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Specializing in piling, caissons, shoring, underpinning, slurry walls, slurry trenches and including concept and execution.

PROJECT : Ropec Digester Tanks
Ottawa, Ontario

DESCRIPTION: Installation of 368 piles 12¾" ø x 0.500".
Average pile lengths of 80 feet. Service load: 400 kips.

CHALLENGES:

The project included the installation of deep foundation for two large digester tanks. It was tendered and awarded as a fast-track design build project. Originally each tank foundation was supported by 40 – 30" ø caissons. Petrifond proposed an alternate based



on 368 driven concrete filled piles. This proved to be the most efficient and economical solution, providing substantial savings and a much shorter schedule.

Petrifond mobilized 1 - LS 218 Crawler crane equipped with 125' VTL, with a B 5505 diesel hammer, capable of driving 85' in full length. Several LS 128 cranes were also mobilized which were used for starting, splicing and concreting the piles.



Due to the severely fractured bedrock and relative large service loads, repeated re-strikes were necessary in order to attain the appropriate safety factor.

Due to limited access, challenging material delivery issues, it was necessary to work seven (7) days a week, 14 hours per day. Petrifond delivered the project ahead of schedule and budget, earning a substantial bonus.



In all 40 PDA's, 2 static load tests and 368 mandrel tests were successfully performed.



PARTICIPANTS:

OWNER: Municipality of Ottawa
ENGINEER: Adjeleian Allen Rubeli Ltd.
GENERAL CONTRACTOR: Doran Contractors Ltd.
CONSTRUCTION MANAGER: CH2MHill

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