Cleaire Advanced Emission Controls, LLC
Off-Road Retrofit Emission Controls
Cleaire Background

• California based retrofit provider
  – Headquarters in San Leandro
  – CARB approved heavy-duty vehicle chassis emission test facility in Richmond
  – Manufacturing in San Diego
• Current on-road CARB verified products
  – Longview® (25% NOx & Level 3 PM)
  – Horizon™ (Level 3 Plus PM)
• Off-road
  – Longview: Field durability underway
  – Horizon: Conditional verification anticipated in January 2007
Longview® Components

- Backpressure sensor
- Thermocouples
- Controls box
- Catalyzed SiC DPF
- Exhaust flow
- Lean NOx catalysts
- Backpressure & temp ports
- Wiring harness
- Engine exhaust inspection port
- Controls box
- Thermocouples
- Backpressure sensor
- Fuel injector & pump
Longview Examples
Horizon™ EPF

- Engine exhaust inspection port
- Backpressure & temp ports
- Exhaust flow
- Electric heater
- Insulated PM filter
- Wiring harness
- Air pump box
- Thermocouples
- Plug & socket
- Controls box
Horizon Examples