

Manual of Petroleum Measurement Standards Chapter 18—Custody Transfer

Section 1—Measurement Procedures for Crude Oil Gathered from Lease Tanks by Truck

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Introduction

These procedures are intended to encourage uniform custody transfer measurement and testing practices for crude oil gathered from lease tanks by truck; however, they are not intended to interfere with business contracts or local conditions or to comprise the only acceptable method of custody transfer by crude oil truck.

Measurement Procedures for Crude Oil Gathered from Lease Tanks by Truck

1 Scope and Field of Application

These procedures are organized into a recommended sequence of steps for manually gauging and determining the quantity and quality of crude oil being gathered from lease tanks by truck. These measurements and tests are performed by crude oil truck drivers (COTDs) and other parties who are responsible for the custody transfer and for recording the results of the measurements and tests on the run tickets. These procedures apply to the custody transfer from lease storage tanks to the transporting truck.

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 MPMS Chapter 7.1, *Temperature Determination, Liquid-in-Glass Thermometers*

API MPMS Chapter 8.1, *Standard Practice for Manual Sampling of Petroleum and Petroleum Products (ANSI/ASTM D4057)*

3 Terms and Definitions

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

3.1

crude oil truck driver COTD

Assumes that the driver is also the gauger. However, it should be recognized that these duties may be separated between two individuals: a person who only drives the tank truck, and a gauger or applicable representative who is responsible for measurement and testing.

3.2

free water

The water that exists as a separate phase.

3.3

gathering

The process of transferring the custody of crude oil in the field from one party to another by performing various measurements and quality tests.

3.4

meniscus

The concave upper surface of a liquid column.

3.5

merchantable oil

Applies to liquid hydrocarbons that are judged to be acceptable for custody transfer to a carrier. Merchantable oil is settled and contains not more than a specified amount of suspended sediment, water, and other impurities.