



NEWS RELEASE

TETRA TECHNOLOGIES, INC. INTRODUCES TETRA OASIS TOTAL DESALINATION SOLUTION (TETRA OASIS TDS) AND RESULTS FROM PERMIAN BASIN BENEFICIAL RE-USE PILOT

2024-12-16

THE WOODLANDS, Texas, Dec. 16, 2024 /PRNewswire/ -- TETRA Technologies, Inc. ("TETRA" or the "Company") (NYSE:[TTI](#)) today announced the commercial launch of TETRA Oasis TDS, an end-to-end water treatment and desalination technology for beneficial re-use and mineral extraction applications for oil and gas well produced water.

TETRA also recently completed a commercial pilot project for the desalination of Delaware Basin produced water for a major North America oil and gas operator. The desalinated water was tested against published Texas Railroad Commission ("TRRC") standards for beneficial re-use water at both TETRA's laboratory and an independent third-party laboratory. Subsequently, the treated water was sent to a third party for Whole Effluent Toxicity ("WET") testing where it successfully passed all test parameters. WET testing is a method used to measure the combined toxic effects of all pollutants on aquatic organisms and involves exposing aquatic organisms to treated wastewater samples and observing how the organisms respond. The tests can be acute or chronic and measure different aspects of the organisms' health. WET testing is a vital component to implementing water quality standards under the National Pollutant Discharge Elimination System ("NPDES") permits program.

Brady Murphy, TETRA's President and Chief Executive Officer said, "For several years we have been working to leverage our deep brine chemistry expertise, our US onshore water treatment resources, and our customer network and relationships to address the sizeable industry challenge surrounding treatment of oil and gas produced water for beneficial re-use purposes. By combining our existing expertise in produced water recycling for frac re-use to pre-treat the feed water for two unique membrane technologies, we have developed a high-quality, cost-effective solution.

Our first field pilot program successfully treated produced water where we achieved 92% recovery rate of desalinated water with total dissolved solids levels ranging from 40 parts per million ("ppm") to 200 ppm, which are better than the average municipal drinking water standards. In our latest pilot test of more challenging Delaware Basin produced water, we are very pleased to announce that our TETRA

Oasis TDS resulted in high-quality desalinated water that not only met or exceeded all customer KPIs but passed all third-party WET testing. Given the importance of WET testing standards for the regulatory agencies, we believe this is an important step for future beneficial re-use project permitting. This is a rapidly evolving market, and the need for cost effective technology to address produced water volumes continues to grow.

TETRA see significant opportunity in the space and continue to engage high quality customers to address their water challenges and disposal restrictions due to seismicity events with seven NDA's in place and ongoing negotiations with others to discuss the proprietary details of our TETRA Oasis TDS."

Despite U.S. land oil and gas well frac and completion activity declining throughout 2024, produced water volumes continue to increase. Rystad Energy estimates Permian Basin produced water volumes of 8.3 billion barrels in 2024, up 5% from 2023. In Rystad Energy's fourth quarter 2024 Water Management report, they estimate that a 20% reduction in Permian Basin disposal well capacity due to regulatory restrictions would result in up to 4 million barrels of produced water per day as the available market for beneficial re-use. A recent Houston Chronicle article referenced a study that the handling and treating of produced water is a \$4 billion annual market opportunity in the Permian Basin, making this one of the fastest growing market opportunities in the oil and gas industry.

TETRA Oasis TDS

TETRA Oasis TDS is a proprietary end-to-end offering that involves a variety of processing stages starting with operator's oil and gas well produced water as feed brine for a pre-treatment step. TETRA has developed extensive experience and expertise over the past six years in the treatment and recycling of produced water for frac re-use, as demonstrated by having treated in the fourth quarter, 2024 a record peak volume of over 800,000 bbl/day. This experience has advanced TETRA's chemistry know-how in addressing a wide variability of produced water constituents, including dealing with organic compounds that would otherwise be destructive to membranes used in other industries to desalinate water.

The critical pre-treatment first step is followed by the desalination stage through two technologies licensed exclusively to TETRA for oil and gas produced water applications, KMX Technologies Inc., ("KMX") Vacuum Membrane Distillation ("VMD") or Hyrec Holdings Company W.L.L. ("Hyrec") Osmotically Assisted Reverse Osmosis ("OARO"), or a combination of both. The selection of which technology or combination thereof depends, in part, on the total dissolved solids of the feed water, the end use application, and optimizing both the capital and operating costs of the process. The final stage is a post-treatment process designed to meet customer water specifications and may involve extraction of minerals, which TETRA's chemical business has been doing for many years, and potentially significantly improving the economic benefits. TETRA Oasis TDS was successfully proven in the field to deliver a water quality that achieves or exceeds regulatory requirements in a cost-effective manner for multiple beneficial re-use applications, including potential surface irrigation and industrial uses.

TETRA recently completed an equity investment in KMX Technologies Inc.

Details on TETRA Oasis TDS can be found on the following website link:

<https://onetetra.com/energy-services/water-management/produced-water-desalination/>

Investor Contact

For further information, please contact Elijo Serrano, CFO, TETRA Technologies, Inc. at (281) 367-1983 or via email at eserrano@onetetra.com.

Company Overview

TETRA Technologies, Inc. is an energy services and solutions company focused on developing environmentally conscious services and solutions that help make people's lives better. With operations on six continents, the Company's portfolio consists of Energy Services, Industrial Chemicals, and Critical Minerals. In addition to providing products and services to the oil and gas industry and calcium chloride for diverse applications, TETRA is expanding into the low-carbon energy market with chemistry expertise, key mineral acreage, and global infrastructure, helping to meet the demand for sustainable energy in the twenty-first century. Visit the Company's website at www.onetetra.com for more information.

Cautionary Statement Regarding Forward Looking Statements

This news release includes certain statements that are deemed to be forward-looking statements. Generally, the use of words such as "may," "see," "expectation," "expect," "intend," "estimate," "projects," "anticipate," "believe," "assume," "could," "should," "plans," "targets" or similar expressions that convey the uncertainty of future events, activities, expectations or outcomes identify forward-looking statements that TETRA intends to be included within the safe harbor protections provided by the federal securities laws. These forward-looking statements include statements regarding TETRA's beliefs, expectations, plans, goals, future events and performance, and other statements that are not purely historical. These forward-looking statements are based on certain assumptions and analyses made by TETRA in light of its experience and its perception of historical trends, current conditions, expected future developments and other factors it believes are appropriate in the circumstances. Such statements are subject to a number of risks and uncertainties, many of which are beyond the control of TETRA. Factors which may cause actual results to differ materially from current expectations include, but are not limited to: changes adversely affecting the business in which we are engaged; our ability to forecast trends accurately; our ability to develop efficient water treatment processes to scale and to forecast related costs and efficiencies accurately; fluctuations in our revenue and operating results; competition from existing or new competitors; future relationships between parties; risks associated with security breaches in our information technology systems; risks related to legal proceedings or claims; risks associated with changes in federal, state, or local laws; risks associated with potential costs of regulatory compliance; risks associated with changes to U.S. trade policies; and risks related to adverse changes in general economic conditions. Moreover, TETRA operates in a very competitive and rapidly changing environment, and new risks and uncertainties may emerge that could have an impact on the forward-looking statements contained in this press release. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and, except as required by law, TETRA assumes no obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise. The forward-looking statements contained in this press release are also subject to additional risks, uncertainties, and factors, including those more fully described in TETRA's most recent filings with the Securities and Exchange Commission, including TETRA's most recent Annual Report on Form 10-K and subsequent reports on Forms 10-Q and 8-K.

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