45	333	-			PCB-95	5860	-		
PCB-46	117	-			PCB-96	43.4	-		
PCB-47	489	-			PCB-97	1980	-		
PCB-48	423	-	C	75	PCB-98	ND	6.40	C	102
PCB-49	-	-	C043	43	PCB-99	2820	-		
PCB-50	ND	8.33			PCB-100	16.5	-	J	

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Modified EPA Method 1668 PCBs



FAL ID: 8224-001-SA
Client ID: A1
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	1250	-		
PCB-102	-	-	C098	98	PCB-152	ND	5.26		
PCB-103	33.4	-	J		PCB-153	2960	-		
PCB-104	ND	4.05			PCB-154	46.3	-		
PCB-105	1110	-			PCB-155	ND	3.75		
PCB-106	4010	-	C	118	PCB-156	102	-		
PCB-107	266	-	C	108	PCB-157	27.6	-	J	
PCB-108	-	-	C107	107	PCB-158	353	-	C	160
PCB-109	ND	12.3			PCB-159	19.1	-	J	
PCB-110	5100	-			PCB-160	-	-	C158	158
PCB-111	149	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	11.6			PCB-163	-	-	C138	138/164
PCB-114	113	-			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	15.2	-	J	
PCB-117	-	-	C087	87/125	PCB-167	68.4	-		
PCB-118	-	-	C106	106	PCB-168	12.6	-	J	
PCB-119	80.7	-			PCB-169	ND	5.30		
PCB-120	ND	9.86			PCB-170	124	-		
PCB-121	ND	6.11			PCB-171	95.4	-		
PCB-122	44.8	-			PCB-172	37.6	-	J	
PCB-123	64.9	-			PCB-173	18.4	-	J	
PCB-124	219	-			PCB-174	379	-		
PCB-125	-	-	C087	87/117	PCB-175	28.6	-	J	
PCB-126	20.3	-	J		PCB-176	127	-		
PCB-127	ND	7.90			PCB-177	213	-		
PCB-128	347	-	C	162	PCB-178	111	-		
PCB-129	159	-			PCB-179	372	-		
PCB-130	211	-			PCB-180	326	-		
PCB-131	149	-	C	133	PCB-181	ND	8.14		
PCB-132	1350	-	C	161	PCB-182	477	-	C	187
PCB-133	-	-	C131	131	PCB-183	260	-		
PCB-134	357	-	C	143	PCB-184	ND	5.48		
PCB-135	887	-			PCB-185	63.4	-		
PCB-136	1010	-			PCB-186	ND	5.83		
PCB-137	191	-			PCB-187	-	-	C182	182
PCB-138	2450	-	C	163/164	PCB-188	ND	4.08		
PCB-139	4430	-	C	149	PCB-189	ND	4.38		
PCB-140	22.8	-	J		PCB-190	27.3	-	J	
PCB-141	690	-			PCB-191	11.0	-	J	
PCB-142	ND	10.1			PCB-192	ND	6.44		
PCB-143	-	-	C134	134	PCB-193	20.8	-	J	
PCB-144	281	-			PCB-194	ND	8.04		
PCB-145	ND	5.67			PCB-195	ND	8.98		
PCB-146	465	-	C	165	PCB-196	37.6	-	C,J	203
PCB-147	129	-			PCB-197	ND	5.65		
PCB-148	ND	6.58			PCB-198	ND	8.16		
PCB-149	-	-	C139	139	PCB-199	39.1	-	J	
PCB-150	ND	5.57			PCB-200	18.2	-	J	

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Modified EPA Method 1668 PCBs



FAL ID: 8224-001-SA
Client ID: A1
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	22.3	-	J	
PCB-202	22.9	-	J	
PCB-203	-	-	C196,J	196
PCB-204	ND	5.31		
PCB-205	ND	4.71		
PCB-206	ND	4.82		
PCB-207	ND	4.76		
PCB-208	ND	3.22		
PCB-209	ND	1.39		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	96.4	5.00 - 145	
13C-PCB-3	97.1	5.00 - 145	
13C-PCB-4	99.8	5.00 - 145	
13C-PCB-15	101	5.00 - 145	
13C-PCB-19	101	5.00 - 145	
13C-PCB-37	96.8	5.00 - 145	
13C-PCB-54	106	5.00 - 145	
13C-PCB-77	103	10.0 - 145	
13C-PCB-81	101	10.0 - 145	
13C-PCB-104	100	10.0 - 145	
13C-PCB-105	109	10.0 - 145	
13C-PCB-114	115	10.0 - 145	
13C-PCB-118	117	10.0 - 145	
13C-PCB-123	119	10.0 - 145	
13C-PCB-126	106	10.0 - 145	
13C-PCB-155	107	10.0 - 145	
13C-PCB-156	101	10.0 - 145	
13C-PCB-157	103	10.0 - 145	
13C-PCB-167	103	10.0 - 145	
13C-PCB-169	99.9	10.0 - 145	
13C-PCB-188	102	10.0 - 145	
13C-PCB-189	102	10.0 - 145	
13C-PCB-202	101	10.0 - 145	
13C-PCB-205	113	10.0 - 145	
13C-PCB-206	104	10.0 - 145	
13C-PCB-208	120	10.0 - 145	
13C-PCB-209	120	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	108	5.00 - 145	
13C-PCB-111	120	10.0 - 145	
13C-PCB-178	117	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-002-SA
Client ID: A2
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013
Total Conc: 71000

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	2630	-			PCB-51	114	-		
PCB-2	385	-			PCB-52	4870	-	C	69
PCB-3	1440	-			PCB-53	400	-		
PCB-4	1860	-			PCB-54	ND	4.20		
PCB-5	ND	9.20			PCB-55	37.6	-	J	
PCB-6	940	-			PCB-56	468	-	C	60
PCB-7	339	-			PCB-57	ND	5.37		
PCB-8	4480	-			PCB-58	ND	5.98		
PCB-9	357	-			PCB-59	-	-	C042	42
PCB-10	141	-			PCB-60	-	-	C056	56
PCB-11	3240	-	B		PCB-61	1920	-	C	70
PCB-12	103	-			PCB-62	ND	6.71		
PCB-13	178	-			PCB-63	42.6	-		
PCB-14	ND	8.58			PCB-64	-	-	C041	41/71/72
PCB-15	674	-			PCB-65	ND	5.68		
PCB-16	710	-			PCB-66	848	-	C	76
PCB-17	1230	-			PCB-67	23.1	-	J	
PCB-18	3510	-			PCB-68	ND	5.24		
PCB-19	264	-			PCB-69	-	-	C052	52
PCB-20	1670	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	870	-			PCB-72	-	-	C041	41/64/71
PCB-23	ND	7.03			PCB-73	ND	6.51		
PCB-24	43.0	-			PCB-74	422	-		
PCB-25	213	-			PCB-75	-	-	C048	48
PCB-26	460	-			PCB-76	-	-	C066	66
PCB-27	169	-			PCB-77	22.6	-	J	
PCB-28	2450	-			PCB-78	ND	6.47		
PCB-29	29.2	-	J		PCB-79	30.3	-	J	
PCB-30	ND	5.26			PCB-80	ND	4.54		
PCB-31	2400	-			PCB-81	43.3	-		
PCB-32	779	-			PCB-82	198	-		
PCB-33	-	-	C020	20/21	PCB-83	113	-	C	112
PCB-34	ND	6.58			PCB-84	1640	-	C	92
PCB-35	33.6	-	J		PCB-85	295	-	C	116
PCB-36	ND	6.52			PCB-86	ND	12.3		
PCB-37	188	-			PCB-87	898	-	C	117/125
PCB-38	14.3	-	J		PCB-88	1010	-	C	91
PCB-39	ND	6.88			PCB-89	29.1	-	J	
PCB-40	199	-			PCB-90	3500	-	C	101
PCB-41	1110	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	357	-	C	59	PCB-92	-	-	C084	84
PCB-43	1510	-	C	49	PCB-93	ND	7.38		
PCB-44	1810	-			PCB-94	26.3	-	J	
PCB-45	313	-			PCB-95	4060	-		
PCB-46	113	-			PCB-96	47.3	-		
PCB-47	420	-			PCB-97	722	-		
PCB-48	303	-	C	75	PCB-98	ND	6.44	C	102
PCB-49	-	-	C043	43	PCB-99	1210	-		
PCB-50	ND	7.44			PCB-100	ND	7.03		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-002-SA
Client ID: A2
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	583	-		
PCB-102	-	-	C098	98	PCB-152	ND	4.67		
PCB-103	30.4	-	J		PCB-153	859	-		
PCB-104	ND	4.07			PCB-154	13.5	-	J	
PCB-105	232	-			PCB-155	ND	3.34		
PCB-106	918	-	C	118	PCB-156	27.7	-	J	
PCB-107	63.4	-	C	108	PCB-157	ND	5.57		
PCB-108	-	-	C107	107	PCB-158	75.9	-	C	160
PCB-109	ND	11.1			PCB-159	ND	4.55		
PCB-110	1520	-			PCB-160	-	-	C158	158
PCB-111	52.2	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	10.4			PCB-163	-	-	C138	138/164
PCB-114	35.3	-	J		PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	4.83		
PCB-117	-	-	C087	87/125	PCB-167	11.7	-	J	
PCB-118	-	-	C106	106	PCB-168	ND	5.05		
PCB-119	35.2	-	J		PCB-169	ND	3.47		
PCB-120	ND	8.85			PCB-170	55.3	-		
PCB-121	ND	6.15			PCB-171	34.1	-	J	
PCB-122	ND	7.71			PCB-172	16.2	-	J	
PCB-123	18.9	-	J		PCB-173	ND	7.94		
PCB-124	58.4	-			PCB-174	177	-		
PCB-125	-	-	C087	87/117	PCB-175	11.2	-	J	
PCB-126	ND	5.98			PCB-176	53.2	-		
PCB-127	ND	7.60			PCB-177	89.1	-		
PCB-128	63.2	-	C	162	PCB-178	56.4	-		
PCB-129	32.2	-	J		PCB-179	215	-		
PCB-130	37.9	-	J		PCB-180	204	-		
PCB-131	39.5	-	C,J	133	PCB-181	ND	7.42		
PCB-132	344	-	C	161	PCB-182	299	-	C	187
PCB-133	-	-	C131,J	131	PCB-183	144	-		
PCB-134	93.1	-	C	143	PCB-184	ND	5.00		
PCB-135	279	-			PCB-185	36.9	-	J	
PCB-136	518	-			PCB-186	ND	5.31		
PCB-137	42.1	-			PCB-187	-	-	C182	182
PCB-138	547	-	C	163/164	PCB-188	ND	4.26		
PCB-139	1480	-	C	149	PCB-189	ND	3.36		
PCB-140	ND	6.18			PCB-190	18.5	-	J	
PCB-141	194	-			PCB-191	ND	5.31		
PCB-142	ND	7.31			PCB-192	ND	5.87		
PCB-143	-	-	C134	134	PCB-193	12.8	-	J	
PCB-144	119	-			PCB-194	18.1	-	J	
PCB-145	ND	5.04			PCB-195	ND	9.55		
PCB-146	113	-	C	165	PCB-196	55.3	-	C	203
PCB-147	29.5	-	J		PCB-197	ND	5.01		
PCB-148	ND	5.85			PCB-198	ND	7.23		
PCB-149	-	-	C139	139	PCB-199	48.8	-		
PCB-150	ND	4.96			PCB-200	ND	4.75		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-002-SA
Client ID: A2
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	4.93		
PCB-202	25.1	-	J	
PCB-203	-	-	C196	196
PCB-204	ND	4.71		
PCB-205	ND	5.01		
PCB-206	ND	5.44		
PCB-207	ND	5.35		
PCB-208	ND	3.58		
PCB-209	ND	1.99		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	99.7	5.00 - 145	
13C-PCB-3	100	5.00 - 145	
13C-PCB-4	101	5.00 - 145	
13C-PCB-15	104	5.00 - 145	
13C-PCB-19	103	5.00 - 145	
13C-PCB-37	93.3	5.00 - 145	
13C-PCB-54	108	5.00 - 145	
13C-PCB-77	101	10.0 - 145	
13C-PCB-81	110	10.0 - 145	
13C-PCB-104	102	10.0 - 145	
13C-PCB-105	109	10.0 - 145	
13C-PCB-114	110	10.0 - 145	
13C-PCB-118	113	10.0 - 145	
13C-PCB-123	115	10.0 - 145	
13C-PCB-126	107	10.0 - 145	
13C-PCB-155	105	10.0 - 145	
13C-PCB-156	106	10.0 - 145	
13C-PCB-157	106	10.0 - 145	
13C-PCB-167	106	10.0 - 145	
13C-PCB-169	100	10.0 - 145	
13C-PCB-188	104	10.0 - 145	
13C-PCB-189	104	10.0 - 145	
13C-PCB-202	108	10.0 - 145	
13C-PCB-205	110	10.0 - 145	
13C-PCB-206	103	10.0 - 145	
13C-PCB-208	115	10.0 - 145	
13C-PCB-209	116	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	116	5.00 - 145	
13C-PCB-111	118	10.0 - 145	
13C-PCB-178	115	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

000012 of 000054

Modified EPA Method 1668 PCBs



FAL ID: 8224-003-SA
Client ID: A3
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013
Total Conc: 135000

Page 1 of 3

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	5710	-			PCB-51	191	-		
PCB-2	607	-			PCB-52	5250	-	C	69
PCB-3	2460	-			PCB-53	483	-		
PCB-4	6680	-			PCB-54	ND	5.18		
PCB-5	ND	8.48			PCB-55	65.5	-		
PCB-6	2670	-			PCB-56	963	-	C	60
PCB-7	920	-			PCB-57	ND	6.62		
PCB-8	12200	-			PCB-58	ND	7.38		
PCB-9	921	-			PCB-59	-	-	C042	42
PCB-10	391	-			PCB-60	-	-	C056	56
PCB-11	2200	-	B		PCB-61	3590	-	C	70
PCB-12	140	-			PCB-62	ND	8.28		
PCB-13	324	-			PCB-63	62.3	-		
PCB-14	ND	7.90			PCB-64	-	-	C041	41/71/72
PCB-15	1390	-			PCB-65	ND	7.01		
PCB-16	1750	-			PCB-66	1530	-	C	76
PCB-17	2950	-			PCB-67	41.7	-		
PCB-18	8150	-			PCB-68	53.6	-		
PCB-19	727	-			PCB-69	-	-	C052	52
PCB-20	2890	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	1500	-			PCB-72	-	-	C041	41/64/71
PCB-23	11.2	-	J		PCB-73	ND	8.03		
PCB-24	139	-			PCB-74	724	-		
PCB-25	402	-			PCB-75	-	-	C048	48
PCB-26	839	-			PCB-76	-	-	C066	66
PCB-27	376	-			PCB-77	55.4	-		
PCB-28	3800	-			PCB-78	22.6	-	J	
PCB-29	59.0	-			PCB-79	70.1	-		
PCB-30	ND	6.34			PCB-80	ND	5.61		
PCB-31	4170	-			PCB-81	107	-		
PCB-32	1560	-			PCB-82	545	-		
PCB-33	-	-	C020	20/21	PCB-83	246	-	C	112
PCB-34	24.1	-	J		PCB-84	3070	-	C	92
PCB-35	40.7	-			PCB-85	719	-	C	116
PCB-36	ND	8.15			PCB-86	ND	5.45		
PCB-37	462	-			PCB-87	2190	-	C	117/125
PCB-38	19.7	-	J		PCB-88	1600	-	C	91
PCB-39	ND	8.61			PCB-89	58.9	-		
PCB-40	334	-			PCB-90	7180	-	C	101
PCB-41	1620	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	553	-	C	59	PCB-92	-	-	C084	84
PCB-43	1780	-	C	49	PCB-93	ND	7.16		
PCB-44	2340	-			PCB-94	38.2	-	J	
PCB-45	429	-			PCB-95	6170	-		
PCB-46	169	-			PCB-96	53.4	-		
PCB-47	661	-			PCB-97	1690	-		
PCB-48	405	-			PCB-98	ND	6.25	C	102
PCB-49	-	-	C043	43	PCB-99	2640	-		
PCB-50	ND	9.18			PCB-100	ND	6.82		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-003-SA
Client ID: A3
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

Page 2 of 3

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	703	-		
PCB-102	-	-	C098	98	PCB-152	ND	7.17		
PCB-103	42.1	-			PCB-153	1680	-		
PCB-104	ND	3.95			PCB-154	32.9	-	J	
PCB-105	811	-			PCB-155	ND	5.12		
PCB-106	3070	-	C	118	PCB-156	85.7	-		
PCB-107	195	-	C	108	PCB-157	26.0	-	J	
PCB-108	-	-	C107	107	PCB-158	225	-	C	160
PCB-109	ND	4.93			PCB-159	ND	6.48		
PCB-110	3920	-			PCB-160	-	-	C158	158
PCB-111	117	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	4.63			PCB-163	-	-	C138	138/164
PCB-114	80.6	-			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	6.87		
PCB-117	-	-	C087	87/125	PCB-167	42.5	-		
PCB-118	-	-	C106	106	PCB-168	ND	7.18		
PCB-119	64.6	-			PCB-169	ND	5.52		
PCB-120	11.5	-	J		PCB-170	63.9	-		
PCB-121	ND	5.96			PCB-171	50.2	-		
PCB-122	33.9	-	J		PCB-172	22.4	-	J	
PCB-123	85.8	-			PCB-173	ND	8.02		
PCB-124	149	-			PCB-174	211	-		
PCB-125	-	-	C087	87/117	PCB-175	21.2	-	J	
PCB-126	ND	7.77			PCB-176	60.2	-		
PCB-127	ND	9.56			PCB-177	97.0	-		
PCB-128	222	-	C	162	PCB-178	64.9	-		
PCB-129	108	-			PCB-179	204	-		
PCB-130	118	-			PCB-180	250	-		
PCB-131	99.2	-	C	133	PCB-181	ND	7.49		
PCB-132	777	-	C	161	PCB-182	377	-	C	187
PCB-133	-	-	C131	131	PCB-183	184	-		
PCB-134	214	-	C	143	PCB-184	ND	5.05		
PCB-135	474	-			PCB-185	43.2	-		
PCB-136	693	-			PCB-186	ND	5.36		
PCB-137	139	-			PCB-187	-	-	C182	182
PCB-138	1410	-	C	163/164	PCB-188	ND	4.04		
PCB-139	2520	-	C	149	PCB-189	ND	3.70		
PCB-140	18.7	-	J		PCB-190	20.1	-	J	
PCB-141	370	-			PCB-191	ND	5.37		
PCB-142	ND	10.4			PCB-192	ND	5.93		
PCB-143	-	-	C134	134	PCB-193	15.9	-	J	
PCB-144	191	-			PCB-194	21.3	-	J	
PCB-145	ND	7.73			PCB-195	ND	9.42		
PCB-146	260	-	C	165	PCB-196	87.9	-	C	203
PCB-147	88.3	-			PCB-197	ND	5.58		
PCB-148	ND	8.97			PCB-198	ND	8.06		
PCB-149	-	-	C139	139	PCB-199	81.2	-		
PCB-150	ND	7.60			PCB-200	29.1	-	J	

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Modified EPA Method 1668 PCBs



FAL ID: 8224-003-SA
Client ID: A3
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	29.2	-	J	
PCB-202	44.6	-		
PCB-203	-	-	C196	196
PCB-204	ND	5.25		
PCB-205	ND	4.95		
PCB-206	ND	11.4		
PCB-207	ND	11.2		
PCB-208	ND	7.56		
PCB-209	ND	2.72		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	91.2	5.00 - 145	
13C-PCB-3	95.9	5.00 - 145	
13C-PCB-4	94.9	5.00 - 145	
13C-PCB-15	98.1	5.00 - 145	
13C-PCB-19	94.7	5.00 - 145	
13C-PCB-37	91.4	5.00 - 145	
13C-PCB-54	102	5.00 - 145	
13C-PCB-77	93.9	10.0 - 145	
13C-PCB-81	96.4	10.0 - 145	
13C-PCB-104	97.7	10.0 - 145	
13C-PCB-105	100	10.0 - 145	
13C-PCB-114	103	10.0 - 145	
13C-PCB-118	103	10.0 - 145	
13C-PCB-123	111	10.0 - 145	
13C-PCB-126	97.2	10.0 - 145	
13C-PCB-155	96.4	10.0 - 145	
13C-PCB-156	96.2	10.0 - 145	
13C-PCB-157	96.9	10.0 - 145	
13C-PCB-167	98.3	10.0 - 145	
13C-PCB-169	92.9	10.0 - 145	
13C-PCB-188	96.1	10.0 - 145	
13C-PCB-189	95.7	10.0 - 145	
13C-PCB-202	96.6	10.0 - 145	
13C-PCB-205	103	10.0 - 145	
13C-PCB-206	98.0	10.0 - 145	
13C-PCB-208	114	10.0 - 145	
13C-PCB-209	110	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	103	5.00 - 145	
13C-PCB-111	107	10.0 - 145	
13C-PCB-178	107	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-004-SA
Client ID: A4
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013
Total Conc: 37400

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	393	-			PCB-51	66.1	-		
PCB-2	115	-			PCB-52	1940	-	C	69
PCB-3	337	-			PCB-53	200	-		
PCB-4	422	-			PCB-54	ND	3.73		
PCB-5	ND	9.93			PCB-55	23.0	-	J	
PCB-6	268	-			PCB-56	419	-	C	60
PCB-7	96.3	-			PCB-57	ND	4.78		
PCB-8	1290	-			PCB-58	ND	5.32		
PCB-9	89.7	-			PCB-59	-	-	C042	42
PCB-10	44.7	-			PCB-60	-	-	C056	56
PCB-11	2310	-	B		PCB-61	1060	-	C	70
PCB-12	27.0	-	J		PCB-62	ND	5.97		
PCB-13	52.5	-			PCB-63	24.0	-	J	
PCB-14	ND	9.26			PCB-64	-	-	C041	41/71/72
PCB-15	236	-			PCB-65	ND	5.05		
PCB-16	388	-			PCB-66	591	-	C	76
PCB-17	691	-			PCB-67	20.4	-	J	
PCB-18	2090	-			PCB-68	10.6	-	J	
PCB-19	119	-			PCB-69	-	-	C052	52
PCB-20	933	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	462	-			PCB-72	-	-	C041	41/64/71
PCB-23	ND	8.10			PCB-73	ND	5.79		
PCB-24	15.8	-	J		PCB-74	278	-		
PCB-25	95.5	-			PCB-75	-	-	C048	48
PCB-26	229	-			PCB-76	-	-	C066	66
PCB-27	95.8	-			PCB-77	29.4	-	J	
PCB-28	1270	-			PCB-78	ND	7.04		
PCB-29	15.1	-	J		PCB-79	18.1	-	J	
PCB-30	ND	4.82			PCB-80	ND	4.04		
PCB-31	1530	-			PCB-81	ND	6.61		
PCB-32	471	-			PCB-82	108	-		
PCB-33	-	-	C020	20/21	PCB-83	53.5	-	C	112
PCB-34	ND	7.58			PCB-84	741	-	C	92
PCB-35	30.2	-	J		PCB-85	158	-	C	116
PCB-36	ND	7.50			PCB-86	ND	9.93		
PCB-37	142	-			PCB-87	472	-	C	117/125
PCB-38	ND	7.24			PCB-88	432	-	C	91
PCB-39	ND	7.92			PCB-89	19.7	-	J	
PCB-40	124	-			PCB-90	2010	-	C	101
PCB-41	739	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	243	-	C	59	PCB-92	-	-	C084	84
PCB-43	807	-	C	49	PCB-93	ND	9.89		
PCB-44	915	-			PCB-94	ND	11.4		
PCB-45	185	-			PCB-95	1790	-		
PCB-46	66.4	-			PCB-96	22.2	-	J	
PCB-47	284	-			PCB-97	368	-		
PCB-48	214	-	C	75	PCB-98	ND	8.62	C	102
PCB-49	-	-	C043	43	PCB-99	612	-		
PCB-50	ND	6.62			PCB-100	ND	9.41		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-004-SA
Client ID: A4
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	555	-		
PCB-102	-	-	C098	98	PCB-152	ND	4.63		
PCB-103	ND	8.63			PCB-153	825	-		
PCB-104	ND	5.45			PCB-154	ND	5.13		
PCB-105	140	-			PCB-155	ND	3.30		
PCB-106	577	-	C	118	PCB-156	19.0	-	J	
PCB-107	37.9	-	C,J	108	PCB-157	ND	4.52		
PCB-108	-	-	C107,J	107	PCB-158	67.7	-	C	160
PCB-109	ND	8.97			PCB-159	ND	4.09		
PCB-110	851	-			PCB-160	-	-	C158	158
PCB-111	27.2	-	C,J	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	8.43			PCB-163	-	-	C138	138/164
PCB-114	20.6	-	J		PCB-164	-	-	C138	138/163
PCB-115	-	-	C111,J	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	4.34		
PCB-117	-	-	C087	87/125	PCB-167	ND	4.14		
PCB-118	-	-	C106	106	PCB-168	ND	4.54		
PCB-119	17.3	-	J		PCB-169	ND	3.43		
PCB-120	ND	7.17			PCB-170	52.1	-		
PCB-121	ND	8.23			PCB-171	46.5	-		
PCB-122	ND	6.55			PCB-172	17.6	-	J	
PCB-123	12.5	-	J		PCB-173	ND	6.61		
PCB-124	35.5	-	J		PCB-174	183	-		
PCB-125	-	-	C087	87/117	PCB-175	15.4	-	J	
PCB-126	ND	4.93			PCB-176	58.4	-		
PCB-127	ND	6.46			PCB-177	101	-		
PCB-128	45.0	-	C	162	PCB-178	58.5	-		
PCB-129	22.9	-	J		PCB-179	221	-		
PCB-130	28.5	-	J		PCB-180	158	-		
PCB-131	29.2	-	C,J	133	PCB-181	ND	6.17		
PCB-132	314	-	C	161	PCB-182	268	-	C	187
PCB-133	-	-	C131,J	131	PCB-183	145	-		
PCB-134	79.7	-	C	143	PCB-184	ND	4.16		
PCB-135	245	-			PCB-185	30.3	-	J	
PCB-136	380	-			PCB-186	ND	4.42		
PCB-137	22.2	-	J		PCB-187	-	-	C182	182
PCB-138	519	-	C	163/164	PCB-188	ND	3.34		
PCB-139	1330	-	C	149	PCB-189	ND	3.03		
PCB-140	ND	5.55			PCB-190	13.6	-	J	
PCB-141	219	-			PCB-191	ND	4.42		
PCB-142	ND	6.57			PCB-192	ND	4.88		
PCB-143	-	-	C134	134	PCB-193	ND	4.27		
PCB-144	117	-			PCB-194	ND	6.77		
PCB-145	ND	4.99			PCB-195	ND	7.56		
PCB-146	114	-	C	165	PCB-196	27.5	-	C,J	203
PCB-147	17.1	-	J		PCB-197	ND	4.89		
PCB-148	ND	5.79			PCB-198	ND	7.06		
PCB-149	-	-	C139	139	PCB-199	30.3	-	J	
PCB-150	ND	4.90			PCB-200	12.6	-	J	

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Modified EPA Method 1668 PCBs



FAL ID: 8224-004-SA
Client ID: A4
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	4.81		
PCB-202	12.7	-	J	
PCB-203	-	-	C196,J	196
PCB-204	ND	4.60		
PCB-205	ND	3.97		
PCB-206	ND	3.04		
PCB-207	ND	3.05		
PCB-208	ND	2.08		
PCB-209	ND	2.07		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	100	5.00 - 145	
13C-PCB-3	98.2	5.00 - 145	
13C-PCB-4	102	5.00 - 145	
13C-PCB-15	101	5.00 - 145	
13C-PCB-19	97.5	5.00 - 145	
13C-PCB-37	88.9	5.00 - 145	
13C-PCB-54	105	5.00 - 145	
13C-PCB-77	95.4	10.0 - 145	
13C-PCB-81	97.5	10.0 - 145	
13C-PCB-104	101	10.0 - 145	
13C-PCB-105	105	10.0 - 145	
13C-PCB-114	109	10.0 - 145	
13C-PCB-118	104	10.0 - 145	
13C-PCB-123	111	10.0 - 145	
13C-PCB-126	101	10.0 - 145	
13C-PCB-155	99.1	10.0 - 145	
13C-PCB-156	101	10.0 - 145	
13C-PCB-157	102	10.0 - 145	
13C-PCB-167	104	10.0 - 145	
13C-PCB-169	98.8	10.0 - 145	
13C-PCB-188	101	10.0 - 145	
13C-PCB-189	102	10.0 - 145	
13C-PCB-202	99.7	10.0 - 145	
13C-PCB-205	103	10.0 - 145	
13C-PCB-206	103	10.0 - 145	
13C-PCB-208	115	10.0 - 145	
13C-PCB-209	117	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	99.6	5.00 - 145	
13C-PCB-111	114	10.0 - 145	
13C-PCB-178	115	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-005-SA
Client ID: A5
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013
Total Conc: 52800

Page 1 of 3

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	389	-			PCB-51	58.7	-		
PCB-2	94.8	-			PCB-52	2250	-	C	69
PCB-3	275	-			PCB-53	181	-		
PCB-4	455	-			PCB-54	ND	4.32		
PCB-5	ND	9.82			PCB-55	32.7	-	J	
PCB-6	241	-			PCB-56	501	-	C	60
PCB-7	79.2	-			PCB-57	ND	5.52		
PCB-8	1140	-			PCB-58	ND	6.15		
PCB-9	86.7	-			PCB-59	-	-	C042	42
PCB-10	32.0	-	J		PCB-60	-	-	C056	56
PCB-11	2200	-	B		PCB-61	1640	-	C	70
PCB-12	23.7	-	J		PCB-62	ND	6.90		
PCB-13	42.8	-			PCB-63	30.7	-	J	
PCB-14	ND	9.15			PCB-64	-	-	C041	41/71/72
PCB-15	203	-			PCB-65	ND	5.84		
PCB-16	379	-			PCB-66	796	-	C	76
PCB-17	606	-			PCB-67	20.0	-	J	
PCB-18	1770	-			PCB-68	ND	5.38		
PCB-19	124	-			PCB-69	-	-	C052	52
PCB-20	828	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	403	-			PCB-72	-	-	C041	41/64/71
PCB-23	ND	7.88			PCB-73	ND	6.69		
PCB-24	20.5	-	J		PCB-74	351	-		
PCB-25	80.4	-			PCB-75	-	-	C048	48
PCB-26	199	-			PCB-76	-	-	C066	66
PCB-27	89.4	-			PCB-77	46.4	-		
PCB-28	1020	-			PCB-78	ND	7.69		
PCB-29	12.4	-	J		PCB-79	34.9	-	J	
PCB-30	ND	4.69			PCB-80	ND	4.67		
PCB-31	1190	-			PCB-81	53.8	-		
PCB-32	394	-			PCB-82	227	-		
PCB-33	-	-	C020	20/21	PCB-83	115	-	C	112
PCB-34	ND	7.37			PCB-84	1550	-	C	92
PCB-35	22.2	-	J		PCB-85	321	-	C	116
PCB-36	ND	7.30			PCB-86	ND	7.54		
PCB-37	146	-			PCB-87	1030	-	C	117/125
PCB-38	10.3	-	J		PCB-88	774	-	C	91
PCB-39	ND	7.71			PCB-89	25.5	-	J	
PCB-40	131	-			PCB-90	4080	-	C	101
PCB-41	736	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	235	-	C	59	PCB-92	-	-	C084	84
PCB-43	773	-	C	49	PCB-93	ND	6.18		
PCB-44	1090	-			PCB-94	ND	7.11		
PCB-45	147	-			PCB-95	3550	-		
PCB-46	56.8	-			PCB-96	26.9	-	J	
PCB-47	264	-			PCB-97	773	-		
PCB-48	192	-	C	75	PCB-98	ND	5.39	C	102
PCB-49	-	-	C043	43	PCB-99	1220	-		
PCB-50	ND	7.65			PCB-100	ND	5.89		

Modified EPA Method 1668 PCBs



FAL ID: 8224-005-SA
Client ID: A5
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

Page 2 of 3

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	1110	-		
PCB-102	-	-	C098	98	PCB-152	ND	3.50		
PCB-103	20.7	-	J		PCB-153	1640	-		
PCB-104	ND	3.41			PCB-154	18.1	-	J	
PCB-105	301	-			PCB-155	ND	2.50		
PCB-106	1230	-	C	118	PCB-156	37.9	-	J	
PCB-107	81.7	-	C	108	PCB-157	ND	4.96		
PCB-108	-	-	C107	107	PCB-158	147	-	C	160
PCB-109	ND	6.81			PCB-159	ND	4.33		
PCB-110	1850	-			PCB-160	-	-	C158	158
PCB-111	54.3	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	6.40			PCB-163	-	-	C138	138/164
PCB-114	39.0	-	J		PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	4.59		
PCB-117	-	-	C087	87/125	PCB-167	19.6	-	J	
PCB-118	-	-	C106	106	PCB-168	ND	4.80		
PCB-119	38.9	-	J		PCB-169	ND	3.51		
PCB-120	10.6	-	J		PCB-170	101	-		
PCB-121	ND	5.15			PCB-171	92.0	-		
PCB-122	14.1	-	J		PCB-172	37.5	-	J	
PCB-123	22.7	-	J		PCB-173	ND	7.45		
PCB-124	83.1	-			PCB-174	375	-		
PCB-125	-	-	C087	87/117	PCB-175	24.2	-	J	
PCB-126	ND	6.72			PCB-176	134	-		
PCB-127	ND	8.16			PCB-177	216	-		
PCB-128	89.6	-	C	162	PCB-178	112	-		
PCB-129	49.7	-			PCB-179	447	-		
PCB-130	67.1	-			PCB-180	317	-		
PCB-131	60.2	-	C	133	PCB-181	ND	6.96		
PCB-132	640	-	C	161	PCB-182	505	-	C	187
PCB-133	-	-	C131	131	PCB-183	260	-		
PCB-134	157	-	C	143	PCB-184	ND	4.69		
PCB-135	523	-			PCB-185	61.9	-		
PCB-136	771	-			PCB-186	ND	4.98		
PCB-137	49.8	-			PCB-187	-	-	C182	182
PCB-138	1100	-	C	163/164	PCB-188	ND	3.89		
PCB-139	2830	-	C	149	PCB-189	ND	3.28		
PCB-140	ND	5.88			PCB-190	26.0	-	J	
PCB-141	454	-			PCB-191	ND	4.99		
PCB-142	ND	6.96			PCB-192	ND	5.51		
PCB-143	-	-	C134	134	PCB-193	19.1	-	J	
PCB-144	219	-			PCB-194	14.1	-	J	
PCB-145	ND	3.77			PCB-195	14.2	-	J	
PCB-146	231	-	C	165	PCB-196	51.9	-	C	203
PCB-147	36.7	-	J		PCB-197	ND	5.19		
PCB-148	ND	4.38			PCB-198	ND	7.50		
PCB-149	-	-	C139	139	PCB-199	51.7	-		
PCB-150	ND	3.71			PCB-200	20.5	-	J	

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Modified EPA Method 1668 PCBs



FAL ID: 8224-005-SA
Client ID: A5
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	24.6	-	J	
PCB-202	31.8	-	J	
PCB-203	-	-	C196	196
PCB-204	ND	4.88		
PCB-205	ND	2.26		
PCB-206	ND	3.34		
PCB-207	ND	3.21		
PCB-208	ND	2.09		
PCB-209	ND	1.93		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	97.9	5.00 - 145	
13C-PCB-3	104	5.00 - 145	
13C-PCB-4	102	5.00 - 145	
13C-PCB-15	102	5.00 - 145	
13C-PCB-19	96.9	5.00 - 145	
13C-PCB-37	93.3	5.00 - 145	
13C-PCB-54	110	5.00 - 145	
13C-PCB-77	93.7	10.0 - 145	
13C-PCB-81	101	10.0 - 145	
13C-PCB-104	103	10.0 - 145	
13C-PCB-105	104	10.0 - 145	
13C-PCB-114	110	10.0 - 145	
13C-PCB-118	113	10.0 - 145	
13C-PCB-123	116	10.0 - 145	
13C-PCB-126	101	10.0 - 145	
13C-PCB-155	101	10.0 - 145	
13C-PCB-156	104	10.0 - 145	
13C-PCB-157	106	10.0 - 145	
13C-PCB-167	103	10.0 - 145	
13C-PCB-169	98.8	10.0 - 145	
13C-PCB-188	101	10.0 - 145	
13C-PCB-189	105	10.0 - 145	
13C-PCB-202	103	10.0 - 145	
13C-PCB-205	103	10.0 - 145	
13C-PCB-206	102	10.0 - 145	
13C-PCB-208	113	10.0 - 145	
13C-PCB-209	117	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	96.0	5.00 - 145	
13C-PCB-111	114	10.0 - 145	
13C-PCB-178	113	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-006-SA
Client ID: A6A
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013
Total Conc: 27900

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	136	-			PCB-51	21.9	-	J	
PCB-2	49.8	-			PCB-52	891	-	C	69
PCB-3	98.4	-			PCB-53	61.1	-		
PCB-4	156	-			PCB-54	ND	3.30		
PCB-5	ND	9.99			PCB-55	13.6	-	J	
PCB-6	88.8	-			PCB-56	243	-	C	60
PCB-7	30.4	-	J		PCB-57	ND	4.22		
PCB-8	387	-			PCB-58	ND	4.70		
PCB-9	26.4	-	J		PCB-59	-	-	C042	42
PCB-10	14.1	-	J		PCB-60	-	-	C056	56
PCB-11	952	-	B		PCB-61	726	-	C	70
PCB-12	ND	9.81			PCB-62	ND	5.28		
PCB-13	21.0	-	J		PCB-63	14.4	-	J	
PCB-14	ND	9.31			PCB-64	-	-	C041	41/71/72
PCB-15	75.5	-			PCB-65	ND	4.47		
PCB-16	143	-			PCB-66	351	-	C	76
PCB-17	206	-			PCB-67	10.3	-	J	
PCB-18	576	-			PCB-68	10.9	-	J	
PCB-19	41.7	-			PCB-69	-	-	C052	52
PCB-20	283	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	166	-			PCB-72	-	-	C041	41/64/71
PCB-23	ND	7.59			PCB-73	ND	5.12		
PCB-24	11.2	-	J		PCB-74	150	-		
PCB-25	38.3	-	J		PCB-75	-	-	C048	48
PCB-26	81.2	-			PCB-76	-	-	C066	66
PCB-27	27.8	-	J		PCB-77	45.7	-		
PCB-28	410	-			PCB-78	ND	5.13		
PCB-29	ND	6.93			PCB-79	21.4	-	J	
PCB-30	ND	5.15			PCB-80	ND	3.57		
PCB-31	421	-			PCB-81	37.7	-	J	
PCB-32	134	-			PCB-82	172	-		
PCB-33	-	-	C020	20/21	PCB-83	70.5	-	C	112
PCB-34	ND	7.10			PCB-84	842	-	C	92
PCB-35	15.0	-	J		PCB-85	220	-	C	116
PCB-36	ND	7.03			PCB-86	ND	11.6		
PCB-37	70.6	-			PCB-87	690	-	C	117/125
PCB-38	ND	6.79			PCB-88	360	-	C	91
PCB-39	ND	7.42			PCB-89	20.8	-	J	
PCB-40	57.1	-			PCB-90	2330	-	C	101
PCB-41	301	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	99.3	-	C	59	PCB-92	-	-	C084	84
PCB-43	313	-	C	49	PCB-93	ND	6.49		
PCB-44	421	-			PCB-94	ND	7.45		
PCB-45	57.5	-			PCB-95	1610	-		
PCB-46	25.5	-	J		PCB-96	11.8	-	J	
PCB-47	109	-			PCB-97	519	-		
PCB-48	75.9	-	C	75	PCB-98	ND	5.66	C	102
PCB-49	-	-	C043	43	PCB-99	730	-		
PCB-50	ND	5.85			PCB-100	ND	6.17		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-006-SA
Client ID: A6A
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	594	-		
PCB-102	-	-	C098	98	PCB-152	ND	4.61		
PCB-103	ND	5.66			PCB-153	1120	-		
PCB-104	ND	3.58			PCB-154	13.8	-	J	
PCB-105	288	-			PCB-155	ND	3.29		
PCB-106	1070	-	C	118	PCB-156	40.1	-		
PCB-107	71.5	-	C	108	PCB-157	13.0	-	J	
PCB-108	-	-	C107	107	PCB-158	122	-	C	160
PCB-109	ND	10.5			PCB-159	12.7	-	J	
PCB-110	1370	-			PCB-160	-	-	C158	158
PCB-111	32.2	-	C,J	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	9.83			PCB-163	-	-	C138	138/164
PCB-114	30.7	-	J		PCB-164	-	-	C138	138/163
PCB-115	-	-	C111,J	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	5.38		
PCB-117	-	-	C087	87/125	PCB-167	23.1	-	J	
PCB-118	-	-	C106	106	PCB-168	ND	5.62		
PCB-119	21.3	-	J		PCB-169	ND	3.77		
PCB-120	ND	8.36			PCB-170	83.0	-		
PCB-121	ND	5.40			PCB-171	63.0	-		
PCB-122	ND	9.16			PCB-172	28.9	-	J	
PCB-123	18.6	-	J		PCB-173	ND	7.74		
PCB-124	61.1	-			PCB-174	237	-		
PCB-125	-	-	C087	87/117	PCB-175	16.8	-	J	
PCB-126	ND	7.44			PCB-176	70.5	-		
PCB-127	ND	9.03			PCB-177	142	-		
PCB-128	96.1	-	C	162	PCB-178	71.2	-		
PCB-129	48.2	-			PCB-179	251	-		
PCB-130	53.7	-			PCB-180	212	-		
PCB-131	47.8	-	C	133	PCB-181	ND	7.23		
PCB-132	468	-	C	161	PCB-182	313	-	C	187
PCB-133	-	-	C131	131	PCB-183	172	-		
PCB-134	106	-	C	143	PCB-184	ND	4.87		
PCB-135	312	-			PCB-185	44.5	-		
PCB-136	416	-			PCB-186	ND	5.17		
PCB-137	53.6	-			PCB-187	-	-	C182	182
PCB-138	892	-	C	163/164	PCB-188	ND	4.11		
PCB-139	1710	-	C	149	PCB-189	ND	3.31		
PCB-140	ND	6.88			PCB-190	18.5	-	J	
PCB-141	294	-			PCB-191	ND	5.18		
PCB-142	ND	8.14			PCB-192	ND	5.72		
PCB-143	-	-	C134	134	PCB-193	11.3	-	J	
PCB-144	121	-			PCB-194	10.5	-	J	
PCB-145	ND	4.97			PCB-195	12.4	-	J	
PCB-146	164	-	C	165	PCB-196	40.7	-	C	203
PCB-147	34.7	-	J		PCB-197	ND	5.44		
PCB-148	ND	5.77			PCB-198	ND	7.86		
PCB-149	-	-	C139	139	PCB-199	30.2	-	J	
PCB-150	ND	4.89			PCB-200	11.3	-	J	

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Modified EPA Method 1668 PCBs



FAL ID: 8224-006-SA
Client ID: A6A
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	15.6	-	J	
PCB-202	17.2	-	J	
PCB-203	-	-	C196	196
PCB-204	ND	5.12		
PCB-205	ND	2.76		
PCB-206	ND	3.87		
PCB-207	ND	3.80		
PCB-208	ND	2.54		
PCB-209	ND	2.69		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	95.6	5.00 - 145	
13C-PCB-3	98.4	5.00 - 145	
13C-PCB-4	104	5.00 - 145	
13C-PCB-15	102	5.00 - 145	
13C-PCB-19	101	5.00 - 145	
13C-PCB-37	88.0	5.00 - 145	
13C-PCB-54	108	5.00 - 145	
13C-PCB-77	94.4	10.0 - 145	
13C-PCB-81	96.1	10.0 - 145	
13C-PCB-104	103	10.0 - 145	
13C-PCB-105	101	10.0 - 145	
13C-PCB-114	106	10.0 - 145	
13C-PCB-118	107	10.0 - 145	
13C-PCB-123	109	10.0 - 145	
13C-PCB-126	100	10.0 - 145	
13C-PCB-155	102	10.0 - 145	
13C-PCB-156	100	10.0 - 145	
13C-PCB-157	104	10.0 - 145	
13C-PCB-167	104	10.0 - 145	
13C-PCB-169	97.9	10.0 - 145	
13C-PCB-188	102	10.0 - 145	
13C-PCB-189	98.7	10.0 - 145	
13C-PCB-202	99.4	10.0 - 145	
13C-PCB-205	107	10.0 - 145	
13C-PCB-206	103	10.0 - 145	
13C-PCB-208	115	10.0 - 145	
13C-PCB-209	117	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	96.8	5.00 - 145	
13C-PCB-111	114	10.0 - 145	
13C-PCB-178	115	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

000024 of 000054

Modified EPA Method 1668 PCBs



FAL ID: 8224-007-SA
Client ID: A6B
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013
Total Conc: 28100

Page 1 of 3

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	137	-			PCB-51	23.0	-	J	
PCB-2	47.5	-			PCB-52	849	-	C	69
PCB-3	98.1	-			PCB-53	65.2	-		
PCB-4	158	-			PCB-54	ND	4.33		
PCB-5	ND	9.98			PCB-55	17.2	-	J	
PCB-6	95.2	-			PCB-56	228	-	C	60
PCB-7	17.7	-	J		PCB-57	ND	5.54		
PCB-8	392	-			PCB-58	ND	6.17		
PCB-9	36.5	-	J		PCB-59	-	-	C042	42
PCB-10	13.7	-	J		PCB-60	-	-	C056	56
PCB-11	937	-	B		PCB-61	708	-	C	70
PCB-12	ND	9.79			PCB-62	ND	6.93		
PCB-13	26.0	-	J		PCB-63	13.9	-	J	
PCB-14	ND	9.29			PCB-64	-	-	C041	41/71/72
PCB-15	77.5	-			PCB-65	ND	5.87		
PCB-16	124	-			PCB-66	342	-	C	76
PCB-17	210	-			PCB-67	ND	5.26		
PCB-18	573	-			PCB-68	ND	5.41		
PCB-19	47.4	-			PCB-69	-	-	C052	52
PCB-20	336	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	178	-			PCB-72	-	-	C041	41/64/71
PCB-23	ND	8.82			PCB-73	ND	6.72		
PCB-24	10.6	-	J		PCB-74	134	-		
PCB-25	36.5	-	J		PCB-75	-	-	C048	48
PCB-26	88.1	-			PCB-76	-	-	C066	66
PCB-27	29.7	-	J		PCB-77	44.1	-		
PCB-28	425	-			PCB-78	ND	6.76		
PCB-29	ND	8.05			PCB-79	21.6	-	J	
PCB-30	ND	6.42			PCB-80	ND	4.69		
PCB-31	430	-			PCB-81	40.4	-		
PCB-32	154	-			PCB-82	176	-		
PCB-33	-	-	C020	20/21	PCB-83	79.3	-	C	112
PCB-34	ND	8.25			PCB-84	855	-	C	92
PCB-35	15.0	-	J		PCB-85	208	-	C	116
PCB-36	ND	8.17			PCB-86	ND	7.34		
PCB-37	64.8	-			PCB-87	688	-	C	117/125
PCB-38	ND	7.89			PCB-88	379	-	C	91
PCB-39	ND	8.63			PCB-89	19.0	-	J	
PCB-40	56.3	-			PCB-90	2380	-	C	101
PCB-41	274	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	86.6	-	C	59	PCB-92	-	-	C084	84
PCB-43	299	-	C	49	PCB-93	ND	9.35		
PCB-44	377	-			PCB-94	ND	10.7		
PCB-45	53.5	-			PCB-95	1630	-		
PCB-46	27.3	-	J		PCB-96	13.2	-	J	
PCB-47	98.7	-			PCB-97	522	-		
PCB-48	79.0	-	C	75	PCB-98	ND	8.16	C	102
PCB-49	-	-	C043	43	PCB-99	743	-		
PCB-50	ND	7.68			PCB-100	ND	8.91		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-007-SA
Client ID: A6B
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

Page 2 of 3

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	627	-		
PCB-102	-	-	C098	98	PCB-152	ND	4.56		
PCB-103	ND	8.17			PCB-153	1170	-		
PCB-104	ND	5.16			PCB-154	12.2	-	J	
PCB-105	298	-			PCB-155	ND	3.26		
PCB-106	1060	-	C	118	PCB-156	42.5	-		
PCB-107	77.1	-	C	108	PCB-157	ND	7.88		
PCB-108	-	-	C107	107	PCB-158	121	-	C	160
PCB-109	ND	6.63			PCB-159	13.4	-	J	
PCB-110	1380	-			PCB-160	-	-	C158	158
PCB-111	41.1	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	6.23			PCB-163	-	-	C138	138/164
PCB-114	26.7	-	J		PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	7.24		
PCB-117	-	-	C087	87/125	PCB-167	22.4	-	J	
PCB-118	-	-	C106	106	PCB-168	ND	7.57		
PCB-119	26.6	-	J		PCB-169	ND	5.14		
PCB-120	ND	5.30			PCB-170	79.0	-		
PCB-121	ND	7.79			PCB-171	58.0	-		
PCB-122	ND	9.57			PCB-172	24.4	-	J	
PCB-123	17.6	-	J		PCB-173	ND	8.11		
PCB-124	61.9	-			PCB-174	243	-		
PCB-125	-	-	C087	87/117	PCB-175	15.4	-	J	
PCB-126	ND	8.08			PCB-176	74.5	-		
PCB-127	ND	9.42			PCB-177	143	-		
PCB-128	110	-	C	162	PCB-178	70.4	-		
PCB-129	60.6	-			PCB-179	246	-		
PCB-130	62.6	-			PCB-180	211	-		
PCB-131	48.6	-	C	133	PCB-181	ND	7.58		
PCB-132	507	-	C	161	PCB-182	313	-	C	187
PCB-133	-	-	C131	131	PCB-183	165	-		
PCB-134	119	-	C	143	PCB-184	ND	5.11		
PCB-135	314	-			PCB-185	41.7	-		
PCB-136	410	-			PCB-186	ND	5.43		
PCB-137	54.9	-			PCB-187	-	-	C182	182
PCB-138	907	-	C	163/164	PCB-188	ND	4.44		
PCB-139	1720	-	C	149	PCB-189	ND	3.34		
PCB-140	ND	9.27			PCB-190	17.7	-	J	
PCB-141	306	-			PCB-191	ND	5.43		
PCB-142	ND	11.0			PCB-192	ND	5.99		
PCB-143	-	-	C134	134	PCB-193	16.1	-	J	
PCB-144	131	-			PCB-194	ND	7.14		
PCB-145	ND	4.92			PCB-195	ND	7.98		
PCB-146	173	-	C	165	PCB-196	31.8	-	C,J	203
PCB-147	35.9	-	J		PCB-197	ND	9.06		
PCB-148	ND	5.71			PCB-198	ND	8.79		
PCB-149	-	-	C139	139	PCB-199	29.8	-	J	
PCB-150	ND	4.84			PCB-200	11.6	-	J	

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Modified EPA Method 1668 PCBs



FAL ID: 8224-007-SA
Client ID: A6B
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	11.8	-	J	
PCB-202	11.7	-	J	
PCB-203	-	-	C196,J	196
PCB-204	ND	8.52		
PCB-205	ND	4.19		
PCB-206	ND	4.55		
PCB-207	ND	4.41		
PCB-208	ND	2.92		
PCB-209	ND	2.63		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	89.0	5.00 - 145	
13C-PCB-3	87.0	5.00 - 145	
13C-PCB-4	95.6	5.00 - 145	
13C-PCB-15	93.1	5.00 - 145	
13C-PCB-19	91.6	5.00 - 145	
13C-PCB-37	75.2	5.00 - 145	
13C-PCB-54	103	5.00 - 145	
13C-PCB-77	85.2	10.0 - 145	
13C-PCB-81	87.3	10.0 - 145	
13C-PCB-104	98.1	10.0 - 145	
13C-PCB-105	96.8	10.0 - 145	
13C-PCB-114	98.0	10.0 - 145	
13C-PCB-118	102	10.0 - 145	
13C-PCB-123	105	10.0 - 145	
13C-PCB-126	93.4	10.0 - 145	
13C-PCB-155	95.2	10.0 - 145	
13C-PCB-156	94.8	10.0 - 145	
13C-PCB-157	96.5	10.0 - 145	
13C-PCB-167	95.3	10.0 - 145	
13C-PCB-169	89.6	10.0 - 145	
13C-PCB-188	95.1	10.0 - 145	
13C-PCB-189	98.4	10.0 - 145	
13C-PCB-202	94.8	10.0 - 145	
13C-PCB-205	98.0	10.0 - 145	
13C-PCB-206	97.9	10.0 - 145	
13C-PCB-208	112	10.0 - 145	
13C-PCB-209	110	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	88.8	5.00 - 145	
13C-PCB-111	104	10.0 - 145	
13C-PCB-178	108	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

000027 of 000054

Modified EPA Method 1668 PCBs



FAL ID: 8224-008-SA
Client ID: A7
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013
Total Conc: 97100

Page 1 of 3

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	724	-			PCB-51	154	-		
PCB-2	140	-			PCB-52	4400	-	C	69
PCB-3	488	-			PCB-53	415	-		
PCB-4	886	-			PCB-54	ND	5.27		
PCB-5	ND	8.66			PCB-55	71.3	-		
PCB-6	552	-			PCB-56	1350	-	C	60
PCB-7	162	-			PCB-57	13.1	-	J	
PCB-8	2660	-			PCB-58	ND	7.32		
PCB-9	202	-			PCB-59	-	-	C042	42
PCB-10	62.7	-			PCB-60	-	-	C056	56
PCB-11	2160	-	B		PCB-61	4020	-	C	70
PCB-12	72.7	-			PCB-62	ND	7.99		
PCB-13	136	-			PCB-63	94.0	-		
PCB-14	ND	8.80			PCB-64	-	-	C041	41/71/72
PCB-15	575	-			PCB-65	ND	7.12		
PCB-16	766	-			PCB-66	2030	-	C	76
PCB-17	1230	-			PCB-67	70.5	-		
PCB-18	3460	-			PCB-68	28.5	-	J	
PCB-19	219	-			PCB-69	-	-	C052	52
PCB-20	2260	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	1260	-			PCB-72	-	-	C041	41/64/71
PCB-23	ND	9.49			PCB-73	ND	7.57		
PCB-24	65.2	-			PCB-74	951	-		
PCB-25	230	-			PCB-75	-	-	C048	48
PCB-26	547	-			PCB-76	-	-	C066	66
PCB-27	162	-			PCB-77	107	-		
PCB-28	2780	-			PCB-78	ND	11.5		
PCB-29	30.7	-	J		PCB-79	46.8	-		
PCB-30	ND	5.62			PCB-80	ND	5.64		
PCB-31	3060	-			PCB-81	86.2	-		
PCB-32	940	-			PCB-82	429	-		
PCB-33	-	-	C020	20/21	PCB-83	220	-	C	112
PCB-34	12.0	-	J		PCB-84	2690	-	C	92
PCB-35	55.0	-			PCB-85	596	-	C	116
PCB-36	ND	8.95			PCB-86	ND	7.49		
PCB-37	553	-			PCB-87	1950	-	C	117/125
PCB-38	15.5	-	J		PCB-88	804	-	C	91
PCB-39	ND	9.50			PCB-89	61.9	-		
PCB-40	419	-			PCB-90	7270	-	C	101
PCB-41	2120	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	701	-	C	59	PCB-92	-	-	C084	84
PCB-43	1830	-	C	49	PCB-93	ND	7.21		
PCB-44	2430	-			PCB-94	38.9	-	J	
PCB-45	398	-			PCB-95	5450	-		
PCB-46	169	-			PCB-96	44.4	-		
PCB-47	623	-			PCB-97	1520	-		
PCB-48	565	-		75	PCB-98	ND	6.41	C	102
PCB-49	-	-	C043	43	PCB-99	2280	-		
PCB-50	ND	9.25			PCB-100	ND	6.89		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-008-SA
Client ID: A7
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

Page 2 of 3

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	1560	-		
PCB-102	-	-	C098	98	PCB-152	ND	7.22		
PCB-103	35.4	-	J		PCB-153	2360	-		
PCB-104	ND	3.93			PCB-154	31.9	-	J	
PCB-105	560	-			PCB-155	ND	4.89		
PCB-106	2200	-	C	118	PCB-156	64.0	-		
PCB-107	188	-	C	108	PCB-157	20.5	-	J	
PCB-108	-	-	C107	107	PCB-158	216	-	C	160
PCB-109	ND	6.99			PCB-159	21.0	-	J	
PCB-110	3560	-			PCB-160	-	-	C158	158
PCB-111	110	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	6.65			PCB-163	-	-	C138	138/164
PCB-114	63.3	-			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	4.14		
PCB-117	-	-	C087	87/125	PCB-167	34.8	-	J	
PCB-118	-	-	C106	106	PCB-168	ND	4.37		
PCB-119	66.5	-			PCB-169	17.2	-	J	
PCB-120	14.4	-	J		PCB-170	119	-		
PCB-121	ND	5.97			PCB-171	100	-		
PCB-122	27.2	-	J		PCB-172	43.0	-		
PCB-123	48.6	-			PCB-173	ND	5.56		
PCB-124	135	-			PCB-174	408	-		
PCB-125	-	-	C087	87/117	PCB-175	31.1	-	J	
PCB-126	13.7	-	J		PCB-176	161	-		
PCB-127	ND	8.83			PCB-177	229	-		
PCB-128	149	-	C	162	PCB-178	123	-		
PCB-129	75.2	-			PCB-179	494	-		
PCB-130	120	-			PCB-180	340	-		
PCB-131	98.6	-	C	133	PCB-181	ND	5.11		
PCB-132	905	-	C	161	PCB-182	589	-	C	187
PCB-133	-	-	C131	131	PCB-183	295	-		
PCB-134	234	-	C	143	PCB-184	ND	3.54		
PCB-135	596	-			PCB-185	85.5	-		
PCB-136	864	-			PCB-186	ND	3.79		
PCB-137	94.9	-			PCB-187	-	-	C182	182
PCB-138	1490	-	C	163/164	PCB-188	ND	3.22		
PCB-139	3500	-	C	149	PCB-189	12.0	-	J	
PCB-140	22.0	-	J		PCB-190	32.8	-	J	
PCB-141	569	-			PCB-191	16.4	-	J	
PCB-142	ND	6.27			PCB-192	ND	4.22		
PCB-143	-	-	C134	134	PCB-193	28.6	-	J	
PCB-144	322	-			PCB-194	29.0	-	J	
PCB-145	ND	7.60			PCB-195	32.5	-	J	
PCB-146	329	-	C	165	PCB-196	72.9	-	C	203
PCB-147	74.6	-			PCB-197	13.1	-	J	
PCB-148	ND	9.88			PCB-198	ND	7.13		
PCB-149	-	-	C139	139	PCB-199	68.4	-		
PCB-150	ND	7.43			PCB-200	22.1	-	J	

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Modified EPA Method 1668 PCBs



FAL ID: 8224-008-SA
Client ID: A7
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	25.9	-	J	
PCB-202	30.0	-	J	
PCB-203	-	-	C196	196
PCB-204	ND	4.98		
PCB-205	14.8	-	J	
PCB-206	19.1	-	J	
PCB-207	ND	9.24		
PCB-208	ND	6.25		
PCB-209	ND	6.83		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	101	5.00 - 145	
13C-PCB-3	101	5.00 - 145	
13C-PCB-4	102	5.00 - 145	
13C-PCB-15	99.1	5.00 - 145	
13C-PCB-19	104	5.00 - 145	
13C-PCB-37	105	5.00 - 145	
13C-PCB-54	104	5.00 - 145	
13C-PCB-77	101	10.0 - 145	
13C-PCB-81	105	10.0 - 145	
13C-PCB-104	99.2	10.0 - 145	
13C-PCB-105	105	10.0 - 145	
13C-PCB-114	103	10.0 - 145	
13C-PCB-118	105	10.0 - 145	
13C-PCB-123	108	10.0 - 145	
13C-PCB-126	101	10.0 - 145	
13C-PCB-155	107	10.0 - 145	
13C-PCB-156	102	10.0 - 145	
13C-PCB-157	103	10.0 - 145	
13C-PCB-167	105	10.0 - 145	
13C-PCB-169	100	10.0 - 145	
13C-PCB-188	96.1	10.0 - 145	
13C-PCB-189	102	10.0 - 145	
13C-PCB-202	105	10.0 - 145	
13C-PCB-205	109	10.0 - 145	
13C-PCB-206	101	10.0 - 145	
13C-PCB-208	106	10.0 - 145	
13C-PCB-209	116	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	116	5.00 - 145	
13C-PCB-111	116	10.0 - 145	
13C-PCB-178	115	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

000030 of 000054

Modified EPA Method 1668 PCBs



FAL ID: 8224-009-SA
Client ID: A8
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013
Total Conc: 81400

Page 1 of 3

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	1220	-			PCB-51	79.8	-		
PCB-2	217	-			PCB-52	2870	-	C	69
PCB-3	777	-			PCB-53	262	-		
PCB-4	575	-			PCB-54	ND	5.23		
PCB-5	ND	8.56			PCB-55	44.3	-		
PCB-6	391	-			PCB-56	746	-	C	60
PCB-7	146	-			PCB-57	ND	6.68		
PCB-8	1900	-			PCB-58	ND	7.26		
PCB-9	157	-			PCB-59	-	-	C042	42
PCB-10	39.2	-	J		PCB-60	-	-	C056	56
PCB-11	4410	-	B		PCB-61	2510	-	C	70
PCB-12	35.7	-	J		PCB-62	ND	7.92		
PCB-13	73.0	-			PCB-63	47.4	-		
PCB-14	ND	8.69			PCB-64	-	-	C041	41/71/72
PCB-15	274	-			PCB-65	ND	7.06		
PCB-16	378	-			PCB-66	1120	-	C	76
PCB-17	667	-			PCB-67	33.3	-	J	
PCB-18	1960	-			PCB-68	11.8	-	J	
PCB-19	116	-			PCB-69	-	-	C052	52
PCB-20	1070	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	585	-			PCB-72	-	-	C041	41/64/71
PCB-23	ND	7.23			PCB-73	ND	7.50		
PCB-24	25.9	-	J		PCB-74	533	-		
PCB-25	102	-			PCB-75	-	-	C048	48
PCB-26	254	-			PCB-76	-	-	C066	66
PCB-27	85.5	-			PCB-77	116	-		
PCB-28	1470	-			PCB-78	16.9	-	J	
PCB-29	13.6	-	J		PCB-79	49.1	-		
PCB-30	ND	4.38			PCB-80	ND	5.59		
PCB-31	1900	-			PCB-81	83.2	-		
PCB-32	501	-			PCB-82	505	-		
PCB-33	-	-	C020	20/21	PCB-83	211	-	C	112
PCB-34	ND	6.99			PCB-84	2170	-	C	92
PCB-35	30.1	-	J		PCB-85	616	-	C	116
PCB-36	ND	6.81			PCB-86	ND	9.82		
PCB-37	193	-			PCB-87	2000	-	C	117/125
PCB-38	ND	6.87			PCB-88	635	-	C	91
PCB-39	ND	7.23			PCB-89	45.7	-		
PCB-40	215	-			PCB-90	5950	-	C	101
PCB-41	1200	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	371	-	C	59	PCB-92	-	-	C084	84
PCB-43	1130	-	C	49	PCB-93	ND	9.72		
PCB-44	1490	-			PCB-94	23.2	-	J	
PCB-45	232	-			PCB-95	3870	-		
PCB-46	97.7	-			PCB-96	32.0	-	J	
PCB-47	367	-			PCB-97	1500	-		
PCB-48	318	-	C	75	PCB-98	ND	8.63	C	102
PCB-49	-	-	C043	43	PCB-99	1890	-		
PCB-50	ND	9.17			PCB-100	ND	9.28		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-009-SA
Client ID: A8
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

Page 2 of 3

Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	1210	-		
PCB-102	-	-	C098	98	PCB-152	ND	7.12		
PCB-103	29.7	-	J		PCB-153	2990	-		
PCB-104	ND	5.29			PCB-154	33.9	-	J	
PCB-105	985	-			PCB-155	ND	4.83		
PCB-106	3430	-	C	118	PCB-156	106	-		
PCB-107	228	-	C	108	PCB-157	32.5	-	J	
PCB-108	-	-	C107	107	PCB-158	345	-	C	160
PCB-109	ND	9.17			PCB-159	16.8	-	J	
PCB-110	3960	-			PCB-160	-	-	C158	158
PCB-111	97.8	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	8.72			PCB-163	-	-	C138	138/164
PCB-114	87.1	-			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	14.5	-	J	
PCB-117	-	-	C087	87/125	PCB-167	75.3	-		
PCB-118	-	-	C106	106	PCB-168	14.2	-	J	
PCB-119	61.3	-			PCB-169	ND	6.31		
PCB-120	10.5	-	J		PCB-170	156	-		
PCB-121	ND	8.05			PCB-171	109	-		
PCB-122	39.5	-	J		PCB-172	48.5	-		
PCB-123	56.5	-			PCB-173	ND	6.29		
PCB-124	161	-			PCB-174	406	-		
PCB-125	-	-	C087	87/117	PCB-175	30.7	-	J	
PCB-126	24.9	-	J		PCB-176	131	-		
PCB-127	ND	9.76			PCB-177	230	-		
PCB-128	320	-	C	162	PCB-178	116	-		
PCB-129	149	-			PCB-179	381	-		
PCB-130	229	-			PCB-180	361	-		
PCB-131	126	-	C	133	PCB-181	ND	5.78		
PCB-132	1160	-	C	161	PCB-182	500	-	C	187
PCB-133	-	-	C131	131	PCB-183	280	-		
PCB-134	295	-	C	143	PCB-184	ND	4.01		
PCB-135	650	-			PCB-185	69.3	-		
PCB-136	716	-			PCB-186	ND	4.29		
PCB-137	165	-			PCB-187	-	-	C182	182
PCB-138	2250	-	C	163/164	PCB-188	ND	3.00		
PCB-139	3760	-	C	149	PCB-189	10.9	-	J	
PCB-140	26.9	-	J		PCB-190	34.7	-	J	
PCB-141	647	-			PCB-191	15.8	-	J	
PCB-142	ND	12.3			PCB-192	ND	4.77		
PCB-143	-	-	C134	134	PCB-193	23.5	-	J	
PCB-144	284	-			PCB-194	20.3	-	J	
PCB-145	ND	7.50			PCB-195	20.4	-	J	
PCB-146	412	-	C	165	PCB-196	53.4	-	C	203
PCB-147	95.0	-			PCB-197	ND	6.40		
PCB-148	ND	9.74			PCB-198	ND	8.86		
PCB-149	-	-	C139	139	PCB-199	44.2	-		
PCB-150	ND	7.33			PCB-200	18.1	-	J	

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Modified EPA Method 1668 PCBs



FAL ID: 8224-009-SA
Client ID: A8
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	19.9	-	J	
PCB-202	23.2	-	J	
PCB-203	-	-	C196	196
PCB-204	ND	6.19		
PCB-205	10.1	-	J	
PCB-206	ND	4.23		
PCB-207	ND	4.12		
PCB-208	ND	2.88		
PCB-209	ND	2.57		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	99.9	5.00 - 145	
13C-PCB-3	96.7	5.00 - 145	
13C-PCB-4	97.0	5.00 - 145	
13C-PCB-15	96.9	5.00 - 145	
13C-PCB-19	100	5.00 - 145	
13C-PCB-37	105	5.00 - 145	
13C-PCB-54	105	5.00 - 145	
13C-PCB-77	103	10.0 - 145	
13C-PCB-81	105	10.0 - 145	
13C-PCB-104	97.5	10.0 - 145	
13C-PCB-105	107	10.0 - 145	
13C-PCB-114	112	10.0 - 145	
13C-PCB-118	115	10.0 - 145	
13C-PCB-123	113	10.0 - 145	
13C-PCB-126	100	10.0 - 145	
13C-PCB-155	106	10.0 - 145	
13C-PCB-156	101	10.0 - 145	
13C-PCB-157	103	10.0 - 145	
13C-PCB-167	107	10.0 - 145	
13C-PCB-169	99.9	10.0 - 145	
13C-PCB-188	97.5	10.0 - 145	
13C-PCB-189	98.3	10.0 - 145	
13C-PCB-202	105	10.0 - 145	
13C-PCB-205	105	10.0 - 145	
13C-PCB-206	95.1	10.0 - 145	
13C-PCB-208	99.9	10.0 - 145	
13C-PCB-209	112	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	117	5.00 - 145	
13C-PCB-111	113	10.0 - 145	
13C-PCB-178	116	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-010-SA
Client ID: A9
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013
Total Conc: 174000

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	1990	-			PCB-51	221	-		
PCB-2	282	-			PCB-52	16400	-	C	69
PCB-3	1510	-			PCB-53	1110	-		
PCB-4	4160	-			PCB-54	ND	5.56		
PCB-5	ND	8.11			PCB-55	89.7	-		
PCB-6	2840	-			PCB-56	1260	-	C	60
PCB-7	880	-			PCB-57	ND	7.09		
PCB-8	16800	-			PCB-58	ND	7.71		
PCB-9	1020	-			PCB-59	-	-	C042	42
PCB-10	264	-			PCB-60	-	-	C056	56
PCB-11	1820	-	B		PCB-61	6630	-	C	70
PCB-12	163	-			PCB-62	ND	8.41		
PCB-13	418	-			PCB-63	125	-		
PCB-14	ND	8.23			PCB-64	-	-	C041	41/71/72
PCB-15	1960	-			PCB-65	ND	7.50		
PCB-16	1960	-			PCB-66	2460	-	C	76
PCB-17	3520	-			PCB-67	119	-		
PCB-18	9050	-			PCB-68	ND	6.92		
PCB-19	656	-			PCB-69	-	-	C052	52
PCB-20	3250	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	1610	-			PCB-72	-	-	C041	41/64/71
PCB-23	12.1	-	J		PCB-73	ND	7.97		
PCB-24	114	-			PCB-74	1220	-		
PCB-25	513	-			PCB-75	-	-	C048	48
PCB-26	1160	-			PCB-76	-	-	C066	66
PCB-27	487	-			PCB-77	111	-		
PCB-28	4650	-			PCB-78	21.8	-	J	
PCB-29	72.6	-			PCB-79	87.5	-		
PCB-30	ND	4.19			PCB-80	ND	5.94		
PCB-31	5400	-			PCB-81	111	-		
PCB-32	2040	-			PCB-82	498	-		
PCB-33	-	-	C020	20/21	PCB-83	326	-	C	112
PCB-34	22.0	-	J		PCB-84	5000	-	C	92
PCB-35	167	-			PCB-85	794	-	C	116
PCB-36	ND	7.82			PCB-86	ND	8.08		
PCB-37	547	-			PCB-87	2610	-	C	117/125
PCB-38	22.7	-	J		PCB-88	1860	-	C	91
PCB-39	ND	8.30			PCB-89	111	-		
PCB-40	550	-			PCB-90	10500	-	C	101
PCB-41	3540	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	979	-	C	59	PCB-92	-	-	C084	84
PCB-43	4820	-	C	49	PCB-93	ND	8.58		
PCB-44	6320	-			PCB-94	81.1	-		
PCB-45	575	-			PCB-95	12100	-		
PCB-46	261	-			PCB-96	156	-		
PCB-47	1010	-			PCB-97	2110	-		
PCB-48	736	-	C	75	PCB-98	ND	7.63	C	102
PCB-49	-	-	C043	43	PCB-99	3710	-		
PCB-50	ND	9.74			PCB-100	56.2	-		

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Modified EPA Method 1668

PCBs



FAL ID: 8224-010-SA
Client ID: A9
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	724	-		
PCB-102	-	-	C098	98	PCB-152	12.3	-	J	
PCB-103	117	-			PCB-153	1070	-		
PCB-104	ND	4.67			PCB-154	36.1	-	J	
PCB-105	450	-			PCB-155	ND	3.82		
PCB-106	2040	-	C	118	PCB-156	27.1	-	J	
PCB-107	188	-	C	108	PCB-157	ND	7.22		
PCB-108	-	-	C107	107	PCB-158	113	-	C	160
PCB-109	ND	7.54			PCB-159	ND	6.28		
PCB-110	4120	-			PCB-160	-	-	C158	158
PCB-111	185	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	7.17			PCB-163	-	-	C138	138/164
PCB-114	57.6	-			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	6.60		
PCB-117	-	-	C087	87/125	PCB-167	18.0	-	J	
PCB-118	-	-	C106	106	PCB-168	ND	6.97		
PCB-119	109	-			PCB-169	ND	5.01		
PCB-120	ND	5.94			PCB-170	25.7	-	J	
PCB-121	ND	7.11			PCB-171	22.3	-	J	
PCB-122	22.7	-	J		PCB-172	ND	9.10		
PCB-123	37.4	-	J		PCB-173	ND	9.80		
PCB-124	124	-			PCB-174	78.7	-		
PCB-125	-	-	C087	87/117	PCB-175	10.4	-	J	
PCB-126	ND	7.71			PCB-176	38.0	-	J	
PCB-127	ND	9.22			PCB-177	43.9	-		
PCB-128	88.8	-	C	162	PCB-178	34.1	-	J	
PCB-129	60.5	-			PCB-179	105	-		
PCB-130	98.7	-			PCB-180	82.4	-		
PCB-131	70.1	-	C	133	PCB-181	ND	9.01		
PCB-132	473	-	C	161	PCB-182	123	-	C	187
PCB-133	-	-	C131	131	PCB-183	84.9	-		
PCB-134	162	-	C	143	PCB-184	ND	6.24		
PCB-135	412	-			PCB-185	24.6	-	J	
PCB-136	734	-			PCB-186	ND	6.68		
PCB-137	64.9	-			PCB-187	-	-	C182	182
PCB-138	673	-	C	163/164	PCB-188	ND	5.01		
PCB-139	2100	-	C	149	PCB-189	ND	4.81		
PCB-140	19.0	-	J		PCB-190	ND	7.11		
PCB-141	201	-			PCB-191	ND	6.76		
PCB-142	ND	9.98			PCB-192	ND	7.43		
PCB-143	-	-	C134	134	PCB-193	ND	6.50		
PCB-144	188	-			PCB-194	ND	6.84		
PCB-145	ND	5.94			PCB-195	ND	7.77		
PCB-146	168	-	C	165	PCB-196	21.2	-	C,J	203
PCB-147	77.9	-			PCB-197	ND	6.24		
PCB-148	ND	7.72			PCB-198	ND	8.64		
PCB-149	-	-	C139	139	PCB-199	ND	9.19		
PCB-150	14.1	-	J		PCB-200	ND	5.95		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-010-SA
Client ID: A9
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	5.94		
PCB-202	11.1	-	J	
PCB-203	-	-	C196,J	196
PCB-204	ND	6.04		
PCB-205	ND	4.07		
PCB-206	ND	6.12		
PCB-207	ND	5.87		
PCB-208	ND	4.02		
PCB-209	ND	2.45		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	100	5.00 - 145	
13C-PCB-3	96.3	5.00 - 145	
13C-PCB-4	96.4	5.00 - 145	
13C-PCB-15	96.8	5.00 - 145	
13C-PCB-19	95.6	5.00 - 145	
13C-PCB-37	104	5.00 - 145	
13C-PCB-54	101	5.00 - 145	
13C-PCB-77	98.6	10.0 - 145	
13C-PCB-81	103	10.0 - 145	
13C-PCB-104	94.3	10.0 - 145	
13C-PCB-105	100	10.0 - 145	
13C-PCB-114	106	10.0 - 145	
13C-PCB-118	113	10.0 - 145	
13C-PCB-123	108	10.0 - 145	
13C-PCB-126	103	10.0 - 145	
13C-PCB-155	105	10.0 - 145	
13C-PCB-156	101	10.0 - 145	
13C-PCB-157	102	10.0 - 145	
13C-PCB-167	104	10.0 - 145	
13C-PCB-169	100	10.0 - 145	
13C-PCB-188	89.4	10.0 - 145	
13C-PCB-189	96.4	10.0 - 145	
13C-PCB-202	105	10.0 - 145	
13C-PCB-205	109	10.0 - 145	
13C-PCB-206	96.7	10.0 - 145	
13C-PCB-208	102	10.0 - 145	
13C-PCB-209	112	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	117	5.00 - 145	
13C-PCB-111	112	10.0 - 145	
13C-PCB-178	110	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-011-SA
Client ID: A10
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013
Total Conc: 382000

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	2390	-			PCB-51	340	-		
PCB-2	359	-			PCB-52	43000	-	C	69
PCB-3	1590	-			PCB-53	2440	-	J	
PCB-4	7130	-			PCB-54	22.6	-		
PCB-5	ND	9.61			PCB-55	246	-		
PCB-6	4960	-			PCB-56	2450	-	C	60
PCB-7	1290	-			PCB-57	40.7	-		
PCB-8	27800	-			PCB-58	ND	8.94		
PCB-9	1870	-			PCB-59	-	-	C042	42
PCB-10	489	-			PCB-60	-	-	C056	56
PCB-11	1990	-	B		PCB-61	15800	-	C	70
PCB-12	303	-			PCB-62	ND	9.75		
PCB-13	640	-			PCB-63	256	-		
PCB-14	ND	9.76			PCB-64	-	-	C041	41/71/72
PCB-15	3340	-			PCB-65	ND	8.69		
PCB-16	2950	-			PCB-66	5290	-	C	76
PCB-17	5770	-			PCB-67	173	-		
PCB-18	15100	-			PCB-68	ND	8.02		
PCB-19	1130	-			PCB-69	-	-	C052	52
PCB-20	4770	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	2350	-			PCB-72	-	-	C041	41/64/71
PCB-23	16.6	-	J		PCB-73	ND	9.24		
PCB-24	235	-			PCB-74	2840	-		
PCB-25	801	-			PCB-75	-	-	C048	48
PCB-26	1950	-			PCB-76	-	-	C066	66
PCB-27	752	-			PCB-77	186	-		
PCB-28	8010	-			PCB-78	54.6	-		
PCB-29	120	-			PCB-79	235	-		
PCB-30	ND	4.38			PCB-80	ND	6.88		
PCB-31	8370	-			PCB-81	293	-		
PCB-32	3460	-			PCB-82	1410	-		
PCB-33	-	-	C020	20/21	PCB-83	900	-	C	112
PCB-34	32.2	-	J		PCB-84	13200	-	C	92
PCB-35	255	-			PCB-85	2200	-	C	116
PCB-36	ND	9.04			PCB-86	58.2	-		
PCB-37	742	-			PCB-87	7050	-	C	117/125
PCB-38	45.4	-			PCB-88	5060	-	C	91
PCB-39	ND	9.59			PCB-89	248	-		
PCB-40	1010	-			PCB-90	27900	-	C	101
PCB-41	7490	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	1760	-	C	59	PCB-92	-	-	C084	84
PCB-43	11200	-	C	49	PCB-93	ND	7.50		
PCB-44	15400	-			PCB-94	220	-		
PCB-45	1040	-			PCB-95	32500	-		
PCB-46	449	-			PCB-96	420	-		
PCB-47	2000	-			PCB-97	5810	-		
PCB-48	1280	-	C	75	PCB-98	ND	6.66	C	102
PCB-49	-	-	C043	43	PCB-99	9810	-		
PCB-50	28.2	-	J		PCB-100	124	-		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-011-SA
Client ID: A10
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	1940	-		
PCB-102	-	-	C098	98	PCB-152	31.6	-	J	
PCB-103	298	-			PCB-153	3430	-		
PCB-104	ND	4.09			PCB-154	93.6	-		
PCB-105	1750	-			PCB-155	ND	3.69		
PCB-106	7340	-	C	118	PCB-156	110	-		
PCB-107	553	-	C	108	PCB-157	25.8	-	J	
PCB-108	-	-	C107	107	PCB-158	421	-	C	160
PCB-109	ND	9.35			PCB-159	ND	5.82		
PCB-110	11600	-			PCB-160	-	-	C158	158
PCB-111	411	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	8.89			PCB-163	-	-	C138	138/164
PCB-114	187	-			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	20.7	-	J	
PCB-117	-	-	C087	87/125	PCB-167	60.5	-		
PCB-118	-	-	C106	106	PCB-168	ND	6.46		
PCB-119	290	-			PCB-169	ND	5.12		
PCB-120	24.9	-	J		PCB-170	62.7	-		
PCB-121	ND	6.22			PCB-171	56.1	-		
PCB-122	87.5	-			PCB-172	20.5	-	J	
PCB-123	124	-			PCB-173	ND	8.08		
PCB-124	342	-			PCB-174	174	-		
PCB-125	-	-	C087	87/117	PCB-175	18.8	-	J	
PCB-126	15.9	-	J		PCB-176	81.3	-		
PCB-127	ND	9.76			PCB-177	100	-		
PCB-128	334	-	C	162	PCB-178	54.0	-		
PCB-129	200	-			PCB-179	195	-		
PCB-130	303	-			PCB-180	152	-		
PCB-131	246	-	C	133	PCB-181	ND	7.42		
PCB-132	1790	-	C	161	PCB-182	236	-	C	187
PCB-133	-	-	C131	131	PCB-183	156	-		
PCB-134	557	-	C	143	PCB-184	ND	5.14		
PCB-135	1180	-			PCB-185	27.8	-	J	
PCB-136	1980	-			PCB-186	ND	5.51		
PCB-137	264	-			PCB-187	-	-	C182	182
PCB-138	2450	-	C	163/164	PCB-188	ND	4.35		
PCB-139	6300	-	C	149	PCB-189	ND	3.70		
PCB-140	53.1	-			PCB-190	12.7	-	J	
PCB-141	665	-			PCB-191	ND	5.57		
PCB-142	ND	9.26			PCB-192	ND	6.13		
PCB-143	-	-	C134	134	PCB-193	ND	5.36		
PCB-144	582	-			PCB-194	ND	8.08		
PCB-145	16.8	-	J		PCB-195	ND	9.19		
PCB-146	577	-	C	165	PCB-196	24.6	-	C,J	203
PCB-147	249	-			PCB-197	ND	8.95		
PCB-148	ND	7.46			PCB-198	ND	8.85		
PCB-149	-	-	C139	139	PCB-199	32.8	-	J	
PCB-150	34.6	-	J		PCB-200	ND	6.09		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-011-SA
Client ID: A10
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	15.9	-	J	
PCB-202	16.9	-	J	
PCB-203	-	-	C196,J	196
PCB-204	ND	6.18		
PCB-205	ND	4.82		
PCB-206	ND	3.48		
PCB-207	ND	3.40		
PCB-208	ND	2.37		
PCB-209	ND	1.97		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	90.6	5.00 - 145	
13C-PCB-3	89.3	5.00 - 145	
13C-PCB-4	90.4	5.00 - 145	
13C-PCB-15	89.8	5.00 - 145	
13C-PCB-19	88.8	5.00 - 145	
13C-PCB-37	99.6	5.00 - 145	
13C-PCB-54	97.9	5.00 - 145	
13C-PCB-77	93.0	10.0 - 145	
13C-PCB-81	96.0	10.0 - 145	
13C-PCB-104	89.3	10.0 - 145	
13C-PCB-105	103	10.0 - 145	
13C-PCB-114	107	10.0 - 145	
13C-PCB-118	112	10.0 - 145	
13C-PCB-123	111	10.0 - 145	
13C-PCB-126	96.9	10.0 - 145	
13C-PCB-155	97.3	10.0 - 145	
13C-PCB-156	94.0	10.0 - 145	
13C-PCB-157	99.9	10.0 - 145	
13C-PCB-167	98.3	10.0 - 145	
13C-PCB-169	93.8	10.0 - 145	
13C-PCB-188	92.9	10.0 - 145	
13C-PCB-189	92.7	10.0 - 145	
13C-PCB-202	98.7	10.0 - 145	
13C-PCB-205	100	10.0 - 145	
13C-PCB-206	88.2	10.0 - 145	
13C-PCB-208	92.9	10.0 - 145	
13C-PCB-209	102	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	112	5.00 - 145	
13C-PCB-111	104	10.0 - 145	
13C-PCB-178	105	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-012-SA
Client ID: A11
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013
Total Conc: 11200

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	26.7	-	J		PCB-51	ND	7.16		
PCB-2	12.4	-	J		PCB-52	906	-	C	69
PCB-3	14.7	-	J		PCB-53	42.3	-		
PCB-4	47.1	-			PCB-54	ND	3.98		
PCB-5	ND	6.44			PCB-55	ND	5.16		
PCB-6	24.4	-	J		PCB-56	91.8	-	C	60
PCB-7	9.64	-	J		PCB-57	ND	5.08		
PCB-8	111	-			PCB-58	ND	5.52		
PCB-9	10.1	-	J		PCB-59	-	-	C042	42
PCB-10	10.7	-	J		PCB-60	-	-	C056	56
PCB-11	275	-	B		PCB-61	522	-	C	70
PCB-12	ND	6.85			PCB-62	ND	6.02		
PCB-13	ND	6.33			PCB-63	ND	5.07		
PCB-14	ND	6.53			PCB-64	-	-	C041	41/71/72
PCB-15	18.3	-	J		PCB-65	ND	5.37		
PCB-16	27.8	-	J		PCB-66	177	-	C	76
PCB-17	45.1	-			PCB-67	ND	4.94		
PCB-18	125	-			PCB-68	ND	4.95		
PCB-19	16.1	-	J		PCB-69	-	-	C052	52
PCB-20	52.1	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	31.4	-	J		PCB-72	-	-	C041	41/64/71
PCB-23	ND	6.81			PCB-73	ND	5.70		
PCB-24	ND	5.22			PCB-74	91.7	-		
PCB-25	ND	6.14			PCB-75	-	-	C048,J	48
PCB-26	38.4	-	J		PCB-76	-	-	C066	66
PCB-27	ND	5.01			PCB-77	20.6	-	J	
PCB-28	83.6	-			PCB-78	ND	6.64		
PCB-29	ND	6.37			PCB-79	12.4	-	J	
PCB-30	ND	4.87			PCB-80	ND	4.25		
PCB-31	97.7	-			PCB-81	16.7	-	J	
PCB-32	28.2	-	J		PCB-82	97.0	-		
PCB-33	-	-	C020	20/21	PCB-83	42.5	-	C	112
PCB-34	ND	6.59			PCB-84	514	-	C	92
PCB-35	14.0	-	J		PCB-85	129	-	C	116
PCB-36	ND	6.42			PCB-86	ND	4.86		
PCB-37	17.0	-	J		PCB-87	359	-	C	117/125
PCB-38	ND	6.47			PCB-88	177	-	C	91
PCB-39	ND	6.81			PCB-89	19.9	-	J	
PCB-40	30.0	-	J		PCB-90	1160	-	C	101
PCB-41	178	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	41.6	-	C	59	PCB-92	-	-	C084	84
PCB-43	251	-	C	49	PCB-93	ND	8.50		
PCB-44	340	-			PCB-94	ND	9.77		
PCB-45	19.2	-	J		PCB-95	1000	-		
PCB-46	ND	8.24			PCB-96	ND	8.20		
PCB-47	47.5	-			PCB-97	288	-		
PCB-48	27.3	-	C,J	75	PCB-98	ND	7.55	C	102
PCB-49	-	-	C043	43	PCB-99	441	-		
PCB-50	ND	6.97			PCB-100	ND	8.12		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-012-SA
Client ID: A11
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	89.4	-		
PCB-102	-	-	C098	98	PCB-152	ND	4.89		
PCB-103	ND	7.55			PCB-153	239	-		
PCB-104	ND	4.63			PCB-154	ND	5.18		
PCB-105	147	-			PCB-155	ND	3.32		
PCB-106	495	-	C	118	PCB-156	15.0	-	J	
PCB-107	42.0	-	C	108	PCB-157	ND	6.87		
PCB-108	-	-	C107	107	PCB-158	37.1	-	C,J	160
PCB-109	ND	4.54			PCB-159	ND	6.27		
PCB-110	634	-			PCB-160	-	-	C158,J	158
PCB-111	25.1	-	C,J	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128,J	128
PCB-113	ND	4.32			PCB-163	-	-	C138	138/164
PCB-114	18.9	-	J		PCB-164	-	-	C138	138/163
PCB-115	-	-	C111,J	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	6.60		
PCB-117	-	-	C087	87/125	PCB-167	ND	6.34		
PCB-118	-	-	C106	106	PCB-168	ND	6.96		
PCB-119	16.6	-	J		PCB-169	ND	5.24		
PCB-120	ND	3.58			PCB-170	ND	8.05		
PCB-121	ND	7.04			PCB-171	ND	6.84		
PCB-122	ND	8.37			PCB-172	ND	7.33		
PCB-123	13.9	-	J		PCB-173	ND	7.89		
PCB-124	24.5	-	J		PCB-174	20.9	-	J	
PCB-125	-	-	C087	87/117	PCB-175	ND	6.77		
PCB-126	ND	6.45			PCB-176	ND	5.14		
PCB-127	ND	7.84			PCB-177	ND	7.79		
PCB-128	37.2	-	C,J	162	PCB-178	ND	7.11		
PCB-129	23.9	-	J		PCB-179	15.9	-	J	
PCB-130	27.9	-	J		PCB-180	22.5	-	J	
PCB-131	19.4	-	C,J	133	PCB-181	ND	7.25		
PCB-132	116	-	C	161	PCB-182	18.8	-	C,J	187
PCB-133	-	-	C131,J	131	PCB-183	24.7	-	J	
PCB-134	37.0	-	C,J	143	PCB-184	ND	5.03		
PCB-135	66.4	-			PCB-185	ND	7.06		
PCB-136	85.7	-			PCB-186	ND	5.38		
PCB-137	21.8	-	J		PCB-187	-	-	C182,J	182
PCB-138	211	-	C	163/164	PCB-188	ND	4.33		
PCB-139	370	-	C	149	PCB-189	ND	3.54		
PCB-140	ND	8.87			PCB-190	ND	5.73		
PCB-141	54.7	-			PCB-191	ND	5.44		
PCB-142	ND	9.98			PCB-192	ND	5.99		
PCB-143	-	-	C134,J	134	PCB-193	ND	5.24		
PCB-144	28.3	-	J		PCB-194	ND	5.15		
PCB-145	ND	5.15			PCB-195	ND	5.86		
PCB-146	44.8	-	C	165	PCB-196	ND	6.94	C	203
PCB-147	17.3	-	J		PCB-197	ND	5.46		
PCB-148	ND	6.70			PCB-198	ND	7.56		
PCB-149	-	-	C139	139	PCB-199	ND	8.04		
PCB-150	ND	5.04			PCB-200	ND	5.20		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-012-SA
Client ID: A11
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	5.19		
PCB-202	ND	4.09		
PCB-203	-	-	C196	196
PCB-204	ND	5.28		
PCB-205	ND	3.07		
PCB-206	ND	3.95		
PCB-207	ND	3.87		
PCB-208	ND	2.70		
PCB-209	ND	2.55		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	96.9	5.00 - 145	
13C-PCB-3	94.4	5.00 - 145	
13C-PCB-4	103	5.00 - 145	
13C-PCB-15	94.5	5.00 - 145	
13C-PCB-19	103	5.00 - 145	
13C-PCB-37	98.0	5.00 - 145	
13C-PCB-54	111	5.00 - 145	
13C-PCB-77	97.3	10.0 - 145	
13C-PCB-81	98.5	10.0 - 145	
13C-PCB-104	100	10.0 - 145	
13C-PCB-105	105	10.0 - 145	
13C-PCB-114	108	10.0 - 145	
13C-PCB-118	113	10.0 - 145	
13C-PCB-123	113	10.0 - 145	
13C-PCB-126	102	10.0 - 145	
13C-PCB-155	108	10.0 - 145	
13C-PCB-156	102	10.0 - 145	
13C-PCB-157	106	10.0 - 145	
13C-PCB-167	105	10.0 - 145	
13C-PCB-169	102	10.0 - 145	
13C-PCB-188	99.0	10.0 - 145	
13C-PCB-189	104	10.0 - 145	
13C-PCB-202	111	10.0 - 145	
13C-PCB-205	106	10.0 - 145	
13C-PCB-206	95.9	10.0 - 145	
13C-PCB-208	99.8	10.0 - 145	
13C-PCB-209	110	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	117	5.00 - 145	
13C-PCB-111	108	10.0 - 145	
13C-PCB-178	113	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-013-SA
Client ID: A12
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013
Total Conc: 924000

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	1660	-			PCB-51	1130	-		
PCB-2	364	-			PCB-52	106000	-	C	69
PCB-3	892	-			PCB-53	5810	-		
PCB-4	3340	-			PCB-54	36.2	-	J	
PCB-5	ND	9.55			PCB-55	505	-		
PCB-6	2730	-			PCB-56	14900	-	C	60
PCB-7	818	-			PCB-57	103	-		
PCB-8	14800	-			PCB-58	ND	3.30		
PCB-9	950	-			PCB-59	-	-	C042	42
PCB-10	238	-			PCB-60	-	-	C056	56
PCB-11	5360	-	B		PCB-61	62000	-	C	70
PCB-12	222	-			PCB-62	ND	3.60		
PCB-13	509	-			PCB-63	1140	-		
PCB-14	ND	9.70			PCB-64	-	-	C041	41/71/72
PCB-15	2350	-			PCB-65	ND	3.21		
PCB-16	2930	-			PCB-66	24500	-	C	76
PCB-17	4540	-			PCB-67	422	-		
PCB-18	14200	-			PCB-68	ND	2.96		
PCB-19	759	-			PCB-69	-	-	C052	52
PCB-20	9330	-	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	5350	-			PCB-72	-	-	C041	41/64/71
PCB-23	21.8	-	J		PCB-73	ND	3.41		
PCB-24	170	-			PCB-74	14100	-		
PCB-25	789	-			PCB-75	-	-	C048	48
PCB-26	2100	-			PCB-76	-	-	C066	66
PCB-27	616	-			PCB-77	466	-		
PCB-28	12800	-			PCB-78	136	-		
PCB-29	115	-			PCB-79	627	-		
PCB-30	ND	4.07			PCB-80	ND	2.54		
PCB-31	19700	-			PCB-81	828	-		
PCB-32	3240	-			PCB-82	4590	-		
PCB-33	-	-	C020	20/21	PCB-83	2400	-	C	112
PCB-34	41.5	-			PCB-84	32400	-	C	92
PCB-35	191	-			PCB-85	7010	-	C	116
PCB-36	ND	9.30			PCB-86	ND	7.55		
PCB-37	2360	-			PCB-87	20800	-	C	117/125
PCB-38	162	-			PCB-88	11900	-	C	91
PCB-39	ND	9.88			PCB-89	752	-		
PCB-40	4420	-			PCB-90	78000	-	C	101
PCB-41	29500	-	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	7000	-	C	59	PCB-92	-	-	C084	84
PCB-43	32600	-	C	49	PCB-93	ND	7.24		
PCB-44	41900	-			PCB-94	489	-		
PCB-45	3780	-			PCB-95	74000	-		
PCB-46	1640	-			PCB-96	853	-		
PCB-47	6790	-			PCB-97	17500	-		
PCB-48	5790	-	C	75	PCB-98	ND	6.43	C	102
PCB-49	-	-	C043	43	PCB-99	29500	-		
PCB-50	54.2	-			PCB-100	236	-		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-013-SA
Client ID: A12
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	8460	-		
PCB-102	-	-	C098	98	PCB-152	74.7	-		
PCB-103	557	-			PCB-153	11800	-		
PCB-104	ND	3.94			PCB-154	229	-		
PCB-105	5790	-			PCB-155	ND	3.62		
PCB-106	24400	-	C	118	PCB-156	286	-		
PCB-107	1660	-	C	108	PCB-157	49.6	-		
PCB-108	-	-	C107	107	PCB-158	1200	-	C	160
PCB-109	15.9	-	J		PCB-159	ND	8.92		
PCB-110	34600	-			PCB-160	-	-	C158	158
PCB-111	1570	-	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	6.70			PCB-163	-	-	C138	138/164
PCB-114	643	-			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	48.9	-		
PCB-117	-	-	C087	87/125	PCB-167	142	-		
PCB-118	-	-	C106	106	PCB-168	ND	9.90		
PCB-119	838	-			PCB-169	ND	6.64		
PCB-120	ND	5.55			PCB-170	395	-		
PCB-121	ND	6.00			PCB-171	276	-		
PCB-122	246	-			PCB-172	112	-		
PCB-123	461	-			PCB-173	21.4	-	J	
PCB-124	1140	-			PCB-174	1520	-		
PCB-125	-	-	C087	87/117	PCB-175	92.0	-		
PCB-126	27.1	-	J		PCB-176	556	-		
PCB-127	ND	9.75			PCB-177	756	-		
PCB-128	918	-	C	162	PCB-178	511	-		
PCB-129	532	-			PCB-179	2130	-		
PCB-130	761	-			PCB-180	1560	-		
PCB-131	689	-	C	133	PCB-181	ND	7.17		
PCB-132	5420	-	C	161	PCB-182	2480	-	C	187
PCB-133	-	-	C131	131	PCB-183	1100	-		
PCB-134	1590	-	C	143	PCB-184	ND	4.97		
PCB-135	3730	-			PCB-185	229	-		
PCB-136	6180	-			PCB-186	ND	5.32		
PCB-137	779	-			PCB-187	-	-	C182	182
PCB-138	7500	-	C	163/164	PCB-188	ND	4.18		
PCB-139	21300	-	C	149	PCB-189	ND	3.60		
PCB-140	125	-			PCB-190	93.5	-		
PCB-141	2410	-			PCB-191	24.9	-	J	
PCB-142	10.0	-	J		PCB-192	ND	5.92		
PCB-143	-	-	C134	134	PCB-193	83.0	-		
PCB-144	1930	-			PCB-194	122	-		
PCB-145	32.8	-	J		PCB-195	80.2	-		
PCB-146	1750	-	C	165	PCB-196	345	-	C	203
PCB-147	727	-			PCB-197	35.2	-	J	
PCB-148	ND	7.32			PCB-198	25.9	-	J	
PCB-149	-	-	C139	139	PCB-199	383	-		
PCB-150	64.9	-			PCB-200	79.9	-		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-013-SA
Client ID: A12
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-28-13
GC Column: DB1
Units: pg/sample

Acquired: 12-28-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	123	-		
PCB-202	154	-		
PCB-203	-	-	C196	196
PCB-204	ND	4.98		
PCB-205	ND	6.56		
PCB-206	25.9	-	J	
PCB-207	12.9	-	J	
PCB-208	11.4	-	J	
PCB-209	ND	2.57		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	89.8	5.00 - 145	
13C-PCB-3	90.2	5.00 - 145	
13C-PCB-4	102	5.00 - 145	
13C-PCB-15	97.3	5.00 - 145	
13C-PCB-19	95.4	5.00 - 145	
13C-PCB-37	105	5.00 - 145	
13C-PCB-54	105	5.00 - 145	
13C-PCB-77	105	10.0 - 145	
13C-PCB-81	108	10.0 - 145	
13C-PCB-104	95.2	10.0 - 145	
13C-PCB-105	114	10.0 - 145	
13C-PCB-114	120	10.0 - 145	
13C-PCB-118	115	10.0 - 145	
13C-PCB-123	119	10.0 - 145	
13C-PCB-126	110	10.0 - 145	
13C-PCB-155	107	10.0 - 145	
13C-PCB-156	104	10.0 - 145	
13C-PCB-157	106	10.0 - 145	
13C-PCB-167	108	10.0 - 145	
13C-PCB-169	104	10.0 - 145	
13C-PCB-188	98.8	10.0 - 145	
13C-PCB-189	97.6	10.0 - 145	
13C-PCB-202	105	10.0 - 145	
13C-PCB-205	110	10.0 - 145	
13C-PCB-206	98.6	10.0 - 145	
13C-PCB-208	100	10.0 - 145	
13C-PCB-209	112	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	121	5.00 - 145	
13C-PCB-111	115	10.0 - 145	
13C-PCB-178	118	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-014-SA
Client ID: A13
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013
Total Conc: 337

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	ND	2.66			PCB-51	ND	9.24		
PCB-2	ND	3.69			PCB-52	20.8	-	C,J	69
PCB-3	ND	3.00			PCB-53	ND	9.36		
PCB-4	ND	9.94			PCB-54	ND	5.08		
PCB-5	ND	8.65			PCB-55	ND	6.64		
PCB-6	ND	7.58			PCB-56	ND	6.56	C	60
PCB-7	ND	8.18			PCB-57	ND	6.49		
PCB-8	ND	7.93			PCB-58	ND	7.23		
PCB-9	ND	7.73			PCB-59	-	-	C042	42
PCB-10	ND	7.50			PCB-60	-	-	C056	56
PCB-11	43.4	-	B		PCB-61	ND	12.7	C	70
PCB-12	ND	7.82			PCB-62	ND	8.12		
PCB-13	ND	8.18			PCB-63	ND	6.57		
PCB-14	ND	8.06			PCB-64	-	-	C041	41/71/72
PCB-15	ND	6.11			PCB-65	ND	6.87		
PCB-16	ND	4.74			PCB-66	ND	6.18	C	76
PCB-17	ND	5.93			PCB-67	ND	6.16		
PCB-18	ND	6.79			PCB-68	ND	6.33		
PCB-19	ND	5.00			PCB-69	-	-	C052,J	52
PCB-20	ND	7.13	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	ND	7.49			PCB-72	-	-	C041	41/64/71
PCB-23	ND	7.90			PCB-73	ND	7.87		
PCB-24	ND	4.93			PCB-74	ND	4.84		
PCB-25	ND	6.97			PCB-75	-	-	C048	48
PCB-26	ND	7.38			PCB-76	-	-	C066	66
PCB-27	ND	4.19			PCB-77	ND	5.87		
PCB-28	ND	6.69			PCB-78	ND	7.04		
PCB-29	ND	7.22			PCB-79	ND	7.00		
PCB-30	ND	4.34			PCB-80	ND	5.50		
PCB-31	ND	7.13			PCB-81	ND	6.17		
PCB-32	ND	4.44			PCB-82	ND	18.6		
PCB-33	-	-	C020	20/21	PCB-83	ND	13.5	C	112
PCB-34	ND	7.39			PCB-84	ND	15.8	C	92
PCB-35	ND	7.35			PCB-85	ND	13.0	C	116
PCB-36	ND	7.32			PCB-86	ND	13.6		
PCB-37	ND	5.40			PCB-87	ND	11.5	C	117/125
PCB-38	ND	7.07			PCB-88	ND	11.4	C	91
PCB-39	ND	7.73			PCB-89	ND	16.5		
PCB-40	ND	11.9			PCB-90	54.6	-	C	101
PCB-41	ND	6.94	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	ND	7.65	C	59	PCB-92	-	-	C084	84
PCB-43	ND	7.97	C	49	PCB-93	ND	11.7		
PCB-44	ND	8.16			PCB-94	ND	13.5		
PCB-45	ND	10.1			PCB-95	47.4	-		
PCB-46	ND	10.6			PCB-96	ND	8.66		
PCB-47	ND	8.50			PCB-97	ND	14.9		
PCB-48	ND	7.26	C	75	PCB-98	ND	10.2	C	102
PCB-49	-	-	C043	43	PCB-99	ND	14.5		
PCB-50	ND	9.00			PCB-100	ND	11.2		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-014-SA
Client ID: A13
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	ND	12.6		
PCB-102	-	-	C098	98	PCB-152	ND	10.2		
PCB-103	ND	10.3			PCB-153	33.3	-	J	
PCB-104	ND	6.48			PCB-154	ND	11.3		
PCB-105	ND	10.1			PCB-155	ND	7.28		
PCB-106	30.8	-	C,J	118	PCB-156	ND	8.69		
PCB-107	ND	9.77	C	108	PCB-157	ND	11.0		
PCB-108	-	-	C107	107	PCB-158	ND	9.16	C	160
PCB-109	ND	12.3			PCB-159	ND	8.65		
PCB-110	35.4	-	J		PCB-160	-	-	C158	158
PCB-111	ND	10.4	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	11.5			PCB-163	-	-	C138,J	138/164
PCB-114	ND	10.2			PCB-164	-	-	C138,J	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	9.18		
PCB-117	-	-	C087	87/125	PCB-167	ND	9.34		
PCB-118	-	-	C106,J	106	PCB-168	ND	9.60		
PCB-119	ND	10.6			PCB-169	ND	6.37		
PCB-120	ND	9.79			PCB-170	ND	18.8		
PCB-121	ND	9.78			PCB-171	ND	16.9		
PCB-122	ND	9.97			PCB-172	ND	17.9		
PCB-123	ND	9.42			PCB-173	ND	19.6		
PCB-124	ND	10.1			PCB-174	ND	16.3		
PCB-125	-	-	C087	87/117	PCB-175	ND	16.9		
PCB-126	ND	8.24			PCB-176	ND	12.1		
PCB-127	ND	9.83			PCB-177	ND	18.9		
PCB-128	ND	11.5	C	162	PCB-178	ND	17.1		
PCB-129	ND	14.2			PCB-179	ND	12.0		
PCB-130	ND	13.5			PCB-180	ND	15.7		
PCB-131	ND	12.9	C	133	PCB-181	ND	18.3		
PCB-132	ND	11.1	C	161	PCB-182	ND	15.5	C	187
PCB-133	-	-	C131	131	PCB-183	ND	15.6		
PCB-134	ND	13.3	C	143	PCB-184	ND	12.3		
PCB-135	ND	14.2			PCB-185	ND	17.3		
PCB-136	ND	10.8			PCB-186	ND	13.1		
PCB-137	ND	13.4			PCB-187	-	-	C182	182
PCB-138	30.6	-	C,J	163/164	PCB-188	ND	10.7		
PCB-139	40.8	-	C	149	PCB-189	ND	8.06		
PCB-140	ND	11.7			PCB-190	ND	13.2		
PCB-141	ND	12.0			PCB-191	ND	13.1		
PCB-142	ND	13.9			PCB-192	ND	14.5		
PCB-143	-	-	C134	134	PCB-193	ND	12.7		
PCB-144	ND	10.4			PCB-194	ND	6.30		
PCB-145	ND	11.0			PCB-195	ND	7.04		
PCB-146	ND	10.2	C	165	PCB-196	ND	8.74	C	203
PCB-147	ND	11.6			PCB-197	ND	6.94		
PCB-148	ND	12.8			PCB-198	ND	10.0		
PCB-149	-	-	C139	139	PCB-199	ND	9.84		
PCB-150	ND	10.8			PCB-200	ND	6.58		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-014-SA
Client ID: A13
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	6.83		
PCB-202	ND	5.35		
PCB-203	-	-	C196	196
PCB-204	ND	6.53		
PCB-205	ND	3.69		
PCB-206	ND	4.43		
PCB-207	ND	4.31		
PCB-208	ND	2.84		
PCB-209	ND	2.89		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	95.8	5.00 - 145	
13C-PCB-3	91.5	5.00 - 145	
13C-PCB-4	92.7	5.00 - 145	
13C-PCB-15	90.4	5.00 - 145	
13C-PCB-19	94.7	5.00 - 145	
13C-PCB-37	87.0	5.00 - 145	
13C-PCB-54	101	5.00 - 145	
13C-PCB-77	88.9	10.0 - 145	
13C-PCB-81	91.8	10.0 - 145	
13C-PCB-104	91.9	10.0 - 145	
13C-PCB-105	95.8	10.0 - 145	
13C-PCB-114	97.5	10.0 - 145	
13C-PCB-118	97.0	10.0 - 145	
13C-PCB-123	102	10.0 - 145	
13C-PCB-126	92.0	10.0 - 145	
13C-PCB-155	102	10.0 - 145	
13C-PCB-156	94.8	10.0 - 145	
13C-PCB-157	93.1	10.0 - 145	
13C-PCB-167	94.3	10.0 - 145	
13C-PCB-169	90.7	10.0 - 145	
13C-PCB-188	91.8	10.0 - 145	
13C-PCB-189	94.4	10.0 - 145	
13C-PCB-202	98.0	10.0 - 145	
13C-PCB-205	93.4	10.0 - 145	
13C-PCB-206	91.3	10.0 - 145	
13C-PCB-208	100	10.0 - 145	
13C-PCB-209	102	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	103	5.00 - 145	
13C-PCB-111	107	10.0 - 145	
13C-PCB-178	105	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013

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Modified EPA Method 1668 PCBs



FAL ID: 8224-015-SA
Client ID: A14
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013
Total Conc: 42.2

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-1	ND	2.59			PCB-51	ND	7.84		
PCB-2	ND	3.65			PCB-52	ND	6.37	C	69
PCB-3	ND	3.03			PCB-53	ND	7.94		
PCB-4	ND	7.97			PCB-54	ND	4.31		
PCB-5	ND	6.87			PCB-55	ND	5.64		
PCB-6	ND	6.02			PCB-56	ND	4.59	C	60
PCB-7	ND	6.50			PCB-57	ND	5.51		
PCB-8	ND	6.29			PCB-58	ND	6.14		
PCB-9	ND	6.13			PCB-59	-	-	C042	42
PCB-10	ND	5.96			PCB-60	-	-	C056	56
PCB-11	42.2	-	B		PCB-61	ND	5.90	C	70
PCB-12	ND	6.74			PCB-62	ND	6.89		
PCB-13	ND	6.49			PCB-63	ND	5.58		
PCB-14	ND	6.40			PCB-64	-	-	C041	41/71/72
PCB-15	ND	4.82			PCB-65	ND	5.83		
PCB-16	ND	6.59			PCB-66	ND	5.24	C	76
PCB-17	ND	8.26			PCB-67	ND	5.23		
PCB-18	ND	9.44			PCB-68	ND	5.37		
PCB-19	ND	6.96			PCB-69	-	-	C052	52
PCB-20	ND	5.48	C	21/33	PCB-70	-	-	C061	61
PCB-21	-	-	C020	20/33	PCB-71	-	-	C041	41/64/72
PCB-22	ND	5.76			PCB-72	-	-	C041	41/64/71
PCB-23	ND	6.07			PCB-73	ND	6.68		
PCB-24	ND	6.86			PCB-74	ND	4.11		
PCB-25	ND	5.36			PCB-75	-	-	C048	48
PCB-26	ND	5.67			PCB-76	-	-	C066	66
PCB-27	ND	5.83			PCB-77	ND	4.04		
PCB-28	ND	5.14			PCB-78	ND	4.92		
PCB-29	ND	5.54			PCB-79	ND	4.89		
PCB-30	ND	6.04			PCB-80	ND	4.67		
PCB-31	ND	5.48			PCB-81	ND	4.39		
PCB-32	ND	6.17			PCB-82	ND	15.9		
PCB-33	-	-	C020	20/21	PCB-83	ND	11.5	C	112
PCB-34	ND	5.68			PCB-84	ND	13.5	C	92
PCB-35	ND	5.64			PCB-85	ND	11.1	C	116
PCB-36	ND	5.62			PCB-86	ND	11.6		
PCB-37	ND	4.14			PCB-87	ND	9.83	C	117/125
PCB-38	ND	5.43			PCB-88	ND	10.5	C	91
PCB-39	ND	5.94			PCB-89	ND	14.1		
PCB-40	ND	10.1			PCB-90	ND	12.1	C	101
PCB-41	ND	5.89	C	64/71/72	PCB-91	-	-	C088	88
PCB-42	ND	6.49	C	59	PCB-92	-	-	C084	84
PCB-43	ND	6.76	C	49	PCB-93	ND	10.8		
PCB-44	ND	6.92			PCB-94	ND	12.5		
PCB-45	ND	8.59			PCB-95	ND	9.56		
PCB-46	ND	8.98			PCB-96	ND	7.99		
PCB-47	ND	7.21			PCB-97	ND	12.7		
PCB-48	ND	6.16	C	75	PCB-98	ND	9.45	C	102
PCB-49	-	-	C043	43	PCB-99	ND	12.4		
PCB-50	ND	7.64			PCB-100	ND	10.3		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-015-SA
Client ID: A14
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters	Compound	Conc	DL	Qual	Coeluters
PCB-101	-	-	C090	90	PCB-151	ND	9.29		
PCB-102	-	-	C098	98	PCB-152	ND	4.93		
PCB-103	ND	9.46			PCB-153	ND	7.37		
PCB-104	ND	5.97			PCB-154	ND	5.47		
PCB-105	ND	9.67			PCB-155	ND	3.52		
PCB-106	ND	11.2	C	118	PCB-156	ND	6.55		
PCB-107	ND	9.74	C	108	PCB-157	ND	7.71		
PCB-108	-	-	C107	107	PCB-158	ND	6.77	C	160
PCB-109	ND	10.5			PCB-159	ND	6.39		
PCB-110	ND	7.19			PCB-160	-	-	C158	158
PCB-111	ND	8.89	C	115	PCB-161	-	-	C132	132
PCB-112	-	-	C083	83	PCB-162	-	-	C128	128
PCB-113	ND	9.85			PCB-163	-	-	C138	138/164
PCB-114	ND	10.1			PCB-164	-	-	C138	138/163
PCB-115	-	-	C111	111	PCB-165	-	-	C146	146
PCB-116	-	-	C085	85	PCB-166	ND	6.77		
PCB-117	-	-	C087	87/125	PCB-167	ND	6.95		
PCB-118	-	-	C106	106	PCB-168	ND	7.09		
PCB-119	ND	9.05			PCB-169	ND	4.83		
PCB-120	ND	8.37			PCB-170	ND	15.0		
PCB-121	ND	9.02			PCB-171	ND	13.5		
PCB-122	ND	9.94			PCB-172	ND	14.2		
PCB-123	ND	9.51			PCB-173	ND	15.6		
PCB-124	ND	10.0			PCB-174	ND	13.0		
PCB-125	-	-	C087	87/117	PCB-175	ND	13.5		
PCB-126	ND	7.61			PCB-176	ND	9.69		
PCB-127	ND	9.80			PCB-177	ND	15.0		
PCB-128	ND	8.51	C	162	PCB-178	ND	13.6		
PCB-129	ND	10.5			PCB-179	ND	9.58		
PCB-130	ND	10.0			PCB-180	ND	12.5		
PCB-131	ND	9.52	C	133	PCB-181	ND	14.6		
PCB-132	ND	8.21	C	161	PCB-182	ND	12.3	C	187
PCB-133	-	-	C131	131	PCB-183	ND	12.4		
PCB-134	ND	9.83	C	143	PCB-184	ND	9.82		
PCB-135	ND	10.5			PCB-185	ND	13.8		
PCB-136	ND	5.20			PCB-186	ND	10.4		
PCB-137	ND	9.92			PCB-187	-	-	C182	182
PCB-138	ND	6.41	C	163/164	PCB-188	ND	8.22		
PCB-139	ND	8.77	C	149	PCB-189	ND	6.76		
PCB-140	ND	8.67			PCB-190	ND	10.6		
PCB-141	ND	8.83			PCB-191	ND	10.4		
PCB-142	ND	10.3			PCB-192	ND	11.5		
PCB-143	-	-	C134	134	PCB-193	ND	10.1		
PCB-144	ND	7.67			PCB-194	ND	5.74		
PCB-145	ND	5.32			PCB-195	ND	6.41		
PCB-146	ND	7.56	C	165	PCB-196	ND	8.00	C	203
PCB-147	ND	8.60			PCB-197	ND	6.36		
PCB-148	ND	6.17			PCB-198	ND	9.18		
PCB-149	-	-	C139	139	PCB-199	ND	9.02		
PCB-150	ND	5.23			PCB-200	ND	6.02		

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Modified EPA Method 1668 PCBs



FAL ID: 8224-015-SA
Client ID: A14
Matrix: PUF
Batch No: X2997

Date Extracted: 12-26-2013
Date Received: 12-24-2013
Amount: 1.00 sample

ICal: DAILY209FAL4-12-27-13
GC Column: DB1
Units: pg/sample

Acquired: 12-27-2013

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Compound	Conc	DL	Qual	Coeluters
PCB-201	ND	6.26		
PCB-202	ND	4.90		
PCB-203	-	-	C196	196
PCB-204	ND	5.98		
PCB-205	ND	3.37		
PCB-206	ND	3.98		
PCB-207	ND	4.01		
PCB-208	ND	2.74		
PCB-209	ND	2.62		

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-1	108	5.00 - 145	
13C-PCB-3	102	5.00 - 145	
13C-PCB-4	104	5.00 - 145	
13C-PCB-15	102	5.00 - 145	
13C-PCB-19	110	5.00 - 145	
13C-PCB-37	94.3	5.00 - 145	
13C-PCB-54	113	5.00 - 145	
13C-PCB-77	95.3	10.0 - 145	
13C-PCB-81	97.0	10.0 - 145	
13C-PCB-104	103	10.0 - 145	
13C-PCB-105	104	10.0 - 145	
13C-PCB-114	107	10.0 - 145	
13C-PCB-118	109	10.0 - 145	
13C-PCB-123	111	10.0 - 145	
13C-PCB-126	104	10.0 - 145	
13C-PCB-155	113	10.0 - 145	
13C-PCB-156	105	10.0 - 145	
13C-PCB-157	104	10.0 - 145	
13C-PCB-167	105	10.0 - 145	
13C-PCB-169	98.7	10.0 - 145	
13C-PCB-188	104	10.0 - 145	
13C-PCB-189	102	10.0 - 145	
13C-PCB-202	107	10.0 - 145	
13C-PCB-205	109	10.0 - 145	
13C-PCB-206	101	10.0 - 145	
13C-PCB-208	112	10.0 - 145	
13C-PCB-209	115	10.0 - 145	

Pre-Spike Standards	% Rec	QC Limits	Qual
13C-PCB-28	114	5.00 - 145	
13C-PCB-111	112	10.0 - 145	
13C-PCB-178	118	10.0 - 145	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Coelution
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 12/31/2013

Reviewed By: 
Date: 12/31/2013



Frontier Analytical Laboratory
5172 Hillsdale Circle
El Dorado Hills, CA 95762
Tel: 916-934-0900
Fax: 916-934-0999

FAL USE ONLY

Laboratory Project No.: 8224
Temperature: 1 °C

Chain of Custody

www.frontieranalytical.com

Please Print in Pen Page 1 of 1

CLIENT INFORMATION				INVOICE INFORMATION (if different from client info)										PROJECT INFORMATION			
Company Name: <u>Phylmor Group</u> Contact Name: <u>Mark Katchen</u> Address: <u>2342 Manning Ave., Los Angeles, CA 90064</u> Phone: <u>310-474-3937</u> Fax: _____ Email: <u>mkatchen@phylmor.com</u>				Company Name: <u>Same</u> Contact Name: _____ Address: _____ Phone: _____ Fax: _____ Email: _____										FAL Quote #: _____ P.O. #: _____ Project #: <u>365-002A</u> Project Name: <u>MHS Monitoring</u> TAT (business days): ☐ 15 ☒ 10 ☐ 5* ☐ 3* (√one) * FAL must agree with price and RUSH TAT in writing.			
REPORT INFORMATION				REPORT DISTRIBUTION (email only is preferred)										ADDITIONAL INSTRUCTIONS			
Report Level: ☐ I/II ☐ III ☐ IV ☐ EDD: ☐ FAL Basic ☐ Geotracker ☐ Other: _____ ☐ Custom: Contact FAL ☐ California State Drinking Water Form System #: _____ Source #: _____ Sampler: _____ Employer: _____				☐ Hardcopy ☐ CD (.pdf including EDDs if requested) ☒ Email (.pdf including EDDs if requested)										Report 209 congeners			
														**CONGENERS		**TEQ	
														☐ 2,3,7,8-TCDD only ☐ 2,3,7,8-TCDD/F only ☐ PCDD/F (Cl ₄ -Cl ₈)		☐ 1998 WHO ☐ 2005 WHO ☐ Other	
														Remarks			
Sample ID	Date	Time	Matrix	# of containers	EPA 1613**	EPA 8290**	DLM 02.0	EPA 8280**	Appendix IX	EPA TO-9/A	EPA 23/23A	EPA 1668	FAL 15	Other	Remarks		
1	A1	12/24/12	Air	1								✓			Volume = 9555 liters		
2	A2											✓			Volume = 9555 liters		
3	A3											✓			Volume = 9555 liters		
4	A4											✓			Volume = 9555 liters		
5	A5											✓			Volume = 9555 liters		
6	A6A											✓			Volume = 9555 liters		
7	A6B											✓			Volume = 9555 liters		
8	A7											✓			Volume = 9555 liters		
9	A8											✓			Volume = 9114 liters		
10	A9											✓			Volume = 9555 liters		
11	A10											✓			Volume = 9555 liters		
12	A11											✓			Volume = 9114 liters		
13	A12											✓			Volume = 9555 liters		
14	A13											✓			Blank		
15	A14											✓			Blank		
Samples will be disposed of 90 days after sample receipt unless other arrangements have been made and agreed upon in writing.																	
Relinquished by: (Signature and Printed Name)				Date	Time	Received by: (Signature and Printed Name)				Date	Time						
Steven Modtland				12/23/13	—	Karl Zipp				12-24-13	1030						

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Client understands that all terms described in the proposals, quotations, and/or the general terms provided in the current FAL price schedules will be followed.

FAL reserves the rights to terminate its service or withhold delivery of reports, if in FAL's sole discretion the terms of the project have been broken.

White Copy - Report

Yellow Copy - Laboratory

Pink Copy - Originator

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **8224**

Client:	The Phylmar Group
Client Project ID:	365-002A
Date Received:	12/24/2013
Time Received:	10:30 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	15
Duplicates:	0
Storage Location:	R2

Method of Delivery:	Fed-Ex
Tracking Number:	795874038018
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	1
Cooling Method	Blue Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	No
Test aqueous sample for residual Chlorine	No
Sodium Thiosulfate Added	No
Adequate Sample Volume	Yes
Appropriate Sample Container	Yes
pH Range of Aqueous Sample	N/A
Anomalies or additional comments:	
RUSH 5-TAT!	

