





#### **History of Dry Cleaning**

- Laundering method using solvents other than water
- 79 A.D. Pompeii: Ammonia and lye, Fuller's Earth
- Discovered by accident in Europe
  - Maid spilled lamp oil on table cloth
- 1st Commercial Dry Cleaner opened in 1825
  - Jolly-Berlin Corporation, Paris France
  - Vats of turpentine, air dried
- Thomas Jennings tailor in New York, NY
  - 1821 patent for "Dry Scouring"
  - 1st African American to receive a patent
- Petroleum: gasoline, kerosene, mineral spirits
- Chlorinated solvents: CCl<sub>4</sub>, TCE, PCE
- "Green" methods: GreenEarth™, CO<sub>2</sub>

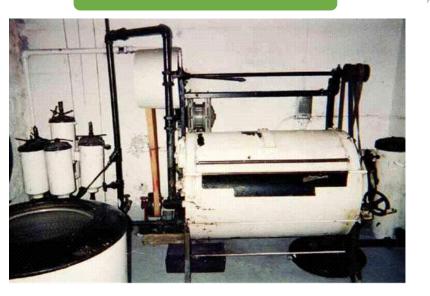


Photo: SCRD

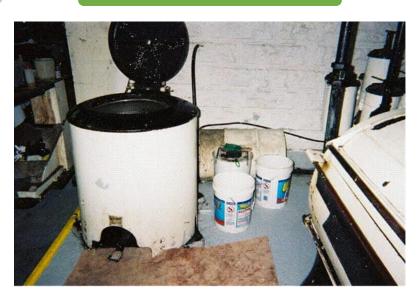


### **Early Commercial Dry Cleaning Machines**

#### Washer



#### Extractor



#### or Dryer



Photo: SCRD



#### D.E.R.A. Pollution Prevention Performance Standards

- Annual registration with KDHE
- Storage & disposal of hazardous wastes
  - 60 day accumulation
  - Prohibition of disposal to sewer system
- Secondary containment
- Direct-couple delivery of solvent
- Weekly inspections Calendar
  - Repair deficiencies within 5 days

















Photo: KDHE



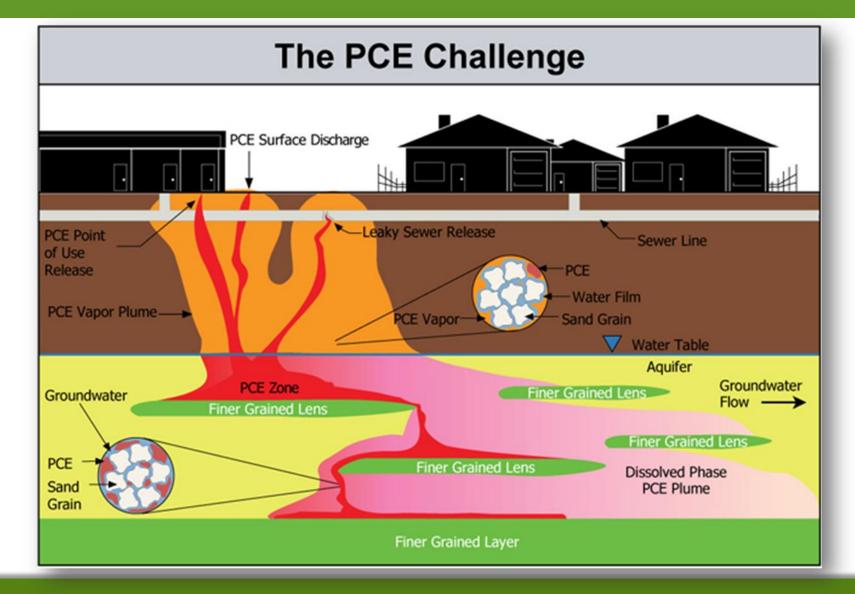


Photo: Washoe County



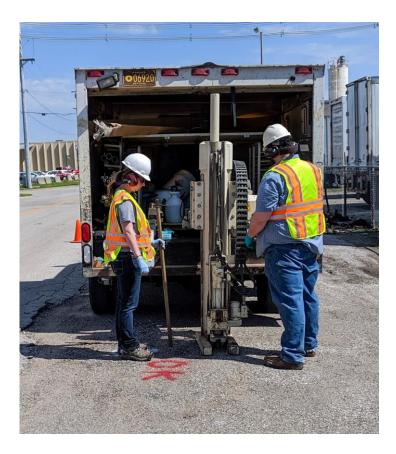
#### Dry Cleaning Facility Release Trust Fund

- 2.5% environmental surcharge on gross register receipts
- Solvent fee per gallon of solvent purchased
  - \$5.50 chlorinated solvents
  - \$0.55 non-chlorinated solvents
- \$5,000 deductible
- Sites may receive up to \$5,000,000 in corrective action
  - Assessment & investigation
  - Monitoring
  - Emergency Actions (drinking water supplies)
  - Remediation of releases
  - Reimbursement

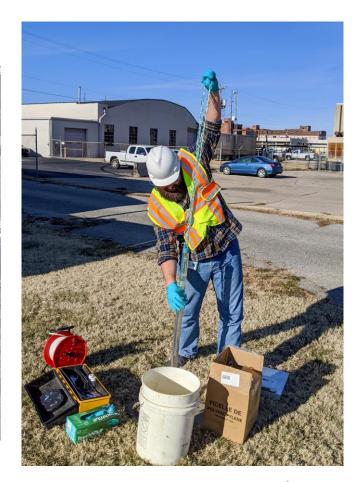




### **Assessment & Investigations**

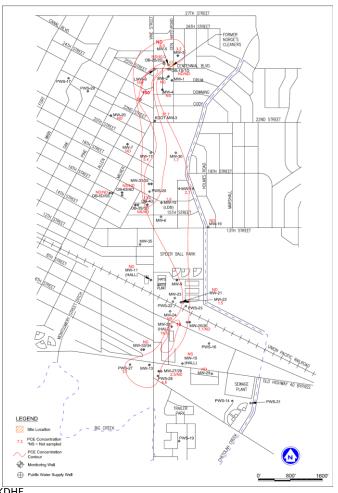




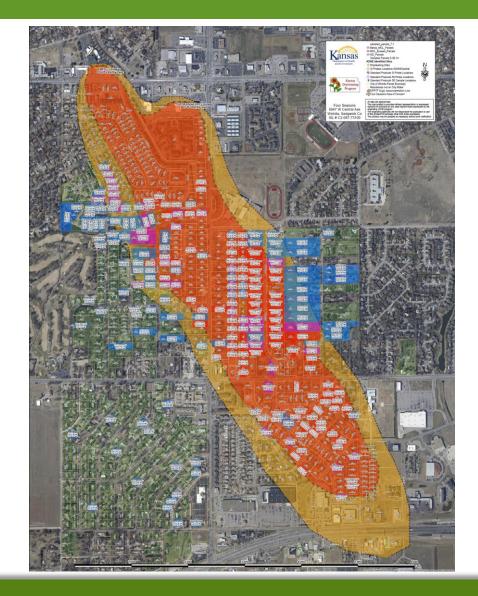




#### **Extensive Contamination**



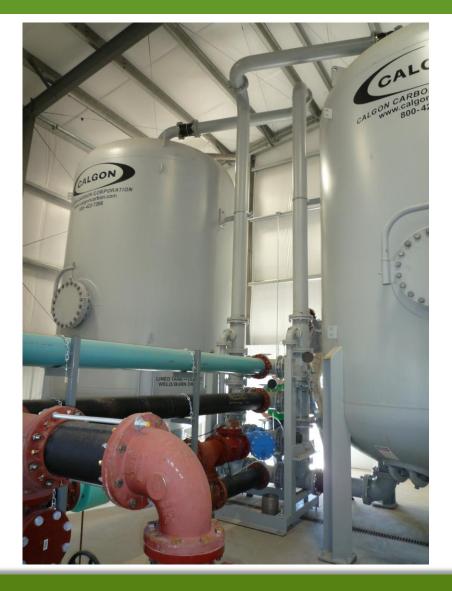






### **Expensive Remediation**







## Redevelopment-



Pride Cleaners 95<sup>th</sup> & Antioch Overland Park

#### Holiday Cleaners - 10824 Shawnee Mission Pkwy

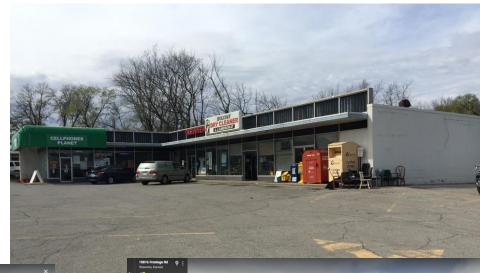


Photo: Upper – KDHE Lower - Google





#### **Future of Dry Cleaning**

- IBISWorld Market Research Company
  - 35,000 Dry Cleaners in the US
  - 60 Registered in Kansas
- Casual attire
- Fabric durability
- Color safe fabrics
- Clothing costs decreased
- Small, family-owned businesses
- Operators are retiring
- Environmental concerns
  - Industry movement to environmentally safer solvents



Photo: SCRD



#### Thank you.

KDHE Dry Cleaner Program Joe Dom, Section Chief 785-296-1914

