

Early Polymer Luminus With Color Watermarks from Domtar

Domtar Corporation

Founded in England in 1903, the firm was originally called the Dominion Tar and Chemical Company, Limited. The first timber plant was located in Cape Breton, Nova Scotia. In 1965, the company changed its name to Domtar Inc. In 2001 Domtar purchased four paper mills from Georgia-Pacific Corporation for US\$1.65 billion. With the acquisition, Domtar became Canada's largest paper company in terms of sales. In 2006, Domtar, Inc. agreed to merge with the paper division of Weyerhaeuser. In 2013, Domtar announced it was acquiring Xerox's US and Canadian Paper businesses. Domtar Corporation is the largest integrated producer of uncoated free-sheet paper in North America and the second largest in the world based on production capacity.

Luminus

Domtar Inc. holds the patents for a product that could replace paper currency trademarked Luminus. Luminus is a paper sandwich - a laminated product comprised of three layers of paper, film, and paper. The film in the middle is polyester and can contain a color image and other security features. The Bank of Canada obtained the Canadian rights to Luminus and continued to develop it as a potential substrate. **Without notice** Canada bird back \$5 notes of 1986 with Luminus substrate were produced and tested in active circulation with a serial prefix range of GOG 0100000-0199999 (P95c2)¹ before being withdrawn. This information was not widely known until the Autumn 2007 issue of the Bank of Canada Review. Due to no collector knowledge, the best known condition Luminus note (MS60) sold for just over \$22,000 US.

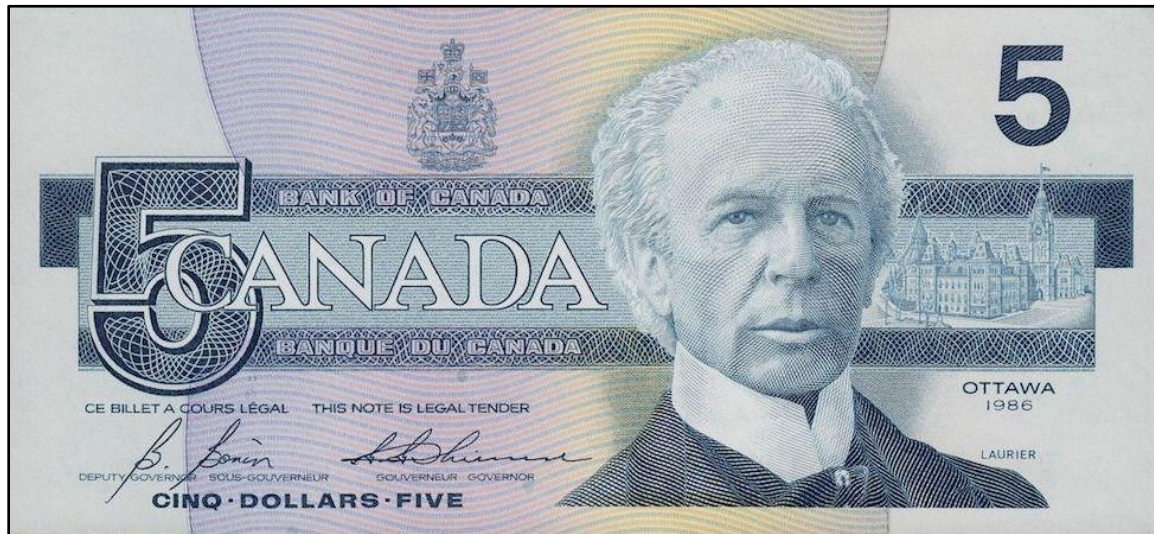


Figure 1 Canada \$5 P-95c, BNB # B358c2 front



Figure 2 Canada \$5 P95c, BNB B358c2 reverse

The Domtar plant in Beauharnois, Québec, which produced Luminus, has since been closed. It produced bank note papers for more than 20 countries².

I acquired 3 Domtar test notes from a retired Technical Director of the firm². The most dramatic test note was unknown to me. I have assigned the catalog number DOM-121³. Here is the note under normal lighting, then next with back light source.

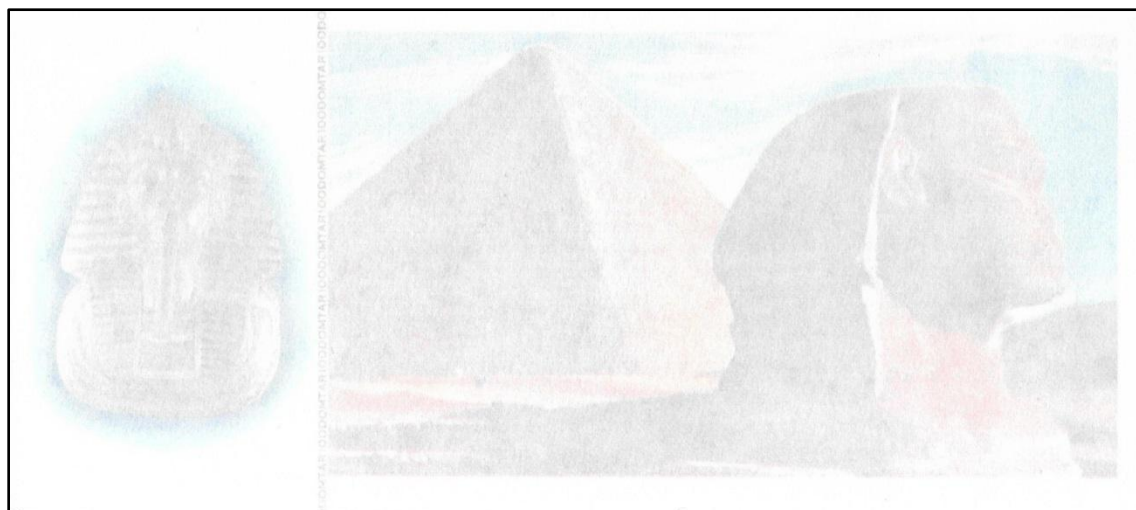


Figure 3 DOM-121 Normal Lighting

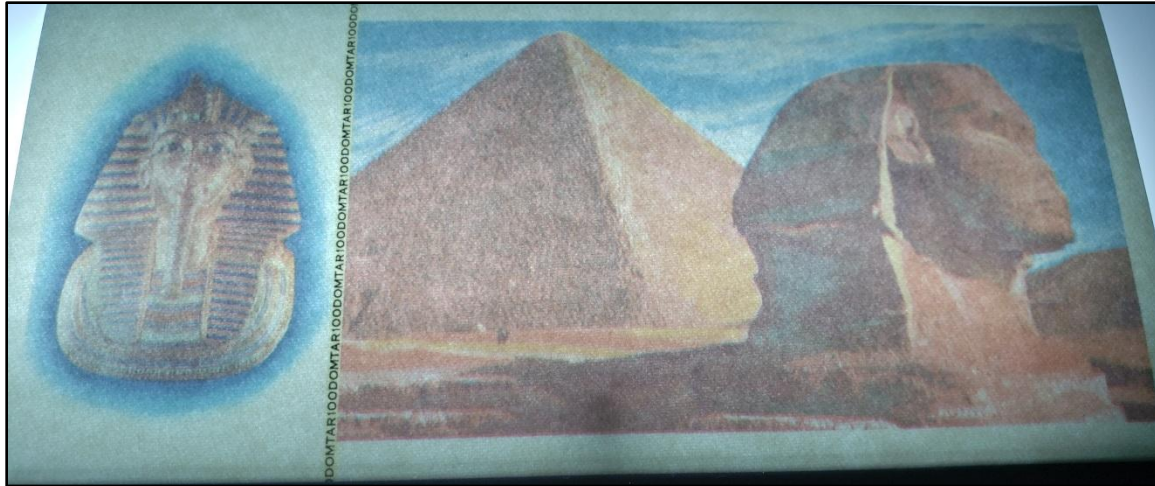


Figure 4 DOM-121 Back light

The entire middle polyester layer is colored, rendering the note with a back light with a distinctive, sharp color watermark covering the entire surface. Notice the microprinting of "DOMTAR" between images, replacing a security strip. These are certainly scarce, as in four years I have recorded one other sale for three times the cost of the three notes I purchased.

Here's a Luminus example on a mock 100 banknote test note.

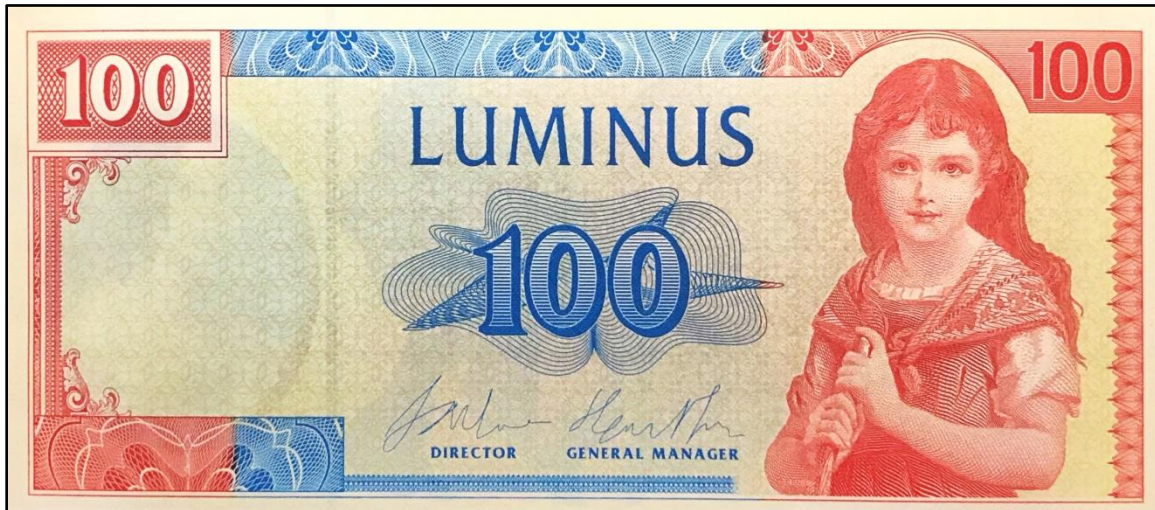


Figure 5 DOM-101a³ Front

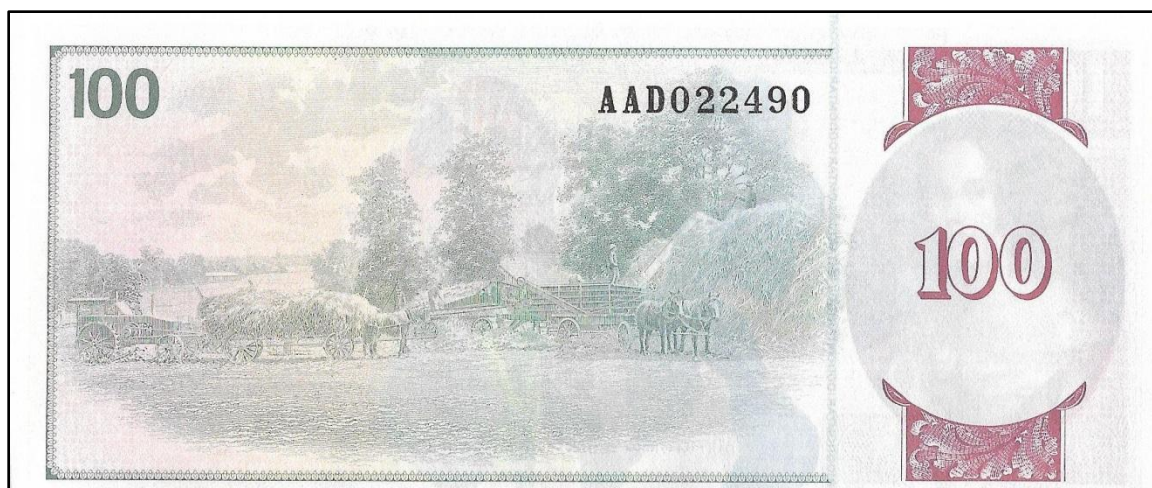


Figure 6 DOM-101a³ Reverse

Here is the note with a back light. Notice even with a busy printing area everywhere except the front oval, the Luminus layer displays prominently when back light is applied.



Figure 7 DOM-101a³ Back Light

The intaglio printing on the maiden is distinct as can be seen by this close up.

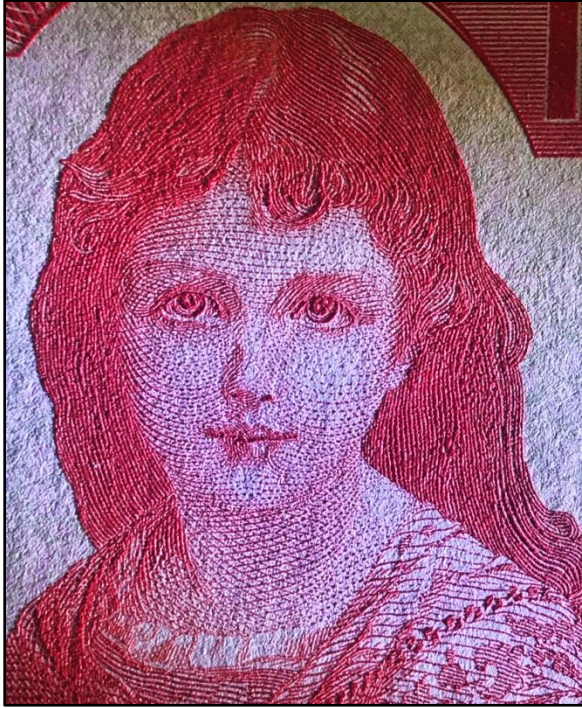


Figure 8 DOM-101a³ Close Up

In all there are five known Domtar test notes with eight varieties. Most of the varieties are color or watermark differences.

Another “sandwich” substrate called Durasafe was patented by Landqart from Switzerland in 2012. As a curious coincidence, both Landqart’s parent company Fortress Paper and Domtar are from Canada. Durasafe has seen wide use on Switzerland, Cambodia, Kazakhstan, Morocco, and the Bahamas banknotes. The top and bottom layers are also banknote paper, but Landqart uses the now widely accepted polymer material as the center layer. This makes the final product more durable than paper, but still allows traditional security devices to be applied to the surface. It also allows clear windows or a window the same color as the reverse paper. So are color watermarks possible from this product? No. The clear polymer substrate is applied in liquid form, so there is no way to add multi-colored design elements. Too bad.

References cited and sources of data.

- 1- Tracy Schmidt, “Standard Catalog of World Paper Money, Modern Issues”, 24th Edition
- 2 - Richard Gratton, former Technical Director for Domtar Corp.
- 3 - Roland Rollins, “North American Printers Promotional Sheets & Test Notes”, 2020