

Electrical Resistance Heating at Former Manufactured Gas Plant

Santa Rosa, California

Project Summary

Remediation Goals:

- Remove 30,000 lbs. of coal tar
- Reduction of naphthalene, benzene and fuel oil concentrations in soil

Site Characteristics

- Underground storage tank within treatment volume
- Treatment volume of 1,600 yd³
- Vadose & saturated zones: clay with sand lenses
- Baseline soil concentrations
 - 50,000 mg/kg naphthalene
 - 4,600 mg/kg benzene

Operations

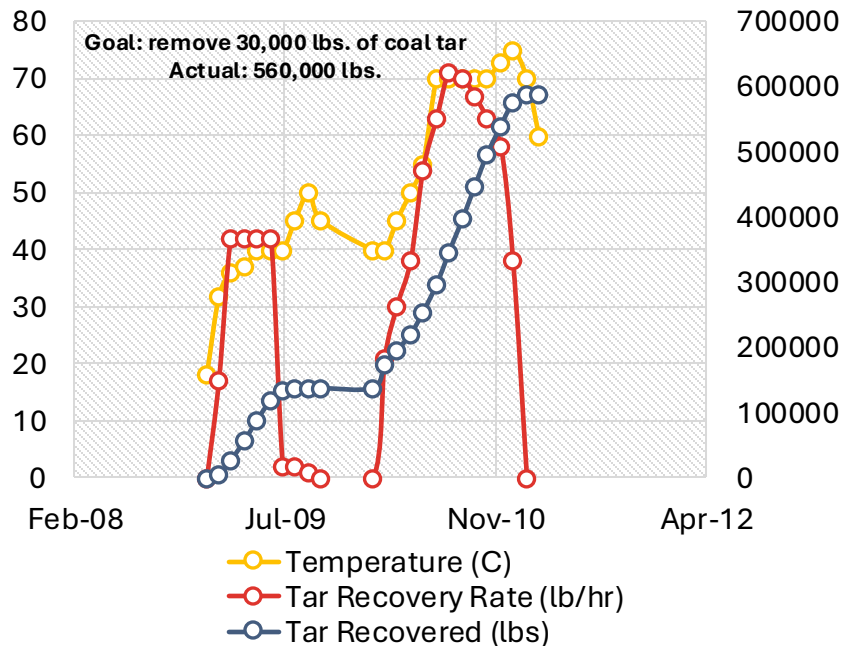
- ERH electrodes co-located with multi-phase extraction points
- Total run time: 2 years
- System design changes due to high mass

Results

- 560,000 lbs of coal tar removed
- 70% reduction of naphthalene
- 81% reduction of benzene



ERH Treatment Area and Equipment Compound



Temperature and Tar Recovery vs. Time