Casing Wear Tests

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Casing Wear Tests

1 Scope

It is the intent of this standard to provide a method by which results will be reproducible, under a specified set of conditions, for conducting tests that determine casing wear due to rotation of drill stem elements.

This standard is intended to be used in a laboratory environment and is not intended for use in the field during operations. The testing requirements in this standard are not represented at well conditions. This standard is divided into four major areas: machine apparatus, procedures, materials, and reporting.

This standard will not address the significance of specific data values. It is the responsibility of the user of this standard to establish the appropriate test data values that are acceptable based on their respective application, operational limitations, and safety practices.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

API Manual of Petroleum Measurement Standards Chapter 10.4, *Determination of Water and/or Sediment in Crude Oil by the Centrifuge Method (Field Procedure)*

API Recommended Practice 13B-1, *Recommended Practice for Field Testing Water-Based Drilling Fluids*

API Recommended Practice 19C, *Measurement of Properties of Proppants Used in Hydraulic Fracturing and Gravel-Packing Operations*

API Specification 5CT, *Specification for Casing and Tubing*

API Specification 5DP, *Specification for Drill Pipe*

3 Terms, Definitions, and Abbreviations

3.1 Terms and Definitions

For the purposes of this document, the following definitions apply.

3.1.1
asperity
Protuberance in the small-scale topographical irregularities of a solid surface.

3.1.2
axial friction factor
Ratio of frictional force and contact force between the test specimen and the casing while sliding (not rotating).

3.1.3
axial-load
Force imparted by the tool joint specimen against the inside casing wall.