



Valoris Leachate Treatment System



ABOUT THIS PROJECT:

Market Segment:
Wastewater Collection and Treatment

General Contractor:
Construction Longer

Products Used:
Xypex Admix C-500 NF
Xypex Bio-San

Location:
Bury, Quebec, Canada

Owner:
City of Bury

Engineer:
Stantec

The City of Bury undertook upgrades to the Valoris leachate treatment system to ensure long term, environmentally compliant management of leachate and wastewater effluents. The project included new concrete structures associated with the leachate treatment process that are continuously exposed to moisture and chemically aggressive wastewater conditions.

Construction was carried out under winter conditions and within defined budget constraints. In addition to waterproofing requirements, certain concrete elements required protection against microbiologically induced deterioration caused by bacteria present in leachate environments.

To address these conditions, Xypex crystalline admixtures were specified to provide integral waterproofing and durability for the treatment system structures. Xypex Admix C-500 NF was incorporated into the structural concrete elements requiring permeability reduction and waterproofing. Xypex Bio-San was used in concrete elements exposed to biologically active wastewater to provide antimicrobial protection against bacteria responsible for microbiologically induced concrete deterioration.

Approximately 1,107 m³ of concrete containing Xypex crystalline admixtures was placed during construction. Added during batching, the crystalline technology reacts with moisture and unhydrated cement particles to form insoluble crystals that reduce permeability throughout the concrete matrix. In areas exposed to biologically aggressive wastewater, Xypex Bio-San provides antimicrobial protection that inhibits bacterial growth responsible for deterioration in leachate environments.

The combined use of Xypex Admix C-500 NF and Xypex Bio-San provided integral waterproofing, antimicrobial protection, and enhanced concrete durability. The selected solution supports long term performance, reduced maintenance, and reliable operation of the Valoris leachate treatment system serving the City of Bury.

