



Standard Practice for Sampling Liquefied Petroleum (LP) Gases, Manual Method¹

This standard is issued under the fixed designation D1265; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This practice covers equipment and procedures for obtaining a representative sample of specification Liquefied Petroleum Gas (LPG), such as specified in Specification **D1835**, **GPA 2140**, and comparable international standards.

1.2 This practice is suitable for obtaining representative samples for all routine tests for LP gases required by Specification **D1835**. In the event of a dispute involving sample integrity when sampling for testing against Specification **D1835** requirements, Practice **D3700** shall be used as the referee sampling procedure.

1.3 This practice may also be used for other Natural Gas Liquid (NGL) products that are normally single phase (NGL mix, field butane, etc.), defined in other industry specifications or contractual agreements. It is not intended for non-specification products that contain significant quantities of undissolved gases (N_2 , CO_2), free water or other separated phases, such as raw or unprocessed gas/liquids mixtures and related materials. The same equipment can be used for these purposes, but additional precautions are generally needed to obtain representative samples of multiphase products (see Appendix X1 on Sampling Guidelines in Practice **D3700**).

NOTE 1—Practice **D3700** describes a recommended practice for obtaining a representative sample of a light hydrocarbon fluid and the subsequent preparation of that sample for laboratory analysis when dissolved gases are present. Use of Practice D1265 will result in a small but predictable low bias for dissolved gases due to the liquid venting procedure to establish the 20 % minimum ullage.

1.4 This practice includes recommendations for the location of a sample point in a line or vessel. It is the responsibility of the user to ensure that the sampling point is located so as to obtain a representative sample.

1.5 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the*

responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1 ASTM Standards:²

D1835 Specification for Liquefied Petroleum (LP) Gases
D3700 Practice for Obtaining LPG Samples Using a Floating Piston Cylinder

2.2 Other Regulations:

Canadian Transportation of Dangerous Goods Regulations³
GPA 2140 Gas Processors Association Liquefied Petroleum Gas Specifications & Test Methods⁴
IATA Transportation of Dangerous Goods by Air⁵
U.S. CFR 49 Transportation⁶

3. Terminology

3.1 Definitions:

3.1.1 *high pressure sample cylinder*—a receptacle used for storage and transportation of a sample obtained at pressures above atmospheric pressure. Also referred to as a “pressurized sample container” or “sample bomb.” The term “sample bomb” is not preferred.

3.1.2 *maximum fill density (reduced fill density)*—the volume of a container occupied by the sample, usually expressed as a percentage of the total capacity. Transportation legislation such as **U.S. CFR 49**, **Canadian Transportation of Dangerous Goods Regulations**, and **IATA regulations** limit the percent fill of containers used for shipping LPG and may quote this requirement as a reduced fill density or maximum fill density (normally 80 % maximum liquid fill at 15°C). Lower percent fill (lower fill density) may be required if sampling at lower temperatures.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from Government of Canada Publications – PWGSC, Ottawa, ON K1A 0S9.

⁴ Available from Gas Processors Association, 6526 E. 60th St., Tulsa, OK 74145.

⁵ Available from IATA Customer Care, 800 Place Victoria, PO Box 113, Montréal, Quebec H4Z 1M1. www.iata.org.

⁶ Available from U.S. Government Printing Office, 732 N. Capitol Street, NW, Washington, DC 20401.

*A Summary of Changes section appears at the end of this standard.