Lead and molybdenum in soils and forage near an atmospheric source

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Soil samples collected in 1982 and 1983 from locations near an industrial park consisting of a Mo ore processing plant and a car battery manufacturing industry were analyzed for total and extractable Mo and Pb. Grass samples collected from the same locations were analyzed for total Mo and Pb and three samples were analyzed for total Cu. The objectives were to assess the potential toxicity of Mo and Pb to horses (Equus caballus) and cattle (Bos taurus) and to verify earlier research done in the same general area. Total and extractable Mo and Pb in soils and total Mo and Pb in grasses decreased with increase in distance down-wind from the industrial site. The car battery plant ceased operation soon after the 1982 sampling and the extractable Pb in 1983 was much lower than in 1982, indicating a rapid reaction of Pb with soils. The total and extractable Mo in soils were about the same in 1983 as in 1982 even though the Mo industry installed electrostatic precipitators in late 1982 with a c