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TITLE: PCB CONTENT OF MONKEY TISSUE

AUTHORS: Beverly J. Warner

ABSTRACT: A subacute feeding study to determine the effects of polychlorinated biphenyls (PCBs) on reproduction of adult Rhesus monkeys was carried out by Monsanto Industrial Chemicals Company. Monsanto Research Corporation, Dayton Laboratory, carried out the analysis of various biological samples (fat, skin, milk, placenta, blood) for PCBs. This report documents the analytical techniques utilized and the data obtained on over seven hundred individual samples.

Approved by: D. J. Dahm

D. J. Dahm
Manager
Environmental Analytical
Sciences Center

Approval Date: 5-4-79

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1. INTRODUCTION

This study is designed to determine the effects of polychlorinated biphenyl (PCB) compounds on the reproductive abilities of adult Rhesus monkeys and to determine effects on infants. In the course of that study, analyses were conducted for PCB residues in a series of materials.

An existing procedure for detecting PCBs in animal lipids [Kaley, et al., Bull. Env. Cont. & Tox., 15(6)1976] provided the basic methodology for PCB tissue analyses in this study. However, the following must be considered in reviewing and interpreting the reported tissue PCB concentrations. Although the original methodology had been used extensively for tissue analysis, it cannot be considered fully validated for the present application. It was necessary to modify extraction procedures for the variety of monkey tissues involved and the small sample sizes precluded statistical evaluation of the accuracy (recovery) and precision of the PCB determinations in the various matrixes. Thus, it is extremely difficult to determine whether variations in PCB tissue concentrations for an individual animal, or between different animals, are significant differences or the result of analytical variability. The limited size of the samples introdices its own difficulties. On a relative basis, it tends to increase analytical variability, particularly as the concentration of the material sought decreases. Small sample sizes also increase the probability of inhomogeneity, which contributes more variability.

2. ANALYSIS OF SAMPLES FOR PCB'S

2.1 COLLECTION OF SAMPLES

Forty-eight adult Rhesus monkeys were involved in a feeding study in which they were fed Aroclor 1254 (a PCB compound composed of 12 carbon atoms and 54% chlorine per molecule) for a period of one year. Fat biopsies were analyzed for PCB content approximately every two months during the study, which included both the one-year feeding program, and an eight-month relaxation period. The initial samples in the study, approximately one hundred adult fat samples, were analyzed by the Monsanto Industrial Chemicals (MIC) Company in St. Louis, Missouri. All subsequent analyses were performed at Monsanto Research Corporation (MRC), Dayton Laboratory. The feeding studies, including excision of tissue samples, were carried out by Litton Bionetics, Kensington, Maryland.

The animals were divided into four groups consisting of twelve monkeys each (eight females and four males) for the purpose of this study. One group of animals was used as a control group, and received no PCB's. The remaining three groups were fed low, medium, and high dosages of PCB (5 µg PCB per kg of body weight per day, 25 µg/kg per day, and 100 µg/kg per day, respectively). The animal sample identifications for the individual animals within each group are presented in Table 1. The PCB's administered to the animals were fed as a dietary supplement. Corn oil spiked with Aroclor 1254 was mixed with applesauce and then fed to the monkeys in addition to their normal daily diet of monkey chow. MIC has analyzed portions of each individual batch of corn oil used; this data is presented in Table A-1 in Appendix A. A representative sample of the monkey chow fed as a regular dietary staple was also analyzed for any background PCB levels present. These data are presented in Table B-1 in Appendix B.

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TABLE 1. SAMPLE IDENTIFICATIONS DESIGNATED FOR RHESUS MONKEYS USED IN THE FEEDING PROGRAM

Control Group		Low Group	
764-E	Female	309-I	Female
618-I	Female	483-F	Female
604-I	Female	646-E	Female
578-H	Female	701-E	Female
274-F	Female	839-H	Female
569-H	Female	284-I	Female
200-F	Female	605-F	Female
87-F	Female	624-I	Female
227-G	Male	516-G	Male
739-F	Male	119-H	Male
426-G	Male	432-J	Male
418-J	Male	428-J	Male

Medium Group		High Group	
273-I	Female	152-F	Female
540-H	Female	486-H	Female
841-H	Female	226-F	Female
281-G	Female	269-I	Female
763-E	Female	312-I	Female
307-I	Female	287-I	Female
757-I	Female	770-I	Female
762-E	Female	338-I	Female
599-I	Male	706-E	Male
20-I	Male	425-J	Male
46-I	Male	427-J	Male
595-I	Male	600-I	Male

In addition to the adult fat samples analyzed for PCB content, numerous infant Rhesus monkeys born to the female adults were biopsied and analyzed for PCB's they may have accumulated both during gestation, and after birth as a result of nursing. These baby monkeys (enumerated in Table 2) were biopsied on an intermittent basis, and in most cases, skin samples were analyzed rather than fat tissue.

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TABLE 2. SAMPLE DESIGNATIONS FOR INFANT MONKEYS AND PCB DOSE LEVELS OF THEIR MOTHERS

Animal Designation	Mother Dose Level
B-8483	Control
B-8518	Control
B-8532	Control
B-8533	Control
B-8557	Control
B-8574	Control
B-8621	Control
B-8527	Low
B-8562	Low
B-8604	Low
B-8754	Low
B-8815	Low
B-8511	Medium
B-8546	Medium
B-8559	Medium
B-8560	Medium
B-8592	Medium
B-8603	Medium
B-8860	Medium
B-8542	High

Throughout the program, various types of additional samples were analyzed on an "as provided" basis. Several milk (colostrum) samples taken from nursing mothers, placental samples, and blood serum samples were submitted on an irregular basis. Many of these samples required special processing techniques due to small sample sizes and/or matrix effects. All modifications developed to the established procedure are outlined in the Experimental Procedures section.

2.2 EXPERIMENTAL PROCEDURES

2.2.1 Summary of the Analytical Procedure

The procedure used to analyze monkey tissue is taken primarily from the article entitled "Tissue Residues from Subacute Oral Feeding of Polychlorinated Biphenyl Dielectric Fluids," by Kaley,

et al, appearing in the Bulletin of Environmental Contamination and Toxicology, Vol. 15, No. 6, 1976. Briefly, the method is as follows: the entire sample (the sample size for an adult fat sample averages 0.5 to 2 grams instead of 10-gram sample size suggested in the procedure) received is accurately weighed and homogenized three times with three 25-ml portions of hexane. The combined supernatants and washings are filtered through a bed of anhydrous sodium sulfate (that has previously been dried at 400°C), and diluted to 100 ml in a volumetric flask. A 25 ml aliquot of the solution is evaporated to determine the lipid weight of the sample. A separate 25 ml portion of the sample is pipetted onto an adsorption column prepared by placing a plug of glass wool (previously dried at 400°C) in a chromatography column followed by a 15-20 cm bed of alumina (dried at 400°C and then deactivated to 5% with distilled water) and then a 2-3 cm bed of anhydrous sodium sulfate. The PCB's are eluted with approximately 150 ml of pesticide grade hexane. The eluate is transferred to a 500 ml Kuderna-Danish evaporative concentrator fitted with a three-ball Snyder column and reduced on a steam bath to approximately 5 ml. The resulting concentrate is analyzed by gas chromatography utilizing an electron capture detector. The gas chromatographic conditions are listed in Table 3.

TABLE 3. GAS CHROMATOGRAPHIC CONDITIONS

Instrument:	Varian Model 3700 Gas Chromatograph with Ni-63 Electron Capture Detector
Column:	2 m x 1/4 in. glass column packed with 4% XE-60 on 80/100 mesh Chromosorb W-HP
Injection Port Temp:	220°C
Detector Temperature:	350°C
Column Temperature:	200°C isothermal
Carrier Gas:	High Purity Nitrogen
Carrier Gas Flow Rate:	40 ml/min

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2.2.2 Modifications to the Procedure

The procedure, as written, can be easily applied to the analysis of adult fat, skin, omentum, liver, and placento, and to baby liver samples due to the relatively large sample sizes supplied. However, several modifications to the procedure are necessary to accommodate the reduced sample sizes of the baby monkey skin fat, and muscle samples, and the special handling problems encountered with the minute sample sizes of the milk and blood serum samples. In addition, the project requires the development of an analysis scheme for the determination of PCB in the monkey chow samples.

2.2.1.1 Modifications Required for Baby Skin, Fat, and Muscle Samples--

Baby monkey samples submitted for analysis are analyzed following the procedure by Kaley, et al, with volumes reduced when possible due to the smaller sample sizes received. The entire sample received is homogenized three times with separate 5 ml portions of hexane. No attempt is made to remove hair or other extraneous matter from the skin samples. The combined supernatants and washings are filtered through sodium sulfate and diluted to 25 ml in a volumetric flask. A 10 ml portion of the resulting solution is evaporated to determine the lipid weight of the sample. A separate 10 ml portion is placed through an adsorption column composed of approximately 7 cm of alumina and 2 cm of anhydrous sodium sulfate. The PCB's are eluted with about 100 ml of hexane. The column eluate is collected and placed in a Kuderna-Danish evaporative concentrator and reduced to a volume of approximately 3-5 ml. The resulting concentrate is then analyzed by gas chromatography.

2.2.2.2 Modifications Required for Milk (Colostrum) and Blood Serum Samples--

Due to the minute milk and blood serum samples received, micro techniques for PCB analysis are required. A 100 µl syringe is

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accurately weighed containing approximately 100 µl of monkey milk or blood serum. The sample is then discharged to the top of an adsorption column prepared by placing a small glass wool plug in a disposable, graduated, 10 ml pyrex pipette cut to approximately 150 mm in length, followed by 60 cm of alumina and 20 cm of anhydrous sodium sulfate. The syringe is weighed again to determine the weight of sample by difference. The sample is washed through the column by 7 ml of hexane and collected in a vial. The hexane eluate is then placed under a gentle stream of purified dry nitrogen and reduced to approximately 100 µl. The resulting solution is analyzed by gas chromatography.

2.2.2.3 Modifications Required for Monkey Chow Samples--
A special handling scheme was devised for the analysis of the monkey chow pellets. Approximately 50 grams (10-15 pellets) of monkey chow is finely ground with a mortar and pestle. The monkey chow is thoroughly mixed, and a 10-gram sample is accurately weighed and placed in a 33 mm x 94 mm single thickness cellulose extraction thimble inside a medium sized (85 ml capacity of the tube to the top of the siphon) Soxhlet extraction apparatus. Two hundred ml of hexane is added to a 300-ml round-bottomed flask which is fitted to the Soxhlet extractor. The solution is allowed to reflux for 12 hours, and is then cooled to room temperature. The resulting solution is reduced to approximately 10 ml in a Kuderna-Danish evaporative concentrator. This concentrate is then eluted through the alumina/sodium sulfate chromatography column system with 200 ml of hexane. The hexane eluate is then again reduced in volume in a Kuderna-Danish concentrator to approximately 5 ml. The resulting concentrate is subsequently analyzed by gas chromatography.

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3. ANALYSIS AND RESULTS

3.1 ANALYSIS BY GAS CHROMATOGRAPHY OF THE EXTRACTED TISSUE SAMPLES

All sample extracts are analyzed by electron capture gas chromatography utilizing the Varian Model 3700 GC with a Ni-63 detector. Peak area integration is accomplished by the Hewlett-Packard Model 3350 Laboratory Automation Computer Data System. Aroclor 1254 standards are prepared monthly, and five to seven standards are analyzed daily. From these standards (Figures 1 and 2 give two representative standard chromatograms), a daily calibration curve is prepared. All sample extracts analyzed are compared to the daily curves. Figures 3 through 6 are typical chromatograms obtained for a control, low, medium, and high dose adult animal fat tissue extract, respectively.

For purposes of quantification, only eight characteristic Aroclor 1254 peaks are used. These eight peaks, which have been marked in Figures 1 and 2, were chosen because they give good linearity over the working concentration range, and little, if any, interference was found in this retention time window. Interferences do occur earlier in the chromatograms of the monkey tissue samples. These interferences most likely result from EC active substances found in tissue that are not removed by the alumina column clean-up procedure.

3.2 RESULTS OBTAINED IN THE STUDY

3.2.1 Adult Rhesus Monkey Fat Samples

Due to the extremely large number of adult Rhesus monkey fat samples analyzed, a large volume of data has been generated. In order to present the data in a manageable fashion, two tables compiling the final PCB values for the entire project are included. These tables include the PCB values obtained by both

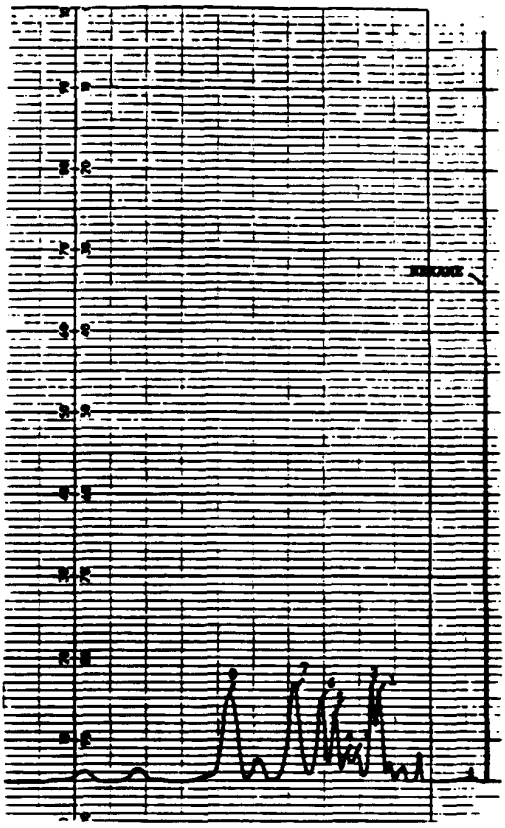

Figure 1. Chromatogram of 0.216 mg/ℓ Aroclor 1254 standard solution.

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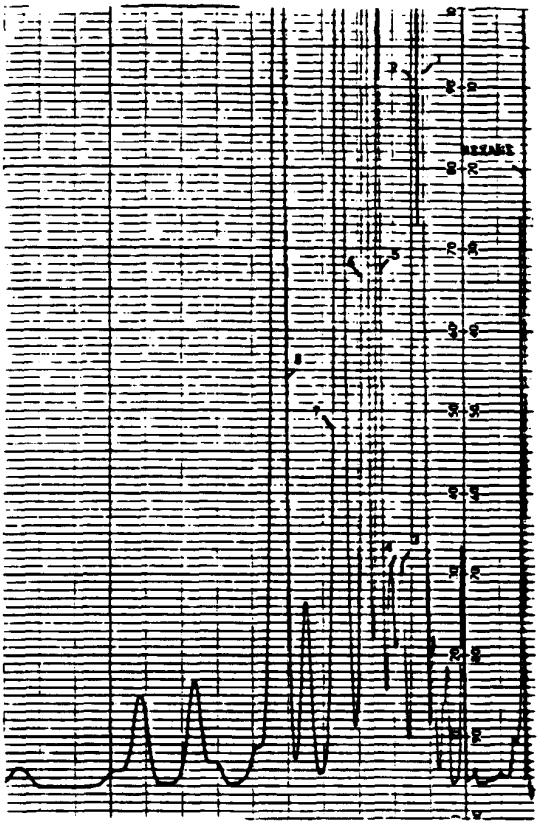

Figure 2. Chromatogram of 1.360 mg/ℓ Aroclor 1254 standard solution.

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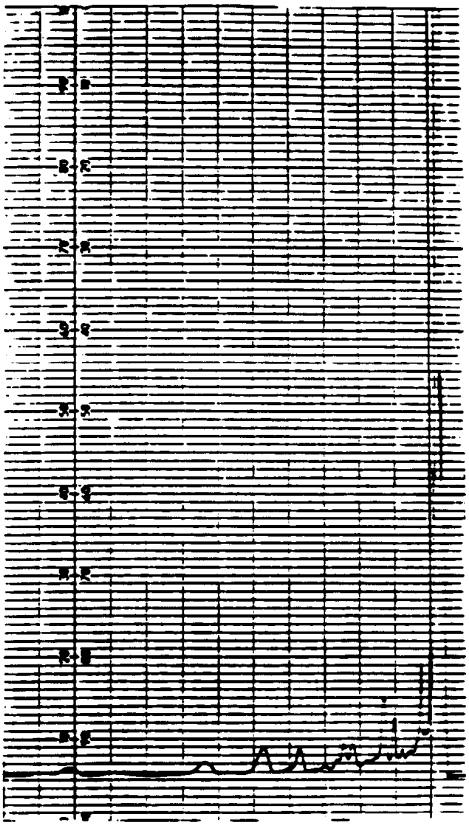

Figure 3. Chromatogram obtained from the analysis of a control dose adult fat tissue extract.

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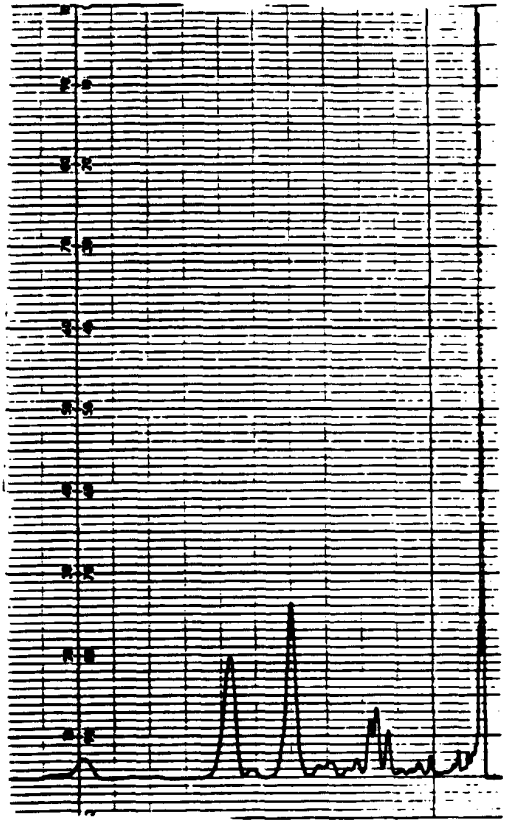

Figure 4. Chromatogram obtained from the analysis of a low dose adult fat tissue extract.

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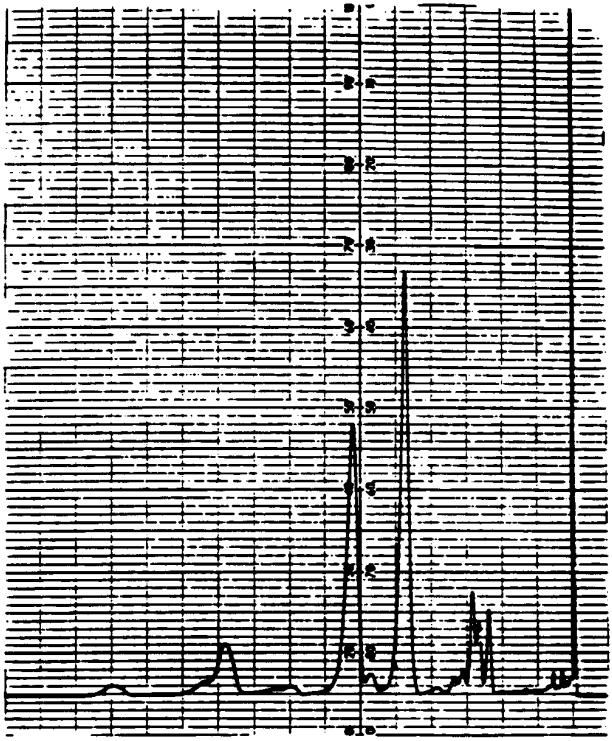

Figure 5. Chromatogram obtained from the analysis of a medium dose adult fat tissue extract.

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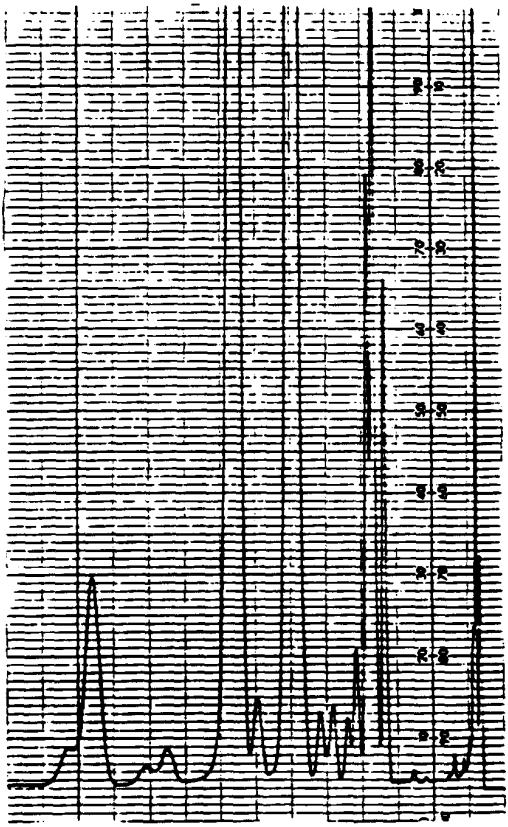

Figure 6. Chromatogram obtained from the analysis of a high dose adult fat tissue extract.

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MIC and by MRC. Table 4 tabulates the PCB values found in the monkey fat tissue samples on a lipid weight basis. Table 5 lists those values on a wet weight basis. The values presented in both tables are in terms of µg of PCB per g of weight (lipid or wet).

For a more thorough review of the data generated during this project, Tables 6 through 19 can be found to give complete data for each individual sampling date. Data entries of each sample included in these tables are sample identification and type, the date the sample was shipped, the date it was excised from the animal, the dose level (control, low, medium, or high), the number of ng of PCB in the sample analyzed, the wet weight of the sample, the lipid weight, the percent of the total weight represented by the lipid weight, and the µg/g of PCB on both a wet weight and lipid weight basis.

Sampling dates in the study include a predrug sample (Table 6), samples taken during the feeding portion of the study (Tables 7 through 13), and those samples taken after the oral administration of PCB had ceased (Tables 14 through 19). Feeding dates for the adult animals commenced on 4 April 1977 for all animals except 483-F, for which the first day of drug administration was 19 April 1977. Feeding of PCB's to the animals continued through April 1978. The animals were then monitored through December 1978 to examine the rate at which PCB's are expelled from the tissue.

The following key can be used to identify sample types in all subsequent tables in this report.

B = Baby Skin Sample	L = Liver Sample (Adult Animal)
Bf = Baby Fat Sample	m = Male
Bl = Baby Liver Sample	M = Milk (Colostrum) Sample
Bm = Baby Muscle Sample	O = Omentum Sample (Adult Animal)
C = Monkey Chow Sample	P = Placenta Sample
f = Female	S = Skin Sample (Adult Animal)
F = Fat Sample (Adult Animal)	Se = Blood Serum Sample

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TABLE 4. CUMULATIVE PCB VALUES FOR ADULT FAT SAMPLES ON A LIPID WEIGHT BASIS (ug/g)

Sample I.D.	Dose Level	Pre-Drug 3/77	5/77	7/77	8/77	9/77	11/77	1/78	1/78	5/78	6/78	8/78	11/78	Final 12/78
764-E f	Control	0.59	0.65	0.73	1.04	0	0.15	5.81	0.28	#	0.16	0.12	1.42	0.63
618-I f	Control	0.77	0.46	4.52	0.24	0	0.20	0.29	0.52	#	0.09	0.08	1.08	0.30
604-I f	Control	1.00	0.88	1.45	0.94	#	0.49	0.39	0.27	#	0.89	0.48	0.96	0.51
578-H f	Control	1.49	0.84	2.79	3.08	#	0.39	0.56	0.32	#	1.10	0.45	6.71*	3.18
274-F f	Control	0.59	1.21	1.20	0.21	#	0.27	2.48	0.76	#	0.17	0.36	0.48*	0.41
569-H f	Control	0.72	0.61	0.70	0.18	#	0.20	0.42	0.35	0.20	0.06	0.22	0.91	0.34
388-F f	Control	0.49	0.36	0.76	0.20	#	0.13	0.76	0.65	#	#	0.25	6.81	0.57
87-F f	Control	0.20	Lost@	0.77	0.39	#	0.13	0.34	0.41	0.27†	-	-	-	-
227-G m	Control	Lost@	0.15	0.57	0.27	#	0.29	0.09	0.55	0.20	0.02	0.45	0.32	0.62
739-F m	Control	0.91	0.58	1.03	1.30	#	0.48	4.18	0.61	0.67	0.49	0.33	2.36	0.85
426-G m	Control	34.0	0.52	2.72	2.49	#	0.70	1.33*	10.2*	2.45*	2.36	0.21	8.90	61.2
418-J m	Control	0.74	0.50	1.26	0.81	#	1.38*	3.33	1.35	1.69*	0.49	0.53	0.60	0.56
309-I f	Low	0.49	0.51	2.36	0.15	#	1.51	1.76	2.93	2.26	#	#	4.11	2.50
483-F f	Low	0.42	1.60	4.74	0.92*	#	5.97	9.86*	0.81*	13.0*	#	#	7.25	3.64
646-E f	Low	0.34	0.22	1.10	0.13	#	1.40	3.38	2.13	2.37	2.27	2.22	5.32	2.43
701-E f	Low	2.31	1.29	1.84	0.35	#	3.36	3.48	2.96	#	#	3.11	7.73*	2.09
839-H f	Low	0.36	0.90	0.67	3.64	#	1.26	2.20	2.65	3.19	2.85	1.69	5.13	2.10
284-I f	Low	2.22	4.39	3.55	24.8*	#	4.85	3.16	6.47	5.62	#	#	4.25	4.41
605-F f	Low	0.39	0.60	1.80	0.91	#	1.47	2.96	2.44	#	2.60	3.47	4.03	5.53
624-I f	Low	1.10	0.53	1.50	0.32	#	1.65	1.97	2.31	#	1.31	1.89	2.91	1.60
516-G m	Low	0.73	1.84	1.85	0.29	#	5.75	8.89	17.8	10.1	7.94	5.18	7.08	3.11
119-H m	Low	1.52	0.82	2.90	2.97	#	5.41	10.7	20.2	8.27	7.84	5.14	5.78	5.08
432-J m	Low	1.67	4.70	1.50	0.92	#	1.63	5.37	17.1*	8.05*	7.73	1.65	4.38	2.17
428-J m	Low	0.38	1.19	3.30	0.12	#	6.64	7.18	10.8	10.1	5.41	5.74	5.07	3.34

@@Lipid weight determinations lost for these samples.
#No sample received.
*Analyzed by MIC.
@Omentum samples.
†Terminal animal.
#Reported only on a wet weight basis by MIC.

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MONS 016039

TABLE 4 (continued)
(µg/g)

Sample I.D.	Dose Level	Pre-Drug 3/77	5/77	7/77	8/77	9/77	11/77	1/78	3/78	5/78	6/78	8/78	11/78	Final 12/78
273-I f	Medium	0.79	4.10	7.74	12.1	Lost[a]	15.6	10.9	11.9	*	12.6	13.0	15.7	11.0
540-H f	Medium	1.16	3.02	6.70	14.0	Lost[a]	11.9	21.0	20.2	*	29.1	20.4	45.2	23.0
841-H f	Medium	0.09	3.50	15.7	19.7	Lost[a]	32.3[e]	21.3	19.3	*	53.6	39.2	48.6	*
281-G f	Medium	0.69	Lost[b]	9.73	10.4	Lost[a]	15.5	11.4	27.3	35.9	35.8	27.1	*	10.3
763-H f	Medium	0.71	2.99	4.33	8.70	Lost[a]	9.68	8.72	12.0	*	10.3	26.9	23.0	12.0
307-I f	Medium	0.51	0.69	3.00	4.50	Lost[a]	5.79	10.0	37.6	15.7	10.7	19.7	26.7	20.4
757-I f	Medium	3.09	6.36	19.30	8.69	Lost[a]	31.5	43.6	28.0	*	44.9	76.3	57.0[d]	30.9
763-H f	Medium	0.26	1.53	4.70	6.23	Lost[a]	12.7	10.2	31.2	*	58.1	8.82[e]	743[e]	9.98
599-I m	Medium	3.74	4.30	7.75	10.4	0	7.27	30.3	31.6	26.8	35.1	20.1	18.8	18.2
20-I m	Medium	0.49	1.80	4.09	6.56	0	11.4	18.2	23.8	39.4	27.9	31.5	42.1	32.2
46-I m	Medium	0.36	0.52	2.60	3.22	0	4.34	6.05	10.5	10.4	13.1	9.65	9.66	6.99
595-I m	Medium	3.20	7.20	13.40	14.3	0	8.74	57.0	71.1	94.4	92.9	37.4	51.9	30.1
153-F f	High	0.66	[c]	49.0	74.90	0	170.60	474[e]	466[f]	-	-	-	-	-
406-H f	High	1.72	[c]	65.4	47.20	0	69.1	51.0	156[e]	236[f]	-	-	-	-
226-F f	High	1.63	16.0	10.8	17.40	0	25.60	41.0	53.1	70.4	52.7	89.7	299[e]	306
260-I f	High	0.30	4.55	10.0	48.0	0	14.10	254[e]	148[e]	174	165	58.4	78.3[e]	50.1
313-I f	High	0.20	[c]	20.7	21.6	0	10.3	20.5	38.8	*	71.7	79.8	131	41.2
287-I f	High	0.90	[c]	69.1	81.0	0	82.90	85.0	90.6	190	346	46.9	97.0[e]	50.7
770-I f	High	0.44	10.4	27.2	25.50	0	53.9	192	297	475[f]	-	-	-	-
330-I f	High	0.99	[c]	63.8	80.8	0	25.0	93.9	99.5	163	166	0.57	1,401	*
706-H m	High	0.46	30.5	48.3	43.00	0	Lost	145	161	350[e]	167	723	*	*
425-J m	High	2.36	26.2	35.2	48.80	0	37.40	74.5	16.0	138[e]	87.6	30.7	66.0[e]	29.3
427-J m	High	1.50	[c]	11.0	13.8	0	22.80	47.5	111[e]	92.1	50.6	14.3	20.7	30.7
600-I m	High	0.50	12.8	19.7	26.3	0	25.5	139	300	334	146	27.3	207	79.7

[a]Lipid weight determinations lost for these samples.
[c]No sample received.
[d]Analyzed by MIC.
[e]Quantum samples.
[f]Terminal animal.
[g]Reported only on a wet weight basis by MIC.

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TABLE 5. CUMULATIVE PCB VALUES FOR ADULT FAT SAMPLES ON A WET WEIGHT BASIS
(μg/g)

Sample I.D.	Dose Level	Pre-Drug 3/77	5/77	7/77	8/77	9/77	11/77	1/78	3/78	5/78	6/78	8/78	11/78	Final 12/78
764-E f	Control	*	0.56	0.58	*	Lost*	0.11	4.51	0.22	#	0.12	0.12	6.01	0.50
618-I f	Control	0.64	0.44	1.89	*	Lost*	*	0.26	0.44	#	0.08	0.03	0.09	0.27
604-I f	Control	0.67	0.56	0.81	*	Lost*	*	0.36	0.22	#	0.62	0.14	0.93	0.37
578-H f	Control	0.78	0.57	2.23	2.02	Lost*	*	0.44	0.25	#	0.41	0.17	0.60*	0.77
274-F f	Control	*	0.86	0.93	0.09	Lost*	0.20	1.66	0.56	#	0.12	0.17	0.17*	0.21
560-H f	Control	0.59	0.49	0.60	0.15	Lost*	*	0.36	0.20	0.17	0.06	0.07	0.70	0.30
200-F f	Control	*	0.20	0.64	0.16	Lost*	0.11	0.65	0.52	#	#	0.11	0.60	0.51
87-F f	Control	*	Lost	0.63	*	Lost*	0.11	0.29	0.32	0.19†	-	-	-	-
227-G m	Control	Lost*	0.12	0.07	0.22	0.40	0.24	0.72	0.47	0.16	0.02	0.13	0.26	0.56
739-F m	Control	0.74	0.33	0.75	*	1.30	0.29	1.67	0.31	0.32	0.13	0.16	1.06	0.77
426-G m	Control	3.21	0.23	0.74	*	1.00	*	0.55*	0.75*	0.36*	0.37	0.06	0.56	0.49
418-J m	Control	*	0.36	0.92	0.24	1.30	*	1.94	0.46	0.60*	0.25	0.16	0.27	0.44
309-I f	Low	0.35	0.42	*	0.13	1.30	1.42	1.51	2.42	1.80	#	#	3.26	2.24
483-F f	Low	0.46	*	1.61	0.30*	7.3*#	3.01	5.32*	5.61*	5.54*	#	#	3.09	2.44
646-E f	Low	0.31	0.18	*	0.10	1.80	1.69	2.88	1.85	1.76	1.82	1.86	4.03	2.15
781-E f	Low	0.51	*	1.17	0.24	4.20	2.86	2.62	2.20	#	#	2.25	2.26*	1.51
839-E f	Low	0.30	*	0.57	2.90	1.80	1.83	1.96	2.20	2.60	2.10	1.67	4.19	1.93
284-I f	Low	1.34	*	1.38	6.42*	5.2*#	2.02	2.53	4.71	3.42	#	#	2.75	2.01
405-F f	Low	0.32	0.31	*	0.76	2.30	1.94	2.61	1.98	#	2.04	2.08	3.18	4.96
624-I f	Low	0.61	0.43	*	0.27	2.20	2.15	1.74	4.07	#	1.03	3.80	2.48	1.44
516-G m	Low	0.51	*	1.26	0.20	5.10	3.40	4.30	6.60	7.42	3.53	3.20	3.09	2.03
119-H m	Low	1.17	0.59	*	2.39	3.50	4.40	5.03	9.37	1.87	2.72	3.51	3.59	3.05
432-J m	Low	0.70	*	0.43	0.27	2.60	1.27	1.89	5.83*	4.01*	1.88	1.03	1.67	1.62
428-J m	Low	0.26	0.95	*	0.09	4.40	7.16	5.17	5.57	6.00	3.03	4.23	3.88	2.72

*Reported only on a lipid weight basis by MIC.
#No sample received.
†Quantum samples.
§Analyzed by MIC.
¶Terminal animal.

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TABLE 5 (continued)
(µg/g)

Sample I.D.	Dose Level	Pre-Drug 3/77	5/77	7/77	9/77	9/77	11/77	1/78	3/78	5/78	6/78	8/78	11/78	Final 12/78
273-I f	Medium	0.50	*	6.22	10.5	8.5*	13.8	9.75	9.63	*	8.68	11.7	13.0	9.93
540-H f	Medium	0.50	2.74	*	10.8	14.3*	10.7	16.0	16.5	*	22.2	8.62	21.9	19.2
841-H f	Medium	0.98	*	10.1	12.4	19.8*	22.4*	13.4	14.0	*	38.8	14.3	13.7	*
281-G f	Medium	0.51	Lost**	7.02	7.54	12.4*	10.4	7.46	22.9	29.7	20.8	21.5	*	9.09
763-E f	Medium	0.54	*	3.49	7.48	6.9*	7.09	7.39	10.5	*	13.0	10.1	15.7	10.4
307-I f	Medium	0.42	0.60	*	12.7	6.6*	4.86	6.19	14.0	13.2	14.6	16.2	20.9	10.1
757-I f	Medium	1.99	0.74	*	4.60	22.7*	19.9	33.2	20.4	*	29.2	5.94	36.1*	20.0
762-E f	Medium	0.21	1.34	*	4.47	6.7*	8.79	15.3	21.5	*	21.4	2.84*	22.3*	5.55
599-I m	Medium	0.64	*	6.13	7.82	14.3*	5.12	17.7	25.0	10.8	21.4	11.1	5.36	16.5
20-I m	Medium	0.43	*	4.41	5.66	7.3*	9.03	13.6	20.0	31.5	18.2	13.6	20.0	27.0
46-I m	Medium	0.31	0.44	*	2.74	3.6*	3.21	4.92	8.40	7.83	10.4	8.38	7.77	6.27
595-I m	Medium	1.36	4.01	*	11.8	13.9*	4.84	24.0	24.5	37.8	3.32	27.9	12.9	29.0
153-F f	High	0.50	17.5	36.0	*	47.7*	*	41.7*	4.84†	-	-	-	-	-
486-H f	High	1.06	16.4	42.8	*	27.3*	32.9	22.6	61.8*	6.97†	-	-	-	-
226-F f	High	1.13	13.1	16.4	*	21.8*	*	31.9	45.9	56.6	42.8	13.7	106*	41.8
269-I f	High	*	2.05	15.6	27.8	28.9*	*	52.7*	77.4*	115	43.3	27.4	55.5*	39.0
313-I f	High	*	5.35	17.4	18.5	24.5*	8.84	24.8	30.3	*	55.8	39.6	71.8	31.3
287-I f	High	*	10.4	13.3	32.1	24.5*	*	47.3	56.1	125	17.7	3.47	95.6*	30.8
778-I f	High	0.35	8.66	10.3	*	38.8*	33.5	79.3	35.9	152†	-	-	-	-
338-I f	High	*	12.8	39.9	51.1	36.6*	10.5	67.3	88.1	122	87.8	1.97	103	*
706-E m	High	0.37	16.1	37.5	*	36.8*	Lost	37.8	61.4	125*	23.1	172	*	*
425-J m	High	1.37	18.5	11.4	*	12.1*	*	29.8	5.15	82.9*	67.3	13.7	36.8*	21.8
427-J m	High	*	13.7	8.67	11.3	18.1*	*	17.3	64.9*	55.3	33.9	6.81	11.6	21.8
600-I m	High	*	10.6	16.7	22.1	21.8*	20.1	86.8	136	125	74.9	13.1	41.6	50.4

*Reported only on a lipid weight basis
**No sample received.
*Quantum samples.
†Analyzed
‡Terminal animal.

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MONS 014042

TABLE 6. PCB CONTENT OF ADULT FAT SAMPLES RECEIVED WITH ORIGINAL SHIPMENT SHIPPED 27 MARCH 1978 (PRE-DRUG SAMPLES)

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	Aroclor 1254 (mg)	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. (%) x 1000
604-I f*	F	3/27/78	3/28/77	Control	400.2	0.5983	0.67	0.3984	1.00	67
578-H f	F	3/27/78	3/28/77	Control	<247.9	0.3176	<0.78	0.1664	<1.49	52
569-H f	F	3/27/78	3/28/77	Control	<205.1	0.3485	<0.59	0.2060	<0.72	02.
618-I f	F	3/27/78	3/28/77	Control	279.1	0.4354	0.64	0.3640	0.77	84
739-F m	F	3/27/78	3/30/77	Control	413.8	0.5569	0.74	0.4568	0.91	82
626-G m	F	3/27/78	3/30/77	Control	<231.2	0.1919	<1.21	0.0068	<34.0	3.5
284-I f	F	3/27/78	3/28/77	Low	<211.9	0.1586	<1.34	0.0956	<2.22	60
605-F f	F	3/27/78	3/28/77	Low	<203.2	0.6381	<0.32	0.5156	<0.39	81
483-F f	F	3/27/78	4/14/77**	Low	103.9	0.2278	0.46	0.2468	0.42	108
309-I f	F	3/27/78	3/28/77	Low	144.5	0.4080	0.35	0.2960	0.49	73
846-E f	F	3/27/78	3/28/77	Low	<232.6	0.7518	<0.31	0.6828	<0.34	91
839-H f	F	3/27/78	3/28/77	Low	<224.5	0.7416	<0.30	0.6292	<0.36	85
624-I f	F	3/27/78	3/28/77	Low	<231.6	0.3786	<0.61	0.2108	<1.10	56
701-E f	F	3/27/78	3/28/77	Low	<223.4	0.4402	<0.51	0.0968	<2.31	22
420-J m	F	3/27/78	3/30/77	Low	<275.0	1.0404	<0.26	0.722	<0.38	69
432-J m	F	3/27/78	3/30/77	Low	<245.2	0.3528	<0.70	0.1468	<1.67	42
119-H m	F	3/27/78	3/30/77	Low	645.4	0.5503	1.17	0.4252	1.52	77
516-G m	F	3/27/78	3/30/77	Low	935.9	1.8217	0.51	1.2802	0.73	71
20-I m	F	3/27/78	3/30/77	Medium	1,022	2.3742	0.43	2.0776	0.49	88
595-I m	F	3/27/78	3/30/77	Medium	853.8	0.6367	1.34	0.2668	3.20	42
46-I m	F	3/27/78	3/30/77	Medium	<241.1	0.7866	<0.31	0.6640	<0.36	84
599-I m	F	3/27/78	3/30/77	Medium	<235.1	0.3653	<0.64	0.0628	<3.74	17
281-G f	F	3/27/78	3/27/77	Medium	488.7	0.9645	0.51	0.7100	0.69	74
757-I f	F	3/27/78	3/29/77	Medium	<776.1	0.3900	<1.99	0.2512	<3.09	64
762-E f	F	3/27/78	3/29/77	Medium	<228.9	1.1048	<0.21	0.8764	<0.26	79
307-I f	F	3/27/78	3/29/77	Medium	233.8	0.5386	0.43	0.4604	0.51	85
763-E f	F	3/27/78	3/29/77	Medium	<256.4	0.4735	<0.54	0.3604	<0.71	76
861-H f	F	3/27/78	3/29/77	Medium	<282.4	0.2867	<0.98	0.3168	<0.89	110
540-H f	F	3/27/78	3/29/77	Medium	<251.4	0.4994	<0.50	0.2168	<1.16	43
273-I f	F	3/27/78	3/29/77	Medium	362.2	0.4491	0.58	0.3304	0.79	74
906-E m	F	3/27/78	3/30/77	High	664.7	1.8033	0.37	1.5052	0.44	87
226-F f	F	3/27/78	3/29/77	High	752.4	0.6654	1.13	0.4624	1.63	69
486-H f	F	3/27/78	3/29/77	High	672.3	0.6349	1.06	0.3900	1.72	61
770-I f	F	3/27/78	3/29/77	High	<223.4	0.6326	<0.35	0.5004	<0.44	80
152-F f	F	3/27/78	3/27/77	High	462.8	0.9295	0.50	0.7176	0.64	77
425-J m	F	3/27/78	3/30/77	High	635.1	0.4646	1.37	0.2940	2.16	63

**Marked "substitute" on sample package.

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TABLE 7. PCB CONTENT OF ADULT FAT SAMPLES RECEIVED WITH ORIGINAL SHIPMENT SHIPPED 27 MARCH 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	0ng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
739-F m	F	3/27/78	5/2/77	Control	160.4	0.5055	0.33	0.2888	0.58	57
426-G m	F	3/27/78	5/2/77	Control	<115.5	0.4961	<0.23	0.2216	<0.52	45
227-G m	F	3/27/78	5/2/77	Control	<181.4	1.4535	<0.12	1.2476	<0.15	86
418-J m	F	3/27/78	5/2/77	Control	<164.0	0.4772	<0.34	0.3308	<0.50	69
646-E f	F	3/27/78	5/3/77	Low	125.9	0.6898	0.18	0.5696	0.22	83
605-F f	F	3/27/78	5/3/77	Low	426.0	1.3727	0.31	1.0588	0.40	77
119-H m	F	3/27/78	5/3/77	Low	657.6	1.1062	0.59	0.8032	0.82	73
428-J m	F	3/27/78	5/3/77	Low	1,631	1.7126	0.95	1.3676	1.19	80
624-I f	F	3/27/78	5/3/77	Low	453.7	1.0587	0.43	0.8568	0.53	81
309-I f	F	3/27/78	5/3/77	Low	444.7	1.0540	0.42	0.8680	0.51	82
307-I f	F	3/27/78	5/3/77	Medium	803.2	1.3458	0.60	1.1628	0.69	86
757-I f	F	3/27/78	5/3/77	Medium	286.0	0.2794	0.74	0.0324	6.36	12
46-I m	F	3/27/78	5/4/77	Medium	527.2	1.2044	0.44	1.0232	0.52	85
762-E f	F	3/27/78	5/3/77	Medium	2,036	1.5172	1.34	1.3340	1.53	88
540-E f	F	3/27/78	5/3/77	Medium	4,244	1.5498	2.74	1.1124	3.82	72
505-I m	F	3/27/78	5/4/77	Medium	2,400	0.4893	4.91	0.3332	7.20	68
770-I f	F	3/27/78	5/4/77	High	7,499	0.8677	8.64	0.7284	10.4	83
600-I m	F	3/27/78	5/4/77	High	12,500	1.1740	10.6	0.9768	12.8	83
269-I f	F	3/27/78	5/4/77	High	2,492	0.8750	2.85	0.5488	4.55	63
706-E m	F	3/27/78	5/4/77	High	11,070	0.6880	16.1	0.3632	30.5	53
425-J m	F	3/27/78	5/4/77	High	7,673	0.7308	10.5	0.2932	26.2	40
226-F f	F	3/27/78	5/4/77	High	13,540	1.0331	13.1	0.8044	16.8	78
427-J m	F	3/27/78	5/4/77	High	7,490	0.5486	13.7	*	-	-
152-F f	F	3/27/78	5/4/77	High	11,320	0.6663	17.5	*	-	-
330-I f	F	3/27/78	5/4/77	High	15,360	1.2033	12.8	*	-	-
207-I f	F	3/27/78	5/4/77	High	11,320	0.6159	18.4	*	-	-
312-I f	F	3/27/78	5/4/77	High	8,620	1.6097	5.35	*	-	-
486-H f	F	3/27/78	5/4/77	High	23,560	1.4350	16.4	*	-	-

*Lipid weight determinations for these samples were destroyed.

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TABLE 8. PCB CONTENT OF ADULT SAMPLES PROCESSED BY MIC AND CHROMATOGRAPHED BY MRC: SHIPPED 27 MARCH 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	8ng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. (%) x 100%
200-F f	*	3/27/78	5/2/77	Control	333.1	1.1545	0.29	0.9201	0.36	80
274-F f	*	3/27/78	5/2/77	Control	384.2	0.4477	0.86	0.3469	1.11	77
569-H f	*	3/27/78	5/2/77	Control	511.9	1.0364	0.49	0.8400	0.61	81
578-H f	*	3/27/78	5/2/77	Control	241.2	0.4230	0.57	0.2879	0.84	68
604-I f	*	3/27/78	5/2/77	Control	462.1	0.8230	0.56	0.5482	0.84	67
618-I f	*	3/27/78	5/2/77	Control	639.8	1.4690	0.44	1.4055	0.46	96
764-K f	*	3/27/78	5/2/77	Control	493.1	0.8846	0.56	0.7553	0.65	85
87-F f	*	**								

*Sample type not indicated on vials received from MIC.
**Instructions from MIC stated to discard this sample due to partial spillage.

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TABLE 9. PCB CONTENT OF ADULT FAT SAMPLES RECEIVED WITH ORIGINAL SHIPMENT SHIPPED 27 MARCH 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	8mg Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. Wet Wt. x 100% (%)
426-G m	F	3/27/78	7/7/77	Control	445.6	0.6089	0.74	0.1636	2.72	27
764-E f	F	3/27/78	7/5/77	Control	271.5	0.4667	0.58	0.3700	0.73	79
227-G m	F	3/27/78	7/7/77	Control	529.9	1.1203	0.47	0.9300	0.57	82
418-J m	F	3/27/78	7/7/77	Control	541.9	0.5091	0.92	0.4312	1.26	73
739-F m	F	3/27/78	7/7/77	Control	359.8	0.4796	0.75	0.3400	1.03	73
818-I f	F	3/27/78	7/5/77	Control	2,881	0.7406	3.89	0.6360	4.52	86
200-F f	F	3/27/78	7/5/77	Control	316.8	0.4929	0.64	0.4108	0.76	85
604-I f	F	3/27/78	7/5/77	Control	306.5	0.3775	0.81	0.2112	1.45	56
274-F f	F	3/27/78	7/5/77	Control	512.6	0.5520	0.93	0.6260	1.20	77
570-H f	F	3/27/78	7/5/77	Control	1,161	0.5123	2.23	0.4092	2.70	80
569-H f	F	3/27/78	7/5/77	Control	301.3	0.5024	0.60	0.4304	0.70	86
87-F f	F	3/27/78	7/5/77	Control	228.3	0.3628	0.61	0.2972	0.77	82
838-H f	F	3/27/78	7/5/77	Low	341.3	0.5991	0.57	0.5060	0.67	85
701-H f	F	3/27/78	7/5/77	Low	428.7	0.3675	1.17	0.2332	1.84	63
284-I f	F	3/27/78	7/5/77	Low	350.3	0.2537	1.38	0.0900	3.55	39
483-F f	F	3/27/78	7/5/77	Low	1,210	0.7546	1.61	0.2572	4.74	34
510-G m	F	3/27/78	7/7/77	Low	630.9	0.4998	1.26	0.3412	1.85	68
432-J m	F	3/27/78	7/7/77	Low	166.2	0.3087	0.43	0.1100	1.50	29
281-G f	F	3/27/78	7/8/77	Medium	3,002	0.5884	7.02	0.4092	9.73	80
841-H f	F	3/27/78	7/6/77	Medium	5,096	0.5030	10.1	0.3236	15.7	66
763-E f	F	3/27/78	7/6/77	Medium	1,332	0.3820	3.49	0.3072	4.33	80
273-I f	F	3/27/78	7/6/77	Medium	2,777	0.4468	6.22	0.3588	7.74	80
599-1 m	F	3/27/78	*	Medium	4,759	0.7761	6.13	0.6144	7.75	79
20-I m	F	3/27/78	*	Medium	3,327	0.7537	4.41	0.6000	4.89	90
486-H f	F	3/27/78	7/6/77	High	26,830	0.6260	42.8	0.4100	65.4	85
338-I f	F	3/27/78	7/6/77	High	23,540	0.5901	39.9	0.3689	63.8	62
287-I f	F	3/27/78	7/6/77	High	6,051	0.5153	13.3	0.0992	69.1	19
778-I f	F	3/27/78	7/6/77	High	10,290	0.5344	19.3	0.3708	27.2	71
152-F f	F	3/27/78	7/6/77	High	23,618	0.6556	36.0	0.4744	49.8	72
226-F f	F	3/27/78	7/6/77	High	12,200	0.7429	16.4	0.6164	19.8	83
312-I f	F	3/27/78	7/6/77	High	9,601	0.5516	17.4	0.6648	29.7	84
269-I f	F	3/27/78	7/6/77	High	6,778	0.6335	15.6	0.3420	19.8	79
706-E m	F	3/27/78	*	High	30,500	0.8126	37.5	0.9300	40.3	70
606-1 m	F	3/27/78	*	High	33,420	2.0008	16.7	1.6948	19.7	85
427-J m	F	3/27/78	*	High	7,778	0.8971	8.67	0.7804	11.8	79
425-J m	F	3/27/78	*	High	8,689	0.7557	11.4	0.2448	35.2	32

*No excision date listed on sample package.

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TABLE 10. PCB CONTENT OF ADULT FAT AND OMENTUM SAMPLES RECEIVED WITH ORIGINAL SHIPMENT SHIPPED 27 MARCH 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	8mg Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
410-J m	F	3/27/78	8/4/77	Control	114.1	0.4789	0.24	0.1412	0.81	29
227-G m	F	3/27/78	8/4/77	Control	209.1	0.9695	0.22	0.7812	0.27	81
200-F f	F	3/27/78	8/1/77	Control	318.1	2.0117	0.16	1.6108	0.20	80
569-H f	F	3/27/78	8/1/77	Control	425.2	2.8071	0.15	2.3368	0.18	81
274-F f	F	3/27/78	8/1/77	Control	175.8	2.0102	0.09	0.8500	0.21	42
570-H f	F	3/27/78	8/1/77	Control	1,179	0.5051	2.02	0.3928	3.00	67
516-G m	F	3/27/78	8/4/77	Low	160.4	0.7921	0.20	0.5540	0.29	70
119-B m	F	3/27/78	8/4/77	Low	2,748	1.1477	2.39	0.5264	2.97	81
428-J m	F	3/27/78	8/4/77	Low	85.05	0.9319	0.09	0.7144	0.12	77
432-J m	F	3/27/78	8/4/77	Low	169.3	0.6189	0.27	0.1840	0.92	28
605-F f	F	3/27/78	8/1/77	Low	1,069	1.4141	0.76	1.1744	0.91	83
284-I f	O	3/27/78	8/1/77	Low	10,450	1.6271	6.42	0.7060	14.8	43
839-H f	F	3/27/78	8/1/77	Low	4,028	1.3508	2.98	1.1052	3.64	82
666-H f	F	3/27/78	8/1/77	Low	83.93	0.8102	0.10	0.6504	0.13	80
483-F f	O	3/27/78	8/1/77	Low	160.9	0.4190	0.38	0.1744	0.92	42
309-I f	F	3/27/78	8/1/77	Low	204.7	1.5770	0.13	1.3240	0.15	84
701-H f	F	3/27/78	8/1/77	Low	160.3	0.6800	0.24	0.4584	0.35	67
624-I f	F	3/27/78	8/1/77	Low	156.1	0.5039	0.27	0.4088	0.32	84
273-I f	F	3/27/78	8/2/77	Medium	6,160	0.5098	10.5	0.5088	12.1	86
841-H f	F	3/27/78	8/2/77	Medium	7,218	0.5817	12.4	0.3672	19.7	63
540-H f	F	3/27/78	8/2/77	Medium	8,335	0.7743	10.8	0.5936	14.0	77
281-G f	F	3/27/78	8/2/77	Medium	8,069	1.0700	7.54	0.7720	10.4	72
757-I f	F	3/27/78	8/2/77	Medium	1,624	0.3529	4.60	0.1868	8.69	53
763-H f	F	3/27/78	8/2/77	Medium	4,962	0.6633	7.48	0.5648	8.78	85
387-I f	F	3/27/78	8/2/77	Medium	5,587	0.4416	12.7	1.2408	4.50	281
702-H f	F	3/27/78	8/2/77	Medium	5,103	1.1405	4.47	0.8188	6.23	72
44-I m	F	3/27/78	8/4/77	Medium	3,663	1.3345	2.74	1.1360	3.22	85
595-I m	F	3/27/78	8/4/77	Medium	12,590	1.0668	11.8	0.8804	14.3	83
20-I m	F	3/27/78	8/4/77	Medium	8,595	1.5176	5.66	1.3108	6.56	86
599-I m	F	3/27/78	8/4/77	Medium	3,527	0.4512	7.82	0.3404	10.4	75
312-I f	F	3/27/78	8/2/77	High	24,050	1.3888	18.5	1.1120	21.6	86
427-J m	F	3/27/78	8/4/77	High	16,650	1.4727	11.3	1.2892	13.0	82
287-I f	F	3/27/78	8/2/77	High	16,690	0.5198	32.1	0.2060	81.0	40
338-I f	F	3/27/78	8/2/77	High	36,830	0.7052	51.1	0.4460	80.8	63
269-I f	F	3/27/78	8/2/77	High	20,190	0.7275	27.8	0.5052	40.0	69
600-I m	F	3/27/78	8/4/77	High	38,230	1.3647	22.1	1.1488	26.3	84

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TABLE 11. PCB CONTENT OF ADULT FAT AND OMENTUM SAMPLES RECEIVED WITH ORIGINAL SHIPMENT SHIPPED 27 MARCH 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	Ong Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
87-F f	F	3/27/78	11/1/77	Control	90.29	0.0016	0.11	0.7048	0.13	88
274-F f	F	3/27/78	11/1/77	Control	140.1	0.6876	0.20	0.5160	0.27	75
200-F f	F	3/27/78	11/1/77	Control	70.62	0.6326	0.11	0.5312	0.13	84
764-E f	F	3/27/78	11/1/77	Control	116.0	1.0184	0.11	0.7968	0.15	78
227-G m	F	3/27/78	10/31/77	Control	<196.4	0.8245	<0.24	0.6886	<0.29	83
739-F m	F	3/27/78	10/31/77	Control	210.2	0.7257	0.29	0.4404	0.48	61
420-J m	F	3/27/78	10/31/77	Low	5,958	0.0317	7.16	0.0972	6.64	100
516-G m	F	3/27/78	10/31/78	Low	2,591	0.7626	3.40	0.4504	5.75	59
309-1 f	F	3/27/78	11/1/77	Low	1,139	0.8014	1.42	0.7556	1.51	94
605-F f	F	3/27/78	11/1/77	Low	2,409	1.2416	1.96	1.6440	1.47	132
620-I f	F	3/27/78	11/1/77	Low	2,834	1.3185	2.15	1.7132	1.65	130
119-H m	F	3/27/78	10/31/77	Low	3,995	0.9002	4.40	0.7388	5.41	81
432-J m	F	3/27/78	10/31/77	Low	1,033	0.8151	1.27	0.6320	1.63	78
483-F f	F	3/27/78	11/1/77	Low	1,694	0.5623	3.01	0.2836	5.97	50
284-1 f	F	3/27/78	11/1/77	Low	1,562	0.5531	2.82	0.3220	4.85	58
646-E f	F	3/27/78	11/1/77	Low	1,222	0.7250	1.69	0.8744	1.40	121
701-E f	F	3/27/78	11/1/77	Low	3,464	0.5117	2.86	0.4360	3.36	85
839-H f	F	3/27/78	11/1/77	Low	2,626	1.4358	1.83	2.0816	1.26	145
307-I f	F	3/27/78	11/2/77	Medium	3,880	0.6619	4.00	0.5324	5.79	83
540-H f	F	3/27/78	*	Medium	6,672	0.6254	10.7	0.5600	11.9	90
757-1 f	F	3/27/78	11/2/77	Medium	10,720	0.5396	19.9	0.3400	31.5	63
841-H f	O	3/27/78	11/2/77	Medium	13,880	0.6188	22.4	0.4316	32.2	70
763-E f	F	3/27/78	11/2/77	Medium	6,355	0.8963	7.09	0.7496	8.48	84
273-I f	F	3/27/78	11/2/77	Medium	8,509	0.6520	13.0	0.5444	15.6	83
201-G f	F	3/27/78	11/2/77	Medium	8,728	0.8363	10.4	0.5644	15.5	67
762-E f	F	3/27/78	11/2/77	Medium	5,099	0.5799	8.79	0.4004	12.7	69
46-I m	F	3/27/78	10/31/77	Medium	3,889	1.1884	3.21	0.8776	4.34	74
20-I m	F	3/27/78	10/31/77	Medium	8,930	0.9884	9.03	0.7812	11.4	79
595-I m	F	3/27/78	10/31/77	Medium	3,687	0.7618	4.84	0.4216	8.74	55
599-1 m	F	3/27/78	10/31/77	Medium	4,489	0.8614	5.12	0.6064	7.27	70
600-I m	F	3/27/78	10/31/77	High	17,160	0.8524	20.1	0.6736	25.5	79
706-E m	F	3/27/78	10/31/77	High	**	--	--	--	--	--
770-I f	F	3/27/78	11/2/77	High	17,000	0.5079	33.5	0.3156	53.9	62
312-I f	F	3/27/78	11/2/77	High	9,958	1.1262	8.84	0.9788	10.3	86
330-I f	F	3/27/78	11/2/77	High	13,470	0.7294	18.5	0.5392	25.8	74
406-H f	F	3/27/78	11/2/77	High	23,650	0.7194	32.9	0.3420	69.1	48

* No excision date listed on sample package.
**Sample destroyed.

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TABLE 12. PCB CONTENT OF ADULT FAT AND OMENTUM SAMPLES RECEIVED WITH ORIGINAL SHIPMENT SHIPPED 27 MARCH 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	Aroclor 1254 (mg)	Wet Weight (g)	PPM on Wet Wt. Basis (μg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (μg/g)	Lipid Wt. / Wet Wt. x 100% (%)
426-G m	O	3/27/78	1/5/78	Control	1,998	3.5996	0.55	1.4996	1.33	42
227-G m	F	3/27/78	1/5/78	Control	635.2	0.8863	0.72	0.7140	0.89	81
410-J m	F	3/27/78	1/10/78	Control	710.6	0.3665	1.94	0.2132	3.33	58
739-F m	F	3/27/78	1/5/78	Control	957.0	0.5734	1.67	0.2288	4.18	40
274-F f	F	3/27/78	1/3/78	Control	730.3	0.4411	1.66	0.2848	2.48	67
764-H f	F	3/27/78	1/3/78	Control	2,378	0.5272	4.51	0.4892	5.81	78
604-I f	F	3/27/78	1/3/78	Control	232.5	0.7800	0.30	0.5956	0.39	76
569-H f	F	3/27/78	1/3/78	Control	311.7	0.8757	0.36	0.7444	0.42	85
200-F f	F	3/27/78	1/3/78	Control	477.4	0.7352	0.65	0.6296	0.76	86
87-F f	F	3/27/78	1/3/78	Control	372.5	1.2832	0.29	1.1068	0.34	86
618-I f	F	3/27/78	1/3/78	Control	227.1	0.8981	0.26	0.7904	0.29	89
570-H f	F	3/27/78	1/3/78	Control	389.4	0.8782	0.44	0.7160	0.54	82
701-E f	F	3/27/78	1/3/78	Low	1,989	0.7281	2.62	0.5484	3.48	75
204-I f	F	3/27/78	1/3/78	Low	1,440	4.5686	2.53	4.4588	3.14	81
605-F f	F	3/27/78	1/3/78	Low	1,960	0.7510	2.61	0.6620	2.96	88
624-I f	F	3/27/78	1/3/78	Low	2,300	1.3216	1.74	1.1680	1.97	88
309-I f	F	3/27/78	1/3/78	Low	1,618	1.0701	1.51	0.9188	1.76	86
646-E f	F	3/27/78	1/3/78	Low	2,578	0.8966	2.88	0.7612	3.38	85
483-F f	O	3/27/78	1/3/78	Low	5,706	1.0716	5.32	0.5788	9.86	54
639-H f	F	3/27/78	1/3/78	Low	1,897	0.9678	1.96	0.8608	2.20	89
620-J m	F	3/27/78	1/10/78	Low	2,999	0.5802	5.17	0.4176	7.18	72
516-G m	F	3/27/78	1/5/78	Low	2,212	0.5142	4.30	0.2488	8.89	48
119-H m	F	3/27/78	1/5/78	Low	1,401	0.5035	5.03	0.3192	10.7	55
632-J m	F	3/27/78	1/5/78	Low	1,203	0.6371	1.89	0.2240	5.37	35
307-I f	F	3/27/78	1/4/78	Medium	9,934	1.2124	8.19	0.9920	10.0	82
763-E f	F	3/27/78	1/4/78	Medium	6,881	0.9312	7.39	0.7808	8.72	84
20-I m	F	3/27/78	1/5/78	Medium	7,461	0.6917	11.6	0.5196	18.2	75
841-H f	F	3/27/78	1/4/78	Medium	5,341	0.3915	13.6	0.2466	21.3	63
757-I f	F	3/27/78	1/4/78	Medium	28,840	0.8456	33.2	0.6400	43.8	76
46-I m	F	3/27/78	1/5/78	Medium	5,056	1.1091	4.92	0.9684	6.05	81
273-I f	F	3/27/78	1/4/78	Medium	9,384	0.9628	9.75	0.8572	10.9	89
505-I m	F	3/27/78	1/10/78	Medium	13,990	0.5818	24.0	0.2452	57.0	42
762-E f	F	3/27/78	1/4/78	Medium	21,590	1.4185	15.3	1.1844	18.2	84
599-I m	F	3/27/78	1/5/78	Medium	15,740	0.8872	17.7	0.5200	30.3	59
201-G f	F	3/27/78	1/4/78	Medium	3,794	0.5086	7.46	0.3324	11.4	65
560-H f	F	3/27/78	1/4/78	Medium	11,110	0.6944	16.0	0.5200	21.0	76
269-I f	O	3/27/78	1/4/78	High	22,420	0.4253	52.7	0.0884	254	21
330-I f	F	3/27/78	1/4/78	High	51,730	0.7690	67.3	0.5500	93.9	72
152-F f	O	3/27/78	1/4/78	High	100,900	2.6300	41.7	0.2320	474	8.8
207-I f	F	3/27/78	1/4/78	High	41,550	0.8701	47.3	0.4884	85.0	56
226-F f	F	3/27/78	1/4/78	High	33,330	1.0440	31.9	0.8132	41.0	78
770-I f	F	3/27/78	1/4/78	High	31,200	0.3943	79.3	0.1632	192	41
312-I f	F	3/27/78	1/4/78	High	29,090	1.2265	24.0	1.0348	28.5	84
625-J m	F	3/27/78	1/10/78	High	15,700	0.5261	29.8	0.2100	74.5	40
627-J m	F	3/27/78	1/5/78	High	11,630	0.6727	17.3	0.2448	47.5	36
406-H f	F	3/27/78	1/4/78	High	8,943	0.3961	22.6	0.1752	51.0	44
706-E m	F	3/27/78	1/5/78	High	14,060	0.3914	37.8	0.1624	165	26
600-I m	F	3/27/78	1/5/78	High	55,930	0.6155	88.8	0.4032	139	65

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MONS 014049

TABLE 13. PCB CONTENT OF ADULT FAT AND OMENTUM SAMPLES RECEIVED WITH ORIGINAL SHIPMENT SHIPPED 27 MARCH 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	Gas Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (ug/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (ug/g)	Lipid Wt. / Wet Wt. x 100% (%)
618-I F	P	3/27/78	3/6/78	Control	<440.8	1.011)	<0.44	0.0612	<0.52	85
374-F F	P	3/27/78	3/6/78	Control	<814.8	0.7382	<0.56	0.5452	<0.76	74
764-E F	P	3/27/78	3/6/78	Control	320.6	1.4760	0.22	1.3532	0.28	78
604-I F	P	3/27/78	3/6/78	Control	263.2	1.2174	0.22	0.9640	0.27	79
87-F F	P	3/27/78	3/6/78	Control	<313.6	0.9664	<0.32	0.7600	<0.41	79
569-H F	P	3/27/78	3/6/78	Control	<276.0	0.9904	<0.28	0.7960	<0.35	80
570-H F	P	3/27/78	3/6/78	Control	217.8	0.8401	0.25	0.6636	0.32	79
200-F F	P	3/27/78	3/6/78	Control	<623.2	0.8192	<0.52	0.6472	<0.65	79
618-J M	P	3/27/78	3/8/78	Control	300.0	0.8172	0.46	0.2072	1.35	34
227-G M	P	3/27/78	3/8/78	Control	410.6	0.8693	0.47	0.7416	0.55	85
739-F M	P	3/27/78	3/8/78	Control	332.0	1.6829	0.31	0.5612	0.61	50
420-G M	O	3/27/78	3/8/78	Control	<400.8	0.5320	<0.75	0.0392	<10.2	7.4
701-E F	P	3/27/78	3/6/78	Low	2,000	0.9440	2.20	0.7032	2.96	74
286-I F	P	3/27/78	3/8/78	Low	3,324	0.7062	4.71	0.5136	6.47	73
639-H F	P	3/27/78	3/6/78	Low	1,953	0.8433	2.20	0.6980	2.65	83
685-F F	P	3/27/78	3/6/78	Low	3,500	1.0157	1.98	1.4488	2.44	81
683-F F	O	3/27/78	3/6/78	Low	4,066	0.7241	5.61	0.4616	8.81	64
626-I F	P	3/27/78	3/6/78	Low	3,300	0.6727	4.87	1.4192	2.31	210
666-H F	P	3/27/78	3/6/78	Low	2,310	1.2460	1.85	1.0052	2.13	87
309-I F	P	3/27/78	3/6/78	Low	1,766	0.7320	2.42	0.5956	2.93	83
110-A M	P	3/27/78	3/8/78	Low	7,815	0.7483	9.37	0.3476	20.2	46
632-J M	O	3/27/78	3/8/78	Low	4,200	0.7364	5.83	0.3960	17.1	54
518-G M	P	3/27/78	3/8/78	Low	3,636	0.5489	6.60	0.2040	17.8	37
420-J M	P	3/27/78	3/8/78	Low	5,776	1.0364	5.57	0.5364	10.8	52
762-H F	P	3/27/78	3/6/78	Medium	19,030	0.8846	21.5	0.5732	33.2	65
307-I F	P	3/27/78	3/7/78	Medium	11,000	0.8119	14.0	0.3032	37.6	37
641-H F	P	3/27/78	3/7/78	Medium	9,430	0.6750	14.0	0.4800	10.3	72
273-I F	P	3/27/78	3/7/78	Medium	10,150	1.0535	9.63	0.0536	11.9	81
763-H F	P	3/27/78	3/7/78	Medium	13,070	1.3212	10.5	1.1600	12.0	88
560-H F	P	3/27/78	3/7/78	Medium	10,220	1.2133	16.5	0.9072	20.2	81
757-I F	P	3/27/78	3/7/78	Medium	19,150	0.9567	20.4	0.7040	28.0	73
201-G F	P	3/27/78	3/8/78	Medium	25,530	1.1140	22.9	0.8300	27.3	84
20-I M	P	3/27/78	3/8/78	Medium	35,000	1.7540	20.0	1.4944	23.4	85
599-I M	P	3/27/78	3/9/78	Medium	23,100	0.9279	25.8	0.7340	31.8	79
595-I M	P	3/27/78	3/8/78	Medium	21,620	0.8193	26.5	0.3060	71.1	37
46-I M	P	3/27/78	3/8/78	Medium	9,190	1.0956	8.40	0.8724	10.5	80
486-H M	O	3/27/78	3/7/78	High	33,870	0.5452	61.8	0.2156	156	40
770-I F	P	3/27/78	3/9/78	High	17,960	0.5003	35.9	0.0604	297	12
330-I F	P	3/27/78	3/7/78	High	87,220	1.0005	80.1	0.0768	99.5	01
307-I F	P	3/27/78	3/9/78	High	30,310	0.6632	56.1	0.4220	90.0	02
220-F F	P	3/27/78	3/9/78	High	43,160	0.9407	45.9	0.8126	53.1	86
269-I F	O	3/27/78	3/9/78	High	43,510	0.5621	77.4	0.2940	148	52
312-I F	P	3/27/78	3/7/78	High	97,870	1.9100	30.3	1.5216	30.0	80
425-J M	P	3/27/78	3/8/78	High	4,575	0.8884	5.15	0.0624	10.0	7.0
427-J M	O	3/27/78	3/9/78	High	35,040	0.5520	64.9	0.3240	111	59
600-I M	P	3/27/78	3/8/78	High	166,000	1.3212	136	0.5540	300	45
706-E M	P	3/27/78	3/8/78	High	46,090	0.7633	61.4	0.2904	161	38
152-F F	P	3/27/78	1/23/78 (?)	High	2,415	0.5972	4.04	0.0052	464	1.0

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TABLE 14. PCB CONTENT OF ADULT FAT AND OMENTUM SAMPLES SHIPPED 4 MAY 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	Inq Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
569-H f	F	5/4/78	5/1/78	Control	<218.0	1.2703	<0.17	1.0668	<0.20	84
739-F m	F	5/4/78	4/20/78	Control	<157.2	0.4981	<0.32	0.2356	<0.67	47
227-G m	F	5/4/78	4/20/78	Control	162.4	0.9903	0.16	0.7948	0.20	80
418-J m	O	5/4/78	4/20/78	Control	388.8	0.5714	0.68	0.2296	1.69	40
426-G m	O	5/4/78	4/20/78	Control	<252.4	0.6992	<0.36	0.1032	<2.45	15
839-H f	F	5/4/78	5/1/78	Low	3,797	1.4089	2.69	1.1904	3.19	84
309-I f	F	5/4/78	5/1/78	Low	1,650	0.9167	1.80	0.7296	2.26	80
646-E f	F	5/4/78	5/1/78	Low	1,006	0.5729	1.76	0.4252	2.37	74
420-J m	F	5/4/78	4/20/78	Low	3,506	0.5846	6.00	0.3468	10.1	59
432-J m	O	5/4/78	4/20/78	Low	2,867	0.7158	4.01	0.3560	8.05	50
516-G m	F	5/4/78	4/20/78	Low	4,608	0.6212	7.42	0.2516	18.3	41
119-H m	F	5/4/78	4/20/78	Low	2,371	0.5355	1.87	0.2868	8.27	54
284-I f	F	5/4/78	5/1/78	Low	1,202	0.3747	3.42	0.2280	5.62	61
483-F f	O	5/4/78	5/1/78	Low	1,655	0.2986	5.54	0.1196	13.8	40
281-G f	F	5/4/78	5/1/78	Medium	33,600	1.1296	29.7	0.9356	35.9	83
599-I m	F	5/4/78	4/27/78	Medium	18,800	0.5738	18.8	0.4028	26.8	70
595-I m	F	5/4/78	4/27/78	Medium	18,950	0.5008	37.8	0.2008	94.4	40
46-I m	F	5/4/78	4/27/78	Medium	7,305	0.9330	7.83	0.7056	10.4	76
20-I m	F	5/4/78	4/27/78	Medium	34,110	1.0015	31.5	0.8652	39.4	80
307-I f	F	5/4/78	5/1/78	Medium	15,400	1.1630	13.2	0.9824	15.7	84
706-E m	O	5/4/78	4/27/78	High	131,400	1.0510	125	0.3756	350	36
427-J m	F	5/4/78	4/27/78	High	27,430	0.4958	55.3	0.2980	92.1	60
600-I m	F	5/4/78	4/27/68	High	66,960	0.5366	125	0.2004	334	37
425-J m	O	5/4/78	4/27/78	High	127,400	1.5356	82.9	0.9200	138	60
287-I f	F	5/4/78	4/27/78	High	83,260	0.6675	125	0.4376	190	66
338-I f	F	5/4/78	4/27/78	High	106,300	0.8738	122	0.6512	163	75
226-F f	F	5/4/78	4/27/78	High	74,690	1.3196	56.6	1.0616	70.4	80
269-I f	F	5/4/78	4/27/78	High	49,050	0.4271	115	0.2824	174	66

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TABLE 15. CONTENT OF ADULT FAT SAMPLES SHIPPED 15 JUNE 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	8ng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (ug/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (ug/g)	Lipid Wt. / Wet Wt. x 100% (%)
604-I f	F	6/15/78	5/24/78	Control	320	0.5140	0.62	0.3612	0.89	70
618-I f	F	6/15/78	6/6/78	Control	80.0	1.0436	0.08	0.8716	0.09	84
764-E f	F	6/15/78	5/24/78	Control	68.4	0.5486	0.12	0.4372	0.16	77
274-F f	F	6/15/78	5/24/78	Control	69.2	0.5875	0.12	0.4884	0.17	70
569-H f	F	6/15/78	6/6/78	Control	68.0	1.1526	0.06	1.1088	0.06	96
426-G m	F	6/15/78	6/6/78	Control	72.8	0.1960	9.37	0.0308	2.36	16
739-F m	F	6/15/78	6/6/78	Control	38.4	9.3023	0.13	0.0776	0.49	26
418-J m	F	6/15/78	6/6/78	Control	80.0	0.3210	0.25	0.1644	0.49	51
227-G m	F	6/15/78	6/6/78	Control	36.0	1.6467	0.02	1.5436	0.02	94
605-F f	F	6/15/78	6/6/78	Low	1,856	0.9093	2.04	0.7120	2.60	78
646-E f	F	6/15/78	6/6/78	Low	1,310	0.7248	1.02	0.5792	2.27	80
624-I f	F	6/15/78	5/24/78	Low	950.4	0.9102	1.03	0.7232	1.31	79
838-H f	F	6/15/78	6/6/78	Low	2,128	1.0091	2.10	0.7676	2.85	74
516-G m	F	6/15/78	6/6/78	Low	1,292	0.3655	3.53	0.1620	7.94	45
119-E m	F	6/15/78	6/6/78	Low	1,032	0.6738	2.72	0.2336	7.84	35
432-J m	F	6/15/78	6/6/78	Low	686.8	0.3657	1.88	0.0888	7.73	24
628-J m	F	6/15/78	6/6/78	Low	1,862	0.4866	3.83	0.3444	5.41	71
763-E f	F	6/15/78	6/5/78	Medium	7,135	0.5407	13.0	0.3896	18.3	71
273-I f	F	6/15/78	6/5/78	Medium	4,947	0.5700	8.68	0.3920	12.6	69
281-G f	F	6/15/78	6/5/78	Medium	8,474	0.4069	20.8	0.2364	35.8	58
841-H f	F	6/15/78	5/24/78	Medium	10,810	0.5105	30.8	0.3696	53.6	72
757-I f	F	6/15/78	6/5/78	Medium	14,530	0.4977	29.2	0.3240	44.9	65
307-I f	F	6/15/78	6/5/78	Medium	12,670	0.8562	14.8	0.6792	18.7	79
762-E f	F	6/15/78	6/5/78	Medium	12,000	0.5619	21.4	0.2044	58.1	37
540-H f	F	6/15/78	6/5/78	Medium	8,500	0.3837	22.2	0.2924	29.1	76
46-I m	F	6/15/78	6/6/78	Medium	9,052	0.7769	10.4	0.6156	13.1	79
595-I m	F	6/15/78	6/6/78	Medium	743.2	0.2237	3.32	0.0080	92.9	3.6
599-I m	F	6/15/78	6/6/78	Medium	28,600	0.9645	21.4	0.5096	35.1	61
20-I m	F	6/15/78	6/6/78	Medium	13,200	0.7243	10.2	0.4732	27.9	65
312-I f	F	6/15/78	6/5/78	High	35,400	0.6441	55.0	0.4940	71.7	77
269-I f	F	6/15/78	6/5/78	High	21,410	0.4947	43.3	0.1296	165	27
207-I f	F	6/15/78	6/5/78	High	6,375	0.3611	17.7	0.0184	348	5.1
226-F f	F	6/15/78	6/5/78	High	18,470	0.4316	42.8	0.3504	52.7	81
330-I f	F	6/15/78	6/5/78	High	33,000	0.3884	87.0	0.2036	166	52
425-J m	F	6/15/78	6/5/78	High	16,220	0.3431	47.3	0.1852	87.6	54
427-J m	F	6/15/78	6/5/78	High	20,030	0.5900	33.9	0.3976	50.4	67
600-I m	F	6/15/78	6/5/78	High	39,730	0.5305	74.8	0.2712	146	51
706-E m	F	6/15/78	6/5/78	High	7,500	0.3243	23.1	0.0448	167	14

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TABLE 16. PCB CONTENT OF ADULT FAT SAMPLES SHIPPED 24 AUGUST 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	8ng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. (%) x 100
570-H f	F	8/24/78	6/14/78	Control	106.8	0.2463	0.43	0.0968	1.1	39
764-E f	F	8/24/78	7/31/78	Control	73.2	0.6101	0.12	0.2288	0.32	38
570-H f	F	8/24/78	7/31/78	Control	56.0	0.3256	0.17	0.1248	0.45	38
604-I f	F	8/24/78	7/31/78	Control	58.8	0.4237	0.14	0.1228	0.48	29
618-I f	F	8/24/78	7/31/78	Control	22.0	0.7790	0.03	0.2764	0.08	35
569-H f	F	8/24/78	7/31/78	Control	69.2	0.9992	0.07	0.3196	0.22	32
274-F f	F	8/24/78	7/31/78	Control	59.6	0.3473	0.17	0.1640	0.36	47
200-F f	F	8/24/78	7/31/78	Control	90.4	0.8250	0.11	0.3604	0.25	44
739-F m	F	8/24/78	8/1/78	Control	75.6	0.4742	0.16	0.2284	0.33	48
227-G m	F	8/24/78	8/1/78	Control	89.2	0.6738	0.13	0.1996	0.45	30
418-J m	F	8/24/78	8/1/78	Control	62.4	0.3834	0.16	0.1172	0.53	31
426-G m	F	8/24/78	8/1/78	Control	17.6	0.2642	0.06	0.0844	0.21	32
273-I f	F	8/24/78	8/1/78	Medium	9,632	0.8217	11.7	0.6973	13.8	85
757-I f	F	8/24/78	8/1/78	Medium	1,771	0.2988	5.94	0.0252	70.3	8.4
763-E f	F	8/24/78	7/31/78	Medium	10,800	0.5970	18.1	0.4344	24.9	72
841-H f	F	8/24/78	8/1/78	Medium	5,220	0.3646	14.3	0.1332	39.2	36
540-M f	F	8/24/78	8/1/78	Medium	3,730	0.4327	8.62	0.1824	20.4	42
281-G f	F	8/24/78	8/1/78	Medium	15,940	0.7413	21.5	0.5888	27.1	79
307-I f	F	8/24/78	8/1/78	Medium	11,420	0.7069	16.2	0.5792	19.7	82
599-I m	F	8/24/78	8/2/78	Medium	4,098	0.3688	11.1	0.2036	20.1	55
595-I m	F	8/24/78	8/2/78	Medium	8,910	0.3198	27.9	0.2380	37.4	74
20-I m	F	8/24/78	8/2/78	Medium	6,680	0.4897	13.6	0.2124	31.5	43
46-I m	F	8/24/78	8/2/78	Medium	8,330	1.0042	8.30	0.8624	9.65	86
207-I f	F	8/24/78	8/6/78	High	1,144	0.3301	3.47	0.0244	46.9	7.4
312-I f	F	8/24/78	8/1/78	High	11,460	0.2895	39.6	0.1436	79.8	50
269-I f	F	8/24/78	8/1/78	High	15,300	0.5580	27.4	0.2620	58.4	47
226-I f	F	8/24/78	8/1/78	High	3,983	0.2911	13.7	0.0444	89.7	15
338-I f	F	8/24/78	8/1/78	High	480.0	0.2442	1.97	0.0560	8.57	23
427-J m	F	8/24/78	8/2/78	High	2,851	0.4747	6.01	0.2000	14.3	42
680-I m	F	8/24/78	8/2/78	High	7,626	0.5828	13.1	0.2792	27.3	48
425-J m	F	8/24/78	8/2/78	High	5,850	0.4591	12.7	0.1908	30.7	42

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TABLE 17. PCB CONTENT OF ADULT SKIN, OMENTUM, AND FAT SAMPLES SHIPPED 24 AUGUST 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	Aroclor 1254 (mg)	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
701-E f	P	8/24/78	7/31/78	Low	1,394	0.6204	2.25	0.4480	3.11	72
516-G m	P	8/24/78	8/2/78	Low	1,574	0.4918	3.20	0.3040	5.18	62
628-J m	P	8/24/78	8/2/78	Low	2,486	0.5081	4.23	0.4332	5.74	74
119-H m	P	8/24/78	8/2/78	Low	1,392	0.3965	3.51	0.2700	5.14	68
432-J m	P	8/24/78	8/2/78	Low	333.6	0.3244	1.03	0.2016	1.65	62
605-F f	P	8/24/78	7/31/78	Low	2,368	0.8237	2.88	0.6532	3.47	79
646-E f	P	8/24/78	8/1/78	Low	1,049	0.5706	1.84	0.4716	2.22	83
839-H f	P	8/24/78	7/31/78	Low	1,095	0.7468	1.47	0.6492	1.69	87
624-I f	P	8/24/78	7/31/78	Low	2,642	0.8667	3.00	0.6000	3.09	70
762-E	B	8/24/78	7/31/78	Medium	673.7	0.3308	2.04	0.0840	8.02	25
706-E m	P	8/24/78	7/19/78	High	547,800	3.1830	172	0.7576	723	24
706-E m	S	8/24/78	7/19/78	High	2,221	0.8703	2.55	0.0304	73.1	3.5

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TABLE 18. PCB CONTENT OF ADULT FAT AND OMENTUM SAMPLES SHIPPED 1 NOVEMBER 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	8ng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
604-I f	F	11/1/78	10/4/78	Control	353.3	0.3791	0.93	0.3672	0.96	97
200-F f	F	11/1/78	10/4/78	Control	<337.7	0.5662	<0.60	0.0496	<6.81	8.8
578-H f	O	11/1/78	10/4/78	Control	<281.7	0.4692	<0.60	0.0420	<6.71	9.0
569-H f	F	11/1/78	10/4/78	Control	511.4	0.7260	0.70	0.5480	0.93	75
764-E f	F	11/1/78	10/4/78	Control	612.6	0.7574	0.81	0.4300	1.42	57
274-F f	O	11/1/78	10/4/78	Control	257.6	1.4951	0.17	0.5400	0.48	36
618-I f	F	11/1/78	10/4/78	Control	<205.5	2.4073	<0.09	2.0700	<1.00	86
739-F m	F	11/1/78	10/6/78	Control	735.3	0.5043	1.46	0.3112	2.36	62
426-G m	F	11/1/78	10/6/78	Control	195.9	0.3486	0.56	0.0220	8.90	6.3
227-G m	F	11/1/78	10/6/78	Control	400.6	1.5158	0.26	1.2456	0.32	82
418-J m	F	11/1/78	10/6/78	Control	153.2	0.9027	0.17	0.3832	0.40	42
483-F f	F	11/1/78	10/6/78	Low	1,117	0.3620	3.09	0.1540	7.25	43
309-I f	F	11/1/78	10/6/78	Low	2,322	0.7158	3.24	0.5652	4.11	79
624-I f	F	11/1/78	10/8/78	Low	2,638	1.0744	2.46	0.9064	2.91	84
646-E f	F	11/1/78	10/4/78	Low	3,587	0.8906	4.03	0.6748	5.32	76
839-H f	F	11/1/78	10/4/78	Low	9,816	2.3452	4.19	1.9128	5.13	82
605-F f	F	11/1/78	10/4/78	Low	5,702	1.7908	3.18	1.4144	4.03	79
284-I f	F	11/1/78	10/4/78	Low	1,778	0.6471	2.75	0.4188	4.25	65
701-E f	O	11/1/78	10/4/78	Low	1,221	0.5402	2.26	0.1580	7.73	29
516-G m	F	11/1/78	10/6/78	Low	1,435	0.4648	3.09	0.2028	7.08	44
432-J m	F	11/1/78	10/6/78	Low	593.3	0.3543	1.67	0.1356	4.38	38
119-H m	F	11/1/78	10/6/78	Low	1,321	0.3676	3.59	0.2288	5.70	62
420-J m	F	11/1/78	10/6/78	Low	3,962	1.0431	3.80	0.7816	5.07	75
757-I f	O	11/1/78	10/4/78	Medium	26,480	0.7332	36.1	0.4596	57.6	63
273-I f	F	11/1/78	10/5/78	Medium	9,565	0.7379	13.0	0.6100	15.7	83
763-E f	F	11/1/78	10/5/78	Medium	9,224	0.5865	15.7	0.4004	23.0	68
307-I f	F	11/1/78	10/5/78	Medium	18,790	0.8971	20.9	0.7044	26.7	78
540-H f	F	11/1/78	10/5/78	Medium	8,806	0.4030	21.9	0.1948	45.2	48
762-E f	O	11/1/78	10/5/78	Medium	10,110	0.4532	22.3	0.0136	743	3.0
599-I m	F	11/1/78	10/6/78	Medium	2,063	0.3862	5.34	0.1108	18.6	29
595-I m	F	11/1/78	10/6/78	Medium	5,020	0.4094	12.3	0.0968	51.9	24
66-I m	F	11/1/78	10/6/78	Medium	10,060	1.2946	7.77	1.0408	9.66	80
20-I m	F	11/1/78	10/6/78	Medium	14,730	0.7054	20.9	0.3500	42.1	50
226-F f	O	11/1/78	10/5/78	High	66,220	0.6268	106	0.2216	299	35
269-I f	O	11/1/78	10/5/78	High	30,540	0.5505	55.5	0.3900	78.3	71
287-I f	O	11/1/78	10/5/78	High	83,890	1.5083	55.6	0.8644	97.0	57
312-I f	F	11/1/78	10/5/78	High	36,428	0.5074	71.8	0.2780	131	55
600-I m	F	11/1/78	10/17/78	High	8,200	0.1971	41.6	0.0396	207	20
427-J m	F	11/1/78	10/6/78	High	9,036	0.7821	11.6	0.3148	28.7	40
425-J m	O	11/1/78	10/6/78	High	33,388	1.3472	24.8	0.7256	46.0	54

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TABLE 19. PCB CONTENT OF ADULT FAT SAMPLES SHIPPED 6 FEBRUARY 1979

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	Avg Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. Wet Wt. x 100 (%)
569-M f	F	2/6/79	12/6/78	Control	250.4	0.8272	0.30	0.7364	0.34	89
618-J m	F	2/6/79	12/5/78	Control	255.3	0.5861	0.44	0.4548	0.56	78
200-F f	F	2/6/79	12/6/78	Control	<215.3	0.4220	<0.51	0.3793	<0.57	90
604-I f	F	2/6/79	12/8/78	Control	264.3	0.7076	0.37	0.5136	0.51	73
764-E f	F	2/6/79	12/5/78	Control	<257.6	0.5148	<0.50	0.4104	<0.63	80
618-I f	F	2/6/79	12/8/78	Control	233.2	0.8704	0.27	0.7828	0.30	90
227-G m	F	2/6/79	12/11/78	Control	<266.1	0.4715	<0.56	0.4280	<0.62	91
274-F f	F	2/6/79	12/7/78	Control	257.5	1.2214	0.21	0.6208	0.41	51
578-H f	F	2/6/78	12/6/78	Control	<268.8	0.3490	<0.77	0.0844	<3.18	24
739-F m	F	2/6/78	12/6/78	Control	405.2	0.5534	0.73	0.4772	0.85	86
426-G m	F	2/6/79	12/7/78	Control	<227.6	0.4670	<0.49	0.0036	<63.2	0.8
428-J m	F	2/6/79	12/5/78	Low	1,870	0.6006	2.72	0.5600	3.34	82
646-E f	F	2/6/79	12/6/78	Low	1,706	0.7934	2.15	0.7012	2.43	88
483-F f	F	2/6/79	12/11/78	Low	1,016	0.4170	2.44	0.2788	3.64	67
518-G m	F	2/6/79	12/7/78	Low	2,094	0.7955	2.63	0.6728	3.11	85
839-H f	F	2/6/79	12/8/78	Low	1,568	0.8126	1.93	0.7468	2.10	92
119-H m	F	2/6/79	12/7/78	Low	3,636	0.9507	3.85	0.7200	5.08	76
605-F f	F	2/6/79	12/6/78	Low	4,489	0.9089	4.96	0.8124	5.53	90
432-J m	F	2/6/79	12/11/78	Low	1,367	0.8431	1.62	0.6392	2.17	75
701-E f	F	2/6/79	12/8/78	Low	434.1	0.2879	1.51	0.2076	2.09	72
309-I f	F	2/6/79	12/7/78	Low	743.3	0.3315	2.24	0.2968	2.50	90
626-I f	F	2/6/79	12/5/78	Low	1,207	0.8371	1.44	0.7540	1.60	90
284-I f	F	2/6/79	12/6/78	Low	1,285	0.6395	2.01	0.2916	4.41	46
46-I m	F	2/6/79	12/7/78	Medium	5,542	0.8838	6.27	0.7928	6.99	90
757-I f	F	2/6/79	12/7/78	Medium	12,990	0.6490	20.0	0.3240	38.9	72
281-G f	F	2/6/79	12/11/78	Medium	3,906	0.4288	9.09	0.3804	10.3	89
761-E f	F	2/6/79	12/7/78	Medium	5,033	0.4826	10.4	0.3988	12.6	82
540-H f	F	2/6/79	12/8/78	Medium	10,672	0.5571	19.2	0.4636	23.0	83
599-I m	F	2/6/79	12/7/78	Medium	12,410	0.7506	16.5	0.6812	18.2	91
20-I m	F	2/6/79	12/5/78	Medium	7,306	0.2705	27.0	0.2272	32.2	84
595-I m	F	2/6/79	12/11/78	Medium	17,570	0.6067	29.0	0.4612	38.1	76
271-I f	F	2/6/79	12/6/78	Medium	5,631	0.5469	9.93	0.5104	11.0	90
762-E f	F	2/6/79	12/6/78	Medium	2,319	0.4180	5.55	0.2324	9.98	56
307-I f	F	2/6/79	12/5/78	Medium	24,000	1.3237	18.1	1.1788	20.4	89
268-I f	F	2/6/79	12/6/78	High	26,200	0.6720	39.0	0.4508	58.1	67
427-J m	F	2/6/79	12/7/78	High	14,900	0.6845	21.8	0.4852	30.7	71
425-J m	F	2/6/79	12/8/78	High	14,060	0.6444	21.8	0.4796	29.3	74
236-F f	F	2/6/79	12/5/78	High	36,580	0.8751	41.8	0.1056	34.6	12
287-I f	F	2/6/79	12/6/78	High	28,670	0.9230	30.8	0.5616	50.7	61
600-I m	F	2/6/79	12/5/78	High	38,390	0.7026	50.4	0.4440	79.7	63
312-I f	F	2/6/79	12/7/78	High	26,700	0.8946	31.3	0.6492	41.2	76

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3.2.2 Infant Rhesus Monkey Skin and Fat Samples

Baby Rhesus monkey tissue samples were taken on an intermittent basis to determine the PCB levels the monkeys may have accumulated both during gestation, and after birth as a result of nursing. Since the babies were not sampled on a regular basis, presentation of the data in a cumulative manner would not facilitate interpretation. Therefore, the data entries for the baby monkey tissue samples are given in Tables 20 through 26, in which complete data histories are enumerated.

3.2.3 Liver Biopsy Samples

Liver biopsy samples were obtained during the final sacrifice of the Rhesus monkeys in December 1978. Levels of PCB's in the liver tissue were determined to examine whether PCB's accumulate in the liver, an organ that commonly detoxifies the body of many foreign substances. Table 27 lists the PCB levels found in the adult Rhesus monkey liver tissues, and Table 28 gives the PCB values observed in the infant liver tissue samples.

3.2.4 Miscellaneous Samples Analyzed on an Intermittent Basis

Several additional samples were analyzed on an intermittent basis. These samples include milk, blood serum, and tissue samples from terminal animals. Any modifications necessary for analysis (i.e., for milk and blood serum samples) are outlined in the section on "Experimental Procedures."

Table 29 lists the PCB content found in fat and muscle tissue of several terminal animals. Tables 30 and 31 present the data obtained for milk samples collected from nursing mothers and one blood serum sample taken from an adult male. Table 32 gives the PCB values found in the placenta of several female adults.

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TABLE 20. PCB CONTENT OF ADULT PLACENTA AND BABY SKIN AND FAT SAMPLES SHIPPED 4 MAY 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	8mg Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
764-E f	P	5/4/78	4/25/78	Control	2,280	4.2315	0.54	0.0144	158	0.34
B-0510 m	B	5/4/78	4/19/78	Control	*	--	--	--	--	--
B-0532 f	B	5/4/78	4/25/78	Control	*	--	--	--	--	--
B-0533 f	B	5/4/78	4/26/78	Control	*	--	--	--	--	--
B-0527 f	Bf	5/4/78	4/25/78	Low	442.2	0.1415	3.13	0.0205	21.6	14
B-0542 f	B	5/4/78	5/2/78	High	1,465	0.1002	14.6	0.0078	189	7.7

*Samples lost due to contamination problems encountered.

TABLE 21. PCB CONTENT OF BABY SKIN AND FAT SAMPLES SHIPPED 23 MAY 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	8mg Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
B-0557 m	B	5/23/78	5/8/78	Control	4.485	0.1677	0.03	0.0305	0.15	18
B-0574 m	B	5/23/78	5/15/78	Control	5.761	0.1697	0.03	0.0260	0.21	16
B-0562 f	B	5/23/78	5/12/78	Low	33.44	0.1635	0.21	0.0350	0.96	21
B-0548 f	B	5/23/78	5/3/78	Medium	131.9	0.2200	0.58	0.0208	6.36	9.1
B-0560	B	5/23/78	5/12/78	Medium	20.11	0.1130	0.25	0.0085	3.31	7.5
B-0592 f	Bf	5/23/78	5/23/78	Medium	51.94	0.1111	0.47	0.0155	3.35	14

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TABLE 22. PCB CONTENT OF BABY SKIN SAMPLES SHIPPED 15 JUNE 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	8ng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
B-0532 f	B	6/15/78	5/24/78	Control	n.d.	0.1371	n.d.	0.0153	n.d.	11
B-0518 m	B	6/15/78	5/24/78	Control	24.26	0.1183	0.21	0.0135	1.80	11
B-0533 f	B	6/15/78	5/24/78	Control	4.16	0.2341	0.02	0.0433	0.10	18
B-0557 m	B	6/15/78	6/6/78	Control	16.98	0.2320	0.07	0.0543	0.31	23
B-0621 f	B	6/15/78	6/8/78	Control	25.50	0.1616	0.16	0.0423	0.60	26
B-0527 f	B	6/15/78	5/24/78	Low	16.88	0.1321	0.13	0.0305	0.55	23
B-0600 m	B	6/15/78	5/30/78	Low	7.62	0.1218	0.06	0.0095	0.80	7.0
B-0562 f	B	6/15/78	6/6/78	Low	5.94	0.2116	0.03	0.0503	0.12	24
B-0603	B	6/15/78	5/30/78	Medium	81.83	0.1500	0.55	0.0043	19.3	2.9
B-0546 f	B	6/15/78	6/5/78	Medium	433.2	0.1612	2.69	0.0173	25.0	11
B-0559	B	6/15/78	6/9/78	Medium	199.7	0.0958	2.09	0.0143	14.0	15
B-0560	B	6/15/78	6/9/78	Medium	172.8	0.1201	1.44	0.0053	32.9	4.4
B-0542 f	B	6/15/78	6/5/78	High	276.2	0.1518	1.82	0.0045	61.4	3.0

TABLE 23. PCB CONTENT OF BABY SKIN AND FAT SAMPLES SHIPPED 24 AUGUST 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	8ng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
B-0533 f	Bf	8/24/78	6/26/78	Control	1,480	1.6308	0.90	1.0716	1.38	65
B-0533 f	B	8/24/78	6/26/78	Control	419.6	0.9700	0.43	0.2232	1.88	23
B-0532 f	Bf	8/24/78	6/26/78	Control	962.4	0.6825	1.41	0.3912	2.46	57
B-0532 f	B	8/24/78	6/26/78	Control	134.8	0.4052	0.33	0.094	1.43	23
B-0518 m	Bf	8/24/78	6/19/78	Control	987.4	1.0986	0.90	0.6580	1.50	60
B-0518 m	B	8/24/78	6/19/78	Control	220.0	0.4989	0.44	0.0544	4.04	11
B-0604 m	B	8/24/78	6/27/78	Low	301.6	0.2708	1.11	0.0280	10.8	10
B-0527 f	Bf	8/24/78	6/23/78	Low	1,802	0.8871	2.03	0.5768	3.12	65
B-0527 f	B	8/24/78	6/23/78	Low	2,316	0.5001	4.63	0.2764	8.38	55
B-0511 m	Bf	8/24/78	6/19/78	Medium	723.6	0.7883	0.92	0.4484	1.61	57
B-0511 m	B	8/24/78	6/19/78	Medium	80.0	0.1954	0.41	0.0488	1.67	25
B-0603	B	8/24/78	6/27/78	Medium	1,181	0.2081	6.63	0.0280	49.3	13
B-0502 f	B	8/24/78	6/23/78	Medium	1,302	0.1429	9.11	0.0360	36.2	26
B-0542 f	B	8/24/78	6/30/78	High	2,058	0.1496	13.8	0.0232	88.7	16

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TABLE 24. PCB CONTENT OF BABY SKIN AND FAT SAMPLES SHIPPED 24 AUGUST 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	0ng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (ug/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (ug/g)	Lipid Wt. / Wet Wt. (%) x 100%
B-0574 m	B	8/24/78	7/14/78	Control	<348.4	0.4519	<0.77	0.0376	<9.27	8.3
B-0574 m	Bf	8/24/78	7/27/78	Control	520.8	0.5670	0.92	0.2256	2.31	40
B-0557 m	B	8/24/78	7/6/78	Control	<167.2	0.2994	<0.56	0.0732	<2.28	24
B-0557 m	Bf	8/24/78	7/6/78	Control	392.4	0.7307	0.54	0.5148	0.76	70
B-0621 f	B	8/24/78	7/10/78	Control	<267.2	0.2050	<1.30	0.0720	<3.71	35
B-0604 m	B	8/24/78	7/27/78	Low	1,128	0.6951	1.62	0.0740	15.2	11
B-0604 m	Bf	8/24/78	7/27/78	Low	8,734	0.9564	9.13	0.5604	15.6	59
B-0562 f	B	8/24/78	7/10/78	Low	1,085	0.3015	3.60	0.0700	15.5	23
B-0562 f	Bf	8/24/78	7/10/78	Low	14,760	1.1809	12.5	0.7112	20.7	60
B-0546 f	B	8/24/78	7/5/78	Medium	1,398	0.2010	6.96	0.0116	121	5.8
B-0546 f	B	8/24/78	7/20/78	Medium	9,697	0.4862	19.9	0.0284	341	5.8
B-0546 f	Bf	8/24/78	7/20/78	Medium	30,410	0.1670	182	0.0652	466	39
B-0603	B	8/24/78	7/27/78	Medium	17,774	0.4895	36.3	0.0324	549	6.6
B-0603	Bf	8/24/78	7/27/78	Medium	72,660	0.4534	160	0.2320	313	51
B-0559	B	8/24/78	7/10/78	Medium	16,150	0.6512	24.8	0.1624	99.4	25
B-0559	Bf	8/24/78	7/10/78	Medium	60,560	0.9981	60.7	0.6944	87.2	70
B-0592 f	B	8/24/78	7/25/78	Medium	17,720	0.5905	30.0	0.2092	84.7	35
B-0592 f	Bf	8/24/78	7/25/78	Medium	97,310	1.8572	52.4	1.1716	83.0	63
B-0560 f	B	8/24/78	7/10/78	Medium	1,270	0.0947	13.4	0.0012	1,058	5.1
B-0542 f	B	8/24/78	7/31/78	High	4,397	0.0403	109	0.0008	5,496	2.0

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TABLE 25. PCB CONTENT OF ADULT SKIN AND FAT SAMPLES AND BABY SKIN AND FAT SAMPLES SHIPPED 1 NOVEMBER 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	@ng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100 (%)
B-8621 f	B	11/1/78	8/8/78	Control	246.2	0.3810	0.65	0.1244	1.98	33
B-8621 f	Bf	11/1/78	8/8/78	Control	795.2	1.3135	0.61	1.0760	0.74	82
B-8754 f	B	11/1/78	8/10/78	Low	2,430	0.1708	14.2	0.0456	53.3	27
B-8754 f	B	11/1/78	9/11/78	Low	1,486	0.2709	5.48	0.0696	21.3	26
B-8754 f	B	11/1/78	10/10/78	Low	1,154	0.2818	4.10	0.0772	14.9	27
B-8754 f	Bf	11/1/78	10/10/78	Low	11,380	1.2588	9.04	0.7680	14.8	61
B-8560 f	B	11/1/78	8/10/78	Medium	8,532	0.0992	86.0	0.0020	4,270	2.0
B-8560 f	B	11/1/78	9/11/78	Medium	2,769	0.3151	8.79	0.0192	144	6.1
B-8560 f	B	11/1/78	10/10/78	Medium	550.3	0.1892	2.91	0.0060	91.7	3.2
B-8542	Bf	11/1/78	8/5/78	High	4,128	0.1052	39.2	0.0008	5,160	0.8
841-B f	S	11/1/78	8/31/78	Medium	3,357	0.6907	4.86	0.0496	67.7	7.2
841-M f	F	11/1/78	8/31/78	Medium	39,000	2.8477	13.7	0.8028	48.6	28
338-1 f	F	11/1/78	8/21/78	High	84,630	0.8202	103	0.0604	1,401	7.4

TABLE 26. PCB CONTENT OF BABY SKIN AND FAT SAMPLES SHIPPED 6 FEBRUARY 1979

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	@ng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100 (%)
B-8815	B	2/6/79	10/27/78	Low	<232.1	0.1194	<1.94	0.0184	<12.6	15
B-8815	B	2/6/79	11/27/78	Low	<272.6	0.2278	<1.20	0.0736	<3.70	32
B-8815	Bf	2/6/79	12/6/78	Low	333.1	0.4389	0.76	0.3492	0.95	80
B-8860 m	B	2/6/79	11/10/78	Medium	1,053	0.0831	12.7	0.0060	175	7.2
B-8860 m	B	2/6/79	12/11/78	Medium	4,623	0.2914	15.9	0.0956	48.4	33
B-8560 f	B	2/6/79	11/9/78	Medium	1,238	0.1798	6.88	0.0184	67.3	10
B-8560 f	Bf	2/6/79	12/11/78	Medium	7,990	0.4423	18.1	0.1400	57.1	32

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TABLE 27. PCB CONTENT OF ADULT LIVER SAMPLES SHIPPED 7 MARCH 1979

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	Dog Armelor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. Wet Wt. x 100 (%)
436-G m	L	3/7/79	12/7/78	Control	341.7	3.4094	0.10	0.3560	0.96	10
274-F f	L	3/7/79	12/7/78	Control	463.8	5.0814	0.09	0.2524	1.76	5.0
227-G m	L	3/7/79	12/11/78	Control	2,381	3.3636	0.70	0.2720	8.75	8.0
739-F m	L	3/7/79	12/7/78	Control	449.6	1.8402	0.24	0.0456	9.86	2.5
764-E f	L	3/7/79	12/5/78	Control	53.95	1.6080	0.03	0.0392	1.38	2.4
618-I f	L	3/7/79	12/8/78	Control	49.24	1.7371	0.03	0.0420	1.17	2.4
578-H f	L	3/7/79	12/6/78	Control	48.66	2.2057	0.02	0.0632	0.77	2.0
200-F f	L	3/7/79	12/6/78	Control	1,014	3.5207	0.29	0.0796	12.7	2.3
569-H f	L	3/7/79	12/6/78	Control	46.97	2.0941	0.02	0.0576	0.82	2.8
604-I f	L	3/7/79	12/8/78	Control	48.81	2.0862	0.02	0.0740	0.66	3.5
418-J m	L	3/7/79	12/5/78	Control	224.0	1.7383	0.13	0.0488	4.59	2.8
516-G m	L	3/7/79	12/7/78	Low	290.0	0.5580	0.52	0.0184	15.8	3.3
761-E f	L	3/7/79	12/8/78	Low	308.6	0.8097	0.41	0.0236	8.84	4.6
309-I f	L	3/7/79	12/7/78	Low	309.6	0.7773	0.40	0.0332	9.33	4.3
624-I f	L	3/7/79	12/5/78	Low	212.3	0.7100	0.30	0.0300	7.08	4.2
428-J m	L	3/7/79	12/5/78	Low	471.1	1.4088	0.33	0.0776	6.07	5.5
435-J m	L	3/7/79	12/11/78	Low	337.3	0.7484	0.45	0.0552	6.11	7.4
683-F f	L	3/7/79	12/11/78	Low	471.2	0.6035	0.78	0.0320	14.7	5.3
646-E f	L	3/7/79	12/6/78	Low	437.2	0.9416	0.46	0.0392	11.2	4.2
119-H m	L	3/7/79	12/7/78	Low	3,017	6.6085	0.46	0.2272	13.3	3.4
839-H f	L	3/7/79	12/8/78	Low	1,493	5.0535	0.30	0.2796	5.34	5.5
284-I f	L	3/7/79	12/6/78	Low	2,291	5.7247	0.40	0.1368	16.7	2.4
605-F f	L	3/7/79	12/6/78	Low	1,530	6.8907	0.22	0.1488	10.2	2.2
273-I f	L	3/7/79	12/6/78	Medium	2,876	1.5861	1.81	0.0388	74.1	2.4
599-I m	L	3/7/79	12/7/78	Medium	2,859	1.8454	1.55	0.0784	36.5	4.2
20-I m	L	3/7/79	12/5/78	Medium	4,434	1.1850	3.73	0.0592	74.7	5.0
840-H f	L	3/7/79	12/8/78	Medium	5,730	4.7500	1.21	0.1108	51.7	2.3
762-E f	L	3/7/79	12/6/78	Medium	5,907	6.3887	0.86	0.2076	28.5	3.2
44-I m	L	3/7/79	12/7/78	Medium	2,996	4.8087	0.62	0.1800	16.6	3.7
598-I m	L	3/7/79	12/11/78	Medium	681.0	6.2946	0.11	0.1468	4.71	2.3
281-E f	L	3/7/79	12/11/78	Medium	583.4	6.8619	0.08	0.2760	2.11	4.0
307-I f	L	3/7/79	12/5/78	Medium	14,730	5.3315	2.76	0.3500	42.1	6.6
763-E f	L	3/7/79	12/7/78	Medium	900.5	1.5026	0.60	0.0620	14.5	4.1
757-I f	L	3/7/79	12/7/78	Medium	1,836	2.0260	0.91	0.0500	36.7	2.5
600-I m	L	3/7/79	12/5/78	High	18,340	3.6173	5.07	0.1348	136	3.7
425-J m	L	3/7/79	12/8/78	High	5,610	5.3906	1.04	0.1136	49.4	2.1
269-I f	L	3/7/79	12/6/78	High	16,150	5.9640	2.71	0.1684	95.9	2.8
287-I f	L	3/7/79	12/6/78	High	15,230	4.8081	3.17	0.1780	85.6	3.7
226-F f	L	3/7/79	12/5/78	High	46,030	4.6220	9.96	0.1476	312	3.2
312-I f	L	3/7/79	12/7/78	High	17,670	5.8463	3.19	0.1912	92.4	3.4
427-J m	L	3/7/79	12/7/78	High	706.1	2.0258	0.35	0.0828	8.53	4.1

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TABLE 28. PCB CONTENT OF BABY LIVER SAMPLES SHIPPED 7 MARCH 1979

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	ßng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100 (%)
B-8815	Bl	3/7/79	12/6/78	Low	273.7	3.5984	0.08	0.1400	1.95	3.9
B-8860	Bl	3/7/79	12/11/78	Medium	3,093	1.2537	2.47	0.0236	131	1.9
B-8560	Bl	3/7/79	12/11/78	Medium	1,233	1.5883	0.78	0.0344	35.8	2.2

TABLE 29. PCB CONTENT OF BABY AND ADULT FAT AND MUSCLE TISSUE OF TERMINAL ANIMALS SHIPPED 18 APRIL 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	ßng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
B-8483 f	Bm	4/18/78	3/29/78	Control	576.6	1.4580	0.40	0.0108	53.4	1.0
B-8483 f	Bf	4/18/78	3/29/78	Control	<457.2	0.4186	<1.09	0.0064	<71.4	1.5
87-F f	F	4/18/78	3/31/78	Control	<381.2	1.9918	<0.19	1.3960	<0.27	70
486-H f	F	4/18/78	3/22/78	High	5,568	0.7992	6.97	0.0236	236	3.0
770-I f	F	4/18/78	4/3/78	High	340,700	2.2461	152	0.7168	475	32

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TABLE 30. PCB CONTENT OF MILK SAMPLES SHIPPED 2 MAY AND 23 MAY 1978

Sample I.D.	Type	Date Shipped	Dose Level	ηg Aroclor 1254	Weight of Milk Analysed (g)	PPM on Weight Basis (μg/g)
604-I f	M	5/2/78	Control	8.0	0.0992	0.08
618-I f	M	5/23/58	Control	0.6	0.1039	0.01
764-E f	M	5/23/78	Control	3.1	0.1041	0.03
274-F f	M	5/23/78	Control	21.1	0.1075	0.20
624-I f	M	5/23/78	Low	22.5	0.1037	0.22
540-H f	M	5/23/78	Medium	43.6	0.1048	0.42
273-I f	M	5/23/78	Medium	60.9	0.1063	0.51
757-I f	M	5/23/78	Medium	49.0	0.1074	0.46
312-I f	M	5/23/78	High	100.1	0.1055	0.95

TABLE 31. PCB CONTENT OF MILK AND BLOOD SERUM SAMPLES SHIPPED 7 MARCH 1979

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	ηg Aroclor 1254	Weight of Sample Analysed (g)	PPM on Weight Basis (μg/g)
605-F f	M	3/7/79	5/9/78	Control	<1.1	0.0622	<0.018
200-F f	M	3/7/79	6/8/78	Control	3.1	0.1006	0.031
701-E f	M	3/7/79	5/27/78	Low	<1.1	0.1028	<0.010
483-F f	M	3/7/79	9/28/78	Low	1.1	0.1029	0.011
763-E f	M	3/7/79	5/23/78	Medium	44.3	0.0984	0.450
600-I m	Se	3/7/79	9/27/78	High	<1.2	0.0998	<0.012

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TABLE 32. PCB CONTENT OF PLACENTA SAMPLES SHIPPED 23 MAY 1978

Sample I.D.	Type	Date Shipped	Date Sample Taken	Dose Level	ßng Aroclor 1254	Wet Weight (g)	PPM on Wet Wt. Basis (µg/g)	Lipid Weight (g)	PPM on Lipid Wt. Basis (µg/g)	Lipid Wt. / Wet Wt. x 100% (%)
578-H f	P	5/23/78	5/15/78	Control	17.14	3.2464	0.0053	0.0176	0.97	0.54
605-F f	P	5/23/78	5/9/78	Low	n.d.	16.2458	n.d.	0.0144	n.d.	0.08
757-I f	P	5/23/78	5/3/78	Medium	16.62	6.4375	0.0026	0.0376	0.44	0.58
273-I f	P	5/23/78	5/9/78	Medium	23.88	7.1279	0.0034	0.0340	0.70	0.47
763-E f	P	5/23/78	5/23/78	Medium	22.53	5.4291	0.0042	0.0244	0.66	0.44

n.d. = not detected

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APPENDIX A

ANALYSIS OF CORN OIL FOR AROCLOR 1254

Several individual batches of corn oil were spiked with Aroclor 1254 by MIC in St. Louis, Missouri. Each batch was analyzed for PCB content prior to shipment to Litton Bionetics for dosing. Litton then returned any unused portions of corn oil to MIC for subsequent reanalysis.

MIC analyzed the corn oil by dilution with Nanograde® hexanes followed by analysis by electron capture gas chromatography. Dilution factors used for the analysis of the oils are 1:100 for T III, 1:25 for T II, and 1:10 for T I and the controls.

Results of the analyses are presented in Table A-1.

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TABLE A-1. LEVELS OF AROCLOR 1254 FOR CORN OIL (ppm)

Date	Feed Code	Analysis of Spiked Oil (ppm)	Analysis of Returned Oil (ppm)	Month Fed
3/25/77*	T III	219.2	215.4	April 1977
	T II	46.7	52.9	May 1977
	T I	11.1	11.9	
4/26/77	T III	199.1	*	June 1977
	T II	52.5	*	
	T I	10.7	*	
6/28/77*	T III	211	214	July 1977
	T II	46.7	45.4	August 1977
	T I	9.2	12.0	
	Control	<0.6	0.1	
7/26/77	T III	236	245.5	September 1977
	T II	49	*	
	T I	11.1	12.8	
	Control	1.1	*	
8/24/77	T III	Analysis	192.9	October 1977
	T II	Data	54.9	
	T I	Lost	*	
	Control		0.6	
9/27/77	T III	218	207.0	November 1977
	T II	55.7	49.6	
	T I	12.5	*	
	Control	0.1	0.2	
10/27/77	T III	209.4	228.8	December 1977
	T II	46.4	56.4	
	T I	9.8	10.2	
	Control	0.6	0.2	
11/21/77	T III	179.2	154.4	January 1978
	T II	46.6	36.5	
	T I	13.0	9.8	
	Control	0.1	<0.1	
12/20/77	T III	180.3	178.0	February 1978
	T II	65.5	45.7	
	T I	10.3	8.8	
	Control	<0.2	*	

(continued)

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TABLE A-1 (continued)

Date	Feed Code	Analysis of Spiked Oil (ppm)	Analysis of Returned Oil (ppm)	Month Fed
1/25/78	T III	201.5	196	March 1978
	T II	60.1	60.6	
	T I	14.5	17.1	
	Control	0.2	0.9	
2/24/78	T III	161	176	
	T II	48.3	46.5	
	T I	9.6	10.5	
	Control	<0.7	0.1	
3/22/78	T III	180	226.0	April 1978
	T II	61	56.0	
	T I	14.7	13.0	
	Control	0.2	0.3	
4/20/78	T III	199.1	188	
	T II	63.8	59.1	
	T I	16.5	11.8	
5/25/78	T III	196	†	
	T II	50.1	†	
	T I	12.1	†	
	Control	0.2	†	

*Double batch prepared.
•Batch completely used up; none returned for analysis.
†Batch returned unused.

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APPENDIX B

ANALYSIS OF RALSTON PURINA MONKEY CHOW

Three individual portions of monkey chow, fed as a daily dietary stable, were analyzed to determine any background PCB levels the monkeys may have received. The analysis methodology is delineated in the "Experimental Procedures" section of this report. Values obtained for PCB's in the monkey chow are given in Table B-1. In all three samples, the PCB level was less than 0.05 ug PCB per gram of monkey chow.

TABLE B-1. AROCLOR 1254 ANALYSIS OF RALSTON PURINA MONKEY CHOW SAMPLES

Sample I.D.	Sample Weight (g)	#ug Aroclor 1254	ug PCB/g Sample
Monkey Chow #1	10.0804	<0.50	<0.05
Monkey Chow #2	10.0042	<0.50	<0.05
Monkey Chow #3	10.0196	<0.50	<0.05

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APPENDIX C

STATISTICAL ANALYSIS OF PCB CONTENT OF MONKEY TISSUE

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Statistical Analysis of PCB Content of Monkey Tissue

INTRODUCTION

This report covers the statistical analysis of analytical data collected from a subacute feeding study on the concentrative effects of polychlorinated biphenyls on adult Rhesus monkeys and their offspring. (Report MDA-041, "PCB Content of Monkey Tissue" - Beverly J. Warner, 7 May 1979). The following description of the study is the introduction from that report.

"This study is designed to determine the concentrative effects of polychlorinated biphenyl (PCB) compounds in a subacute feeding program involving forty-eight adult Rhesus monkeys and their subsequent offspring.

The Rhesus monkeys were fed Aroclor 1254 (a PCB compound composed of 12 carbon atoms and 54% chlorine per PCB molecule) as a supplement to their diet. The feeding study was conducted by Litton Bionetics, Kensington, Maryland, for a period of one year. Fat tissue biopsies of the adult animals were taken by the Litton Laboratory and shipped to MRC for the analysis of PCB content periodically during the feeding study (approximately every two months) and during an eight-month relaxation period following the feeding study. In addition to the adult fat samples analyzed, numerous infant skin and fat samples, and colostrum (milk), placenta, and blood serum samples were analyzed on an intermittent basis. At the termination of the project, liver biopsies were also provided for all adult animals and several infants. In all, in excess of seven hundred individual analyses were performed for PCB by various extraction techniques followed by electron capture gas chromatography (EC-GC). The analysis techniques utilized and the data accumulated are presented in the following sections of this report."

The statistical analysis centers primarily on the adult fat and adult liver samples which had relatively complete and well-balanced data. No samples were excluded. Data were not complete for the baby skin, baby fat and milk samples, but these are presented for inspection, with statistical analyses where applicable.

All the data treated were assumed to be log-normally distributed, and averages and confidence limits were calculated on this basis and converted back to the original scale.

SUMMARY OF RESULTS

Adult Fat Samples (male and female)

PCB level in adult fat samples for animals fed the highest amount of PCB is significantly higher than control from one month through 20-months. Average PCB in tissues for this period is 28.2 PPM (wet weight basis) and 53.5 PPM (lipid weight basis).

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PCB level in adult fat samples for animals fed the medium level of PCB is significantly higher than control from 4 months through 20 months. Average PCB in tissues for this period is 13.2 PPM (wet weight basis) and 20.5 PPM (lipid weight basis).

PCB level in adult fat samples for animals fed the low level of PCB is significantly higher than control from 7 months through 20 months. Average PCB in tissues for this period is 2.8 PPM (wet weight basis) and 4.2 PPM (lipid weight basis).

PCB level in adult fat samples for control animals (no PCB fed) averaged 0.30 PPM (wet weight basis) and 0.55 PPM (lipid weight basis) for the period from 1 to 20 months.

Adult Liver Samples - 20 Months (male and female)

PCB level in adult liver samples increased in proportion to the amount fed. On a wet weight basis, the control samples averaged 0.076 PPM, low level samples averaged 0.4 PPM, medium level samples 0.81 PPM and high level samples 2.43 PPM. On a lipid weight basis, these results were 2.2 PPM, 10 PPM, 23 PPM and 75 PPM respectively.

Baby Skin Samples

PCB levels found in baby skin samples increased with increasing PCB in parents' diet, and with sampling time up to 7/31/78 (insufficient data for statistical analyses).

Baby Fat Samples

PCB levels found in baby fat samples increased with increasing PCB in parents' diet, and with sampling time up to 7/31/78 (insufficient data for statistical analysis).

Milk Samples

There was a significant increase of PCBs in milk as a function of the PCB level in the feed. The data were too widely scattered to determine what kind of model best fit the data. The linear model gave the following equation:

> Amt. PCB in milk = 0.094 + 0.0097 (amt. PCB fed). The correlation coefficient was 0.92, significant at 99.9% $P<0.001$.

DESCRIPTION OF STATISTICAL APPROACH

Adult Fat Samples - Wet Weight and Lipid Weight Basis

Table I shows the output from a computer program which calculates the 95% confidence limits of the mean of the amount PCB found in the adult fat samples. The program converts the data to logarithms, calculates the mean

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and standard deviation of PCB found for each level fed at each sampling time. It then calculates 95% confidence limits of the means of the logarithms. This information is converted back to PPM, and 95% confidence limits of the mean are reported in PPM and as percent of the mean.

Table II is a summary of the averages by month for each level of PCB fed. Table III gives specific statistical conclusions by month.

Figures 1a and 1b are composite plots of the means and 95% confidence limits of PCB found for each level fed vs. sampling time. The test for significance was based on the degree to which the 95% confidence limits of the means overlapped. The least significant difference (95% level) between the means is approximately 2.828 standard deviations. When there is no overlap of the 95% confidence limits, the means are approximately 4 standard deviations apart. The individual comparisons can be confirmed using Students' t test.

Adult Liver Samples - End of Study

The procedure for calculating confidence limits of the means is the same as in Adult Fat Samples. Figures 2a and 2b show the means and confidence limits of the means for PCBs found at each level of PCB fed.

Least squares lines were determined for the average PCBs found vs. amount PCB fed. For lipid weight samples

PPM found (lipid) = 4.6 + 0.71 (PPM in feed). For wet weight samples PPM found (wet) = 0.20 + 0.022 (PPM in feed).

Both these equations were significant at 99.9% ($p<0.001$)

Baby Skin Samples

Table IV shows average PPM found on wet weight basis in baby skin as related to level fed to parents, and sampling time. Lipid weight results are not shown because of extreme variation in lipid weight to sample weight ratio.

Baby Fat Samples

Table IV shows average PPM on wet basis, presented as indicated in paragraph under Adult Fat Samples.

Milk Samples

Table V shows the average PPM found in milk samples, presented as related to PCBs consumed.

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DISCUSSION

The foregoing analysis of the data is an attempt to describe the effects of various levels of PCB in the diet on the resulting amount of PCB found in the animal tissues. No attempt was made to fit any sort of theoretical model, but the adult fat data may be sufficiently consistent to support such an approach. In addition, we have not tried to relate PCB levels to toxicology data, but recommend that this be done when the latter are available.

ACKNOWLEDGMENT

The assistance of J. L. Davis (Environmental Sciences) in running the computer calculations of means and confidence limits is gratefully appreciated.

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TABLE I
Calculation of Confidence Limits

TABLE A CONTROL WET
MEAN = 749094
95% (2 SIGMA) CONFIDENCE LIMITS ARE .572997 TO .979311
95% LIMITS AS % OF MEAN ARE 76.492 % TO 130.733 %

TABLE B LOW WET
MEAN = 495098
95% (2 SIGMA) CONFIDENCE LIMITS ARE .3534 TO .693611
95% LIMITS AS % OF MEAN ARE 71.3797 % TO 140.096 %

TABLE B MEDIUM WET
MEAN = 585049
95% (2 SIGMA) CONFIDENCE LIMITS ARE .325958 TO .864421
95% LIMITS AS % OF MEAN ARE 67.6802 % TO 147.754 %

TABLE B HIGH WET
MEAN = 688215
95% (2 SIGMA) CONFIDENCE LIMITS ARE .3634 TO 1.30336
95% LIMITS AS % OF MEAN ARE 52.8032 % TO 189.382 %

TABLE A CONTROL LIPID
MEAN = 1.71628
95% (2 SIGMA) CONFIDENCE LIMITS ARE .361068 TO 8.15809
95% LIMITS AS % OF MEAN ARE 21.0378 % TO 475.335 %

TABLE B LOW LIPID
MEAN = 76315
95% (2 SIGMA) CONFIDENCE LIMITS ARE .471852 TO 1.23428
95% LIMITS AS % OF MEAN ARE 61.8296 % TO 161.735 %

TABLE A MEDIUM LIPID
MEAN = 915273
95% (2 SIGMA) CONFIDENCE LIMITS ARE .524646 TO 1.59674
95% LIMITS AS % OF MEAN ARE 57.3213 % TO 174.455 %

TABLE B HIGH LIPID
MEAN = 953255
95% (2 SIGMA) CONFIDENCE LIMITS ARE .443374 TO 2.0495
95% LIMITS AS % OF MEAN ARE 46.5116 % TO 215 %

TABLE 7 CONTROL WET
MEAN = 235899
95% (2 SIGMA) CONFIDENCE LIMITS ARE .109157 TO .509798
95% LIMITS AS % OF MEAN ARE 46.273 % TO 216.109 %

TABLE 7 LOW WET
MEAN = 422889
95% (2 SIGMA) CONFIDENCE LIMITS ARE .233391 TO .763059
95% LIMITS AS % OF MEAN ARE 55.3049 % TO 180.416 %

TABLE 7 MEDIUM WET
MEAN = 1.23347
95% (2 SIGMA) CONFIDENCE LIMITS ARE .461048 TO 3.29998
95% LIMITS AS % OF MEAN ARE 37.3782 % TO 267.536 %

TABLE 7 HIGH WET
MEAN = 10.9144
95% (2 SIGMA) CONFIDENCE LIMITS ARE 7.71151 TO 15.4531
95% LIMITS AS % OF MEAN ARE 70.6417 % TO 141.559 %

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TABLE 7 CONTROL LIPID
MEAN = .387814
95% (2 SIGMA) CONFIDENCE LIMITS ARE .148902 TO 1.0674
95% LIMITS AS % OF MEAN ARE 38.3325 % TO 275.236 %

TABLE 7 LOW LIPID
MEAN = .534091
95% (2 SIGMA) CONFIDENCE LIMITS ARE .289713 TO .784684
95% LIMITS AS % OF MEAN ARE 54.2442 % TO 184.351 %

TABLE 7 MEDIUM LIPID
MEAN = 2.13993
95% (2 SIGMA) CONFIDENCE LIMITS ARE .653287 TO 7.00961
95% LIMITS AS % OF MEAN ARE 30.5285 % TO 327.563 %

TABLE 7 HIGH LIPID
MEAN = 14.1806
95% (2 SIGMA) CONFIDENCE LIMITS ARE 6.0624 TO 29.303
95% LIMITS AS % OF MEAN ARE 48.3929 % TO 206.642 %

TABLE 8 CONTROL WET
MEAN = .515025
95% (2 SIGMA) CONFIDENCE LIMITS ARE .380366 TO .697355
95% LIMITS AS % OF MEAN ARE 73.854 % TO 135.402 %

TABLE 8 CONTROL LIPID
MEAN = .654461
95% (2 SIGMA) CONFIDENCE LIMITS ARE .458312 TO .934557
95% LIMITS AS % OF MEAN ARE 70.029 % TO 142.798 %

TABLE 9 CONTROL WET
MEAN = .881472
95% (2 SIGMA) CONFIDENCE LIMITS ARE .598969 TO 1.29722
95% LIMITS AS % OF MEAN ARE 67.951 % TO 147.165 %

TABLE 9 LOW WET
MEAN = .964053
95% (2 SIGMA) CONFIDENCE LIMITS ARE .550077 TO 1.68958
95% LIMITS AS % OF MEAN ARE 57.0508 % TO 175.258 %

TABLE 9 MEDIUM WET
MEAN = 5.99341
95% (2 SIGMA) CONFIDENCE LIMITS ARE 4.01158 TO 8.95433
95% LIMITS AS % OF MEAN ARE 66.9331 % TO 149.403 %

TABLE 9 HIGH WET
MEAN = 20.8999
95% (2 SIGMA) CONFIDENCE LIMITS ARE 14.3207 TO 28.2113
95% LIMITS AS % OF MEAN ARE 71.2475 % TO 140.356 %

TABLE 9 CONTROL LIPID
MEAN = 1.23991
95% (2 SIGMA) CONFIDENCE LIMITS ARE .818999 TO 1.87713
95% LIMITS AS % OF MEAN ARE 66.0533 % TO 151.393 %

TABLE 9 LOW LIPID
MEAN = 1.94490
95% (2 SIGMA) CONFIDENCE LIMITS ARE .95484 TO 4.84372
95% LIMITS AS % OF MEAN ARE 48.5936 % TO 285.788 %

MONS 014076

TABLE 9 MEDIUM LIPID
MEAN = 7.60867
95% (2 SIGMA) CONFIDENCE LIMITS ARE 4.6515 TO 12.4458
95% LIMITS AS % OF MEAN ARE 61.1343 % TO 163.574 %

TABLE 9 HIGH LIPID
MEAN = 32.0339
95% (2 SIGMA) CONFIDENCE LIMITS ARE 21.8312 TO 47.005
95% LIMITS AS % OF MEAN ARE 68.1501 % TO 146.735 %

TABLE 10 CONTROL WET
MEAN = .247594
95% (2 SIGMA) CONFIDENCE LIMITS ARE .0792726 TO .773315
95% LIMITS AS % OF MEAN ARE 32.0172 % TO 312.332 %

TABLE 10 LOW WET
MEAN = .440969
95% (2 SIGMA) CONFIDENCE LIMITS ARE .180674 TO 1.07627
95% LIMITS AS % OF MEAN ARE 40.972 % TO 244.069 %

TABLE 10 MEDIUM WET
MEAN = 7.45852
95% (2 SIGMA) CONFIDENCE LIMITS ARE 5.48193 TO 10.1478
95% LIMITS AS % OF MEAN ARE 73.4986 % TO 136.057 %

TABLE 10 HIGH WET
MEAN = 24.3932
95% (2 SIGMA) CONFIDENCE LIMITS ARE 14.2319 TO 41.8095
95% LIMITS AS % OF MEAN ARE 58.3437 % TO 171.398 %

TABLE 10 CONTROL LIPID
MEAN = .413967
95% (2 SIGMA) CONFIDENCE LIMITS ARE .127852 TO 1.3339
95% LIMITS AS % OF MEAN ARE 30.9595 % TO 323.003 %

TABLE 10 LOW LIPID
MEAN = .677586
95% (2 SIGMA) CONFIDENCE LIMITS ARE .262462 TO 1.74929
95% LIMITS AS % OF MEAN ARE 38.7349 % TO 258.165 %

TABLE 10 MEDIUM LIPID
MEAN = 8.85754
95% (2 SIGMA) CONFIDENCE LIMITS ARE 6.38339 TO 12.2906
95% LIMITS AS % OF MEAN ARE 72.0673 % TO 138.759 %

TABLE 10 HIGH LIPID
MEAN = 35.4485
95% (2 SIGMA) CONFIDENCE LIMITS ARE 16.7222 TO 75.9958
95% LIMITS AS % OF MEAN ARE 46.9085 % TO 213.181 %

TABLE 11 CONTROL WET
MEAN = .162668
95% (2 SIGMA) CONFIDENCE LIMITS ARE .102031 TO .259342
95% LIMITS AS % OF MEAN ARE 62.7234 % TO 159.43 %

TABLE 11 LOW WET
MEAN = 2.50306
95% (2 SIGMA) CONFIDENCE LIMITS ARE 1.82661 TO 3.43087
95% LIMITS AS % OF MEAN ARE 72.9746 % TO 137.034 %

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TABLE 11 MEDIUM WET
MEAN = 8.48144
95% (2 SIGMA) CONFIDENCE LIMITS ARE 5.03161 TO 12.3354
95% LIMITS AS % OF MEAN ARE 68.7572 % TO 145.439 %

TABLE 11 HIGH WET
MEAN = 20.5028
95% (2 SIGMA) CONFIDENCE LIMITS ARE 10.4364 TO 40.2786
95% LIMITS AS % OF MEAN ARE 50.9023 % TO 196.455 %

TABLE 11 CONTROL LIPID
MEAN = .213713
95% (2 SIGMA) CONFIDENCE LIMITS ARE .122103 TO .374053
95% LIMITS AS % OF MEAN ARE 57.1344 % TO 175.026 %

TABLE 11 LOW LIPID
MEAN = 2.77841
95% (2 SIGMA) CONFIDENCE LIMITS ARE 1.88326 TO 4.28089
95% LIMITS AS % OF MEAN ARE 64.9027 % TO 154.077 %

TABLE 11 MEDIUM LIPID
MEAN = 11.5644
95% (2 SIGMA) CONFIDENCE LIMITS ARE 7.85842 TO 17.0182
95% LIMITS AS % OF MEAN ARE 67.9533 % TO 147.16 %

TABLE 11 HIGH LIPID
MEAN = 30.0384
95% (2 SIGMA) CONFIDENCE LIMITS ARE 11.8584 TO 76.09
95% LIMITS AS % OF MEAN ARE 39.4775 % TO 253.309 %

TABLE 12 CONTROL WET
MEAN = .728571
95% (2 SIGMA) CONFIDENCE LIMITS ARE .407622 TO 1.30272
95% LIMITS AS % OF MEAN ARE 55.9482 % TO 178.737 %

TABLE 12 LOW WET
MEAN = 2.88638
95% (2 SIGMA) CONFIDENCE LIMITS ARE 2.14402 TO 3.88577
95% LIMITS AS % OF MEAN ARE 74.2808 % TO 134.624 %

TABLE 12 LOW WET
MEAN = 2.88638
95% (2 SIGMA) CONFIDENCE LIMITS ARE 2.14402 TO 3.88577
95% LIMITS AS % OF MEAN ARE 74.2808 % TO 134.624 %

TABLE 12 MEDIUM WET
MEAN = 12.4318
95% (2 SIGMA) CONFIDENCE LIMITS ARE 8.79351 TO 17.5755
95% LIMITS AS % OF MEAN ARE 70.7339 % TO 141.375 %

TABLE 12 HIGH WET
MEAN = 39.9365
95% (2 SIGMA) CONFIDENCE LIMITS ARE 28.8245 TO 55.3324
95% LIMITS AS % OF MEAN ARE 72.1757 % TO 138.551 %

TABLE 12 CONTROL LIPID
MEAN = 1.0385
95% (2 SIGMA) CONFIDENCE LIMITS ARE .538677 TO 2.03229
95% LIMITS AS % OF MEAN ARE 51.1002 % TO 195.694 %

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TABLE 12 LOW LIPID
MEAN = 4.20031
95% (2 SIGMA) CONFIDENCE LIMITS ARE 2.7913 TO 6.32059
95% LIMITS AS % OF MEAN ARE 66.4545 % TO 150.479 %

TABLE 12 MEDIUM LIPID
MEAN = 17.3318
95% (2 SIGMA) CONFIDENCE LIMITS ARE 11.3194 TO 26.538
95% LIMITS AS % OF MEAN ARE 65.3096 % TO 153.117 %

TABLE 12 HIGH LIPID
MEAN = 97.9947
95% (2 SIGMA) CONFIDENCE LIMITS ARE 58.0866 TO 165.372
95% LIMITS AS % OF MEAN ARE 59.2752 % TO 168.705 %

TABLE 13 CONTROL WET
MEAN = 371633
95% (2 SIGMA) CONFIDENCE LIMITS ARE 288679 TO 478911
95% LIMITS AS % OF MEAN ARE 77.6341 % TO 128.881 %

TABLE 13 LOW WET
MEAN = 3.88438
95% (2 SIGMA) CONFIDENCE LIMITS ARE 2.70744 TO 5.51542
95% LIMITS AS % OF MEAN ARE 70.0432 % TO 142.028 %

TABLE 13 MEDIUM WET
MEAN = 14.3533
95% (2 SIGMA) CONFIDENCE LIMITS ARE 10.776 TO 20.9336
95% LIMITS AS % OF MEAN ARE 78.1364 % TO 127.993 %

TABLE 13 HIGH WET
MEAN = 38.9355
95% (2 SIGMA) CONFIDENCE LIMITS ARE 19.6701 TO 77.0704
95% LIMITS AS % OF MEAN ARE 50.5347 % TO 197.893 %

TABLE 13 CONTROL LIPID
MEAN = 632762
95% (2 SIGMA) CONFIDENCE LIMITS ARE 337241 TO 1.18724
95% LIMITS AS % OF MEAN ARE 53.2947 % TO 187.629 %

TABLE 13 LOW WET
MEAN = 5.6438
95% (2 SIGMA) CONFIDENCE LIMITS ARE 3.20953 TO 9.92435
95% LIMITS AS % OF MEAN ARE 56.8682 % TO 175.845 %

TABLE 13 MEDIUM LIPID
MEAN = 33.5452
95% (2 SIGMA) CONFIDENCE LIMITS ARE 16.6111 TO 33.4306
95% LIMITS AS % OF MEAN ARE 70.4899 % TO 141.664 %

TABLE 13 HIGH LIPID
MEAN = 114.285
95% (2 SIGMA) CONFIDENCE LIMITS ARE 62.6863 TO 208.357
95% LIMITS AS % OF MEAN ARE 54.8507 % TO 182.313 %

TABLE 14 CONTROL WET
MEAN = 292217
95% (2 SIGMA) CONFIDENCE LIMITS ARE 139416 TO 612492
95% LIMITS AS % OF MEAN ARE 47.7096 % TO 209.601 %

TABLE 14 LOW WET
MEAN = 3.35533
95% (2 SIGMA) CONFIDENCE LIMITS ARE 2.19354 TO 5.13245
95% LIMITS AS % OF MEAN ARE 65.3748 % TO 152.964 %

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TABLE 14 MEDIUM WET
MEAN = 28.2384
95% (2 SIGMA) CONFIDENCE LIMITS ARE 10.7302 TO 38.1434
95% LIMITS AS % OF MEAN ARE 53.0587 % TO 180.471 %

TABLE 14 HIGH WET
MEAN = 95.8265
95% (2 SIGMA) CONFIDENCE LIMITS ARE 70.9561 TO 129.414
95% LIMITS AS % OF MEAN ARE 74.0465 % TO 135.05 %

TABLE 14 CONTROL LIPID
MEAN = .644225
95% (2 SIGMA) CONFIDENCE LIMITS ARE .151198 TO 2.74491
95% LIMITS AS % OF MEAN ARE 23.4698 % TO 426.079 %

TABLE 14 LOW LIPID
MEAN = 6.32952
95% (2 SIGMA) CONFIDENCE LIMITS ARE 3.53561 TO 11.3312
95% LIMITS AS % OF MEAN ARE 55.8591 % TO 179.022 %

TABLE 14 MEDIUM LIPID
MEAN = 28.9138
95% (2 SIGMA) CONFIDENCE LIMITS ARE 12.8817 TO 64.8987
95% LIMITS AS % OF MEAN ARE 44.5522 % TO 224.456 %

TABLE 14 HIGH LIPID
MEAN = 165.53
95% (2 SIGMA) CONFIDENCE LIMITS ARE 103.773 TO 264.04
95% LIMITS AS % OF MEAN ARE 62.6913 % TO 159.512 %

TABLE 15 CONTROL WET
MEAN = .129589
95% (2 SIGMA) CONFIDENCE LIMITS ARE .059196 TO .283689
95% LIMITS AS % OF MEAN ARE 45.6799 % TO 218.915 %

TABLE 15 LOW WET
MEAN = 2.20322
95% (2 SIGMA) CONFIDENCE LIMITS ARE 1.55393 TO 3.1238
95% LIMITS AS % OF MEAN ARE 70.5301 % TO 141.784 %

TABLE 15 MEDIUM WET
MEAN = 15.0582
95% (2 SIGMA) CONFIDENCE LIMITS ARE 10.5148 TO 23.893
95% LIMITS AS % OF MEAN ARE 66.3385 % TO 158.742 %

TABLE 15 HIGH WET
MEAN = 42.3283
95% (2 SIGMA) CONFIDENCE LIMITS ARE 28.537 TO 62.7609
95% LIMITS AS % OF MEAN ARE 67.431 % TO 148.3 %

TABLE 15 CONTROL LIPID
MEAN = .22586
95% (2 SIGMA) CONFIDENCE LIMITS ARE .0727565 TO .696186
95% LIMITS AS % OF MEAN ARE 32.3276 % TO 309.333 %

TABLE 15 LOW LIPID
MEAN = 3.93395
95% (2 SIGMA) CONFIDENCE LIMITS ARE 2.21305 TO 6.99384
95% LIMITS AS % OF MEAN ARE 56.2552 % TO 177.761 %

TABLE 15 MEDIUM LIPID
MEAN = 30.8487
95% (2 SIGMA) CONFIDENCE LIMITS ARE 20.8718 TO 45.654
95% LIMITS AS % OF MEAN ARE 67.6146 % TO 147.897 %

TABLE 15 HIGH LIPID
MEAN = 116.175
95% (2 SIGMA) CONFIDENCE LIMITS ARE 71.1216 TO 189.767
95% LIMITS AS % OF MEAN ARE 61.2196 % TO 163.347 %

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TABLE 16 CONTROL WET
MEAN = 120773
95% (2 SIGMA) CONFIDENCE LIMITS ARE .0794903 TO .183494
95% LIMITS AS % OF MEAN ARE 65.8181 % TO 151.934 %

TABLE 16 LOW WET
MEAN = 13.0617
95% (2 SIGMA) CONFIDENCE LIMITS ARE 9.65428 TO 17.6717
95% LIMITS AS % OF MEAN ARE 73.913 % TO 135.294 %

TABLE 16 HIGH WET
MEAN = 10.0199
95% (2 SIGMA) CONFIDENCE LIMITS ARE 4.30186 TO 23.3385
95% LIMITS AS % OF MEAN ARE 42.933 % TO 232.991 %

TABLE 16 CONTROL LIPID
MEAN = .3349
95% (2 SIGMA) CONFIDENCE LIMITS ARE .223398 TO .502053
95% LIMITS AS % OF MEAN ARE 66.7061 % TO 149.911 %

TABLE 16 MEDIUM LIPID
MEAN = 24.9736
95% (2 SIGMA) CONFIDENCE LIMITS ARE 17.3947 TO 35.8546
95% LIMITS AS % OF MEAN ARE 69.6523 % TO 143.57 %

TABLE 16 HIGH LIPID
MEAN = 34.5144
95% (2 SIGMA) CONFIDENCE LIMITS ARE 17.3862 TO 68.8334
95% LIMITS AS % OF MEAN ARE 50.1419 % TO 199.434 %

TABLE 18 CONTROL WET
MEAN = .434785
95% (2 SIGMA) CONFIDENCE LIMITS ARE .243576 TO .776094
95% LIMITS AS % OF MEAN ARE 56.0222 % TO 178.501 %

TABLE 18 LOW WET
MEAN = 3.02133
95% (2 SIGMA) CONFIDENCE LIMITS ARE 2.55449 TO 3.57349
95% LIMITS AS % OF MEAN ARE 84.5484 % TO 118.275 %

TABLE 18 MEDIUM WET
MEAN = 15.5034
95% (2 SIGMA) CONFIDENCE LIMITS ARE 10.3717 TO 23.1741
95% LIMITS AS % OF MEAN ARE 66.8996 % TO 149.478 %

TABLE 18 HIGH WET
MEAN = 43.2859
95% (2 SIGMA) CONFIDENCE LIMITS ARE 21.9232 TO 85.1495
95% LIMITS AS % OF MEAN ARE 50.7413 % TO 197.078 %

TABLE 18 CONTROL LIPID
MEAN = 1.48824
95% (2 SIGMA) CONFIDENCE LIMITS ARE .6698 TO 3.27131
95% LIMITS AS % OF MEAN ARE 45.2493 % TO 220.998 %

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TABLE 18 LOW LIPID
MEAN = 5.06448
95% (2 SIGMA) CONFIDENCE LIMITS ARE 4.22522 TO 6.07845
95% LIMITS AS % OF MEAN ARE 83.4284 % TO 119.963 %

TABLE 18 MEDIUM LIPID
MEAN = 39.589
95% (2 SIGMA) CONFIDENCE LIMITS ARE 16.5027 TO 90.2344
95% LIMITS AS % OF MEAN ARE 42.7652 % TO 233.835 %

TABLE 18 HIGH LIPID
MEAN = 97.0857
95% (2 SIGMA) CONFIDENCE LIMITS ARE 45.5477 TO 206.94
95% LIMITS AS % OF MEAN ARE 46.9149 % TO 213.152 %

TABLE 19 CONTROL WET
MEAN = .436251
95% (2 SIGMA) CONFIDENCE LIMITS ARE .332376 TO .572588
95% LIMITS AS % OF MEAN ARE 76.1893 % TO 131.252 %

TABLE 19 LOW WET
MEAN = 2.30618
95% (2 SIGMA) CONFIDENCE LIMITS ARE 1.82215 TO 2.90364
95% LIMITS AS % OF MEAN ARE 79.2174 % TO 126.235 %

TABLE 19 MEDIUM WET
MEAN = 14.0178
95% (2 SIGMA) CONFIDENCE LIMITS ARE 9.40518 TO 20.8927
95% LIMITS AS % OF MEAN ARE 67.0944 % TO 149.044 %

TABLE 19 HIGH WET
MEAN = 32.4194
95% (2 SIGMA) CONFIDENCE LIMITS ARE 24.127 TO 43.5633
95% LIMITS AS % OF MEAN ARE 74.4202 % TO 134.372 %

TABLE 19 CONTROL LIPID
MEAN = .970779
95% (2 SIGMA) CONFIDENCE LIMITS ARE .332683 TO 2.83413
95% LIMITS AS % OF MEAN ARE 35.7434 % TO 279.78 %

TABLE 19 LOW LIPID
MEAN = 2.94958
95% (2 SIGMA) CONFIDENCE LIMITS ARE 2.30466 TO 3.7P154
95% LIMITS AS % OF MEAN ARE 77.9995 % TO 128.206 %

TABLE 19 MEDIUM LIPID
MEAN = 17.2433
95% (2 SIGMA) CONFIDENCE LIMITS ARE 11.6183 TO 25.651
95% LIMITS AS % OF MEAN ARE 67.3007 % TO 148.587 %

TABLE 19 HIGH LIPID
MEAN = 45.3536
95% (2 SIGMA) CONFIDENCE LIMITS ARE 31.0827 TO 61.2473
95% LIMITS AS % OF MEAN ARE 71.2582 % TO 140.373 %

FIGURE 1a

PCB in Adult Fat Samples - Wet Weight Basis

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FIGURE 1b

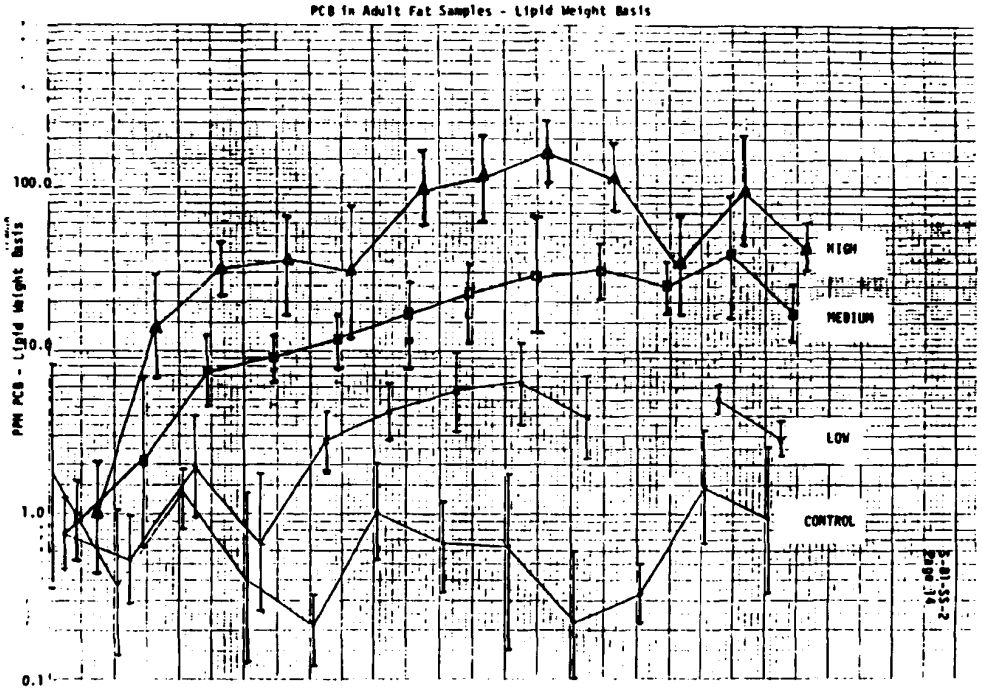

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TABLE II

Averages (Log Basis) - Treatments and Control

PPM	Table 6 Initial	Table 7 1 Mo.	Table 9 3 Mo.	Table 10 4 Mo.	Table 11 7 Mo.	Table 12 9 Mo.	Table 13 11 Mo.	Table 14 13 Mo.	Table 15 14 Mo.	Table 16 16 Mo.	Table 18 18 Mo.	Table 19 20 Mo.
Wet Wt. Basis												
Control	0.749	0.236	0.881	0.248	0.163	0.729	0.172	0.297	0.130	0.121	0.435	0.436
Low	0.495	0.422	0.964	0.441	2.503	2.886	3.864	3.355	2.203	--	3.021	2.300
Medium	0.585	1.233	5.993	7.459	8.481	12.432	16.352	20.238	15.850	13.061	15.503	14.018
High	0.688	10.916	20.100	24.393	20.503	39.917	38.926	95.827	42.320	10.020	43.210	32.420
Lipid Wt. Basis												
Control	1.716	0.388	1.240	0.413	0.214	1.039	0.633	0.644	0.255	0.335	1.480	0.931
Low	0.753	0.534	1.965	0.678	2.778	4.200	5.644	6.330	3.934	--	5.065	2.950
Medium	0.915	2.140	7.609	8.858	11.564	17.332	23.565	28.914	30.869	24.974	38.589	17.263
High	0.953	14.181	32.034	35.649	30.038	97.995	114.285	165.530	116.175	34.514	97.086	43.612

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TABLE III

Individual Statistical Comparisons

Adult Fat Samples

PCB Found - Wet Weight Basis

1.	Pre Drug	- No significant differences found.
2.	1 Month	- Control significantly lower than pre drug control. - High level significantly higher than all others.
3.	3 Month	- Control significantly higher than 1 month control. - High level significantly higher than all others.
4.	4 Month	- High level significantly higher than all others. - Medium level significantly higher than low and control. - Medium level significantly higher than 1 and 3 months medium.
5.	7 Months	- All levels differ significantly from one another. - Low level significantly higher than 4 months low.
6.	9 Months to 20 Months	- Levels remain significantly different except for sharp drop in 16 Month high level data. No further increase in amount found.

PCB Found - Lipid Weight Basis

1.	Pre Drug	- No significant differences found.
2.	1 Month	- High level significantly higher than low and control.
3.	3 Month	- High, medium and low significantly different from one another. High and medium significantly higher than control.
4.	4 Month	- Same as 3 Month.
5.	7 Months	- High and medium significantly higher than low and control. Low significantly higher than control.
6.	9 Months	- All levels significantly different from one another.
7.	9 Months to 20 Months	- High and medium differ significantly from low and control. - High significantly higher than medium except 18 and 20 months. - Low significantly higher than control except 20 months.

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Figure 2a

Adult Liver Samples - Wet Wt. Basis

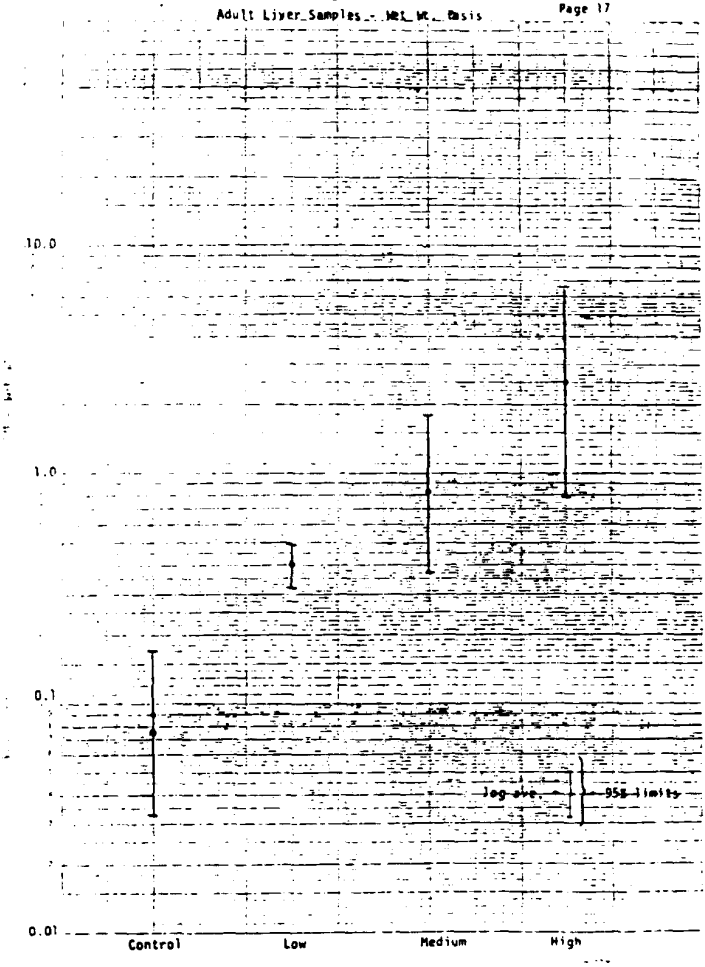

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Figure 2b
Adult Liver Samples - Lipid Wt. Basis

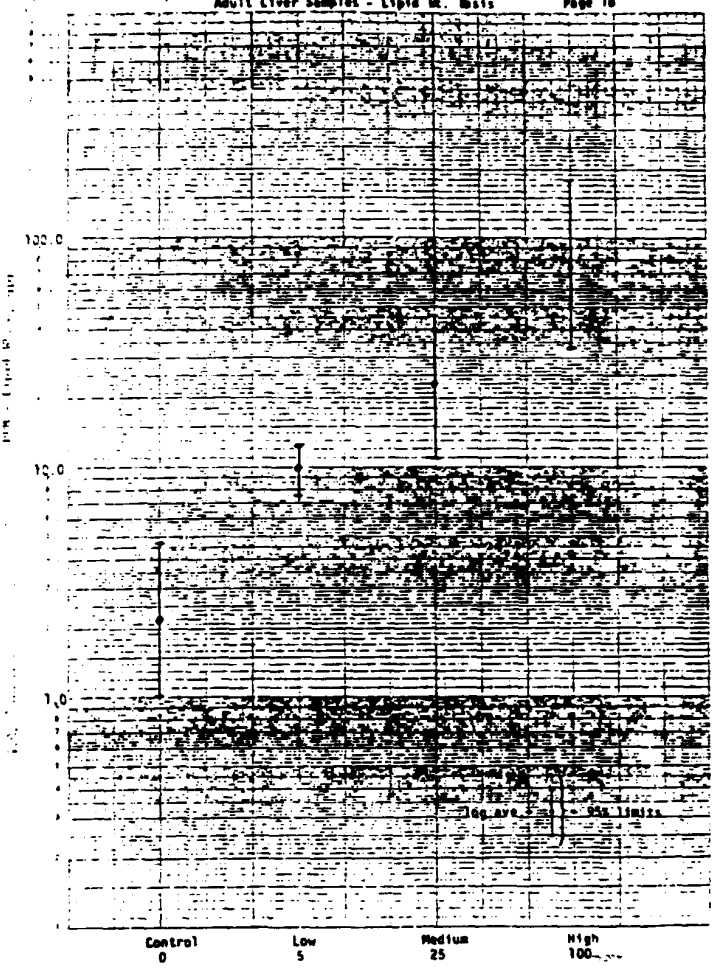

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TABLE IV

Baby Skin - Wet Weight Basis - Averages (PPM)

	Level Fed			
Sample Taken	Control	Low	Medium	High
5/24-6/9/78	.083	.175	1.45	1.82
6/19-6/30/78	.396	2.26	2.92	13.80
7/6-7/31/78	.826	2.42	16.60	--
8/8-10/10/78	.650	6.84	13.84	--
10/27-12/11/78	--	1.53	12.59	--

Baby Fat - Wet Weight Basis - Averages (PPM)

	Level Fed			
Sample Taken	Control	Low	Medium	High
6/19-6/30/78	1.04	2.03	8.32	--
7/6-7/31/78	0.70	10.69	98.17	108.89
8/8-10/10/78	0.61	9.04	--	38.90
10/27-12/11/78	--	0.76	18.11	--

MONS 014089

TABLE V

PPM PCB Found in Milk Samples

Level Fed	PCB Found
Control (0.00)	.08
	.01
	.03
	.20
	.02
	.03
Low (5 PPM)	0.22
	0.01
	0.01
Medium (25 PPM)	0.42
	0.51
	0.46
	0.45
High (100 PPM)	0.95

MONS 014090

PREPARED BY: John D. Hinchen Date: 8/27/81
J. D. Hinchen
Senior Research Specialist

Applied Sciences
Computer Sciences/
Statistics Group

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