This is a free page sample. Access the full version online.

Australian Standard™

Guide to the sampling of particulate materials

Part 3: Estimating sampling precision

Standards Australia

This is a free page sample. Access the full version online.

This Australian Standard was prepared by Committee MN-010, Sampling of Minerals. It was approved on behalf of the Council of Standards Australia on 25 June 2002 and published on 12 July 2002.

The following are represented on Committee MN-010:

Australasian Institute of Mining and Metallurgy

Australian Coal Association

Bureau of Steel Manufacturers of Australia

CSIRO Mathematical and Information Sciences

CSIRO Minerals

Minerals Council of Australia

The Chamber of Minerals and Energy of Western Australia Inc

The Royal Australian Chemical Institute

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia web site at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.com.au, or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

This Standard was issued in draft form for comment as DR 00223.

This is a free page sample. Access the full version online.

Australian Standard™

Guide to the sampling of particulate materials

Part 3: Estimating sampling precision

First published as AS 4433.3—2002.

COPYRIGHT

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 4718 3

This is a free page sample. Access the full version online.

PREFACE

This Guide was prepared by the Standards Australia Committee MN-010, Sampling of Minerals as a basis for preparing Standards for the sampling of a range of minerals from moving streams and stationary situations.

This Guide is Part 3 of the AS 4433 series for the sampling of particulate materials, to be used for the preparation of sampling Standards for a number of mineral commodities. Other Standards in the series are as follows:

Part 1: Sampling procedures

Part 2: Preparation of samples

Part 4: Checking for bias

Part 5: Sampling of slurries

Part 6: Inspection of mechanical sampling systems

An investigation of sampling theory has been carried out to justify the principles adopted.

This is a free page sample. Access the full version online.

CONTENTS

Page

1 SCOPE 4
2 REFERENCED DOCUMENTS 4
3 DEFINITIONS 4
4 NOTATION 4
5 ACCURACY AND PRECISION OF SAMPLING 4
6 PRECISION OF SAMPLE PREPARATION AND MEASUREMENT 9
7 ESTIMATION OF PRECISION OF SAMPLING, PREPARATION AND MEASUREMENT WITHOUT ESTIMATING COMPONENTS 12
8 ESTIMATION OF COMPONENTS OF OVERALL PRECISION 13
9 ALTERNATIVE ESTIMATES 21

APPENDICES

A DEFINITIONS 24
B NOTATION 26
C STUDENT'S *t*-VALUES AND DEGREES OF FREEDOM 28
D ESTIMATING STANDARD DEVIATION FROM THE RANGE OF REPLICATE OBSERVATIONS 29
E THE DERIVATION OF EQUATIONS INVOLVING VARIANCES OF MEASUREMENT, SAMPLE PREPARATION AND SAMPLING 31
F EXAMPLE RECORD OF EXPERIMENTAL RESULTS AND PRECISION CALCULATION (BASED ON EXAMPLE IN ISO 12744) 33

SAI GLOBAL

This is a free preview. Purchase the entire publication at the link below:

Product Page

Looking for additional Standards? Visit Intertek Inform Infostore

Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation