

# **2007 Environmentally Acceptable Endpoints for Weathered/Aged (Residual) Petroleum Hydrocarbons CCME CWS Fraction F3 in Soil, Phase 3**

The Petroleum Hydrocarbon Canada-Wide Standard (PHC CWS) guideline for F3 in soil uses the concentration of F3 in soil, as measured by the PHC CWS analytical method, to predict the toxicity of that soil to plants and soil invertebrates. With aged and weathered hydrocarbons in soil, this strategy may be unnecessarily conservative, since the PHC CWS analytical method uses an aggressive solvent that may extract more of the aged/weathered hydrocarbon from soil than the amount that is bioavailable to plants and invertebrates. This project i) provided input to the 2005/2006 review of the PHC CWS, and ii) developed a guideline based on an empirical bioavailability index for weathered/aged PHC fraction F3 in soil with a view to facilitating the closure of PHC-impacted sites following bioremediation and/or natural attenuation of the PHC- contaminated soil.