

U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
OFFICE OF ENVIRONMENTAL MEASUREMENT & EVALUATION  
NORTH CHELMSFORD, MASSACHUSETTS 01863-2431

MEMORANDUM

DATE: April 23, 2009

SUBJECT: St. John's Cemetery, Monroe, CT - PCB Field Analytical Results

FROM: Scott Clifford, Chemist *SC 5/4/09*

TO: Cathy Young, OSC

THRU: Dan Boudreau, Chemistry Team Leader *DB 5/5/09*

PROJECT NUMBER: 09040025

DATE OF ANALYSIS: 04/13/09 - 04/17/09

ANALYTICAL PROCEDURE:

Soils were analyzed for PCBs using EPA Region I SOP for PCBs Field Testing for Soils and Sediment samples (EIA-FLDPCB2.SOP). Approximately 1 gram of sample was weighed into a 4 ml vial. To this was added 200  $\mu$ L water, 800  $\mu$ L methanol and 1000  $\mu$ L hexane. The sample mix was vortexed for approximately one minute and then centrifuged. A portion of the hexane extract was analyzed on a Shimadzu gas chromatograph equipped with an electron-capture detector and 30 meter, 0.53mm ID MXT-5 column. Concentrations of PCBs in soil were calculated using the external standard technique.

TARGET COMPOUNDS:

PCB A1254, A1262 and A1268

Discussion:

Analysis on the Shimadzu Model GC is used for tentative identification and semi-quantitation of PCBs in soil, oil and sediment samples. This field technique is not meant to substitute for the CLP PCBs in soil protocol. This analysis technique can, however save costly analysis time when full protocol is not required.

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<b>Results:</b>			
Results are in columns below. ND ( ) is not detected with the reporting level in parenthesis. Soil PCB results are based on sample wet weight.			
<b>St. John's Cemetery, Monroe, CT - PCB Field Analytical Results</b>			
<b>04/13/09 - 04/17/09</b>			
<b>PCB Aroclor Results</b>			
<b>Wet Weight</b>			
<b>ppm</b>			
<b>Sample #</b>	<b>Aroclor 1254</b>	<b>Aroclor 1268</b>	<b>Aroclor 1262</b>
L-3_P300A	ND(0.3)	ND(0.2)	ND(0.2)
L-3_P300B	ND(0.3)	ND(0.2)	ND(0.2)
L-3_P300C	ND(0.3)	ND(0.2)	ND(0.2)
L-3_P300D	ND(0.3)	ND(0.2)	ND(0.2)
L-3_P270A	ND(0.3)	ND(0.2)	ND(0.2)
L-3_P270B	ND(0.3)	ND(0.2)	ND(0.2)
L-3_P270C	ND(0.3)	ND(0.2)	ND(0.2)
L-3_P270D	ND(0.3)	ND(0.2)	ND(0.2)
L24_P90A	ND(0.3)	ND(0.2)	ND(0.2)
L24_P90B	ND(0.3)	ND(0.2)	ND(0.2)
L24_P90C	ND(0.3)	ND(0.2)	ND(0.2)
L24_P90D	ND(0.3)	ND(0.2)	ND(0.2)
L24_P120A	ND(0.3)	ND(0.2)	ND(0.2)
L24_P120B	ND(0.3)	ND(0.2)	ND(0.2)
L24_P120C	ND(0.3)	ND(0.2)	ND(0.2)
L24_P60A	ND(0.3)	ND(0.2)	ND(0.2)
L24_P60B	ND(0.3)	ND(0.2)	ND(0.2)
L24_P60C	ND(0.3)	ND(0.2)	ND(0.2)
L24_P60D	ND(0.3)	ND(0.2)	ND(0.2)
SS01	ND(0.3)	1.3	0.7
AOC-4A	ND(0.3)	ND(0.2)	ND(0.2)
AOC-4B	ND(0.3)	ND(0.2)	ND(0.2)
AOC-4C	ND(0.3)	ND(0.2)	ND(0.2)
AOC-6A	ND(0.3)	ND(0.2)	ND(0.2)
AOC-6B	ND(0.3)	ND(0.2)	ND(0.2)
AOC-6C	ND(0.3)	ND(0.2)	ND(0.2)
AOC-3A	ND(0.3)	ND(0.2)	ND(0.2)
AOC-3B	ND(0.3)	ND(0.2)	ND(0.2)
AOC-3C	ND(0.3)	ND(0.2)	ND(0.2)
AOC-3D	ND(0.3)	ND(0.2)	ND(0.2)
AOC-7A	ND(0.3)	ND(0.2)	ND(0.2)
AOC-7B	ND(0.3)	ND(0.2)	ND(0.2)
AOC-7C	ND(0.3)	ND(0.2)	ND(0.2)
AOC-7D	ND(0.3)	ND(0.2)	ND(0.2)
AOC-1A	ND(0.3)	ND(0.2)	ND(0.2)
AOC-1B	ND(0.3)	ND(0.2)	ND(0.2)
AOC-1C	ND(0.3)	ND(0.2)	ND(0.2)
AOC-1D	ND(0.3)	ND(0.2)	ND(0.2)
AOC-2A	ND(0.3)	ND(0.2)	ND(0.2)
AOC-2B	ND(0.3)	ND(0.2)	ND(0.2)
AOC-2C	ND(0.3)	ND(0.2)	ND(0.2)
AOC-2D	ND(0.3)	ND(0.2)	ND(0.2)
AOC-8A	ND(0.3)	ND(0.2)	ND(0.2)
AOC-8B	ND(0.3)	ND(0.2)	ND(0.2)
AOC-8C	ND(0.3)	ND(0.2)	ND(0.2)

Results are in columns below. ND( ) is not detected with the reporting level in parenthesis. Soil PCB results are based on sample wet weight.

**St. John's Cemetery, Monroe, CT - PCB Field Analytical Results**

**04/13/09 - 04/17/09**

**PCB Aroclor Results**

**Wet Weight**

**ppm**

<b>Sample #</b>	<b>Aroclor 1254</b>	<b>Aroclor 1268</b>	<b>Aroclor 1262</b>
AOC-8D	ND(0.3)	ND(0.2)	ND(0.2)
AOC-9A	ND(0.3)	ND(0.2)	ND(0.2)
AOC-9B	ND(0.3)	ND(0.2)	ND(0.2)
AOC-9C	ND(0.3)	ND(0.2)	ND(0.2)
AOC-9D	ND(0.3)	ND(0.2)	ND(0.2)
AOC-10A	ND(0.3)	ND(0.2)	ND(0.2)
AOC-10B	ND(0.3)	ND(0.2)	ND(0.2)
AOC-10C	ND(0.3)	ND(0.2)	ND(0.2)
AOC-10D	ND(0.3)	ND(0.2)	ND(0.2)
L27_P60A	ND(0.3)	ND(0.2)	ND(0.2)
L27_P60B	ND(0.3)	ND(0.2)	ND(0.2)
L27_P60C	ND(0.3)	ND(0.2)	ND(0.2)
L27_P60D	ND(0.3)	ND(0.2)	ND(0.2)
L27_P90A	ND(0.3)	ND(0.2)	ND(0.2)
L27_P90B	ND(0.3)	ND(0.2)	ND(0.2)
L27_P90C	ND(0.3)	ND(0.2)	ND(0.2)
L27_P90D	ND(0.3)	ND(0.2)	ND(0.2)
L27_P120A	ND(0.3)	ND(0.2)	ND(0.2)
L27_P120A_DUP	ND(0.3)	ND(0.2)	ND(0.2)
L27_P120B	ND(0.3)	ND(0.2)	ND(0.2)
L27_P120C	ND(0.3)	ND(0.2)	ND(0.2)
L27_P120D	ND(0.3)	ND(0.2)	ND(0.2)
L27_P190A	ND(0.3)	ND(0.2)	ND(0.2)
L27_P190B	ND(0.3)	ND(0.2)	ND(0.2)
L27_P190C	ND(0.3)	ND(0.2)	ND(0.2)
L27_P190D	ND(0.3)	ND(0.2)	ND(0.2)
L27_P150A	ND(0.3)	ND(0.2)	ND(0.2)
L27_P150B	ND(0.3)	ND(0.2)	ND(0.2)
L27_P150C	ND(0.3)	ND(0.2)	ND(0.2)
L27_P150D	ND(0.3)	ND(0.2)	ND(0.2)
L6_P60A	ND(0.3)	ND(0.2)	ND(0.2)
L6_P60B	ND(0.3)	ND(0.2)	ND(0.2)
L6_P60C	ND(0.3)	ND(0.2)	ND(0.2)
L6_P60D	ND(0.3)	ND(0.2)	ND(0.2)
L6_P30A	ND(0.3)	ND(0.2)	ND(0.2)
L6_P30B	ND(0.3)	ND(0.2)	ND(0.2)
L6_P30C	ND(0.3)	ND(0.2)	ND(0.2)
L6_P30D	ND(0.3)	ND(0.2)	ND(0.2)
L9_P30A	ND(0.3)	ND(0.2)	ND(0.2)
L9_P30B	ND(0.3)	ND(0.2)	ND(0.2)
L9_P30C	ND(0.3)	ND(0.2)	ND(0.2)
L9_P30D	ND(0.3)	ND(0.2)	ND(0.2)
L9_P60A	ND(0.3)	ND(0.2)	ND(0.2)
L9_P60B	ND(0.3)	ND(0.2)	ND(0.2)
L9_P60C	ND(0.3)	ND(0.2)	ND(0.2)
L9_P60D	ND(0.3)	ND(0.2)	ND(0.2)
L11_P370A	ND(0.3)	ND(0.2)	ND(0.2)

Results are in columns below. ND( ) is not detected with the reporting level in parenthesis. Soil PCB results are based on sample wet weight.			

## St. John's Cemetery, Monroe, CT - PCB Field Analytical Results

	04/13/09 - 04/17/09	
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## PCB Aroclor Results

	Wet Weight
1	1.0
2	1.0
3	1.0
4	1.0
5	1.0
6	1.0
7	1.0
8	1.0
9	1.0
10	1.0
11	1.0
12	1.0
13	1.0
14	1.0
15	1.0
16	1.0
17	1.0
18	1.0
19	1.0
20	1.0
21	1.0
22	1.0
23	1.0
24	1.0
25	1.0
26	1.0
27	1.0
28	1.0
29	1.0
30	1.0
31	1.0
32	1.0
33	1.0
34	1.0
35	1.0
36	1.0
37	1.0
38	1.0
39	1.0
40	1.0
41	1.0
42	1.0
43	1.0
44	1.0
45	1.0
46	1.0
47	1.0
48	1.0
49	1.0
50	1.0
51	1.0
52	1.0
53	1.0
54	1.0
55	1.0
56	1.0
57	1.0
58	1.0
59	1.0
60	1.0
61	1.0
62	1.0
63	1.0
64	1.0
65	1.0
66	1.0
67	1.0
68	1.0
69	1.0
70	1.0
71	1.0
72	1.0
73	1.0
74	1.0
75	1.0
76	1.0
77	1.0
78	1.0
79	1.0
80	1.0
81	1.0
82	1.0
83	1.0
84	1.0
85	1.0
86	1.0
87	1.0
88	1.0
89	1.0
90	1.0
91	1.0
92	1.0
93	1.0
94	1.0
95	1.0
96	1.0
97	1.0
98	1.0
99	1.0
100	1.0

ppm

[illegible]