Currently there is much debate in Austria about the amount of strain on the motorway network as a result of heavy duty vehicle (HDV) traffic and the consequences of this burden on local air quality. This air quality problem is particularly important in Tirol where the mountainous landscape produces specific meteorological conditions that strongly affect air quality. In order to monitor the quality of air throughout the region, a number of measurement sites routinely monitoring certain parameters are in operation in Tirol. One such site is situated alongside the A-12 motorway in Vomp (between Innsbruck and Kufstein), where the present investigation is being carried out. The placement of a proton-transfer-reaction mass spectrometer (PTR-MS) at this site enabled the measurement of certain organic compounds to complement the routine data acquisition of CO, NO, NO₂ and PM10 at this location. In addition to these species, meteorological data (wind speed and -direction, and air temperature at various altitudes) and vehicle count data were collected. In a previous short-term study at this location in autumn 2002 (Beauchamp et al. 2004), results gave strong evidence that increased NOₓ and PM10 levels could be predominantly attributed to HDV traffic. The current investigation began in February 2004 with an aim to study the long-term situation at this location. Preliminary results will be presented here for the first time.

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