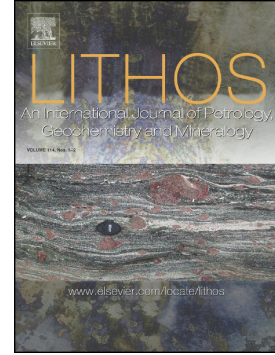


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**Discovery of modern (post-1850 AD) lavas in south-central British Columbia,  
Canada: origin from coal fires or intraplate volcanism?**

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**Abstract**

We describe three unusual lavas in the Northern Cordillera in south-central British Columbia, Canada, occurring as spatter, scoria and blocks over small ~ 400 m<sup>2</sup> areas. The lavas coat and weld cobbles and pebbles in glacial till and are vesicular and glassy with microlites of clinopyroxene and plagioclase, and xenocrysts of quartz, feldspar or clinopyroxene. Chemically the lavas are basaltic trachyandesite (55 – 61 wt% SiO<sub>2</sub>) with trace element patterns similar to average British Columbia upper crust, except for having higher V and lower Zr, Hf, Nb, Th and U. Melting experiments and plagioclase-melt thermometry on the glasses, and phase equilibrium in simple systems, require liquidus temperatures of 1150 - 1300°C. Interaction of the liquids with carbonaceous matter at

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