

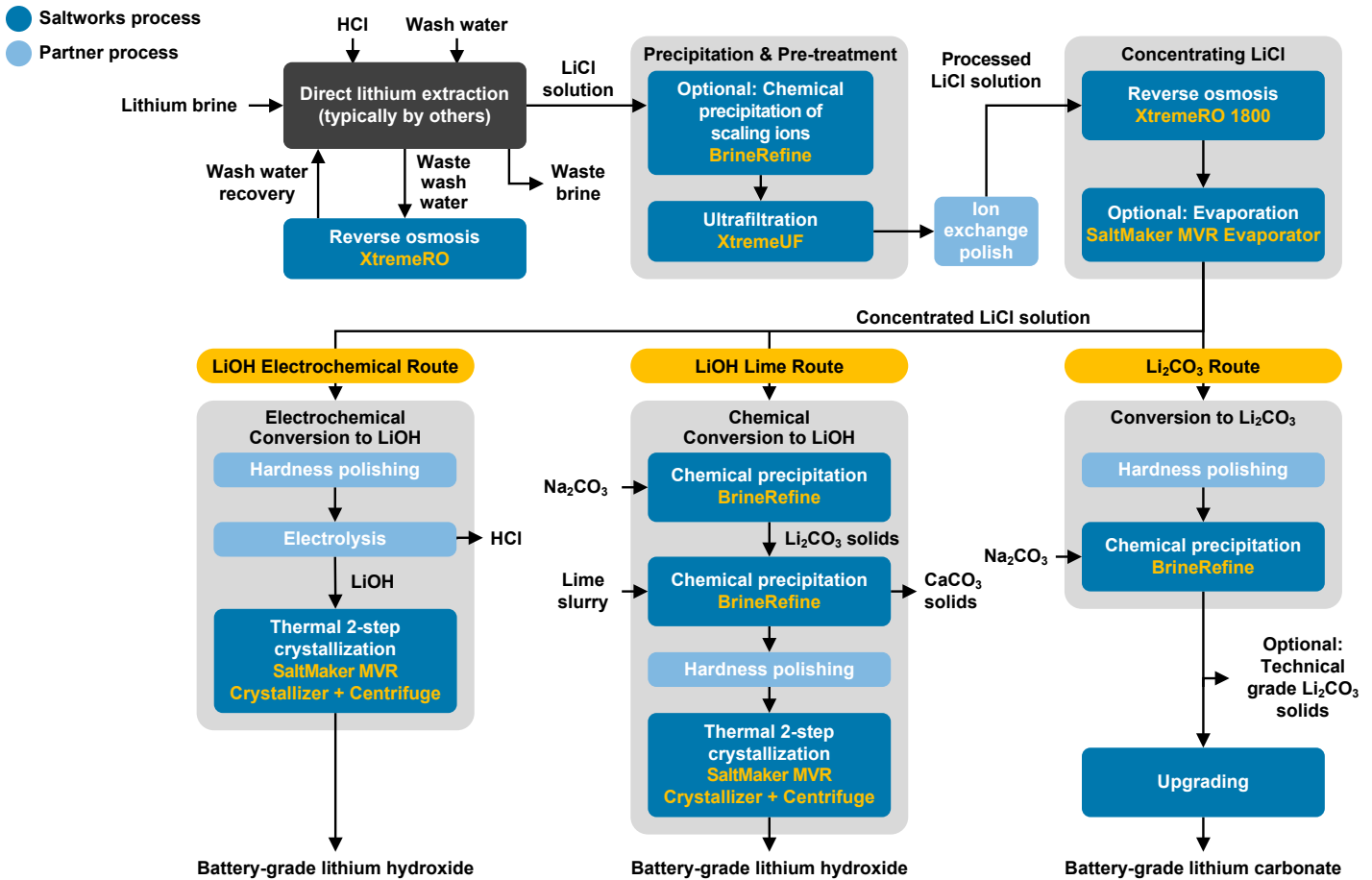
Lithium: Processing

Expertise, pilots, and full-scale plants

Step 1: Direct Lithium Extraction (DLE)* by Others

* or other lithium brine producing process

Step 2: Concentrate, Refine, Convert (CRC) by Saltworks



Lithium Extraction from Brines

DLE systems are increasingly being deployed in extraction projects. Most produce a 1,000–2,000 mg/L lithium chloride solution that contains impurities.

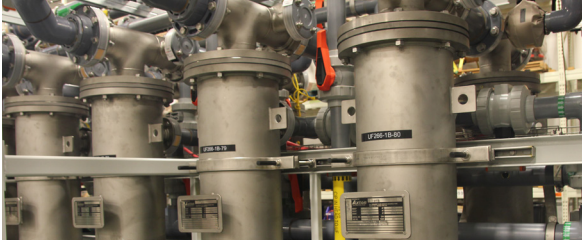
Concentrate, Refine, Convert (CRC)

Saltworks' focus is downstream of DLE. We concentrate, refine, and convert lithium chloride solutions to technical- or battery-grade lithium carbonate or lithium hydroxide solids. We offer robust, modular, well-automated, and high-performing CRC unit operations and complete plants.

Process, Technologies, and Economics

Our experts help you achieve your project goals. We help clients from concept to full-scale plants. We provide flexible options, from engineering services to pilots, to single-unit operations, or a complete lithium processing system.

Lithium Concentration and Processing Technologies



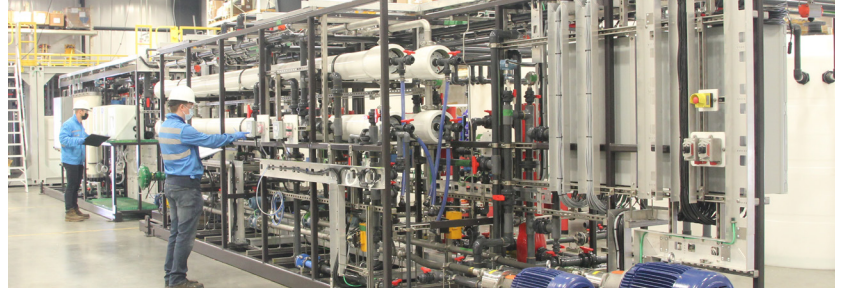
BrineRefine & XtremeUF: Refine & Convert

Ensure the highest lithium quality and yield by precisely targeting impurities. We pair smart chemical conversion processes (BrineRefine) with robust ceramic ultrafiltration (XtremeUF) to consistently produce high-purity outputs. BrineRefine is also used to produce technical- or battery-grade lithium carbonate.

XtremeRO: Concentrate

Next-generation, ultra-high-pressure reverse osmosis (UHP RO) concentrates lithium chloride up to 50% higher than conventional RO.

Our 1,800-psi RO systems reduce downstream evaporator size and cost, or negate their need entirely. UHP RO increases water recovery and enhances downstream economics.



SaltMaker MVR Evaporators & Crystallizers: Concentrate and/or Crystallize

Economical, reliable evaporation maximizes yield in downstream processes. Concentrate lithium chloride to optimal levels with a SaltMaker evaporator—beyond what membrane systems can do. Go one step further to produce lithium hydroxide crystals with a SaltMaker crystallizer, delivered with built-in self-cleaning and solids management systems to ensure reliability at optimal capacity.

SaltMaker MVR is our fully automated, forced-circulation crystallizer system. A modular SaltMaker MVR with a capacity of 50–200 m³ per day concentrates and crystallizes 5,000–20,000 tonnes per year of lithium carbonate equivalent (LCE) as lithium hydroxide.

With a compact footprint, low lead time, and low installation costs, more units can be added for easy capacity expansion.

Saltworks and Your Lithium Project

Start today by contacting us. Client confidentiality, deep technical focus, and responsiveness are critical at Saltworks.



1
Process
Optimization

2
Pilot:
Lithium
Test Centre

3
Full-Scale:
Unit Ops or
Complete
Plants

4
Operational
Support &
Expansion

- Process flow optimization to put you on the best pathway
- Front-end engineering evaluation to refine costs
- Lab and bench-scale analysis to de-risk and optimize
- Pilot projects at our site or yours to prove performance
- Full-scale skidded unit operations to integrate with others
- Full-scale complete lithium systems from start to finish