DEPARTMENT OF

TRADE AND COMMERCE
CANADA

S-GA.249

STANDARDS BRANCH

OTTAWA November 21, 1962.

TYPE APPROVAL

ARCCO-ANUBIS RECORDING GAS GRAVITOMETER
MODELS "RD-B" AND "RDPT-B"

The apparatus specified and illustrated herein has been duly approved by the Standards Branch under the provisions of the Gas Inspection Act, Chapter 129, R.S. 1952, and may be admitted to verification in Canada.

Apparatus Approved: Arcco-Anubis Recording Gas Gravitometer, Models "RD-B" and "RDPT-B", manufactured by Arcco Instrument Company, Inc., Los Angeles, Calif., U.S.A. and distributed in Canada by MacNutt Industries Limited, Calgary, Alberta, and Knight Industrial Products, Toronto, Ontario.

Application: Used in connection with the determination of specific gravity factor in the measurement of manufactured, natural and petroleum gases.

Range of Apparatus:
Specific Gravity: (length of column, 150 cm) .... 0.5 to 1.0 and 0.5 to .75
(length of column, 75 cm) ..... 0.5 to 1.5 and 0.5 to 1.0
Rate of Flow of Gas ..... 2 cubic feet per hour.

Description: The recording gas gravitometer is basically a balance with two bells of equal size suspended on knife links at the ends of a main beam. The lower portions of the bells are immersed in a sealing oil contained in two interconnected tanks securing equal oil level. Two vertical, adjustable in height and equal in length columns, one for gas and the other for air, are connected through the bottom of the tanks to the inside of the bells above the level of the oil. Through suitable diffusers additional connections are provided to this area for external supply of gas and air. The air column is terminated at the top with a container filled with silica gel, and similar dryer is provided at the end leading to air diffuser.

The main beam carries calibration weights and a pendulum weight suspended on a helical thermostatic element and providing restoring balancing moment as well as required temperature compensation. The movement of the beam is transferred to the recording pen by a linkage system carrying various balancing weights. The barometric compensation is provided by means of a floating lever in the pen linkage attached to the adjustable aneroid barometer unit. Two pivots are located on this lever for the purpose of dual range provision.

In operation the air column is filled with dry air at existing atmospheric conditions and the other column is supplied with gas through an

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