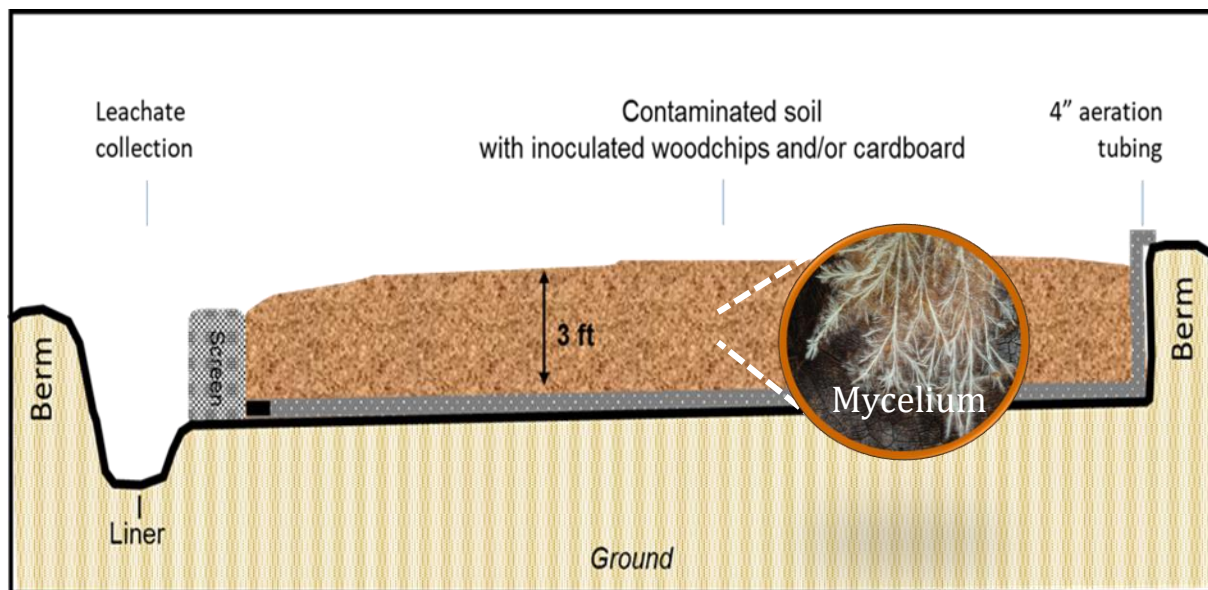




# Fungi-Biopile Technology

## How it works

Our product is the growth and application of customized saprophytic fungi to naturally bioremediate petroleum hydrocarbons. This application occurs in several steps including the cultivation and enhancement of the fungal mycelium, inoculation of recycled cardboard or wood chips and application to the soil. The filament roots of the fungi, the mycelium, release an enzyme that breaks the organic petroleum hydrocarbons down at a cellular level and remediates them naturally into water and carbon dioxide.



## Fungi-Biopile Construction:

1. Initial testing of soil physical and nutritional status
2. On-site collection of cardboard and/or wood chips
3. Inoculation of cardboard or wood chips and growth of mycelium in greenhouse or other available facilities e.g. warehouse, storage tent (up to 2 months).
4. After selection of the location, an area will be graded with a 1% slope towards the selected site that ends in a two-foot deep and two-foot wide trough to collect

leachate. It is optional to have an automated system to recycle the leachate through the biopile. The area is based on the total amount of contaminated soil plus inoculated substrate with maximum height of 3 feet.

5. The entire area is surrounded by 4ft high soil berms and the ground and soil berms will be lined with 2x 8mil plastic liner. A 4" aeration tube will be placed at the floor of the pile with two to four feet spacing and covered with weed guard.
6. The biopile itself will be a 1:10 mixture of inoculated cardboard and woodchip and contaminated soil and placed on top of the liner. Addition of fertilizer may be needed depending on soil type.
7. After installation the mycelium will grow throughout the soil and produce enzymes that degrade the petroleum hydrocarbon and use it as food for growth. The biopile will be kept at required moisture either through watering and/or covering with plastic sheeting depending on season and rainfall.

Questions? Feel free to contact us

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