INTERNATIONAL STANDARD

ISO 4259-1

First edition 2017-11 **AMENDMENT 2** ISO pub-date

Petroleum and related products — Precision of measurement methods and results —

Part 1: **Determination of precision data in relation to methods of test** AMENDMENT 2

Produits pétroliers et connexes — Fidélité des méthodes de mesure et de leurs résultats —

Partie 1: Détermination des valeurs de fidélité relatives aux méthodes d'essai AMENDEMENT 2

PROOF/ÉPREUVE



Reference number ISO 4259-1:2017/Amd.2:2020(E)





COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html. This document was prepared by Technical Committee ISO/TC 28, *Petroleum and related products, fuels*

This document was prepared by Technical Committee ISO/TC 28, *Petroleum and related products, fuels and lubricants from natural or synthetic sources,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 19, *Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 4259 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <u>www.iso.org/members.html</u>.

Hensilsandander opposition of the state of t

Petroleum and related products — Precision of measurement methods and results —

Part 1:

Determination of precision data in relation to methods of test

AMENDMENT 2

3.18

Add the alternative term "repeatability limit" and replace the definition with the following:

quantitative expression for the random error associated with the difference between two independent results obtained under repeatability conditions in the normal and correct operation of the same method, that is expected to be exceeded with an approximate probability of 5 %

Delete Note 1 to entry and renumber the other notes.

Clause 3, new term on repeatability conditions

Add the following term at the end of 3.18: standards itell

3.19

repeatability conditions

and the state of t conditions where independent test results are obtained using the same method for test material considered to be the same in the same laboratory by the same operator using the same equipment within short intervals of time

Renumber the subsequent terms accordingly.

3.19 (or the newly renumbered 3.20)

Add the alternative term "reproducibility limit" and replace the definition with the following:

quantitative expression for the random error associated with the difference between two independent results obtained under reproducibility conditions in the normal and correct operation of the same method, that is expected to be exceeded with an approximate probability of 5 %

Remove Note 1 to entry and renumber the remaining note.

Clause 3, new term on reproducibility conditions

Add the following term at the end of the new 3.20:

3.21

reproducibility conditions

conditions where independent test results are obtained using the same method for test material considered to be the same in different laboratories, where different laboratory means a different operator, different equipment, different geographic location, and under different supervisory control

6.4.1

Replace the paragraph under X.2 with the following:

The difference between two independent results obtained using this method for test material considered to be the same in the same laboratory, by the same operator using the same equipment within short intervals of time, in the normal and correct operation of the method that is expected to be exceeded with an approximate probability of 5 % due to random variation, can be calculated using the following function:

Replace the paragraph under X.3 with the following:

151052929e9. lace the paragraph under X.3 with the following: **Part and State of State o** considered to be the same in different laboratories, where different laboratory means a different operator, different equipment, different geographic location, and under different supervisory control, in the normal and correct operation of the method that is expected to be exceeded with https://stantarts.itelt.and an approximate probability of 5 % due to random variation, can be calculated using the following function:

Hensilsandander opposition of the state of t