



NEWS RELEASE

# TETRA TECHNOLOGIES, INC. ANNOUNCES BROMINE PROJECT UPDATES AND COMPLETION OF SK-1300 SECTION 19 REPORT

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THE WOODLANDS, Texas, Feb. 27, 2023 /PRNewswire/ -- TETRA Technologies, Inc. ("TETRA" or the "Company") (NYSE: [TTI](#)) today released on its Investor Relations web site an S-K 1300 Section 19 Report that includes certain financial information on the development of TETRA's Arkansas bromine assets based on engineering, cost and revenue assumptions completed to date.

## Arkansas Bromine Project

The Company continues to make progress on assessing its Arkansas inferred bromine resources. TETRA previously announced the completion of an inferred resources report that identified an estimated 5.25 million tons of bromine on its approximately 40,000 acres and 234,000 tons of lithium carbonate equivalent (LCE) on the estimated 5,000 acres within TETRA's 40,000 acres in the Smackover Formation in Southwest Arkansas. "Inferred resources" is the category used by the SEC as the most preliminary indication of mineral resource, with additional analysis required for classifying such minerals as "indicated resources" or "measured resources" that provide increasing levels of assurance.

TETRA has invested time and resources over the recent months to further advance its assessment for a bromine development project, including the following:

- Recruited and added two board members with extensive chemicals executive management experience, including one with executive roles with one of the largest global bromine and lithium producers, and hired a senior manager with 12 years of engineering and 22 years of operations management experience with Arkansas bromine processing plants.
- Drilled and completed a test well and collected brine samples which validated the estimated bromine and lithium concentration levels reflected in the inferred resources report. From these brine samples TETRA was able to produce elemental bromine and lithium carbonate at its research center in The Woodlands, Texas.
- Completed a FEED (front end engineering and design) study with Hargrove Engineers & Contractors ("Hargrove") for the design of a brine to bromine processing plant, pipeline and related assets. TETRA engaged Hargrove for their full-service engineering, procurement and

construction management capabilities with extensive experience with bromine projects. Over 20,000 hours were collectively invested by Hargrove, Hargrove subcontractors and TETRA personnel to design an efficient bromine processing plant and develop a budget and timeline for its construction and operation. The FEED study also included estimates of the required number of operating personnel, costs for energy consumption and key raw materials. Processing bromine from brine involves proven methods and technologies which have been used in the US and abroad for several decades.

- Obtained cost estimates to drill and complete production and injection wells. These estimated costs were validated by comparing them to costs being incurred by others in the immediate areas of the Arkansas Smackover Formation. Estimated production volumes were based in part on well designs and production from existing wells in the surrounding Smackover Formation area.
- Continued its previously announced reservoir analysis with Lonquist Engineering, LLC ("Lonquist") to more definitively assess TETRA's bromine and lithium resources and simulated production over time. Lonquist is a recognized expert in reservoir engineering and supply studies in economic evaluations.
- Engaged Novopro Projects, Inc. ("Novopro"), a project development and implementation company servicing the mineral and metallurgical industries. Novopro has been involved in several large-scale engineering projects and was engaged to perform a review of the cost estimates developed for TETRA's bromine project, including a review of the capital expenditures, operating expenditures, sustaining capital, as well as the cash flow analysis reflected in the S-K 1300 Section 19 Report.

## **TETRA Bromine Products Business**

Bromine has long been used as part of TETRA's high value completion fluids business, primarily in offshore applications and especially deepwater where TETRA estimates that approximately 70% of the Gulf of Mexico deepwater development wells use bromine-based fluids for well completions. The offshore and deepwater markets continue to show signs of recovery and in 2022 the Company again exceeded the bromine volumes available under its long-term supply agreement. TETRA has been supplementing its bromine supply with spot market purchases at costs higher than its long-term supply agreement. The demand in 2023 and beyond is expected to exceed 2022 levels assuming relatively constant commodity prices. In addition to the traditional oil and gas bromine fluids market, in May 2021, TETRA announced the introduction of a high purity zinc-bromide TETRA PureFlow® fluids ("PureFlow") for use as a key electrolyte component for long duration energy storage. TETRA has qualified sales of PureFlow with three zinc-bromide based electrolyte energy storage companies based on their evaluation of the product and, to date, has delivered commercial orders to one of these companies with an additional purchase order from another customer scheduled for delivery later this quarter. In October of 2022, the U. S. Energy Information Association ("EIA") projected U.S. battery energy storage to grow 57% on a compounded annual growth rate ("CAGR") from 2022 to 2025.

TETRA's discussions with its potential "PureFlow" fluids customers suggests they anticipate significant growth as well. TETRA PureFlow customers must achieve their own financing and operational milestones as a predicate to ramping up their production and resulting demand for PureFlow fluids, the achievement of which cannot be assured. The combined existing and potential demand for bromine from a recovering offshore market and an emerging long duration energy storage market represents significant growth opportunities for the Company.

The bromine project has a multi-purpose focus with the following objectives: The first is to increase the amount of cost-effective bromine available to TETRA to address an expected multi-year growth period in the offshore oil and gas markets assuming commodity prices remain relatively constant. TETRA is already experiencing an increase in demand that exceeds volumes available under its long-term supply agreement for bromine-based completion fluids. The second is to address emerging demand for zinc-bromide based energy storage, which may be significant if TETRA's PureFlow customers are successful in ramping up their operations. The third is to reduce TETRA's dependence

on open market third party purchases of bromine by producing bromine at potentially materially lower production costs. The fourth and final objective would be to control its own supply chain for the longer term and beyond the life of its multi-year supply agreement. Obtaining these objectives cannot be assured given the developmental nature of our bromine project but underpin TETRA's rationale for continuing to expend resources on the evaluation of this opportunity.

### **SK-1300 Section 19 Report**

TETRA has published on its web site a report titled "TETRA Bromine Project SK-1300 Section 19 Economic Analysis". The Section 19 Report has been reviewed and certified by Novopro, subject to the qualifications contained in the report. The SK-1300 Section 19 report can be located on TETRA's web site: <https://ir.tetrathec.com/presentations>

There is no certainty that the economics contained in the SK-1300 Section 19 Report will be realized. These economics are preliminary in nature and include inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional wells and geological analysis will be required to convert inferred mineral resources to indicated or measured mineral resources.

### **TETRA Next Steps**

The FEED study and reservoir analysis are part of TETRA's ongoing process in determining whether to recommend to the TETRA Board of Directors moving forward with further investigation of the bromine project. These studies and analysis are also the basis for the development of target economics associated with this project. TETRA has identified the following next steps as predicates for potentially moving forward with the project:

- Drilling a second well to further validate the geological model and mineral resources,
- Completing an indicated resources report to further quantify the volumes of bromine and lithium on TETRA's acreage,
- Completing a pre-feasibility and/or feasibility study following this preliminary and initial economic assessment to further refine the cost estimates and related economics,
- Determining required permits, timing and likelihood of obtaining such permits,
- Identifying and securing cost-effective sources of capital and/or strategic partners, and
- Obtaining required contractual consents under certain circumstances.

TETRA has engaged a financial advisor to potentially seek strategic partners to develop its bromine acreage and/or offtake agreements. The Company is also in early discussions with the Department of Energy for potential available grants and loans to fund a portion of the capital noted in the FEED study.

Only upon completion of the indicated resources report, the feasibility study and obtaining capital commitments from strategic partners, government grants or loans, or other cost-effective sources of capital would TETRA decide to proceed on the development of the bromine assets. Accordingly, the successful completion of these contingencies as well as the successful development of this opportunity cannot be assured. TETRA is providing this information based on the work and information developed to date in order provide transparency as to the status of this project at this time.

### **Company Overview**

TETRA Technologies, Inc. is an energy services and solutions company operating on six continents with a focus 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 inferred mineral resource estimates, the assumptions contained in the Section 19 economic analysis, the anticipated demand for bromine, the ability to obtain the required capital to develop the project, economic and operating conditions that are outside of our control, including statements concerning demand for our products in the oil and gas industry; potential revenue associated with prospective energy storage projects; the amount of inferred mineral resources of lithium and bromine, the potential extraction of bromine and lithium from the leased acreage, the economic viability thereof, the demand for such resources, the volumes to be produced and the timing and costs of such activities; the ability and timing necessary to obtain an initial economic assessment regarding our bromine and lithium acreage; the ability to obtain contractual consents in certain circumstances; projections concerning the Company's business activities, financial guidance, capital expenditures, profitability, estimated revenues, estimated adjusted EBITDA, 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. A significant amount of evaluation 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. Our estimates of other necessary items are also subject to risk and uncertainties. These forward-looking statements are based on certain assumptions and analyses made by the Company, input received from outside expertized service providers, as well as 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 myriad 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.

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