

Business Item 2024-106:
Blue Lake Polymer Contract
23P355A

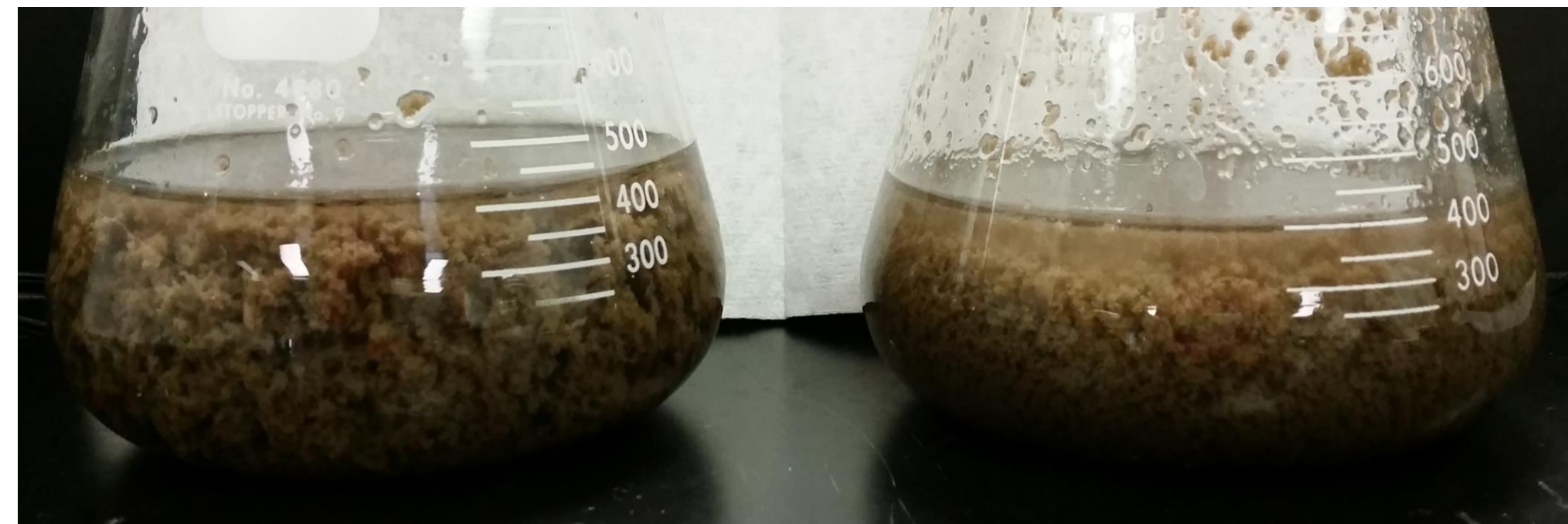
Trevor Prater, Senior Engineer

Environment Committee: April 23, 2024



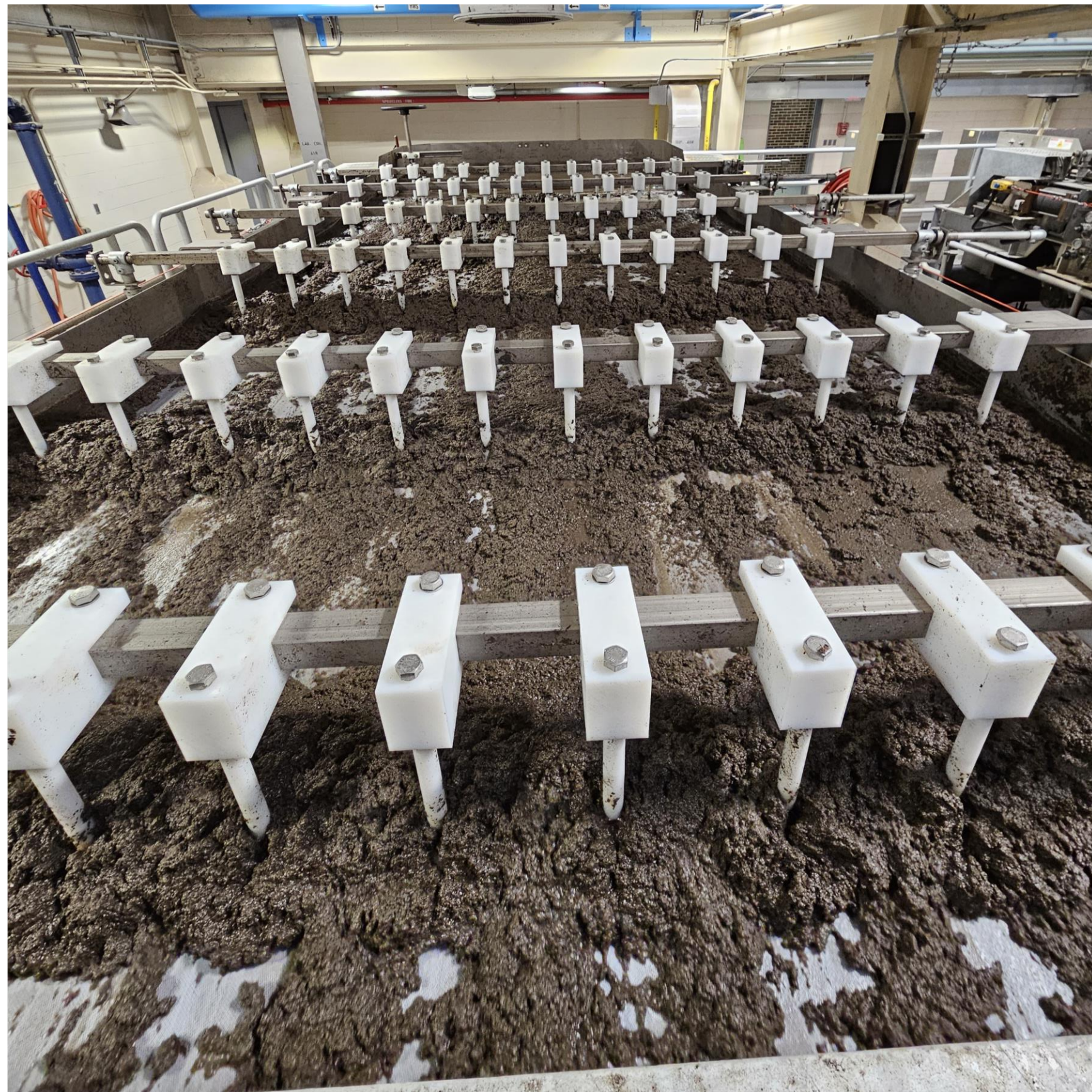
What is polymer?

- Made of mineral oil (light naphtha), polyacrylamide, and water
 - Raw materials are oil and natural gas
- Causes sludge particles to agglomerate (flocculation)
- Allows dewatering equipment to separate solids from water
- Different sludges need a different polymer to be most effective



How is polymer used at Blue Lake?

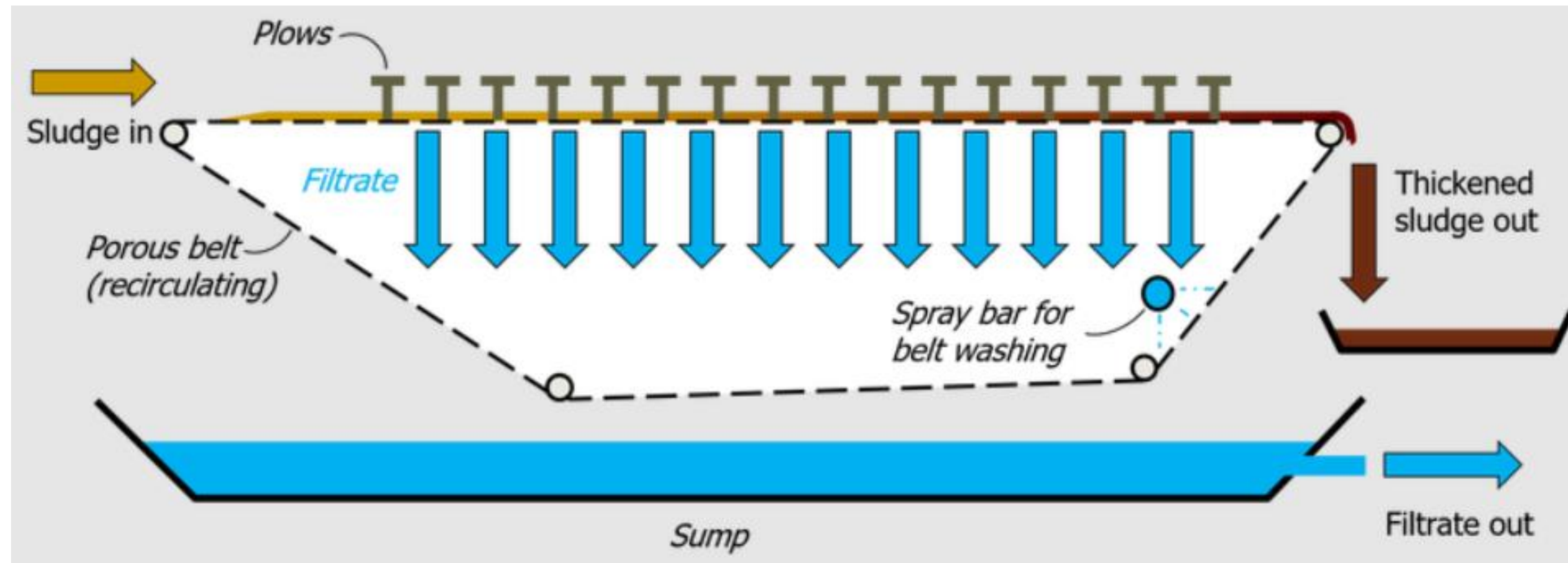
- Gravity Belt Thickeners



- Centrifuges

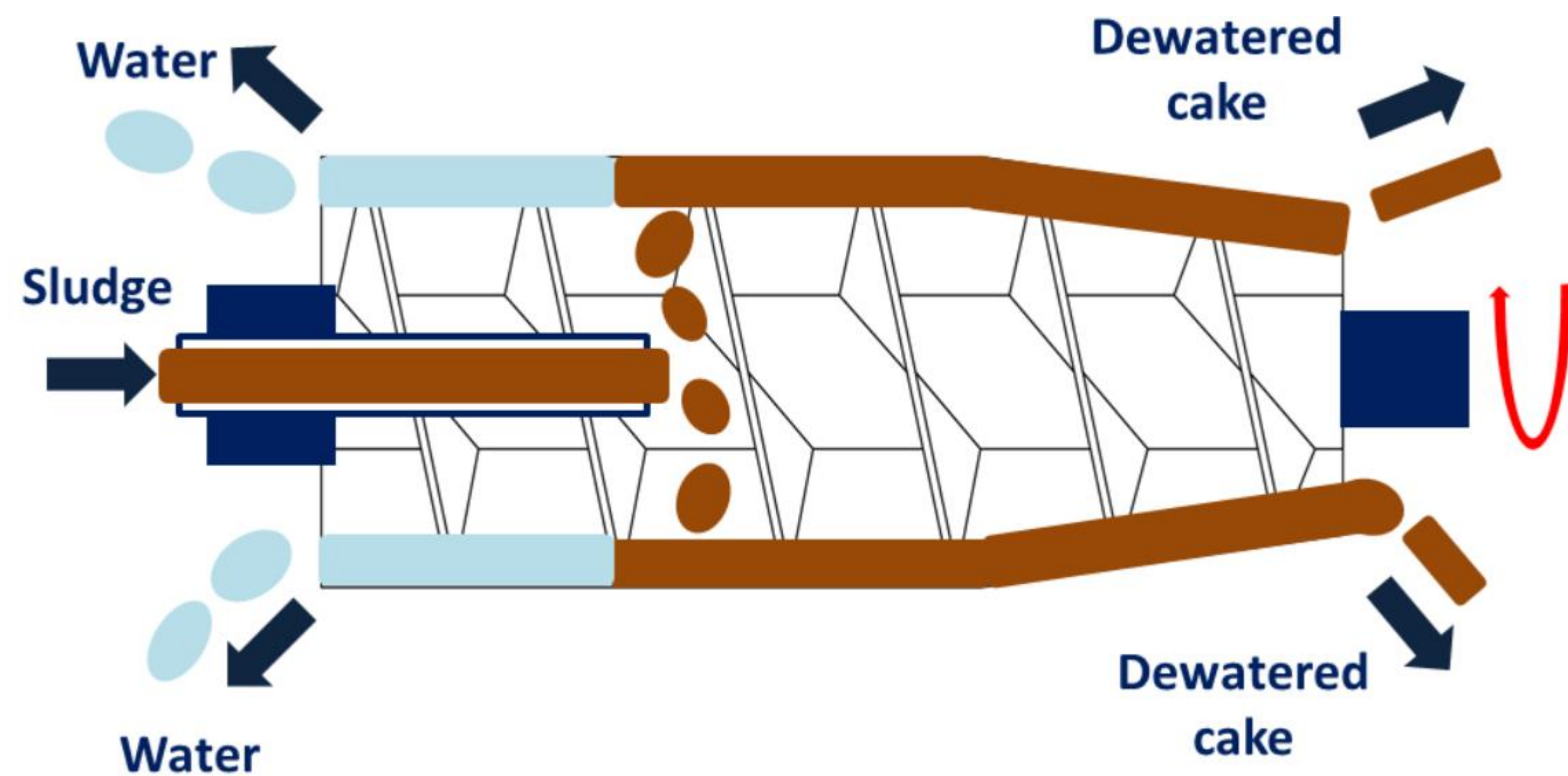


Gravity Belt Thickeners

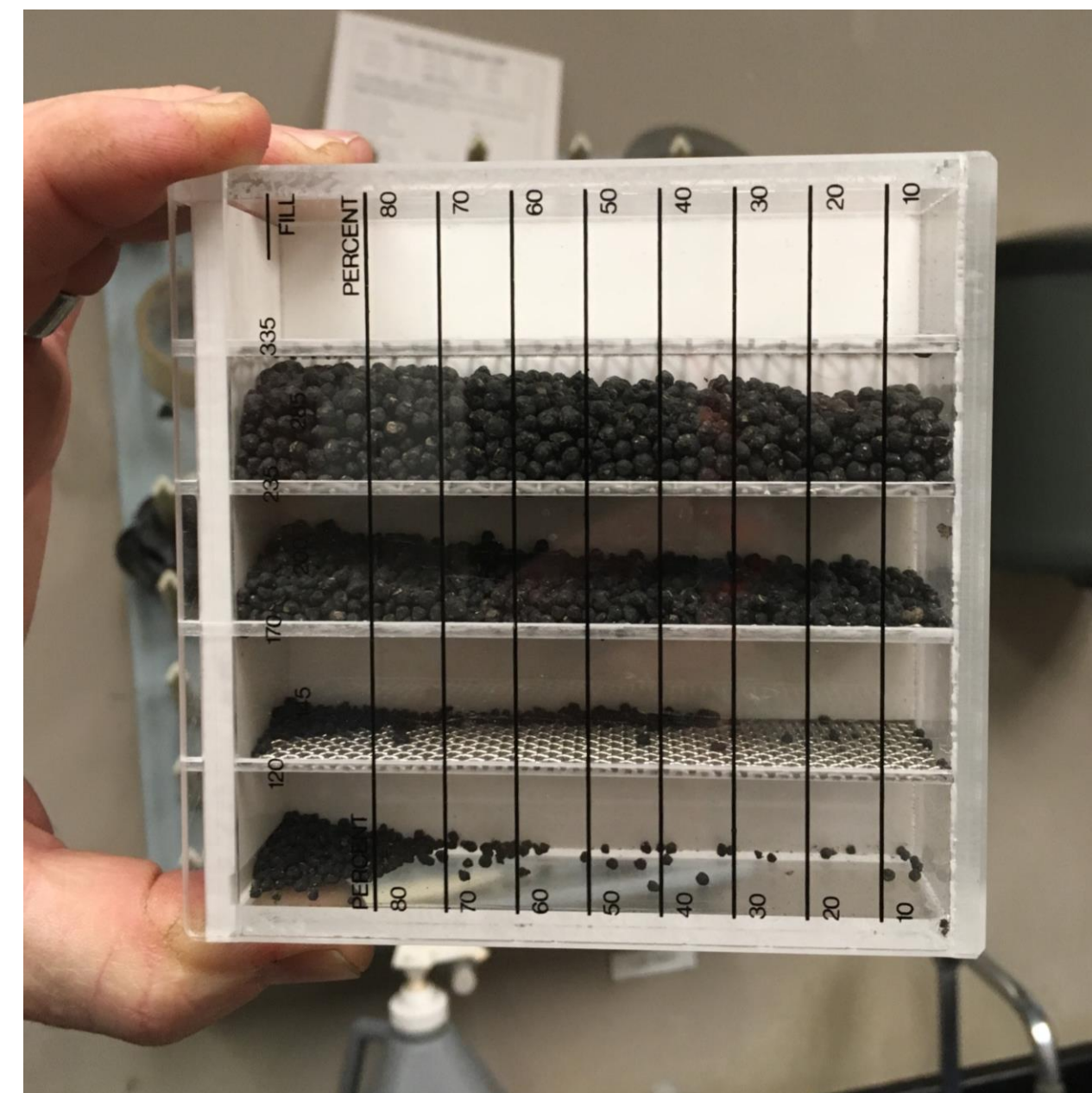


- Reduce the water content of waste activated sludge to increase effectiveness of digesters
- Increase waste activated sludge solids concentration from 1% to 5-7%

Centrifuges



- Increase solids concentration from 2.5% to 20%
- Remove water from the digested sludge to reduce the need for using natural gas in the dryer



Background

- Two-step Procurement process
 - Invitation for Prequalification – October 5, 2023
 - 5 polymers from 2 vendors prequalified
 - Full-scale Testing – Jan 29-Feb 2, 2024
 - Identify acceptable polymer options through a full-scale evaluation of performance and prequalify those vendors/products
 - Only vendors that have prequalified products are allowed to participate in the Invitation for Bids which is the second step in the procurement process.
 - Four products met evaluation process requirements to bid.
 - Invitation for Bids – February 27, 2024
 - Two vendor bids received and opened – March 21, 2024

Background continued

- Polydyne, Inc. had lowest cost product selected for the contract
- \$750,000 annual expenditure, 5-year contract not to exceed \$4,480,000
- Office of Equity and Equal Opportunity did not set a Metropolitan Council Underutilized Business (MCUB) goal

Proposed Action

- That the Metropolitan Council authorize the Regional Administrator to award and execute contract 23P355A with Polydyne, Inc. to provide polymer to the Blue Lake Wastewater Treatment Plant in amount not to exceed \$4,480,000.

Questions

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