



MICROBE-LIFT® Technology Helps Remediate TPH Contaminated Soils in Georgia and Tennessee

Location: PCS Nitrogen, Georgia & Tennessee Sites

Background: PCS Nitrogen, a business unit of Potash Corporation of Saskatchewan, is one of the largest producers of nitrogen worldwide. It produces nitrogen fertilizers and feed ingredients from three manufacturing facilities in the US and one in Trinidad. When they experienced heavy contamination of soils with hydrocarbon and TPH compounds at two of their facilities, they utilized Ecological Laboratories' **MICROBE-LIFT®** technology to remediate these sites.

Objective: During 2005, 2006, and 2007, **Ecological Laboratories** supplied PCS **MICROBE-LIFT®**, **MICROBE-LIFT®** /IND, and **MICROBE-LIFT®** /SA to be used with nutrient management to enhance and speed the remediation process targeting the removal of the petroleum compounds.

The bioremediation at two sites, in Georgia and Tennessee, included land farming with monthly bioaugmentation application, followed up by wet lay up over colder winter months with the application of microbial treatment.

Results Achieved: These bioremediation programs resulted in site recoveries with dramatic reductions in priority pollutants and TPH. At one site the wet lay up period for three months over the colder period resulted in the reduction of 17 inches of contaminated soil and a corresponding reduction in pollutants, a surprising efficacy considering the low temperature of treatment. It is postulated that the photosynthetic strains in **MICROBE-LIFT®** provide a substantial advantage in soil remediations.

The following pictures show the dramatic improvement at the Tennessee site:



Fig. 1: *These pictures show the site before the beginning of treatment*

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Fig 2: Excavation to ready the site for land farming shows the extent of contamination.



Fig. 3: This picture shows the site after successful remediation.

The dramatic “after treatment” picture above confirms the efficacy of **MICROBE-LIFT®**’s photosynthetic consortium in remediating petroleum contaminated soil, and in this case, efficacy in spite of low temperatures.

For more information on **MICROBE-LIFT®** Technology contact
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