BLOOD LEAD COMPARISON STATISTICS

1st Quarter

(Jan., Feb., Mar.)

1982

Lead Industries Association, Inc.
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LIA is pleased to present the following summary of biological monitoring data provided by members of the lead industry. These summaries should enable individual companies to compare their results with companies in the same industry sector as well as with the lead industry as a whole.

Total Number of Companies Responding	17
Total Number of Plant Sites	58
Total Number of Individuals Sampled	9096
Total Number of Individual Tests:	
a. Blood Leads (PbB)	12,944
b. Zinc Protoporphyrin (ZPP)	7,650
c. Hemoglobin (Hb)	4,961

Primary Smelting and Refining

Sites: 7 # of Individuals sampled: 3031

Month	Number of Samples	PbB (µg/100g) Mean ($\bar{x}$)	S.D.*	% of Samples in Each PbB (µg/100g) <20	20<30	30<40	40<50	50<60	60<70	70<80	>80		ZPP (µg/100g)	Hb gm%
Jan	1366	43.3	12.3	7.2	13.3	22.4	30.5	20.0	5.9	.6	-	#	1142	336
												$\bar{x}$	56.4	16.0
Feb	1263	41.3	11.9	8.1	13.9	23.1	30.0	20.0	4.7	.5	-	#	1058	502
												$\bar{x}$	61.4	16.0
Mar	1638	41.2	12.5	9.3	14.0	21.7	30.2	19.7	4.3	.5	.1	#	1411	637
												$\bar{x}$	63.6	15.9

Secondary Lead Smelters

Sites: 6 # of individuals sampled: 409

Month	Number of Samples	PbB (µg/100g) Mean ($\bar{x}$)	S.D.*	% of Samples in Each PbB (µg/100g) <20	20<30	30<40	40<50	50<60	60<70	70<80	>80		ZPP (µg/100g)	Hb gm%
Jan	204	38.8	14.7	15.7	12.3	18.6	28.4	19.1	3.9	2.0	-	#	108	
												$\bar{x}$	30.7	-
Feb	187	37.8	14.1	14.4	12.3	20.3	33.7	16.0	3.2	-	-	#	104	
												$\bar{x}$	35.3	-
Mar	133	38.3	13.8	9.0	17.3	24.8	25.6	18.0	5.3	-	-	#	79	
												$\bar{x}$	41.8	

Oxide and Chemical Manufacturing

Sites: 6 # of individuals sampled: 194

Month	Number of Samples	PbB (µg/100g) Mean ($\bar{x}$)	S.D.*	% of Samples in Each PbB (µg/100g) <20	20<30	30<40	40<50	50<60	60<70	70<80	>80		ZPP (µg/100g)	Hb gm%
Jan	115	45.2	14.1	2.6	9.6	24.3	26.1	21.7	9.6	6.1	-	#	102	115
												$\bar{x}$	62.5	15.9
Feb	61	45.2	11.6	3.3	8.2	19.7	27.9	31.1	8.2	1.6	-	#	46	61
												$\bar{x}$	72.3	15.0
Mar	139	40.7	20.5	23.7	10.1	12.2	15.8	15.8	13.0	7.9	1.4	#	128	93
												$\bar{x}$	70.8	15.4

Battery Manufacturing

Sites: 27 # of individuals sampled: 4204

Month	Number of Samples	PbB (µg/100g) Mean ($\bar{x}$)	S.D.*	Samples in Each PbB (µg/100g) <20	20<30	30<40	40<50	50<60	60<70	70<80	>80		ZPP (µg/100g)	Hb gm%
Jan	2175	41.9	11.7	3.6	13.1	21.9	34.8	21.1	4.9	.4	-	#	697	923
												$\bar{x}$	140.6	14.2
Feb	2087	42.1	11.9	4.3	11.9	21.9	32.8	23.4	5.2	.4	-	#	755	936
												$\bar{x}$	116.2	14.6
Mar	2139	42.0	11.8	4.2	11.5	21.5	36.0	22.3	3.9	.3	.14	#	898	876
												$\bar{x}$	122.1	14.3

Other

Sites: 12 # of individuals sampled: 1258

Month	Number of Samples	PbB (µg/100g) Mean ($\bar{x}$)	S.D.*	Samples in Each PbB (µg/100g) <20	20<30	30<40	40<50	50<60	60<70	70<80	>80		ZPP (µg/100g)	Hb gm%
Jan	457	27.8	14.0	35.4	23.4	16.2	17.1	6.3	1.5	-	-	#	332	122
												$\bar{x}$	38.2	14.0
Feb	446	26.2	13.6	40.6	24.7	15.0	12.8	5.8	1.1	-	-	#	375	76
												$\bar{x}$	33.0	14.0
Mar	534	26.1	13.2	40.3	24.5	16.5	12.4	5.6	.4	.2	-	#	441	94
												$\bar{x}$	40.3	14.5

In the process of compiling the data for the Blood Lead Comparison Program, we discovered that the six month summaries did not have the proper number of blood samples recorded. This was due to a misunderstanding about how the six month summaries should be calculated. We have now corrected the computer program involved and provide you with the following revised six month summaries for:

2nd & 3rd Quarter 1981
3rd & 4th Quarter 1981

2nd and 3rd Quarter 1981

Ind. Sect.	Number of Samples	PbB (µg/100g) Mean ($\bar{x}$)	S.D.*	Samples in Each PbB (µg/100g) <20	20<30	30<40	40<50	50<60	60<70	70<80	>80		ZPP (µg/100g)	Hb gm%
Prim.	5019	37.5	13.5	10.5	17.0	28.4	24.5	16.3	3.1	.2	.1	#	3547	951
												$\bar{x}$	43.5	15.8
Sec.	694	33.6	14.0	18.7	22.2	24.2	20.0	12.4	1.9	.4	-	#	484	267
												$\bar{x}$	39.6	15.2
Oxide & Chem.	427	37.0	14.6	15.1	15.2	23.0	25.5	16.2	4.5	.5	-	#	263	234
												$\bar{x}$	95.0	15.2
Batt.	4669	34.3	14.0	16.2	22.0	26.4	21.5	10.5	2.8	.4	.2	#	284	3441
												$\bar{x}$	81.3	14.7
Other	1574	23.1	13.9	54.0	20.3	11.0	7.4	5.0	2.0	.3	-	#	1234	238
												$\bar{x}$	37.5	15.4

3rd and 4th Quarter 1981

Ind. Sect.	Number of Samples	PbB (µg/100g) Mean ($\bar{x}$)	S.D.*	Samples in Each PbB (µg/100g) <20	20<30	30<40	40<50	50<60	60<70	70<80	>80		ZPP (µg/100g)	Hb gm%
Prim.	3580	38.3	13.1	8.3	16.9	30.2	23.3	16.5	4.2	.4	.1	#	3000	1244
												$\bar{x}$	43.5	15.9
Sec.	699	34.4	14.6	17.3	22.8	24.2	18.3	12.8	4.1	.6	-	#	486	191
												$\bar{x}$	39.7	15.4
Oxide & Chem.	388	36.2	14.9	17.1	16.8	23.5	21.6	14.9	4.9	1.0	-	#	288	208
												$\bar{x}$	88.7	15.6
Batt.	5280	37.8	13.6	9.9	19.1	25.9	25.0	15.2	4.2	.5	.2	#	1024	3809
												$\bar{x}$	156.3	14.6
Other	2032	23.8	13.2	48.4	24.4	13.2	8.8	3.7	1.3	.1	.0	#	1579	341
												$\bar{x}$	30.9	14.7

4th Quarter 1981 and 1st Quarter 1982

Ind. Sect.	Number of Samples	PbB (µg/100g) Mean ($\bar{x}$)	S.D.*	Samples in Each PbB (µg/100g) <20	20<30	30<40	40<50	50<60	60<70	70<80	>80		ZPP (µg/100g)	Hb gm%
Prim.	3505	38.9	12.3	5.9	16.2	30.9	26.1	16.8	3.8	.2	.1	#	2955	1314
												$\bar{x}$	54.8	15.8
Sec.	688	33.3	13.7	18.8	21.3	26.6	20.4	10.6	1.9	.3	-	#	469	124
												$\bar{x}$	35.0	15.4
Oxide & Chem.	385	37.7	17.0	18.6	14.8	24.4	17.3	12.9	7.7	3.8	.5	#	307	213
												$\bar{x}$	83.5	15.3
Batt.	5804	37.8	12.2	7.6	18.8	27.9	28.4	14.4	2.6	.2	.1	#	1867	2809
												$\bar{x}$	96.7	14.5
Other	2251	22.8	11.2	47.2	28.3	14.9	7.5	1.9	.2	.0	-	#	1931	271
												$\bar{x}$	29.8	14.7