

**AltelaRainSM PRODUCED WATER TREATMENT TECHNOLOGY –
TREATING WATER NATURALLY**

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Altela Inc. offers a fundamentally new water desalination product, the AltelaRainSM System (ARS) that inexpensively removes nearly 100% of dissolved salts and other contaminants from industrial wastewaters and undrinkable brackish waters. Altela has taken the simplest of nature's processes for purifying water – i.e., mimicking thermal distillation in the water cycle for making rain – and recreates that process using readily available materials and very little energy compared with conventional thermal distillation or membrane separation. The internal heat transfer technology recaptures the energy needed to evaporate water, thus yielding about three times the amount of distilled water per energy input as traditional ambient pressure distillation/evaporation techniques. Consequently, the technology yields energy costs that are approximately only 30% of comparable ambient pressure distillation/evaporation processes.

These systems lower the cost of oil and gas production while dramatically decreasing the volume of waste that needs to be trucked away and disposed. The mobile, modular field systems are highly scalable in size and can be produced in a variety of configurations. The standard ARS-4000 system is delivered in a single portable 45-foot x 8-foot shipping container, and treats 4,000 gallons per day (~100 barrels per day, BPD) of produced water, decreasing disposal costs by 90% and extending the life of a well. To date, seven commercial, revenue-generating systems are operating in the field in the San Juan Basin of northwestern New Mexico, the Piceance Basin of Colorado, and the Edmonton-area of Canada. Extensive independent-laboratory testing over multiple months in the field have shown that TDS levels of these systems' distillate water is very low (typically about 20 ppm – more than 10 times less than drinking water), and the levels of organics, metals, and radioactive compounds are either undetectable or several orders of magnitude below even the strictest drinking water standards. Because the systems continuously monitor the TDS level of both influent and treated effluent streams, there's a high degree of control and certainty over the clean water that's discharged or utilized by the customer.

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