



Wadsworth Center    The Governor Nelson A. Rockefeller Empire State Plaza    P.O. Box 509    Albany, New York 12201-0509

Antonia C. Novello, M.D., M.P.H.  
*Commissioner*

Dennis P. Whalen  
*Executive Deputy Commissioner*

November 30, 2000

## **BLOOD LEAD PROFICIENCY TEST**

### **SURVEY #3, 2000**

Dear Laboratory Director:

A statistical summary report for all proficiency test (PT) results evaluated in the third Blood Lead survey (event) of 2000 is enclosed. Participating laboratories are identified by a confidential three-digit code number assigned by the PT program.

Each laboratory will receive an individual performance summary for the last three PT events under separate cover. To pass the PT for blood lead, a laboratory must achieve a minimum score of 80% (4 out of 5 correct) on two consecutive testing events, or two out of three consecutive testing events.

#### **PT Materials**

The blood-based test materials were prepared by dosing five goats with lead acetate prior to the test. On October 24, 2000, 400-500 mL of blood were drawn from each animal into a separate plastic blood bag containing 750 mg K<sub>2</sub>EDTA. Each animal yielded a separate pool with blood lead levels ranging from 4-27 µg/dL whole blood. Aliquots of whole blood were transferred into additive-free evacuated glass tubes and shipped to participants on October 25, 2000. PT samples for laboratories using the LeadCare® system were shipped by overnight express for delivery October 25, 2000. Target values were established by a ≥90% consensus of 15 referee laboratories.

#### **CLIA '88 Certification**

Laboratories outside of New York State can have their PT results from this program evaluated for federal regulatory purposes under CLIA '88. The laboratory director should notify the regional HCFA office, and should provide our program with the address to whom PT results should be sent.

#### **OSHA approval**

Participation in this program may also be used to obtain approval for blood lead testing from the Occupational Safety and Health Administration (OSHA), U.S Dept. of Labor. For further information on OSHA approval, contact William E. Babcock, OSHA SLC Analytical Laboratory, 1781 South, 300 West, PO Box 65200, Salt Lake City, UT 84165-0200.

**The next PT event for blood lead is scheduled to be shipped March 7, 2001.** Contact the State laboratory staff at (518) 473-0452 if the PT materials have not arrived within five days of the scheduled mailout date.

Thank you for your participation.

Sincerely,

Patrick J. Parsons, Ph.D.  
Section Head, Blood Lead Proficiency Testing Program

New York State Department of Health

PB PROFICIENCY TEST RESULTS, SURVEY #3

Testing year 2000, dated 30 November 2000

PERFORMANCE OF PARTICIPATING LABORATORIES

LAB CODE	METHOD	RESULTS (µg/dL whole blood)					Normalized Mean	Info Only
		PB00-11	-12	-13	-14	-15		
Target values:		27	4	25	16	19		
101	ASV-ESA 3010	27	4	25	16	20	1.01	
102	ETAAS-ZL	26	4	24	15	18	0.95	
102	ASV-LeadCare	23	2	18 *	8 *	13 *	0.75	Info
103	ETAAS-ZL	28	4	26	17	20	1.05	
103	ASV-LeadCare	27	3	23	16	19	0.98	Info
104	ETAAS-ZL	28	4	26	16	19	1.02	
106	ETAAS-ZL	25	4	23	17	20	0.99	Info
107	ETAAS-Z	28	3	26	16	19	1.02	
108	ETAAS-ZL	27	4	24	16	19	0.99	
109	ETAAS-Z	26	2	24	15	20	0.98	
110	ETAAS-ZL	27	4	25	16	19	1.00	
110	ASV-LeadCare	28	1	24	14	18	0.95	
112	ASV-ESA 3010	26	5	23	17	18	0.97	
115	ETAAS-Z	29	5	25	15	16	0.96	
119	ETAAS-ZL	28	5	25	17	20	1.04	
121	ETAAS-ZL	26	4	24	16	19	0.98	Info
123	ETAAS-ZL	26	4	24	15	18	0.95	
125	ETAAS-ZL	28	4	26	17	21	1.06	
126	ETAAS-Z	29	4	27	17	19	1.05	
131	ETAAS-ZL	25	3	22	15	17	0.91	
132	ETAAS-ZL	26	4	24	15	18	0.95	
143	ETAAS-ZL	26	4	24	16	19	0.98	
144	ETAAS-ZL	26	3	23	14	17	0.91	
145	ASV-ESA 3010	31	3	28	17	21	1.11	
146	ETAAS-ZL	29	4	26	16	20	1.04	
147	ETAAS-Z	28	4	25	16	19	1.01	
150	ASV-ESA 3010	24	1	22	13	17	0.87	
152	ASV-ESA 3010	27	4	26	17	21	1.05	
156	ETAAS-ZL	30	4	27	18	20	1.09	
158	ETAAS-ZL	25	4	23	15	18	0.93	
159	ETAAS-ZL	27	4	25	17	20	1.03	
160	ETAAS-ZL	28	4	25	17	20	1.04	
164	ETAAS-Z	27	4	26	16	20	1.02	

166	ASV-ESA 3010	26	0	23	16	20	0.98	
168	MIBK-FAAS	30	0	25	15	17	0.99	
170	ETAAS-D2	27	4	25	15	18	0.97	
174	ASV-ESA 3010	28	5	26	17	20	1.05	
179	ETAAS-Z	27	4	24	16	19	0.99	
181	ETAAS-ZL	28	4	25	16	20	1.02	
183	ASV-ESA 3010	25	0	23	14	17	0.90	
185	ASV-ESA 3010	26	2	24	16	19	0.98	
195	ICP-MS	24	4	22	15	17	0.90	Info
197	ETAAS-D2	27	4	26	16	22	1.05	
198	ETAAS-ZL	29	5	26	18	21	1.09	
199	ETAAS-ZL	26	4	24	16	19	0.98	
200	ETAAS-ZL	27	4	25	16	19	1.00	
204	ASV-ESA 3010	27	3	24	16	18	0.98	
206	ICP-MS	26	4	25	16	19	0.99	
208	ETAAS-ZL	27	4	25	16	18	0.99	
212	ASV-ESA 3010	26	3	24	16	18	0.97	
215	ETAAS-ZL	24	4	20 *	14	16	0.85	
219	ASV-ESA 3010	27	2	21	13	18	0.90	Info
221	ETAAS-D2	26	4	23	16	18	0.96	
223	Other	28	4	25	17	20	1.04	
229	ETAAS-Z	27	5	23	15	18	0.95	
235	ASV-ESA 3010	27	4	25	17	19	1.02	
237	ETAAS-ZL	29	5	26	16	20	1.04	
238	ASV-ESA 3010	25	2	23	15	18	0.93	
243	ASV-ESA 3010	26	3	23	15	18	0.94	
247	ETAAS-ZL	29	5	26	17	21	1.07	
249	ASV-ESA 3010	26	4	22	15	19	0.95	
251	ASV-ESA 3010	26	0	15 *	10 *	12 *	0.73	
254	ETAAS-D2	29	4	25	17	20	1.05	
255	ETAAS-ZL	29	5	27	18	21	1.10	
261	ASV-ESA 3010	28	3	27	13	19	0.98	
269	ETAAS-ZL	29	5	27	18	19	1.07	
270	ETAAS-ZL	28	4	25	16	19	1.01	
271	ASV-ESA 3010	25	5	24	16	18	0.96	
272	ETAAS-ZL	25	4	24	16	18	0.96	
273	ASV-ESA 3010	24	1	21	13	16	0.85	
274	ETAAS-ZL	28	2	24	16	18	0.99	
279	ASV-ESA 3010	24	3	22	16	18	0.93	
281	ASV-ESA 3010	22 *	0	21	12	13 *	0.77	
282	ASV-ESA 3010	26	4	24	14	17	0.92	
284	ASV-ESA 3010	24	5	21	15	18	0.90	
285	ASV-ESA 3010	17 *	3	13 *	13	17	0.71	
286	ASV-ESA 3010	26	1	24	15	17	0.94	
290	ASV-ESA 3010	23	4	21	15	19	0.91	
291	ASV-ESA 3010	26	0	25	14	18	0.95	

293	ETAAS-D2	28	4	25	17	20	1.04	
295	ASV-ESA 3010	23	3	21	14	17	0.87	
297	ASV-ESA 3010	27	0	22	14	17	0.91	
300	ASV-ESA 3010	20 *	0	20 *	12	15	0.77	
301	ETAAS-ZL	31	5	24	17	20	1.06	
305	ETAAS-ZL	27	4	24	15	17	0.95	
308	ASV-ESA 3010	22 *	1	19 *	11 *	14 *	0.75	
309	ETAAS-ZL	28	4	26	17	19	1.03	
310	ASV-ESA 3010	26	6	20 *	18	19	0.97	
312	ICP-MS	26	4	24	16	18	0.97	
317	ETAAS-ZL	30	4	28	17	20	1.09	
318	ASV-ESA 3010	28	1	25	15	20	1.01	
323	ASV-ESA 3010	24	2	22	13	16	0.86	
325	ETAAS-ZL	30	5	27	18	21	1.11	Info
331	ICP-MS	26	4	25	15	18	0.96	
333	ETAAS-ZL	30	5	27	18	22	1.12	
334	ASV-ESA 3010	27	2	22	13	20	0.94	Info
336	ASV-ESA 3010	25	2	23	14	18	0.92	
338	ETAAS-ZL	28	5	27	17	20	1.06	
340	ETAAS-ZL	28	4	25	16	19	1.01	
343	ASV-LeadCare	22 *	2	20 *	14	17	0.85	Info
344	ASV-ESA 3010	27	4	24	16	19	0.99	

---

Percent satisfactory results for all participants: 96.0%

STATISTICAL SUMMARY

Pb Proficiency Test #3. Testing year 2000. Report date: 30 November 2000

LAB CODE	METHOD	Reference Laboratory Results RESULTS (µg/dL whole blood)				
		PB00-11	-12	-13	-14	-15
101	ASV-ESA 3010	27	4	25	16	20
102	ETAAS-ZL	26	4	24	15	18
103	ETAAS-ZL	28	4	26	17	20
104	ETAAS-ZL	28	4	26	16	19
107	ETAAS-Z	28	3	26	16	19
109	ETAAS-Z	26	2	24	15	20
110	ETAAS-ZL	27	4	25	16	19
147	ETAAS-Z	28	4	25	16	19
152	ASV-ESA 3010	27	4	26	17	21
198	ETAAS-ZL	29	5	26	18	21
199	ETAAS-ZL	26	4	24	16	19
200	ETAAS-ZL	27	4	25	16	19
212	ASV-ESA 3010	26	3	24	16	18
243	ASV-ESA 3010	26	3	23	15	18
293	ETAAS-D2	28	4	25	17	20
Number of sample measurements:		15	15	15	15	15
Mean (target value):		27	4	25	16	19
Standard deviation:		1.0	0.7	1.0	0.8	1.0
RSD (%):		3.7	18.8	3.9	5.2	5.0
Acceptable range:						
Upper limit		31	8	29	20	23
Lower limit		23	0	21	12	15

## SUMMARY OF RESULTS

	Number, mean and relative standard deviation for each sample														
	PB00 -11			-12			-13			-14			-15		
	##	Mn	RSD	##	Mn	RSD	##	Mn	RSD	##	Mn	RSD	##	Mn	RSD
<b>TECHNIQUE (a)</b>															
ETAAS-ZL	40	28	6	40	4	15	40	25	6	40	16	7	40	19	7
ASV-ESA 3010	38	25	10	31	3	45	38	23	13	38	15	13	38	18	11
ETAAS-Z	8	28	4	8	4	26	8	25	5	8	16	4	8	19	7
ETAAS-D2	5	27	4	5	4	0	5	25	4	5	16	5	5	20	9
ICP-MS	4	26	4	4	4	0	4	24	6	4	16	4	4	18	5
ASV-LeadCare	4	25	12	4	2	41	4	21	13	4	13	27	4	17	16
MIBK-FAAS	1	30	**	0	0	**	1	25	**	1	15	**	1	17	**
Other	1	28	**	1	4	**	1	25	**	1	17	**	1	20	**
<b>CLASS</b>															
Referee	15	27	4	15	4	19	15	25	4	15	16	5	15	19	5
Evaluated (b)	77	27	9	69	4	32	77	24	11	77	15	11	77	18	10
Other (c)	9	26	10	9	3	38	9	22	11	9	14	21	9	18	13
All laboratories	101	27	8	93	4	31	101	24	10	101	15	11	101	19	10