



Laboratory Quality Assurance Program
2700 Prosperity Avenue, Suite 250
Fairfax, VA 22031
(703) 849-8888 (703) 207-8558 fax

11/15/2007

Santiago J. Martinez
Environ Cientifica Ltda.
R. Silva Jardim, No 251 - Centro
Sao Bernardo do Campo, S.P. 09715 090
Brazil Lab ID# 102800

Dear Santiago,

Please find your laboratory's Industrial Hygiene Proficiency Analytical Testing (IHPAT) results for **Round 171**. The deadline for ordering a retest is November 30, 2007. IHPAT **Round 172** sample kits will be mailed to laboratories around January 1, 2008. Your laboratory's data will be due by 11:59pm EST on February 1, 2008. The analytes for round 172 are:

- **Metals – cadmium, chromium, lead**
- **Asbestos – amosite**
- **Silica – coal dust/talc**
- **Organics – methanol(MOH)**
- **Diffusive – benzene, toluene, o-xylene**

Please handle, store and analyze your laboratory's PAT samples in the same manner as routine client samples. To submit your laboratory's data, please visit the Proficiency Analytical Testing (PAT) page and click on the PAT Data Entry Portal:

<http://www.aiha.org/Content/LQAP/PT/pt.htm>

Your laboratory's password needed to access the PAT Data Entry Portal is provided in the upper right hand corner (next to your lab ID#) of the address label on the results submission form included with your PAT samples.

Print and save the confirmation page after submitting data via the AIHA PAT Data Entry Portal.

The AIHA Laboratory Quality Assurance Programs Policies and Application for AIHA accreditation are available on-line.

<http://www.aiha.org/Content/LQAP/documents/documents.htm>

Note: The Policies for 2007 comply with ISO/IEC 17025: 2005.

I encourage you to contact me with any feedback, questions or if you wish to contest your results at (703) 846-0797.

Sincerely,

Natasha Sekitoleko
PAT Data Specialist

Industrial Hygiene Proficiency Analytical Testing Results

This document contains three sub-reports relating to IHPAT Round 171. The first report contains your laboratory's results listed per contaminant, per sample. The second report contains your current and 2 previous test round performance respectively (where applicable), and the final report contains summary results for all laboratories for IHPAT round 171.

Testing Results for IHPAT Round 171

This part of the report contains your laboratory's results listed per contaminant, per sample.

Contaminant	Units	#	Result	Ref. Value	Lower Limit	Upper Limit	z-Score	Rating
Cadmium (CAD)	mg	1	0.0060	0.0060	0.0051	0.0069	0	A
	mg	2	0.0148	0.0149	0.0126	0.0171	-0.1	A
	mg	3	0.0193	0.0189	0.0163	0.0216	0.4	A
	mg	4	0.0090	0.0090	0.0076	0.0104	0	A
Lead (LEA)	mg	1	0.1844	0.1785	0.1513	0.2058	0.6	A
	mg	2	0.0615	0.0601	0.0499	0.0702	0.4	A
	mg	3	0.0409	0.0389	0.0329	0.0450	1.0	A
	mg	4	0.1367	0.1328	0.1110	0.1547	0.5	A
Zinc (ZIN)	mg	1	0.0744	0.0749	0.0628	0.0870	-0.1	A
	mg	2	0.1198	0.1235	0.1022	0.1448	-0.5	A
	mg	3	0.0601	0.0595	0.0493	0.0697	0.2	A
	mg	4	0.1448	0.1477	0.1201	0.1753	-0.3	A
Silica (SIL)	mg	1	0.1339	0.1141	0.0643	0.1639	1.2	A
	mg	2	0.2206	0.1842	0.1022	0.2662	1.3	A
	mg	3	0.0637	0.0622	0.0309	0.0935	0.1	A
	mg	4	0.1063	0.0928	0.0399	0.1457	0.8	A
n-Butyl Acetate (BAC)	mg	1	0.4793	0.4722	0.4042	0.5402	0.3	A
	mg	2	0.1490	0.1498	0.1087	0.1910	-0.1	A
	mg	3	0.9503	0.9416	0.8032	1.0800	0.2	A
	mg	4	0.7176	0.7177	0.5862	0.8492	0	A
Ethyl Acetate (EAC)	mg	1	0.8428	0.8240	0.7165	0.9314	0.5	A
	mg	2	1.4024	1.3812	1.1565	1.6058	0.3	A
	mg	3	0.6368	0.6321	0.5142	0.7501	0.1	A
	mg	4	0.2022	0.2066	0.1654	0.2477	-0.3	A
2-Propanol (IPA)	mg	1	0.1563	0.1539	0.0986	0.2092	0.1	A
	mg	2	0.4365	0.4218	0.2904	0.5531	0.3	A
	mg	3	0.8193	0.7925	0.5234	1.0616	0.3	A
	mg	4	1.2268	1.2251	0.7658	1.6844	0	A

Please note:

Reference value is the mean of the reference laboratories

*Lower limit = reference value - 3 standard deviations and Upper limit = reference value +3 standard deviations

*Z-score = (reported result - reference value)/standard deviation

*Asbestos is the exception because data are positively skewed therefore transformations are used to obtain approximately normal distributions.

A: Acceptable Analysis; U: Unacceptable Analysis

The acceptability of reported results is based on upper and lower performance limits. This is why a reported result may appear unacceptable according to z-score, but be identified as acceptable.

Overall Performance Summary Concluding with 171

The following table contains your laboratory's current and 2 previous test rounds performance respectively (where applicable). For more information in regard to the determination of proficiency, please see Policy Module 6B, Section 6B.2 for IHPAT and Policy Module 6C Section 6C.2 for ELPAT Lead-in-Air located at: <http://www.aiha.org/Content/LQAP/documents/accredpolicymods.htm>

Sample	Round	Round Performance	Round Score	Proficiency Status -Three Round Score
Metals	169	12/12	Pass	
	170	12/12	Pass	
	171	12/12	Pass	P
Silica	169	4/4	Pass	
	170	4/4	Pass	
	171	4/4	Pass	P
Organic Solvents	169	12/12	Pass	
	170	12/12	Pass	
	171	12/12	Pass	P

Please note:

The denominators represent the total number of samples analyzed.

The numerators represent the number of acceptable results.

Pass: Round Score \geq 75% Fail: Round Score $<$ 75%

P – Proficient; NP – Non-proficient.

A laboratory is rated proficient (P) for the associated FoT/Method(s), if the laboratory has a passing score for the applicable PT analyte class in two (2) of the last three (3) consecutive PT rounds. A laboratory is rated non-proficient (NP) for the applicable FoT/Method if the laboratory has failing scores for the associated PT analyte class in two (2) of the last three (3) consecutive PT rounds.

If a laboratory receives samples and does not report the data, the results will be treated as outliers.

Performance of all Labs for IHPAT Round 171

The following table contains aggregate results for all laboratories participating in IHPAT round 171.

Contaminant	#	Ref. Value	Std Dev	RSD (%)	Total Labs	Total Acceptable	Low Outlier	High Outlier
Cadmium (CAD)	1	0.00600	0.00029	4.9	186	177	5	4
	2	0.01490	0.00075	5.0	186	181	3	2
	3	0.01890	0.00089	4.7	186	180	3	3
	4	0.00900	0.00047	5.2	186	178	2	6
Lead (LEA)	1	0.1785	0.0091	5.1	187	184	2	1
	2	0.0601	0.0034	5.6	187	182	3	2
	3	0.0389	0.0020	5.2	187	180	4	3
	4	0.1328	0.0073	5.5	187	182	3	2
Zinc (ZIN)	1	0.0749	0.0040	5.4	186	170	7	9
	2	0.1235	0.0071	5.7	186	177	3	6
	3	0.0595	0.0034	5.7	186	176	2	8
	4	0.1477	0.0092	6.2	186	181	2	3
Silica (SIL)	1	0.1141	0.0166	14.6	60	57	2	1
	2	0.1842	0.0273	14.8	60	57	2	1
	3	0.0622	0.0104	16.8	60	58	1	1
	4	0.0928	0.0176	19.0	60	57	2	1
Asbestos / Fibers (ASB)	1	85	17	20.0	732	589	58	85
	2	289	58	20.0	732	608	94	30
	3	106	21	20.0	732	553	40	139
	4	64	13	20.0	732	670	30	32
n-Butyl Acetate (BAC)	1	0.4722	0.0227	4.8	149	138	4	7
	2	0.1498	0.0137	9.2	149	139	3	7
	3	0.9416	0.0461	4.9	149	131	12	6
	4	0.7177	0.0438	6.1	149	136	6	7
Ethyl Acetate (EAC)	1	0.8240	0.0358	4.3	149	135	8	6
	2	1.3812	0.0749	5.4	149	134	7	8
	3	0.6321	0.0393	6.2	149	138	4	7
	4	0.2066	0.0137	6.6	149	137	5	7
2-Propanol (IPA)	1	0.1539	0.0184	12.0	149	141	3	5
	2	0.4218	0.0438	10.4	149	138	5	6
	3	0.7925	0.0897	11.3	149	142	3	4
	4	1.2251	0.1531	12.5	149	142	5	2

