

ASTM's PROFICIENCY TEST PROGRAMS on Chemical Analysis of Metals

WHY SHOULD YOUR LABORATORY PARTICIPATE?

These programs provide you with:

- Resources that can be used to satisfy proficiency testing requirements of laboratory accreditation
- A useful statistical quality assurance tool to monitor the strengths and weaknesses of laboratory performance
- Periodic comparison of results against laboratories - WORLDWIDE
- A useful quality reference sample upon completion of testing

ABOUT THE PROGRAMS

These programs are designed to provide participating laboratories with a statistical quality assurance tool enabling labs to compare, improve, and maintain performance in conducting tests. ASTM provides test samples, instructions, and data report forms. Upon completion of testing and receipt of all test data ASTM provides each lab with statistical summary reports that contain coded laboratory test results to maintain confidentiality, statistical analysis of data, and charts plotting test results versus lab codes.

Each program provides participants with two test samples for each test cycle, forms to record test data, and instructions for conducting the tests. Laboratories are instructed to conduct the tests in their facilities using the ASTM methods cited in the program (or other methods used by the lab) and to record their test results on the data report form.

Participants are permitted to use other methods in the analysis of the test sample. The methods utilized must be documented on the data report forms. Laboratories unable to follow a specific ASTM method due to specific equipment features and workload requirements are required to identify those areas where deviations occur. Labs are given approximately five weeks to conduct tests and return data to ASTM. Final summary reports are mailed to participants approximately one month following the receipt deadline of test data. Sponsored by ASTM Committee E-1 on Analytical Chemistry of Metals, Ores, and Related Materials.

For more information contact David Bradley at (610) 832-9681 or visit the ASTM Website at www.astm.org



Please send me FREE brochures, including information on test materials, schedules, fees, and registration on the programs circled above:

Name _____

Organization _____

Address _____

City _____ State/Province _____ Zip/Postal Code _____ Country _____

Phone _____ Fax _____ e-mail _____

Copy and mail to David Bradley: ASTM • 100 Barr Harbor Drive, PO Box C700 • West Conshohocken, PA 19428-2959
or Fax to (610) 832-9668 or visit ASTM Website for program specific information on ASTM Proficiency Test Programs: www.astm.org

online registration at https://secure6.astm.org/PTP_REGISTRATION/ptp_registration.html

CHEMICAL ANALYSIS OF PLAIN CARBON and LOW-ALLOY STEEL

ASTM standards used in the program are E322, E350, E415, E1019, E1085. Basic elements to be determined by participants include carbon, manganese, phosphorus, sulfur, silicon, copper, nickel, chromium, molybdenum, aluminum, and tin. Additional elements are included in the program from time to time. The samples provided are homogeneity tested to ensure that like samples are distributed to all participants. When oxygen and nitrogen are tested, a separate thin disc is provided. The program is **conducted quarterly** with testing in February, May, August, and November.

CHEMICAL ANALYSIS of STAINLESS STEEL

ASTM standards used in the program are E327, E353, E572, E1019, E1086. Basic elements to be determined by participants include carbon, manganese, phosphorus, sulfur, silicon, copper, nickel, chromium, molybdenum, aluminum, and tin. Additional elements are included in the program from time to time. The samples provided are homogeneity tested to ensure that like samples are distributed to all participants. When oxygen and nitrogen are tested, a separate thin disc is provided. The program is **conducted quarterly** with testing in January, April, July, and October.

CHEMICAL ANALYSIS of ALUMINUM

ASTM standards used in the program are E34, E227, E607, E1251. Basic elements to be determined by participants include silicon, iron, copper, manganese, chromium, nickel, zinc, vanadium, lead, magnesium, titanium, and tin. Additional elements are included in the program from time to time. The samples provided are homogeneity tested to ensure that like samples are distributed to all participants. The program is **conducted biannually** with testing in May and November.

DETERMINATION of GOLD in BULLION by CUPELLATION

Fire assay cupellation has been used by gold refiners, fabricators, mines, and mints for the analysis of gold in bullion. ASTM's Proficiency Test Program for the Determination of Gold in Bullion by Cupellation provides participating laboratories the opportunity to evaluate the accuracy of their assays. The samples provided are homogeneity tested in accordance with Part A of ASTM E1335 Test Methods for Determination of Gold in Bullion by Cupellation. At the conclusion of testing, laboratories keep the remaining test sample material.

The program is conducted biannually in May and November. The programs provide participants with two test samples that shall have at least a 10% or greater (absolute difference) concentration range of gold.