EXHIBIT B

Monsanto

MONSANTO INDUSTRIAL CHEMICALS CO.
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166
Phone: (314) 694-1000

January 23, 1976

Mr. James Laubscher
Woodson Tenant Laboratories
P. O. Box 2135
Memphis, Tenn. 38102

Dear Mr. Laubscher:

I am writing to summarize the results of the round robin testing of ASTM D-3304, in which your laboratory participated. Twelve laboratories agreed to participated in the round robin testing of the water portion of ASTM D-3304, "Analysis of Environmental Materials for Polychlorinated Biphenyls." To date, results have been received from nine of these laboratories. Results from laboratory K were rejected when it was learned that one critical step of the method was omitted. Laboratory I reported a high background on the river and distilled water blanks relative to the low concentrations (~1 ppb) being analyzed. Their results for the low concentrations were not included in the tabulation. The sample listed in the first column for laboratory E was obviously contaminated since high values of both Aroclor 1016 and Aroclor 1254 were reported. These values were not included in the tabulation.

Current results of the study as of 1/22/76 are attached. The mean and standard deviation have been calculated for each sample. The bottom row lists values expected based on the experimental recoveries of Bellar and Lichtenberg.

Several trends are evident:

1. All mean values indicate incomplete recovery.

2. Mean values for PCB's in distilled water agree well with values predicted from Bellar and Lichtenberg.

3. Mean values for PCB's in river water are significantly lower than predicted from Bellar and Lichtenberg.

4. Overall accuracy and precision for different laboratories, as indicated by the standard deviations, is low.

MONS 093460

Most laboratories utilized only the extraction, concentration and measurement portions of the method. Hence the accuracy and precision found in this round robin testing may be typical of values obtainable with other methods which rely on similar principles. Differences in recoveries for distilled water versus river water (Meramec River, Kirkwood, Mo.) are probably not attributable to biodegradation, since the river water samples were preserved with sulfuric acid. Only laboratory L achieved close agreement for the different waters.

On behalf of ASTM Committee D-27, thank you for your participation in this study.

Sincerely,

James P. Mieure

James P. Mieure, Ph.D.

ss
Attachment

ASTM D-3304 PRELIMINARY RESULTS

All Concentrations Expressed as µg/l (ppb)

	Distilled Water				River Water					
Laboratory	1-12	13-24	25-36	37-48	49-60	61-72	73-84	85-96	97-108	109-120
A	0.8	0.5	23.4	---	9.3	0.6	6.6	0.3	0.0	0.0
B	0.78	1.0	18	15	10	0.61	8.8	0.34	---	---
C										
D										
E	27.5*	0.86	19.8	17.7	9.8	0.34	7.8	0.29		
F	1.00	0.82	19.3	20.4	8.93	0.39	4.87	0.44	0.09	0.00
G	1.22	1.03	25.3	22.8	12.4	.56	7.22	0.64	.08	.08
H										
I	2.78*	2.97*	21.8	9.98	16.4	2.71*	4.42	4.64*	2.55	1.43
J	0.67	1.2	18.5	25.0	9.63	0.69	8.26	0.19	---	---
K										
L	1.23	0.72	19.1	16.7	19.4	1.00	16.6	1.32	0.09	0.2
PCB (1016) Added (1254)	1.4	1.0	25.8	23	25.8	1.0	23	1.4	River Water Blank	Distille Water Blank
Mean	.95	.88	20.7	18.2	12.0	.60	8.1	.50		
Std. Deviation	.24	.23	2.6	5.0	3.9	.22	3.8	.39		
PCB Added X .7**	.98	.70	18.1	16.1	18.1	.70	16.1	.98		

* Not included in tabulation.

** T. A. Bellar and J. J. Lichtenberg, Water Quality Parameters, ASTM STP 573, report 70% recoveries of PCB's in water stored in glass bottles longer than 10 days.