Laboratory Quality Assurance Program
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2/17/2009

Steve Green
AT Labs, a Unit of Assay Technology
250 DeBartolo Place, Suite 2525

Youngstown, OH 44512 Lab ID# 100903

Dear Steve Green,

Please find your laboratory's Industrial Hygiene Proficiency Analytical Testing (IHPAT) results for **Round 176.** The proficiency demonstrated by the results of this IHPAT round is valid until the close of the retest round on April 15, 2009 if the laboratory chooses to participate or until May 15, 2009 when the next IHPAT report will be available.

Unacceptable performance may be improved by correctly analyzing a set of retest samples. The deadline to order a retest is February 27, 2009. Retest sample kits are mailed via USPS Mail within five days after the order deadline.

IHPAT **Round 177** sample kits will be mailed to laboratories around April 1, 2009. Your laboratory's data will be due by 11:59pm EST on May 1, 2009. The analytes for round 177 are:

- **Metals - cadmium, lead, zinc**
- **Asbestos - chrysotile**
- **Silica - calcite background**
- **Organics - methanol(MOH)**

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 2008 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 S. Mugambwa
PAT Data Specialist.

Industrial Hygiene Proficiency Analytical Testing Results

This document contains three sub-reports relating to IHPAT Round 176. 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 176.

Testing Results for IHPAT Round 176

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	0.00409	0.00406	0.00323	0.00489	0.1	A
	mg	2	0.01060	0.01051	0.00896	0.01206	0.2	A
	mg	3	0.00791	0.00800	0.00682	0.00918	-0.2	A
	mg	4	0.01420	0.01432	0.01260	0.01604	-0.2	A
Chromium (CHR)	mg	1	0.1860	0.1871	0.1606	0.2136	-0.1	A
	mg	2	0.0313	0.0317	0.0271	0.0363	-0.3	A
	mg	3	0.0660	0.0677	0.0596	0.0759	-0.6	A
	mg	4	0.1150	0.1168	0.1024	0.1313	-0.4	A
Lead (LEA)	mg	1	0.1480	0.1486	0.1308	0.1665	-0.1	A
	mg	2	0.0619	0.0609	0.0536	0.0682	0.4	A
	mg	3	0.0959	0.0969	0.0853	0.1085	-0.3	A
	mg	4	0.0387	0.0386	0.0339	0.0432	0.1	A
Asbestos / Fibers (ASB)	f/mm2	1	379	254	138	405	2.5	A
	f/mm2	2	301	325	159	550	-0.4	A
	f/mm2	3	85	86	42	145	-0.1	A
	f/mm2	4	65	57	28	96	0.7	A
n-Butyl Acetate (BAC)	mg	1	0.6750	0.6787	0.5898	0.7675	-0.1	A
	mg	2	0.3160	0.3117	0.2635	0.3598	0.3	A
	mg	3	1.0300	1.0428	0.8896	1.1959	-0.3	A
	mg	4	0.0944	0.1052	0.0862	0.1242	-1.7	A
Ethyl Acetate (EAC)	mg	1	0.2950	0.2489	0.2165	0.2814	4.3	U
	mg	2	1.3700	1.1765	1.0260	1.3270	3.9	U
	mg	3	0.4550	0.4069	0.3571	0.4566	2.9	A
	mg	4	0.9100	0.8259	0.7268	0.9250	2.5	A
2-Propanol (IPA)	mg	1	1.4800	1.2548	0.9716	1.5381	2.4	A
	mg	2	0.3060	0.2889	0.2207	0.3571	0.8	A
	mg	3	1.1900	1.0310	0.8362	1.2259	2.4	A
	mg	4	0.5600	0.4951	0.3874	0.6027	1.8	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 176

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
Asbestos	174	4/4	Pass	
	175	4/4	Pass	
	176	4/4	Pass	P
Metals	174	12/12	Pass	
	175	12/12	Pass	
	176	12/12	Pass	P
Organic Solvents	174	12/12	Pass	
	175	11/12	Pass	
	176	10/12	Pass	P

Please note:

The denominators represent the total number of samples analyzed.
The numerators represent the number of acceptable results.
Pass: Round Score ≥ 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 176

The following table contains aggregate results for all laboratories participating in IHPAT round 176.

Contaminant	#	Ref. Value	Std Dev	RSD (%)	Total Labs	Total Acceptable	Low Outlier	High Outlier
Cadmium (CAD)	1	0.00406	0.00028	6.8	165	162	2	1
	2	0.01051	0.00052	4.9	165	160	4	1
	3	0.00800	0.00039	4.9	165	160	5	0
	4	0.01432	0.00057	4.0	165	155	8	2
Chromium (CHR)	1	0.1871	0.0088	4.7	164	159	3	2
	2	0.0317	0.0015	4.8	164	152	5	7
	3	0.0677	0.0027	4.0	164	151	7	6
	4	0.1168	0.0048	4.1	164	144	12	8
Lead (LEA)	1	0.1486	0.0060	4.0	165	156	2	7
	2	0.0609	0.0024	4.0	165	158	3	4
	3	0.0969	0.0039	4.0	165	159	4	2
	4	0.0386	0.0015	4.0	165	153	3	9
Silica (SIL)	1	0.0828	0.0101	12.2	57	50	3	4
	2	0.1141	0.0079	6.9	57	47	7	3
	3	0.1803	0.0165	9.2	57	51	2	4
	4	0.0692	0.0123	17.8	57	56	1	0
Asbestos / Fibers (ASB)	1	254	45	17.5	719	662	21	36
	2	325	65	20.0	719	682	14	23
	3	86	17	20.0	719	578	15	126
	4	57	11	20.0	719	590	9	120
n-Butyl Acetate (BAC)	1	0.6787	0.0296	4.4	140	121	12	7
	2	0.3117	0.0160	5.1	140	128	5	7
	3	1.0428	0.0510	4.9	140	126	7	7
	4	0.1052	0.0063	6.0	140	126	5	9
Ethyl Acetate (EAC)	1	0.2489	0.0108	4.3	140	118	7	15
	2	1.1765	0.0502	4.3	140	125	6	9
	3	0.4069	0.0166	4.1	140	124	7	9
	4	0.8259	0.0330	4.0	140	130	5	5
2-Propanol (IPA)	1	1.2548	0.0944	7.5	140	122	13	5
	2	0.2889	0.0227	7.9	140	122	12	6
	3	1.0310	0.0650	6.3	140	111	20	9
	4	0.4951	0.0359	7.2	140	122	13	5