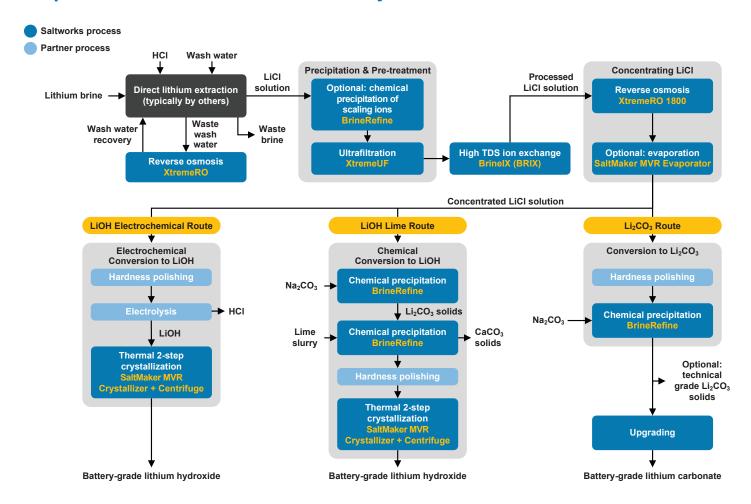


Step 1: Direct Lithium Extraction (DLE)* by Others

* or other lithium brine-producing process

Step 2: Concentrate, Refine, Convert by Saltworks



Concentrate, Refine, Convert

R4

DLE systems are increasingly being deployed in brine extraction projects. 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 optimized robust, modular, and well-automated plants.

Process, Technologies, and Economics

Progress from concept to de-risked optimized processes, to full-scale plants. We provide flexible options, from engineering services to pilots, single-unit operations, or a complete lithium processing system.



Saltworks and Your Lithium Project

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

- Process
 Optimization
- 2 Pilot: Lithium Test Centre
- Full-Scale: Unit Ops, Complete Plants, Digitization
- Operational Support & Optimization

- 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 modular unit operations to integrate with others
- Full-scale complete lithium systems from start to finish

Lithium Concentration & Processing Technologies: Modular & Digitized





BrineRefine & XtremeUF: Refine & Convert

Ensure the highest lithium quality and yield by precisely targeting impurities at the beginning of the refining process. We pair smart chemical conversion processes (BrineRefine) with robust ceramic ultrafiltration (XtremeUF) to consistently produce high-purity outputs. A carbonate reactor (BrineRefine in a different configuration) is used downstream to produce technical- or battery-grade lithium carbonate.

XtremeRO: Concentrate

Concentrate lithium chloride up to 50% higher than conventional RO with our next-generation, ultra-high-pressure reverse osmosis system, XtremeRO-1800.

XtremeRO increases water recovery, and reduces the size and cost of downstream evaporators or negates their need entirely. Push innovation and higher concentrations with osmotically assisted reverse osmosis (OARO).



SaltMaker MVR Evaporators & Crystallizers: Concentrate and/or Crystallize

Maximize downstream yield by concentrating lithium chloride to optimal levels with a SaltMaker MVR evaporator, or produce battery-grade lithium hydroxide crystals with a SaltMaker MVR crystallizer, then wash and centrifuge.

Configured as evaporators or crystallizers, SaltMaker MVR forced-circulation systems are fully automated, with built-in self-cleaning. As a crystallizer, integrated solids management systems ensure reliability at optimal capacity.