



## **Ionics Agar Environmental Ltd.**

### **LEAKWISE® OIL ON WATER MONITORING SYSTEMS**

#### **APPLICATION NOTE #3**

#### **HYDROCARBON PIPE-LINE**

##### **1. Pipeline Leak Detection**

Some pipeline companies install "oil collection pots" in sensitive locations along the pipeline (e.g. near rivers and/or groundwater drinking wells), for oil leakage monitoring. If an ID-223 oil sheen detector installed in these monitoring "pots" detects "oil" or "oil on water", it sets off an alarm in a remote location. The ID-223 oil sheen detector may be installed in unmanned remote locations where power and communication lines are seldom available. In such cases power can be supplied with the Agar solar packs, and communication can be made via modem through P.T.P, telephone lines, or wireless communication.

##### **2. Pumping Station Monitoring**

Most pipe-line pumping stations have either oil-water separators or retention tanks for collecting oil spills, as well as stormwater run-offs which may carry oil. Water is continuously discharged from the separator directly into the local public drainage system or into a sump and from there into the drainage system. An ID-223 oil sheen detector is installed near the separator outlet or in the sump in order to continuously monitor the water discharge. If an oil sheen is detected, an alarm is set off. The water outlet valve can be closed or the water pump can be turned off by the Leakwise® sensor. Since the separator is covered, an ID-225 oil layer thickness monitor can be installed in the separator to monitor the thickness of the oil layer. This is especially important in unmanned locations since it will set off alarm in the pipeline control center in case of large spills/leaks. It can prevent the costly removal of "oily water" before enough oil has accumulated in the separator.

##### **3. Emergency Shut-off Station Monitoring**

Many shut-off valves are built along the pipeline for emergency and maintenance purposes. In some areas, due to certain environmental regulations, new shut-off valves have to be installed in concrete containment where leaks from equipment can be detected. ID-223 oil sheen detectors installed in these containments can continuously monitor these unmanned shut-off stations and in case of oil detection send alarm to remote location.