



## Tech Data Sheet

# Fungi-Biopile Technology

## Remediation of Petroleum-Contaminated Soils

### Problem

Accidental spills of petroleum hydrocarbons (diesel, gasoline, crude oil) happen as a result of living and working in Alaska. Because hydrocarbons are hazardous to the health of people and animals living in the surrounding area, Alaska state regulations require any release of oil to land in excess of 55 gallons be reported as soon as a person has knowledge of the discharge; any release in excess of 10 gallons must be reported within 48 hours. Once the spill has been reported, a plan to address the spill is put into place. However, remediation of soils that are contaminated with hydrocarbons can be extremely difficult and expensive, especially in remote and rural areas.

### Solution

The Fungi Alliance designs Fungi-Biopiles to treat soils that are contaminated with diesel, gasoline, and crude oil up to 8,500 mg/Kg. Such Fungi-Biopiles are acknowledged as a viable procedure in the contiguous 48 states but are new in Alaska. Supplementing the soil with fungi enhances degradation of petroleum hydrocarbons to water and carbon dioxide and can be implemented on site without the need of continuous maintenance.

### Benefits

The use of Fungi-Biopiles has the ability to improve the effectiveness of landspreading and landfarming which are common soil remediation methods in Alaska. It can be applied in all areas in Alaska and to also to already existing stockpiles. The augmentation with fungi will make remediation faster. Due to the enhancement of soil with organic material it will leave a fertile soil behind ready to be used for restoration or other projects. The use of cardboard and/or woodchips from invasive species (choke cherry) is another benefit as it repurposes waste materials and cuts recycling costs.

## Cost Analysis

We save costs by using local facilities and work with communities to recycle waste materials. Since the remedial process will be faster, costs on maintenance and rental of location will be reduced.

Every spill site has a mixture of variables and costs will depend on:

- The existing environmental conditions and site characteristics.
- Geographic location and logistics
- Soil analysis and testing information
- On-site point of contact and monitoring
- Available materials and facilities for on-site inoculation materials (recycled cardboard, chipped or shredded wood).

## Contact us for a customized Quote

### Fungi Alliance

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