



### **Bioremediation at Diesel Generating Stations**

A power generating station of a major electrical company in Northern Canada was experiencing diesel contamination at its site. The station was contained in a metal-clad building, and fueled from three 15,000 gallon above-ground tanks. The tank farm had a dike and a floor made of coarse sand and pea gravel, which was ineffective in containing an estimated 1000-3000 gallons of spilled fuel. The contaminant reached the water table at about 1.5 meters in depth. Contaminant levels ranged from 200 ppm on the surface to 600 ppm at 1 meter. Some free product was encountered in bore holes.

To treat, six 8" bore holes were drilled. M1000H\* microbes and nutrients were applied to the bore holes and the surface. The surface was raked and additional microbes were applied. Bore holes were filled with water and allowed to leach slowly in an effort to force the microbes throughout the contaminated area. After soaking the surface with water and again applying M1000H\*, a layer of black six mil poly was used to cover the treated zone. This was done to reduce evaporation and to increase heat during daytime hours.

At 15 days into the project, all areas were below original levels. At 18 days, samples were taken showing substantial decreases, and the site was re-inoculated to enhance bacterial activity. At 25 days, further samples were taken and all readings were less than 100 ppm. During the following three site visits where testing was carried out, continual decreases were noted to below background levels at 56 days (using a Haztech vapor meter, employing the head space method.)