



LEVELTON ASSOCIATES CONSULTING ENGINEERS

RICHMOND VICTORIA NANAIMO COURTENAY SURREY ABBOTSFORD PRINCE RUPERT CALGARY

July 23, 1996
File: 296-020

Hastings Brass Foundry
236 Clarke Drive
Vancouver, B.C.
V5L 3H3

Attention: Mr. Robert Worner

Dear Mr. Worner:

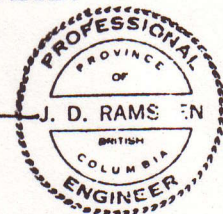
RE: Load Testing of "Hasbra" Hose Bridges

Static load tests were conducted on Hastings Brass "Hasbra" brand hose bridges on July 11, 1996. These tests were performed in Levelton Associates' Baldwin Universal testing machine, Model No. BTE-120, which is verified annually to the requirements of ASTM E4.

Loading was applied to the top flat of the bridges through stiff steel plates extending the full bridge width and 5" on either side of the centreline joint. Deflections were measured on each side of the bridge 5" from the centreline joint. One each of the No. 3, No. 4 and No. 5 Hasbra bridges were tested. Each sustained a load of 120,000 lbs (60 tons) for up to 5 minutes. There were no failures and no substantial deformation of any bridge.

Thank you for the opportunity to perform this testing. Please contact us if you have any questions or comments.

B.H. LEVELTON & ASSOCIATES LTD.



J.D. Ramsden, P.Eng.

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