



REMEDIAL TECHNOLOGY COST BENEFIT ANALYSIS

PETROLEUM REFINERY CENTRAL KENTUCKY

Client: Private Consulting Firm

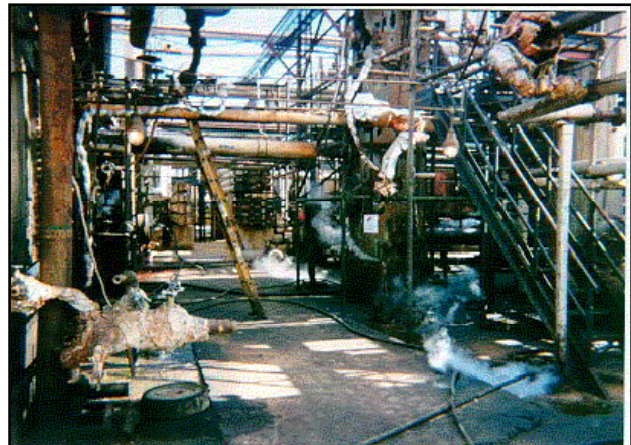
Contaminants: Benzene

Impacted Matrix: Ground Water in Fractured Bedrock

Scope of Work: Cost Benefit Analysis of Dual Phase Extraction (DPE) Technology vs. Modified Advanced Oxidation Technology (mAOT) and Corresponding Timeline.

Project Specifics: SESCOIENCES was contracted to design and construct a cost benefit model and timeline regarding DPE remedial technology vs. mAOT remedial technology on a fractured bedrock site.

SESCIENCES designed the costing model based on reviewed site specific information and hypothesized conditions. Costs and corresponding timelines were provided in a range of descending order of optimal to less optimal site conditions.



The cost benefit analysis model demonstrated (for this specific site) that remedial endpoints for EPA Region 4 could be met within one year utilizing mAOT treatments compared to four years utilizing DPE technology.

Overall Cost Comparison:

mAOT (1 year): \$140 K - \$184 K vs. DPE (4 years): \$186 K - \$292 K

Current Site Status: Corrective Action Pending