

**BROKEN ARROW MUNICIPAL AUTHORITY (BAMA)  
PROFESSIONAL SERVICES AGREEMENT  
2025-2026 SERVICE AGREEMENT FOR THE SULFIDE REDUCTION IN THE  
COLLECTION SYSTEM**

**1. Professional Service Provider:**

- a. Name: BioChem, Inc.
- b. Telephone No.: 423-829-0004
- c. Address: P.O. Box 3747, Cleveland, TN 37320.

**2. Project Title and Location:** 2025-2026 Service Agreement for the Sulfide Reduction in the Collection System within the City of Broken Arrow.

**3. Contract for:** Providing yearly services associated with public works projects for the BAMA. Yearly services to include: monthly site visits with an inspection of equipment to be completed by a certified service technician. The Service shall perform all duties, responsibilities and requirements set out in Attachment A hereto. The Service Provider agrees that this quarterly service shall be treated as an important service to BAMA and also agrees to commit the time necessary to perform the professional services in a professional manner.

**4. Compensation:** Professional Service Provider shall be compensated at the hourly rate in accordance with a lump sum amount that is Not to Exceed Four Hundred Thirty-Seven Thousand Two Hundred Twenty-Two and 22/100 (\$437,222.22) for yearly services that will include a monthly site visit, with an inspection of equipment an notification of any improvements or repairs. Additional services may be agreed to at a later date. The parties agree that the Professional Service Provider's position is not a traditional BAMA employee position; therefore, the foregoing constitutes all the benefits and other forms of compensation due the Professional Service Provider, acting in the role of an independent contractor, and therefore ineligible for all other benefits paid to regular full-time BAMA employees. The Professional Service Provider shall be responsible for his own vehicle expenses and any other indirect costs incurred in fulfilling the stated contract requirements. The Professional Service Provider agrees to abide by and comply with all of BAMA's Administrative Policies.

**5. Invoicing and Payment:** The Professional Service Provider shall submit invoices requesting payment for services rendered to BAMA monthly in accordance with actual progress of the work on each work item. The invoices shall be in a format satisfactory to BAMA. Payment will be made within 30 days following the first eligible BAMA meeting occurring after the date on the invoice.

**6. Time for Performance:** These duties, responsibilities and requirements shall begin upon the execution of this Contract is for October 2025- December 2025 and 365 calendar days upon signature of contract for the year of 2026. BAMA will issue a Notice to Proceed for each item of work identified under this agreement, following mutual agreement between the Professional Service Provider and BAMA on the hours required for the work item.

**7. Insurance:** The Professional Service Provider shall acquire all insurance policies required for professional liability insurance, general liability, auto insurance, workers' compensation and/or health insurance. The Professional Service Provider shall provide proof of general liability and professional liability insurance coverage to BAMA on or before the effective date of this Agreement.

During the performance of the services under this Professional Services Contract, the Professional Service Provider shall maintain the insurance coverage required below and BAMA shall be named as an Additional Insured on each required policy:

- (1) General Liability Insurance, with a combined single limit of \$1,000,000 for each occurrence and \$1,000,000 in the aggregate;
- (2) Automobile Liability Insurance, with a combined single limit of not less than \$1,000,000 for each person, not less than \$1,000,000 for each accident and not less than \$1,000,000 for property damage; and
- (3) Professional Liability Insurance, with a limit of \$1,000,000 annual aggregate.

**8. Indemnification:** The Professional Services Provider agrees to defend, indemnify, and hold harmless BAMA, and its agents and employees, from and against legal liability for all claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are caused by the negligent or intentional acts, errors, or omissions of The Professional Services Provider, its agents or employees.

**9. Immigration Compliance:** The Professional Service Provider shall comply in all respects with all immigration-related laws, statutes, ordinances and regulations including without limitation, the Immigration and Nationality Act, as amended, the Immigration Reform and Control Act of 1986, as amended, and the Oklahoma Taxpayer and Citizen Protection Act of 2007 (Oklahoma HB 1804) and any successor laws, ordinances or regulations (collectively, the Immigration Laws”).

**10. Governing Documents:** The parties agree to perform this contract in strict accordance with the clauses, provisions, and the documents identified as follows, all of which are made part of this contract. In the event of conflict, these documents shall be interpreted in the following order:

- a. This Contract
- b. Attachment A to this Contract
- c. Duly Authorized Amendments arising out of this Contract

**11. Electronic Signatures:**

The Parties agree this transaction may be completed by electronic means and an electronic signature on this Contract will be given the same legal effect as a handwritten signature and cannot be denied enforceability solely because is it in electronic form. If the Professional Services Provider signs this Contract electronically and/or submits documents electronically, the Professional Services Provider agrees to comply with BAMA's requirements for submission of

electronically signed and/or submitted documents.

**12. Governing Law:** This agreement shall be governed by the laws of the State of Oklahoma and venue for any action concerning this Agreement shall be in the District Court of Tulsa County, Oklahoma.

**13. Entirety of Agreement:** The foregoing Professional Services Contract supersedes all previous negotiations and may not be modified except by a written order executed by the parties hereto.

**14. Effective Date:** This Contract is effective shall be effective upon signature of both parties.

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**ATTACHMENT A**

**SP - 1.0 SCOPE OF THE PROJECT:**

1.1. Providing Professional Services and Related Support Services associated with the Monthly Service for the Sulfide Reduction in the Collection System from execution of this contract for October 2025- December 2025 and 365 calendar days upon signature of contract for the year of 2026. Services performed to provide monthly services to include site visit consisting of an equipment inspection to be completed by a factory certified service technician. On completion of each monthly visit, the technician will notify BAMA staff of any additional maintenance work or repairs to equipment that is needed that is outside of the scope of the contract. Work performed under the contract shall be performed on a not to exceed contract as requested by BAMA.

**SP- 2.0 SCOPE OF SERVICES OF THE BAMA: THE BAMA WILL:**

2.1. Furnish to Professional Service Provider all data in its possession and needed guidance as necessary for the service provider to complete the contract requirements.

2.2. Designate in writing a person to act as its representative in respect to the work to be performed under this agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define BAMA's policies and decisions with respect to materials, equipment, elements and systems pertinent to the services covered by this agreement.

**SP - 3.0 SCOPE OF SERVICES: THE PROFESSIONAL SERVICE PROVIDER SHALL:**

3.1 The Professional Service Provider shall provide monthly site visits and an inspection of equipment, and any related support services for the Sulfide Reduction Equipment. All lift stations and collection systems within the City of Broken Arrow are owned and operated by the Broken Arrow Municipal Authority. Professional services shall also include notice of defects outside of contract for repair.

3.2 Work will be a not to exceed contract all costs associated with the performance of the work, including any support and supervision cost required from the Professional Service Provider.

3.3 Service Details. (See attached proposal)

Price per visit (exclusive of freight and taxes, if applicable):

Visits from October 2025 through March 2026: \$28,632.76 per monthly visit

Visits from April 2026 through December 2026: \$29,491.74 per monthly visit

Total Contract price for fifteen (15) monthly visits is \$437,222.22. Invoicing for each monthly service visit will occur upon completion of such visit and payment of each invoice will be due within 30 days.

[END OF ATTACHMENT A]



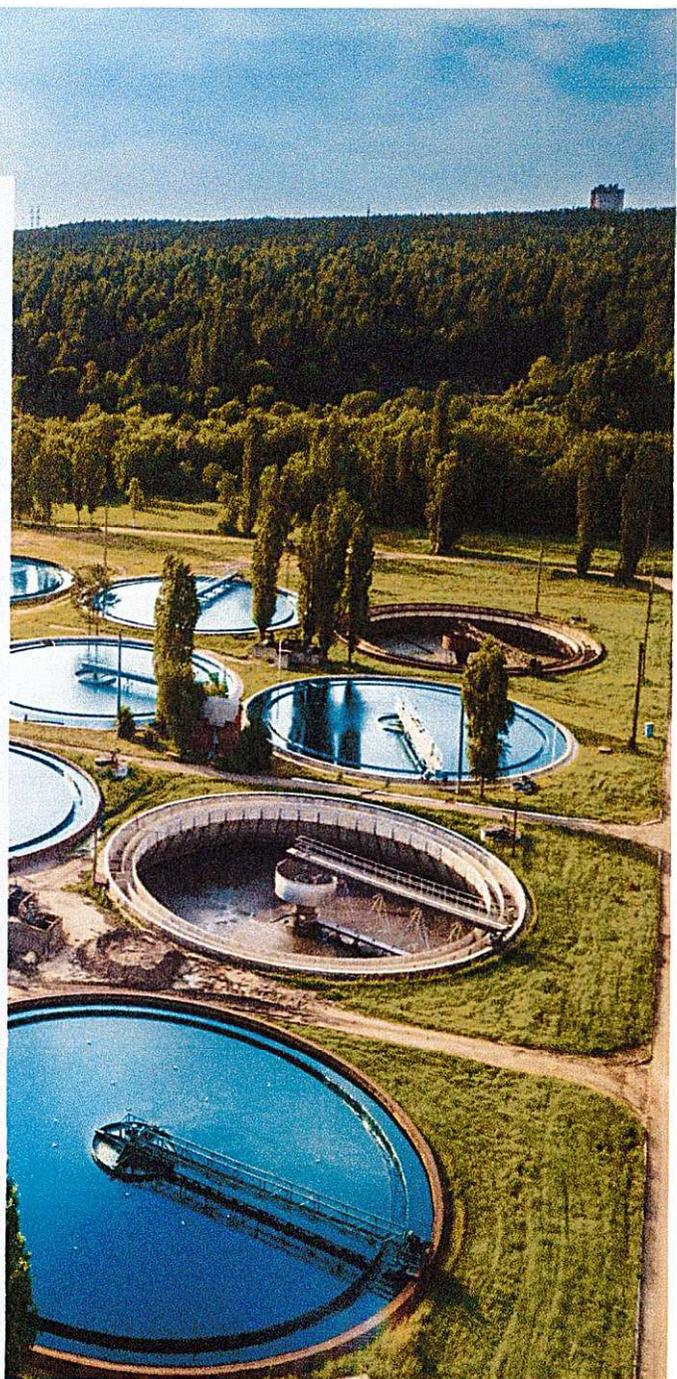
Cleaning Water, **Naturally.**

## **SULFIDE REDUCTION IN THE COLLECTION SYSTEM**

**BROKEN ARROW, OK**

**FEBRUARY 3, 26**

City Of Broken Arrow, OK  
Authored by: Jonathan Brummett



## HISTORY OF FERMENTATION

It is my pleasure to present the continued use of our state-of-the-art Fermentation System for the Broken Arrow, OK collection system

Our Fermentation system was developed in conjunction with the University of Georgia Animal Science Research Center. The UGA Animal Science Research Center called for our help in developing technologies to remediate animal manures, hydrogen sulfide, ammonia and other normal challenges in the Dairy and Hog industries.

They asked us to develop a method to reduce animal wastes appreciably so that Dairy farms could reduce the impact of animal manures that are typically spread on soil. The goal was to continue adding the nutrients present in the manures, as well as reducing odors that cause consternation in communities across the United States. In addition to the odors from manure spreading, pathogens make their way into the soil during manure spreading.

During a year-long research project, we developed three different technologies that made their way into the patent which was issued less than a year following the completion of the research project. The first technology degraded the manures completely, breaking the carbon footprint and eliminating all odors associated with the manures. The second step stabilizes the water that results from Step 1 so that clean, nutrient-rich water can be applied to the fields as liquid fertilizer. The third step, which we are presenting here, builds an "on-site New-Growth Biological Fermentation System" that digests sludge and grease, and reduces hydrogen sulfide, as well as normal sewer odors.

The project was successful, and UGA began applying the technology to their own working Dairy.

Through this, we were able to develop the only complex facultative biological process whereby the growth of the biology is done at the application point. This allows us to treat any waste stream.

### Municipal Trials

Following the completion of the research project, Bio-Chem conducted trials at multiple Municipal Wastewater Treatment Systems, implementing the technologies in collection systems as well as Wastewater Digesters.

Digester Trials revealed that as much as 100% of organics in Wastewater Digesters can be digested out, reducing sludge-disposal costs by more than 95%. This proved that Wastewater Treatment Plants can determine how much they want to reduce sludge during digestion, reducing sludge costs dramatically according to their need. This allows the operators to have more control over their plants by allowing them to waste more, decant sooner and longer with clearer supernatant, increasing capacity in the digester.

Collection System Trials were much better than we'd hoped. We knew that the technology would reduce FOG and sludge, as well as sewer odors appreciably, but it was better at reducing hydrogen sulfide than anyone expected. In multiple applications where iron products had been utilized ineffectively, Bio-Chem's sulfide reduction was dramatic. Today, Municipalities are reducing hydrogen sulfide from over 1000 ppm to single digits.

## **Advantages of Bio Augmentation**

### **➤ FOG and Sludge Reduction**

Bio-Chem's On-Site Fermentation System yields an 83:1 multiplication rate, meaning that for every pound of Bio-Chem's biological technology we add to a system, it multiplies 83 times, producing hundreds of trillions of effective, safe wastewater treatment bacteria and their enzyme systems., and continues birthing at the same rate. They overpower and digest organic solids without aggressive colonization that would make your system dependent on our technology. That means that your system will never become dependent on our technology. And, because our technology reduces FOG so effectively, there are fewer problems in the system. It is not uncommon for alarms from floats hanging on grease to be eliminated, reducing, and often eliminating overflows as a result.

### **➤ Odor Reduction**

It has not been uncommon for hydrogen sulfide levels to drop from hundreds of parts per million to single digits. This allows a Municipality to determine how low they want those numbers to be, to make sure that odor complaints are kept to a minimum. Some Bio-Chem customers report no odor complaints at all.

### **➤ Safe and Environmentally Friendly**

Fermenting is a safe solution that eliminates the need for harsh chemicals and toxic substances. It uses natural processes to break down pollutants and improve the health of the sewer system.

### **➤ Cost-Effective**

Compared to traditional methods of odor control and hydrogen sulfide reduction, Fermenting is much more cost-effective. It eliminates the need for expensive equipment and ongoing maintenance, making it a budget-friendly solution.

### **➤ Efficient**

Fermenting is a highly efficient solution that quickly and effectively reduces odors and harmful substances in the sewer system. It works 24/7 to ensure a cleaner and safer sewer environment.

### **➤ Easy to Implement**

Implementing a bio augmentation program is easy and straightforward. We simply introduce the microorganisms into the sewer system and watch as they work to eliminate odors and reduce harmful substances.

## Proposal

Starting in 2019, we worked with the Broken Arrow personnel to develop a plan to take our technology and implement it into your system. We have been very successful in achieving your goals, this was truly a team effort and continues to be. Maintaining your goals is a constant challenge as is with keeping costs stable. We work very hard to keep price increases at a minimum and we are proud of the fact that we have not had to issue price increases every year. Our last price increase was in May of 2024 but with increasing costs we are expecting a price increase starting April 1, 2026. Your current monthly cost is \$28,632.76; the new price will be \$29,491.74 which is a \$858.98 increase per month. This new price will go into effect on April 1, 2026, and will continue through to the end of 2026.

## Conclusion

Our Fermentation technology has proven effective everywhere it has been employed, and we will continue to see the benefits in your system. Because this is a biological process, you will continue to see benefits at the wastewater treatment plant with no harmful side effects that you would with other chemical processes or corrosion of your system with those same chemical processes.

It is our conclusion that overall treatment efficiency will continue to improve in the Broken Arrow collection system, yielding multiple benefits. Using Bio-Chem's New-Growth Fermentation System, you will reap benefits beyond the immediate results in the collection system itself. It will also continue to benefit the Wastewater Treatment Plant.

If you have any questions, please feel free to contact me at (918) 261-0943.

Sincerely,

Bio-Chem, Inc.



Jonathan Brummett, President

*Jonathan Brummett personally appeared before me  
on 2/3/26*

*Angela Beatty  
My Commission Expires  
Oct. 22nd 2029*

