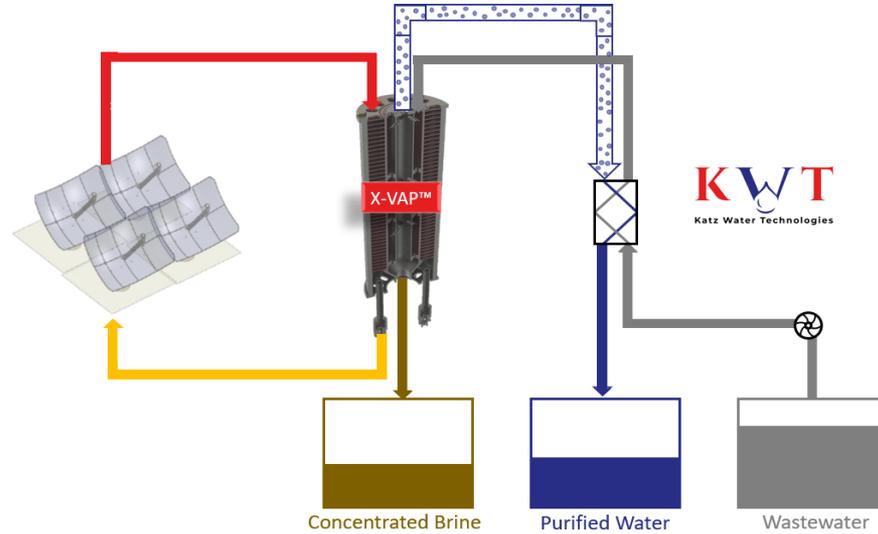


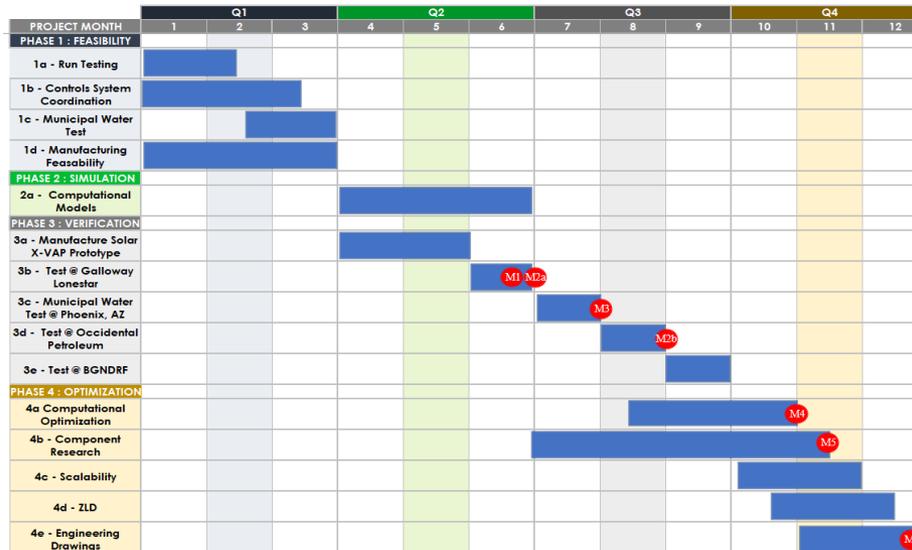
TECHNOLOGY

The X-VAP™ thermal distillation unit consolidates multiple stages of the distillation process within a single heat exchanger. The first-generation system was designed with natural gas input for desalination of oil and gas produced water and has been proven to remove >99% TDS from produced water. Now, it is being redesigned with a closed loop solar thermal system. With a modular, flexible design and renewable energy source, the X-VAP™ fits the needs of a range of end users and is ideal for remote or off-grid locations.



PROJECT MILESTONES

- M1** Increase throughput to 1L/min
- M2a** 99% TDS removal from sample >140,000ppm
- M2b** Achieve <500mg/L water quality
- M3** Increase throughput to 3L/min
- M4** Thermal energy consumption <200 kWh/m³
- M5** Achieve 90% Recovery Ratio
- M6** Reduce estimated LCOW by 15%



TEAM

EMPLOYEES

- Gary Katz J.D. – CEO and Founder
- Erin Picton – PI – CSO (Sustainability)
- Paul Smith – Chief Product Engineer
- Antonio Hernandez – Chem Engineer
- Chris Mayo – Controls Engineer
- Jason Weeden, PhD – Chemist

CONTRACTORS/ ADVISORS

- Ramesh Tiwari, P.E. – Heat Exchanger Pressure Vessel Expert
- Rajendra Ghimire PhD – Water Testing Specialist
- Frank Warnakulasuriya PhD – Computational Simulations

RESEARCH PARTNERS

- Argonne National Labs
- Southwest Research Institute

EQUIPMENT MANUFACTURING

- Star Precision
- WY Ranch
- RACKAM

PROTOTYPE TESTING

- Occidental Petroleum,
- Galloway Lonestar LLC,
- The City of Houston, TX,
- The City of Surprise, AZ
- BGNDRF