



NEWS RELEASE

# TETRA TECHNOLOGIES, INC. ANNOUNCES MAIDEN INFERRED RESOURCES OF 5.25 MILLION TONS OF ELEMENTAL BROMINE AND 234,000 TONS OF LITHIUM CARBONATE EQUIVALENT

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THE WOODLANDS, Texas, Sept. 21, 2022 /PRNewswire/ -- TETRA Technologies, Inc. ("TETRA" or the "Company") (NYSE: [TTI](#)) announced the completion of its maiden inferred bromine and lithium brine resource estimation report for its brine minerals leased acreage in the Smackover Formation in Southwest Arkansas. The technical report summary, which is available in its entirety on TETRA's website [Investor Relations - Presentations \(tetratec.com\)](https://www.tetratec.com), reflects the following:

- The brine resource underlying the approximately 40,000 gross acres where TETRA holds the bromine mineral rights is estimated to contain an inferred resource of 5.25 million short tons (4.763 million metric tonnes) of elemental bromine; and
- The brine resource underlying the approximately 5,000 gross acres where TETRA holds lithium mineral rights that are not subject to a lithium option agreement with Standard Lithium, is estimated to contain an inferred resource of 44,000 short tons (40,000 metric tonnes) of elemental lithium. Using a conversion factor of 5.323 to convert elemental lithium to Lithium Carbonate Equivalent (LCE) it is estimated to contain 234,000 short tons of LCE (212,000 metric tonnes of LCE).

The maiden TETRA bromine and lithium brine resource estimations are presented as total resource within the Upper Smackover Member underlying the TETRA property. Resource estimations were completed and reported using cutoffs of 250 mg/liter bromine and 50 mg/liter lithium.

Brady Murphy, President and Chief Executive Officer, said "This maiden inferred resources report increases our confidence that we have a valuable TETRA asset with two key minerals that are critical to the current and future global energy needs. With an oil and gas recovery that we believe is in the early stages of a multi-year up cycle, coupled with the projected 30% CAGR<sup>(1)</sup> for the energy storage market in the coming years, 5.25 million tons (or 10.5 billion pounds) of elemental bromine inferred resource, if successfully extracted, could allow us to meet the growing demand for our offshore completion fluids market and for our patented TETRA PureFlow<sup>®</sup> ultra-pure zinc bromide clear brine fluid that is a

critical electrolyte component for long-duration energy storage. At our West Memphis, Arkansas chemical plant, TETRA has been and is converting elemental bromine into high value offshore completion fluids (including its patented TETRA CS Neptune<sup>®</sup> fluids technology) and more recently into PureFlow<sup>®</sup>. Extracting commercial quantities of bromine from the Smackover Formation in Arkansas is a well-established process with existing technologies and has been done for over 50 years. TETRA has held these Arkansas brine leases since the mid-1980's and is now pursuing development plans to enable TETRA to meet expected future bromine needs. For reference, 10.5 billion pounds represents approximately 380 years of supply when benchmarked to our average annual consumption over the past 15 years. Any amounts of bromine that we are able to extract and use from this formation would be in addition to the volumes of elemental bromine we are currently buying under an existing long-term agreement. Intratec recently reported that the price of elemental bromine in the U.S. was approximately \$4,300 per short ton.

"With battery grade LCE spot market prices of approximately \$71,600 per ton as reported in a recent research report by Canaccord Genuity Capital Markets and an average selling price of approximately \$58,000 per short ton from a recent second quarter financial results report of a large publicly traded international lithium producer, a lithium asset of this magnitude, if all of the lithium were realized, would provide TETRA a significant opportunity to expand our products portfolio in the fast growing battery market. TETRA has identified a direct lithium extraction (DLE) technology based on adsorption/desorption using a proven, commercially available resin that is currently being successfully used in commercial lithium extraction operations from salar brines. Using our lithium-rich Arkansas brine samples from our recently completed test well, our inferred resource report details the excellent DLE laboratory and pilot unit results from our research group at our TETRA Innovation Group Technology Center in Conroe, Texas.

"The inferred resource report also confirms that the Smackover Formation is enriched in bromine (an average of 5,371 mg/liter) and lithium (an average of 416 mg/liter), which we expected based on our previously disclosed test well fluid sampling results. Based on the recent test well drilled on the TETRA 5,000 acres, the brine samples from the Upper Smackover Member within that well yielded the highest recorded lithium values (461-489 mg/liter) within the Upper Smackover Member, which may indicate uniquely elevated lithium brine within the targeted acreage where TETRA retains both the bromine and lithium rights.

"Our next steps are to complete a bromine front end engineering and design (FEED) study that is already underway, drill the source and disposal wells, build the pipeline infrastructure and build an elemental bromine extraction plant. We intend to complete a Preliminary Economic Assessment (PEA) for the bromine extraction plant this year. Starting in 2023, we will begin work on a lithium FEED study and a PEA for a lithium extraction plant to enable extraction of lithium from our dedicated 5,000 gross acres."

Readers are encouraged to read the entire maiden inferred resource estimation report available on our website to understand the methodology and robustness of the process to arrive at the findings referenced in this press release.

(1) Source: Bloomberg

## **Company Overview**

TETRA Technologies, Inc. is an industrial and oil & gas products and services company operating on six continents focused on bromine-based completion fluids, calcium chloride, water management solutions, frac flowback and production well testing services. Calcium chloride is used in the oil and

gas, industrial, agricultural, road, food, and beverage markets. TETRA is evolving its business model by expanding into the low carbon energy markets with its chemistry expertise, key mineral acreage, and global infrastructure. Low carbon energy initiatives include commercialization of TETRA PureFlow<sup>®</sup> an ultra-pure zinc bromide clear brine fluid for stationary batteries and energy storage; advancing an innovative carbon capture utilization and storage technology with CarbonFree to capture CO<sub>2</sub> and mineralize emissions to make commercial, carbon-negative chemicals; and development of TETRA's lithium and bromine mineral acreage to meet the growing demand for oil and gas products and energy storage. Visit the Company's website at [www.tetratec.com](http://www.tetratec.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 the Company intends to be included within the safe harbor protections provided by the federal securities laws. These forward-looking statements include statements concerning economic and operating conditions that are outside of our control, including statements concerning recovery of the oil and gas industry; customer delays for international completion fluids related to global shipping and logistics issues; potential revenue associated with prospective energy storage projects or our pending carbon capture partnership; inferred mineral resources of lithium and bromine, the potential extraction of lithium and bromine from the leased acreage, the economic viability thereof, the demand for such resources, and the timing and costs of such activities; the ability to obtain a preliminary economic assessment regarding our lithium and bromine acreage; projections concerning the Company's business activities, financial guidance, estimated earnings, earnings per share, and statements regarding the Company's beliefs, expectations, plans, goals, future events and performance, and other statements that are not purely historical. With respect to the Company's disclosures of inferred mineral resources, including bromine and lithium carbonate equivalent concentrations, it is uncertain if further exploration will ever result in the estimation of a higher category of mineral resource or a mineral reserve. Inferred mineral resources are considered to have the lowest level of geological confidence of all mineral resources. Investors are cautioned that mineral resources do not have demonstrated economic value. Inferred mineral resources have a high degree of uncertainty as to their existence and to whether they can be economically or legally commercialized. Under the SEC's rules, estimates of inferred mineral resources may not form the basis of an economic analysis. A significant amount of exploration must be completed in order to determine whether an inferred mineral resource may be upgraded to a higher category. Therefore, you are cautioned not to assume that all or any part of an inferred mineral resource exists, that it can be economically or legally commercialized, or that it will ever be upgraded to a higher category. These forward-looking statements are based on certain assumptions and analyses made by the Company 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 the Company. Investors are cautioned that any such statements are not guarantees of future performances or results and that actual results or developments may differ materially from those projected in the forward-looking statements. Some of the factors that could affect actual results are described in the section titled "Risk Factors" contained in the Company's Annual Reports on Form 10-K, as well as other risks identified from time to time in its reports on Form 10-Q and Form 8-K filed with the Securities and Exchange Commission.

## **Technical Person Statement**

The technical information relating to the mineral resource estimations presented in this news release

has been reviewed and approved by Mr. Roy Eccles P. Geol. of APEX Geoscience Ltd. Mr. Eccles is independent of TETRA and a Qualified Person as defined by the Securities and Exchange Commission in S-K 1300.

SOURCE TETRA Technologies, Inc.