

## **Petroleum Hydrocarbon Sheens in Surface Water - Governing Processes and Solutions**

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**Abstract.** Sheens from petroleum liquids associated with legacy operations often drive large and expensive remedial actions. In hindsight, these measures can be less effective than desired and can have secondary adverse environmental impacts. The focus of this research is to develop new, more sustainable, solutions for petroleum hydrocarbon sheens. This poster presents work to date which has focused on identifying governing processes and exploring solutions. Critical governing processes include LNAPL movement in the vadose zone as an intermediate wetting phase and tide driven transitions from two to three phase systems. Solutions considered include capillary barriers, oleophilic bio-barriers and enhanced source depletion. Field demonstrations of select technologies are planned for 2012.

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