Laboratory Quality Assurance Program
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8/23/2007

Charles Manning
AT Labs, A Unit Of Assay Technology
250 DeBartolo Place
Suite 2525
Youngstown, OH 44512 Lab ID# 100903

Dear Charles,

Please find your laboratory's Industrial Hygiene Proficiency Analytical Testing (IHPAT) results for **Round 170**. The deadline for ordering a retest is August 29, 2007. IHPAT **Round 171** sample kits will be mailed to laboratories around October 1, 2007. Your laboratory's data will be due by 11:59pm EST on November 1, 2007. The analytes for round 171 are:

- **Metals – cadmium, lead, zinc**
- **Asbestos – chrysotile**
- **Silica – coal dust**
- **Organics – n-butyl acetate(BAC), ethyl acetate(EAC), 2-propanol(IPA)**

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 170. 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 170.

Testing Results for IHPAT Round 170

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	0.0037	0.0037	0.0031	0.0042	0	A
	mg	2	0.0051	0.0051	0.0044	0.0059	0	A
	mg	3	0.0128	0.0128	0.0110	0.0146	0	A
	mg	4	0.0095	0.0097	0.0082	0.0111	-0.4	A
Chromium (CHR)	mg	1	0.0752	0.0763	0.0660	0.0866	-0.3	A
	mg	2	0.1210	0.1249	0.1065	0.1432	-0.6	A
	mg	3	0.0147	0.0158	0.0127	0.0189	-1.1	A
	mg	4	0.0573	0.0613	0.0532	0.0695	-1.5	A
Lead (LEA)	mg	1	0.0484	0.0482	0.0424	0.0540	0.1	A
	mg	2	0.0683	0.0689	0.0605	0.0773	-0.2	A
	mg	3	0.1720	0.1725	0.1499	0.1951	-0.1	A
	mg	4	0.0871	0.0887	0.0778	0.0995	-0.4	A
Asbestos / Fibers (ASB)	f/mm2	1	209	172	84	290	1.0	A
	f/mm2	2	268	208	102	351	1.4	A
	f/mm2	3	632	385	201	629	3.0	A
	f/mm2	4	104	75	37	128	1.7	A
Benzene (BNZ)	mg	1	0.1800	0.1815	0.1549	0.2082	-0.2	A
	mg	2	0.0980	0.1030	0.0847	0.1214	-0.8	A
	mg	3	0.2500	0.2601	0.2118	0.3084	-0.6	A
	mg	4	0.6100	0.6506	0.5529	0.7484	-1.2	A
O-xylene (OXY)	mg	1	0.6600	0.7005	0.5803	0.8207	-1.0	A
	mg	2	0.8600	0.9284	0.7256	1.1311	-1.0	A
	mg	3	1.5000	1.5772	1.2555	1.8988	-0.7	A
	mg	4	0.2200	0.2328	0.1890	0.2765	-0.9	A
Toluene (TOL)	mg	1	0.2000	0.2084	0.1765	0.2402	-0.8	A
	mg	2	0.9400	0.9977	0.8285	1.1669	-1.0	A
	mg	3	0.5700	0.5998	0.5006	0.6991	-0.9	A
	mg	4	1.4000	1.5396	1.2987	1.7806	-1.7	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 170

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	168	12/12	Pass	
	169	12/12	Pass	
	170	12/12	Pass	P
Asbestos	168	3/4	Pass	
	169	4/4	Pass	
	170	4/4	Pass	P
Organic Solvents	168	8/8	Pass	
	169	12/12	Pass	
	170	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 ≥ 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 170

The following table contains aggregate results for all laboratories participating in IHPAT round 170.

Contaminant	#	Ref. Value	Std Dev	RSD (%)	Total Labs	Total Acceptable	Low Outlier	High Outlier
Cadmium (CAD)	1	0.00370	0.00019	5.1	184	173	4	7
	2	0.00510	0.00026	5.1	184	177	4	3
	3	0.01280	0.00060	4.6	184	173	7	4
	4	0.00970	0.00048	5.0	184	173	5	6
Chromium (CHR)	1	0.0763	0.0034	4.5	183	169	6	8
	2	0.1249	0.0061	4.9	183	172	4	7
	3	0.0158	0.0010	6.6	183	168	3	12
	4	0.0613	0.0027	4.4	183	168	8	7
Lead (LEA)	1	0.0482	0.0019	4.0	185	179	3	3
	2	0.0689	0.0028	4.1	185	176	4	5
	3	0.1725	0.0075	4.4	185	173	7	5
	4	0.0887	0.0036	4.1	185	174	4	7
Silica (SIL)	1	0.1620	0.0324	20.0	59	57	1	1
	2	0.0398	0.0064	16.1	59	54	3	2
	3	0.0697	0.0130	18.7	59	56	1	2
	4	0.1257	0.0236	18.8	59	56	2	1
Asbestos / Fibers (ASB)	1	172	34	20.0	738	686	4	48
	2	208	42	20.0	738	699	3	36
	3	385	71	18.5	738	703	10	25
	4	75	15	20.0	738	679	27	32
Benzene (BNZ)	1	0.1815	0.0089	4.9	143	136	3	4
	2	0.1030	0.0061	5.9	143	133	3	7
	3	0.2601	0.0161	6.2	143	135	3	5
	4	0.6506	0.0326	5.0	143	135	3	5
O-xylene (OXY)	1	0.7005	0.0401	5.7	143	136	3	4
	2	0.9284	0.0676	7.3	143	137	2	4
	3	1.5772	0.1072	6.8	143	137	4	2
	4	0.2328	0.0146	6.3	143	135	2	6
Toluene (TOL)	1	0.2084	0.0106	5.1	143	138	3	2
	2	0.9977	0.0564	5.7	143	134	3	6
	3	0.5998	0.0331	5.5	143	134	5	4

	4	1.5396	0.0803	5.2	143	133	5	5