

National Bureau of Standards

Certificate of Analysis

Standard Reference Material 2430

Scheelite Ore

(In Cooperation with the American Society for Testing and Materials)

This Standard Reference Material (SRM) is issued in the form of powder ($<0.1\text{mm}$) and is intended for use in checking chemical methods of analysis and in calibration with instrumental methods of analysis. The certified values are given below and are based on samples dried for 2 hours at 105°C .

Constituent	Certified Value, ¹ Percent by Weight	Estimated Uncertainty ²
WO ₃	70.26	0.10
As	0.002	.001
Bi	.078	.005
Mo	.22	.02
P	.017	.005
S	.26	.01

¹The certified value listed for a constituent is the present best estimate of the "true" value based on the results of the cooperative program for certification.

²The estimated uncertainty listed for a constituent is based on judgment and represents an evaluation of the combined effects of method imprecision, possible systematic errors among methods, and material variability. (No attempt was made to derive exact statistical measures of imprecision because several methods were involved in the determination of most constituents.)

The overall coordination of the technical measurements leading to certification were performed under the direction of J.I. Shultz, Research Associate, ASTM-NBS Research Associate Program.

The technical and support aspects involved in the preparation, certification, and issuance of this Standard Reference Material were coordinated through the Office of Standard Reference Materials by W.P. Reed.

Gaithersburg, MD 20899
January 2, 1987

Stanley D. Rasberry, Chief
Office of Standard Reference Materials

(Over)

PLANNING, PREPARATION, TESTING, ANALYSIS:

The material for this SRM was provided by Amax Tungsten, courtesy of C.C. Clark and represents a mixture of two tungsten concentrates.

Preparation and preliminary homogeneity testing were performed at Ledoux & Co., Teaneck, NJ, courtesy of S. Kallmann.

At NBS, this material was thoroughly blended to obtain satisfactory homogeneity prior to the cooperative analytical program.

Cooperative analyses for certification were performed in the following laboratories:

- Amax, Molybdenum Division, Ft. Madison, IA; J. Madera and R. Stouder.
- Amax Extractive Research and Development, Inc., Golden, CO; F.F. Pitard.
- General Electric Company, Cleveland, OH; J.W. Fulton.
- Kennametal Inc., Fallon, NE; C. Terry.
- Ledoux & Co., Teaneck, NJ; S. Kallmann, C.L. Maul and E.W. Hobart.
- Sylvania, GTE Products Corp., Towanda, PA; R. Dyck, M. Shaffer and J. Mras.

Elements other than those certified may be present in this material as indicated below. These are not certified, but are given as additional information on the composition.

<u>Element</u>	<u>Concentration % by weight</u>
Cu	(0.01)
Al	(0.4)
Sb	(<0.01)
Fe	(1.0)
Mn	(0.12)
Mg	(0.5)
K	(0.16)
Na	(0.02)
Ta	(<0.01)
SiO ₂	(3.5-4.1)*

* Range of Different Methods