



Designation: D 3700 – 9401

An American National Standard

Standard Practice for Containing Hydrocarbon Fluid Obtaining LPG Samples Using a Floating Piston Cylinder¹

This standard is issued under the fixed designation D 3700; 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 ~~describes~~ covers the equipment and a procedure for obtaining a representative sample of a ~~homogeneous hydrocarbon fluid specification liquefied petroleum gas (LPG), such as specified in Specification D 1835, GPA 2140, and the subsequent preparation of that sample comparable international standards. It may also be used for other natural gases liquid (NGL) products that are normally single phase (NGL mix, field butane, and so forth), defined in other industry specifications or contractual agreements.~~

1.2 ~~This practice is not possible, nor is it the intent of this practice, to provide a procedure intended for non-specification products that contain significant quantities of undissolved gases (N₂, CO₂), free water or other separated phases, such as raw or unprocessed gas/liquids mixtures and related materials. The same equipment can be applicable used for all sampling situations. It is strongly recommended that these purposes, but additional precautions are generally needed to obtain representative samples be obtained under the supervision of a person knowledgeable in the phase behavior of hydrocarbon systems and experienced in all sampling operations. multi-phase products (see Appendix X1).~~

1.3 This practice ~~does not include~~ includes recommendations for the location of the sampling a sample point in a line or vessel, ~~although vessel. It is the importance responsibility of the proper user to ensure that the sampling point is located so as to obtain a representative sample.~~

1.4 ~~The values stated in SI units are to be over-emphasized.~~

~~1.4~~ regarded as the standard. The values provided in parentheses are for information only.

1.5 ~~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. For specific hazard statements, see 5.1 and Annex A2.~~

2. Summary of Practice

2.1 ~~A hydrocarbon fluid sample is transferred under pressure from a source to a moving piston cylinder. The piston-type cylinder is designed to collect fluid samples by displacing a pressurizing fluid (usually an inert gas) at sampling pressure. The piston serves as a barrier between the sample and the inert gas which maintains the integrity of the sample by preventing the selective absorption of sample components in the pressurizing fluid as is possible in conventional displacement techniques. The method provides~~Referenced Documents

2.1 ASTM Standards:

¹ This practice is under the jurisdiction of ASTM Committee D-2 D02 on Petroleum Products and Lubricants and is the direct responsibility of Subcommittee D02.H on Liquefied Petroleum Gases.

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