

DIN EN ISO 4259-3:2020-08 (E)

Petroleum and related products - Precision of measurement methods and results - Part 3: Monitoring and verification of published precision data in relation to methods of test (ISO 4259-3:2020)

Contents		Page
European foreword		3
Foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Proficiency testing scheme requirement	7
4.1	PTS provider	7
4.2	PT homogeneity and stability of proficiency test items	7
4.2.1	Property homogeneity	7
4.2.2	PT data and statistics requirement	7
5	Comparison of PT precision achieved to published precision	8
5.1	General	8
5.2	Perform F-test on the variance ratio	8
5.2.1	Construction of the variance ratio to be used for the F-test	8
5.2.2	Comparison of variance ratio to be tested to a critical value $F_{crit,025}$	9
5.2.3	Multiple comparisons overtime	14
Annex A (informative) Worked examples of F-test		15
A.1	General	15
A.2	Example A	15
A.3	Example B	15
Annex B (informative) Use of z-scores to monitor an individual participant's PT performance		16
B.1	z-score calculation	16
B.2	Run-sum calculation using participant i's z-scores from multiple PT rounds	16
B.3	z-score and run-sum interpretation	17
B.3.1	General	17
B.3.2	Illustrative examples	17
Bibliography		19