

Addendum 1
August 2007

**Manual of Petroleum
Measurement Standards
Chapter 12—Calculation of
Petroleum Quantities**



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Addendum 1 to API *MPMS* Chapter 12— Calculation of Petroleum Quantities

Guidance to Industry on the Application of API *MPMS* Chapter 11

Introduction

After considerable time and effort, a revision of API *MPMS* Ch. 11.1 (*Physical Properties Data—Temperature and Pressure Correction Factors for Generalized Crude Oils, Refined Products, and Lubricating Oils*) was published as an Adobe® PDF file on CD with an accompanying executable program (for calculating and printing) in September 2004. Later that year, a CD with a Microsoft® Excel Add-In was released, as was another CD with ANSI C-code subroutines. As users have started to implement the 2004 version of API *MPMS* Ch. 11.1, a number of concerns and questions have arisen on how the API *MPMS* Ch. 11.1 (2004) harmonizes with existing *MPMS* Standards, particularly API *MPMS* Ch. 12.

MPMS Chapter Interrelationships

Currently, the *Manual of Petroleum Measurement Standards* is organized into Chapters covering general measurement areas and several of these Standards are interrelated. For instance, numerous Standards reference API *MPMS* Ch. 11.1. There is at present considerable uncertainty amongst users as to which takes precedence when Standards do not concur on a specific subject, in particular Chapters 11 and 12. When these differences occur the following criteria should be applied.

API *MPMS* Ch. 11.1 is the primary standard for the determination of the temperature (CTL), pressure (CPL), and combined temperature and pressure (CTPL) correction factors for crude oil, refined products, and lubricating oils, either by presentation of specific implementation procedures or by reference to other publications.

API *MPMS* Ch. 12 is the primary standard for the calculation of volume quantities. It determines the discrimination levels (rounding) required for each input variable and correction factor in a specific volume calculation procedure, and the sequence and manner in which to apply the appropriate parameters (RHO_b , API_b , RD_b , CTL, F_p , CPL, and CTPL).

Note: While the determination of a combination pressure and temperature factor, CTPL, is specified in API *MPMS* Ch. 11.1, its application is not currently addressed in API *MPMS* Ch. 12 but will be upon the next revision.



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