

Nonpetroleum sheens on water

Each year the Minnesota Pollution Control Agency (MPCA) receives calls from concerned citizens who have discovered apparent color sheens on water in ditches, ponds, wetlands, lakes and other areas with stagnant, standing water.

Often these sheens have an iridescent or rainbow-like appearance similar to what one sees when a small amount of oil, gasoline or other petroleum product is spilled on water. In some cases, a reddish precipitate can be seen also in the water where these sheens occur.

If there is no obvious source of petroleum that could have been spilled, the sheen may be an organic nonpetroleum, or humic, sheen caused by bacteria.

Is it a bacterial or petroleum sheen?

A nonpetroleum sheen can usually be distinguished from a petroleum sheen by attempting to break up the sheen. When a stick is poked into a bacterial sheen or a stone is dropped into it, the sheen will typically break into small platelets. In contrast, a petroleum sheen will quickly try to reform after any disturbance.

Another difference is odor; a sheen produced by bacteria usually has none, while a sheen caused by a spilled petroleum product may smell like gasoline or diesel fuel.

If you see a sheen on surface water or in a wet area, investigate the sheen if you can safely do so. If, after disturbing the sheen a bit, the sheen appears to be caused by spilled petroleum rather than bacteria, a pollution situation exists and you should report your finding to the Minnesota Duty Officer by calling 800-422-0798.

An exception to this would be sheens that result from rainfall washing residual petroleum and sheens from road surfaces and parking lots. Should you find, within a day or two of a rain, a petroleum sheen on standing water that you know for certain is runoff from a nearby road or parking lot, you need not report your finding to the Minnesota Duty Officer because the small amount of oil will evaporate or be degraded naturally by microbes. In addition, there is very little, if anything that can be done to collect a very thin petroleum sheen.

Of course, the owner of a suspected oily parking lot should act to clean the surface of the lot and prevent future contamination. Information about controlling stormwater runoff can be found at www.pca.state.mn.us/water/stormwater.

For more information

For more information on spill prevention, cleanup and disposal, call the MPCA at 651-296-6300 or toll-free at 800-657-3864 and ask for a member of the Emergency Management Unit (EMU) or go to <https://www.pca.state.mn.us/waste/emergency-response>.

More information is also available on the website of the U.S. Environmental Protection Agency at www.epa.gov/oilspill/.



When disturbed, a bacterial sheen will break up into small platelets, unlike a petroleum sheen, which will quickly try to reform.