AS 2862.1—1999
ISO 12743:1998

Australian Standard™

Copper, lead and zinc sulfide concentrates—Sampling

Part 1: Sampling procedures for determination of metal and moisture content

[ISO title: Copper, lead and zinc sulfide concentrates—Sampling procedures for determination of metal and moisture content]

This Australian Standard was prepared by Committee MN/5, Copper, Lead, Zinc, Gold and Silver Ores and Concentrates. It was approved on behalf of the Council of Standards Australia on 15 July 1999 and published on 5 August 1999.

The following interests are represented on Committee MN/5:

Australasian Institute of Mining and Metallurgy

Australian Lead Development Association

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Minerals Council of Australia

The Royal Australian Chemical Institute

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PREFACE

This Standard was prepared by the Standards Australia Committee MN/5, Copper, Lead, Zinc, Gold and Silver Ores and Concentrates as part of a programme of standardizing methods for the determination of elements of commercial interest in such materials.

The objective of this Standard is to provide those involved in the sampling of sulfide concentrates with a standardized sampling procedure for determination of metal and moisture content.

This Standard is identical with and has been reproduced from ISO 12743:1998, *Copper, lead and zinc sulfide concentrates—Sampling procedures for determination of metal and moisture content* which has been prepared by ISO/TC 183 Copper, Lead and Zinc Ores and Concentrates. Australia holds the Chairmanship and Secretariat of ISO/TC 183 and has made a significant contribution to the preparation of ISO 12743.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on its cover and title page.

(b) In the source text, 'this International Standard' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal point.

The references to International Standards should be replaced by references, where appropriate, to the following Australian or Joint Australian/New Zealand Standards:

Reference to International Standard or other publication		*Australian or Joint Australian/New Zealand Standard*	
ISO		AS	
10251	Copper, lead and zinc sulfide concentrates—Determination of mass loss of bulk material on drying	2863	Copper, lead and zinc sulfide concentrates—Determination of mass loss of bulk material on drying
12744	Copper, lead and zinc sulfide concentrates—Experimental methods for checking the precision of sampling	2862 2862.2	Copper, lead and zinc sulfide concentrates—Sampling Part 2: Experimental methods for checking the precision of sampling
13292	Copper, lead and zinc sulfide concentrates—Experimental methods for checking the bias of sampling	2862.3	Part 3: Experimental methods for checking the bias of sampling

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AUSTRALIAN STANDARD

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Part 1:
Sampling procedures for determination of metal and moisture content

1 Scope

This International Standard sets out the basic methods for sampling copper, lead and zinc concentrates from moving streams and stationary lots, including stopped-belt sampling, to provide samples for chemical analysis, physical testing and determination of moisture content in accordance with the relevant International Standards. Where the concentrates are susceptible to significant oxidation or decomposition, it is necessary to use a common sample for moisture determination and chemical analysis to eliminate bias (see ISO 10251). In such cases, the common sample needs to be sufficiently representative, i.e. unbiased and sufficiently precise, for chemical analysis and determination of moisture content. Any large agglomerates (>10 mm) present in the primary sample are crushed prior to further sample processing. Sampling of concentrates in slurry form is specifically excluded from this International Standard.

Stopped-belt sampling is the reference method for collecting concentrate samples against which mechanical and manual sampling procedures may be compared. Sampling from moving streams is the preferred method. Both falling-stream and cross-belt samplers are described.

Sampling from stationary lots is used only where sampling from moving streams is not possible. The procedures described in this International Standard for sampling from stationary lots only minimize some of the systematic sampling errors.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate applying the most recent editions of standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 10251 1:— [1]:1998, *Copper, lead and zinc sulfide concentrates - Determination of mass loss of bulk material on drying.*

ISO 12744:1997, *Copper, lead and zinc sulfide concentrates - Experimental methods for checking the precision of sampling.*

ISO 13292:— [1]:1998, *Copper, lead and zinc sulfide concentrates - Experimental methods for checking the bias of sampling.*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 representative sample: A quantity of concentrate representing a larger mass of concentrate with both precision and bias within acceptable limits.

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[1] To be published.