



## AIHA Proficiency Analytical Testing Programs, LLC

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11/13/2009

Charles Manning  
AT Labs, A Unit Of Assay Technology  
1252 Quarry Ln

Pleasanton, CA 94566-4756

Lab ID# 101728

Dear Charles Manning,

Please find your laboratory's Industrial Hygiene Proficiency Analytical Testing (IHPAT) results for **Round 179**. It is the laboratory's responsibility to thoroughly review results and to immediately contact the AIHA Proficiency Analytical Testing Programs, LLC in writing, if any errors are found in your report.

The proficiency demonstrated by the results of this IHPAT round is valid until the close of the retest round if the laboratory chooses to participate or the close of the next IHPAT round on February 12, 2010. Unacceptable performance may be improved by correctly analyzing a set of retest samples. Retest Order Forms are available online at [www.aihapat.org](http://www.aihapat.org). The deadline to order a retest is October 30, 2009. Retest sample kits are mailed via USPS Mail within five days after the order deadline.

IHPAT **Round 180** sample kits will be mailed to laboratories around January 1, 2010. Your laboratory's data will be due by 11:59pm EST on February 1, 2010. The analytes for round 180 are:

- **Metals – cadmium, chromium, lead**
- **Asbestos – amosite**
- **Silica – coal/talc**
- **Organics – chloroform(CFM) , 1,2 dichloroethane(DCE), trichloroethylene (TCE)**
- **Diffusive Samplers – benzene, o-xylene, toluene**

Please handle, store and analyze your laboratory's PAT samples in the same manner as routine client samples. To submit results, visit the Proficiency Analytical Testing (PAT) page and click on the PAT Data Entry Portal: [www.aihapat.org](http://www.aihapat.org). **Always print and save the confirmation page** after submitting data via the PAT Data Entry Portal.

Your laboratory's password, needed to access the reports through 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 worksheet included with your PAT samples.

I encourage you to contact me with any feedback, questions or if you wish to contest your results at [nmugambwa@aiha.org](mailto:nmugambwa@aiha.org).

Sincerely,

A handwritten signature in black ink that reads "Nmugambwa".

Natasha Mugambwa, MS  
Manager, AIHA PAT Programs, LLC.

## Industrial Hygiene Proficiency Analytical Testing Results

This document contains three sub-reports relating to IHPAT Round 179. 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 179.

### Testing Results for IHPAT Round 179

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 |
|-----------------------|-------|---|--------|------------|-------------|-------------|---------|--------|
| n-Butyl Acetate (BAC) | mg    | 1 | 1.3000 | 1.1730     | 0.9635      | 1.3825      | 1.8     | A      |
|                       | mg    | 2 | 0.8600 | 0.8017     | 0.6880      | 0.9154      | 1.5     | A      |
|                       | mg    | 3 | 1.0870 | 0.9976     | 0.8682      | 1.1270      | 2.1     | A      |
|                       | mg    | 4 | 0.3450 | 0.3323     | 0.2788      | 0.3857      | 0.7     | A      |
| Ethyl Acetate (EAC)   | mg    | 1 | 1.0400 | 0.9464     | 0.8217      | 1.0710      | 2.3     | A      |
|                       | mg    | 2 | 1.2600 | 1.1314     | 0.9792      | 1.2837      | 2.5     | A      |
|                       | mg    | 3 | 0.3397 | 0.3091     | 0.2609      | 0.3572      | 1.9     | A      |
|                       | mg    | 4 | 1.7300 | 1.6181     | 1.4239      | 1.8123      | 1.7     | A      |
| 2-Propanol (IPA)      | mg    | 1 | 0.1220 | 0.1030     | 0.0593      | 0.1466      | 1.3     | A      |
|                       | mg    | 2 | 0.5000 | 0.4187     | 0.2694      | 0.5679      | 1.6     | A      |
|                       | mg    | 3 | 1.3970 | 1.1601     | 0.8458      | 1.4744      | 2.3     | A      |
|                       | mg    | 4 | 1.0760 | 0.9217     | 0.6734      | 1.1700      | 1.9     | 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 179

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 visit: [http://www.aiha.org/llc\\_pat/programs\\_ihpat.htm](http://www.aiha.org/llc_pat/programs_ihpat.htm)

| Sample           | Round | Round Performance | Round Score | Proficiency Status -Three Round Score |
|------------------|-------|-------------------|-------------|---------------------------------------|
| Organic Solvents | 177   | 4/4               | Pass        |                                       |
|                  | 178   | 12/12             | Pass        |                                       |
|                  | 179   | 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; I – Indeterminate.

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.

