

# BAM & Nutrient Injections

Former Asphalt Plant – Near Jackson, MS

## Pilot Study – DPT Injection

**Project Summary:** ORIN successfully conducted a pilot test to treat groundwater contaminated with GRO, DRO, Crude Oil, and PVOC utilizing BAM, a pyrolyzed cellulosic material, VB591 nutrient blend. Two pilot areas were conducted: one with BAM alone (IW-3) and one with BAM mixed with nutrients (IW-2). DPT points were advanced around each well. The treatment chemistry was mixed with water and injected through DPT points utilizing a side injection rod. A total of 2,740 gallons of solution was injected between the two areas. During injection activities, a vacuum truck extracted groundwater from various wells within and adjacent to the injection areas.

Exceeds 99% Totals Reduction

### Site Conditions:

#### Groundwater Contaminants –

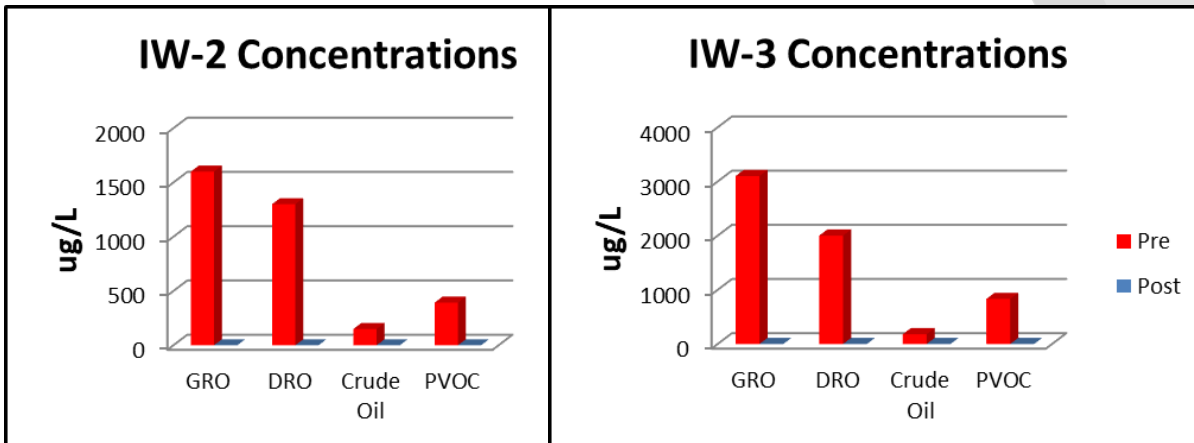
- GRO: 3,100 µg/L
- DRO: 2,000 µg/L
- Crude Oil: 180 µg/L
- Total PVOC: 831 µg/L

#### Impacted Matrix –

Silty Clay to Fine Sandy Silt  
20 to 30 ft-bgs

#### Treatment Chemistry –

BAM, and  
VB591 Nutrients



**Project Results:** Three rounds of sampling have occurred during the post treatment period with non-detect results for all COC's sampled at IW-2 and IW-3. The results yield a 100% reduction for contaminant levels at IW-2 and IW-3. The use of vacuum extraction helped to distribute the treatment chemistry to ensure complete coverage in the target area of concern. ORIN is currently conducting full-scale injection at this site.

