

Catalog of Services

2014

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Introduction



Who We Are

WBA Analytical Laboratories® has been performing microbiological and chemical analyses, research, and technical services for live production, feed and ingredients, slaughter, processing, further processing, product research and development, and food service operations for more than 20 years. WBA Analytical Laboratories™ is the commercially available entity of the laboratory services division of Tyson Foods, Inc., which has its headquarters on the corporate campus in Springdale, Arkansas.

Our Purpose

The purpose of WBA Analytical Laboratories® is to provide exceptional laboratory, research, and consultative services to our valued customers. This is achieved through adherence to all applicable requirements including those of our customers, regulatory agencies, ISO 9001 and 17025, and through commitment to:

- ⇒ Customer satisfaction,
- ⇒ Continuous improvement of our quality management system,
- ⇒ Continuous improvement of our laboratory processes, and
- ⇒ Our Team Members.

WBA Analytical Laboratories® strives to provide our customers with the highest quality results and services available. Our laboratories are managed by experienced professionals according to the guidelines of our Quality Management System which is implemented across all of our laboratories.

Confidentiality & Data Management

WBA Analytical Laboratories® facilities are secured 24 hours a day, 7 days a week to all non-laboratory team members. Visitors are accompanied at all times in laboratory areas where testing is performed and records are stored. WBA utilizes a state-of-the-art Laboratory Information Management System (LIMS) to keep your data protected and confidential. For your convenience, final reports and other confidential information can be stored in a secure, password protected library available to you 24/7 over the internet. Within the laboratory, samples are identified by number to provide further confidentiality. In addition, all WBA team members are provided confidentiality and conflict of interest training annually.

Contact Us

For additional information or questions please call us.

General information, new accounts, invoices: (479) 290-5062

Chemistry Testing: (479) 290-5063

Microbiological Testing, Research and Technical Services: (479) 290-5064

ISO Accreditations

All of our laboratories are accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) and additionally, to be in compliance with the A2LA Food Testing Program Requirements which contains the “AOAC International Guidelines for Laboratories Performing Microbiological and Chemical Analysis of Food and Pharmaceuticals.” Most analyses within each laboratory are accredited however, for a complete listing, links to the A2LA scopes of accreditation are available at www.a2la.org.



A2LA Certificate Numbers

Chemistry

Springdale, AR – ([A2LA cert. 1970.02](#))
River Valley, AR – ([A2LA cert. 2843.01](#))
Wilkesboro, NC – ([A2LA cert. 2128.02](#))

Microbiology

Springdale, AR – ([A2LA cert. 1970.01](#))
Cherokee, IA – ([A2LA cert. 2696.01](#))
N. Richland Hills, TX – ([A2LA cert. 2224.01](#))
Pearl, MS – ([A2LA cert. 2646.01](#))
Wilkesboro, NC – ([A2LA cert. 2128.01](#))



In addition to ISO 17025, the Springdale, Arkansas, facility is also registered to ISO 9001. The WBA Quality Management System was initially created in the Springdale location and is now implemented in all six laboratories.

WBA's Quality Management System is also based on the Baldrige Criteria for Performance Excellence for which the Springdale, Arkansas facility was the 2010 recipient of the Governor's Award for Performance Excellence for Arkansas' Baldrige Program, also known as the [Governor's Quality Award Program](#).



Other Accreditations and Approvals

USDA-FSIS

- ⇒ Food Chemistry Analysis
- ⇒ Pesticide Residue Analysis (CHCs and PCBs)

AMS Laboratory Verification Program for the Analysis of Poultry Products Destined for Exportation from the United States to Russia

- ⇒ Pesticide Residues
- ⇒ Tetracyclines in Poultry
- ⇒ *Salmonella* sp., *Listeria Monocytogenes* and Total Plate Count

USDA-APHIS-NPIP

- ⇒ Approved for Avian Influenza AGID Analysis
- ⇒ APHIS EC Regulation 1774/2002 Compliance (AR-LAB-001)

Japan MHLW Approved Lab (Springdale & Wilkesboro)

Proficiency Testing Program Participation

WBA Analytical Laboratories® participates in a wide array of proficiency programs as an additional validation of the work performed within our laboratories. Where available, all tests performed within our laboratories are covered by commercial proficiency programs at least annually. Where commercial programs are not available, proficiency is evaluated using other means such as split samples with other laboratories or through the purchase of acceptable known value materials. Below is a list of commercial proficiency programs currently utilized by WBA Analytical Laboratories.

Chemistry Programs

- ⇒ USDA Food Chemistry Program
- ⇒ USDA CHCs in Meat and Poultry Products
- ⇒ USDA PCBs in Meat and Poultry Products
- ⇒ AAFCO for Feeds & Ingredients
- ⇒ AACC
- ⇒ AOCS
- ⇒ Canadian Program for Antibiotic Residues
- ⇒ LGC Standards Proficiency Program
- ⇒ USDA/AMS Russian Export Program
- ⇒ Environmental Resource Associates? (ERA)

Microbiology Programs

- ⇒ AOAC Food Microbiology
- ⇒ USDA/AMS Russian Export Program
- ⇒ NPIP *Salmonella* Group D

Setting up an Account

In order to obtain services, clients must submit an *Account Request Form* for data management and invoicing purposes. The account request form is available on our website (www.wbalabs.com) and can be requested via phone for email, fax, or mail. Credit applications may also be necessary based on the quantity of testing required.

Submitting Samples

Sample submission forms are available for download at www.wbalabs.com and can be emailed to customers upon request. It is preferred that customers email the sample submission form at the time samples are shipped so laboratory staff can plan accordingly. If the expected analytical range for a test is known, it is helpful to have this listed on the submission form; this information is helpful in determining the most appropriate sample preparation, quantity of sample used, dilutions, or other test parameters.

Invoicing & Payment

WBA Analytical Laboratories sends invoices to customers with accounts every 2 weeks. Terms for payment are net 15 days unless otherwise arranged in a formal contract. Payments can be submitted by check, purchase order, wire, ACH, or EFT. Unpaid accounts past 30 days from invoicing will be charged a service fee of 1.5%. Instructions, addresses and account information for payment are available in the secure environment at www.wbalabs.com.

Sample Size

The most critical aspect of a meaningful analysis is the quality of the sample. It is extremely important to make sure a test sample truly represents the entire unit of material it is meant to represent. Laboratory results only represent the sample submitted (refer to WBA Terms & Conditions)

Chemistry

For chemical analysis, sample size is largely dependent on the number of tests to be performed and the preparation needed to perform the testing. If the sample material is already homogenized, typically less sample is needed for preparation at the laboratory. To help minimize shipping cost, minimum sample quantities for testing are listed below:

- General Chemistry Analysis
 - ⇒ Feed and ingredients—≈ 8 oz of homogenized material or ≈16 oz non-homogenized
 - ⇒ Meat, pet food, etc.—≈ 8 oz of homogenized material or ≈16 oz non-homogenized
- Pesticide Residue Analysis
 - ⇒ Poultry Fat (flock screening)—6 fat pads if non-rendered or ≈ 10 grams if rendered
 - ⇒ Feed & ingredients—≈ 8 oz of homogenized material or ≈16 oz non-homogenized

For sample preparations and compositing that require additional labor, a surcharge may be applied. A quote can be provided upon receipt of description of sampling/compositing scheme.

General Information



Microbiology

Due to the fact that food testing is based on a relatively small sample of a larger lot, sampling procedures are very important. When possible, it is best to submit microbiological samples in their original unopened package. If this is not practical, then aseptically transfer representative samples into a sterile container that can be secured without contaminating the inside of the container; a sterile bag with a wire closure at the top is easy to seal after sampling and easy to open and aseptically take sample out of for testing.

While sample size may vary by application, for food it is typically recommended to use 50 grams of sample. **Prices in this catalog are for 25 or 50 gram samples.** Larger sample size or composites will have a nominal additional charge for media and labor. A quote can be provided upon receipt of description of sampling/compositing scheme.

Turnaround Time

Chemistry department turnaround is normally 7 to 10 days. Expedited testing may be available and is charged at a 2x rate. Microbiology samples normally begin the testing process the day they are received. Frozen samples must be thawed before testing which may delay the analysis process until the following day depending on the sample quantity. To assure availability of expedited services, please contact us in advance.

Retesting Policy

If there is a question about the accuracy or quality of analytical results, customers may request a retest. If the retest is different from the original analysis, no charges will be rendered for the retest. If the original results are confirmed, charges may be applied.

Sample Retention Policy

Chemistry samples will normally be held for two (2) weeks from the issue date of the final report and microbiology samples will normally be held for one (1) week from the issued date of the final report. Please refer to WBAAL Terms & Conditions for further details. Special requests for sample retention should be made at the time of setting up an account with WBAAL or with sample submission. Samples may be returned to the customer upon request at the customers expense.

Reporting

Reports will be issued upon completion of a customer project (all samples submitted on a particular day). Reports will be routinely emailed unless preferred otherwise. For regular customers, secure accounts can be set up where reports, invoices and other communications can be placed for easy access 24/7.

Shipping Options

WBA Analytical Laboratories can receive shipments from several major carriers including FedEx and UPS. WBAAL can provide a discounted rate for shipping through FedEx; the shipping cost will be added to your invoice. For the WBAAL FedEx Account number or further details about this program, please call (479) 290-5062.

Chemistry Sample Preparation & Compositing Surcharges

Routine Sample Preparation	No Charge
Sample Prep/Composite 1	\$3
Sample Prep/Composite 2	\$6

For sample preparations and compositing that require additional labor, a surcharge may be applied. A quote can be provided upon receipt of description of sampling/compositing scheme.

Metals and Minerals by ICP

Metals and Minerals in Feeds, Food, and Pet Food

Calcium	Phosphorous
Copper	Potassium
Iron	Sodium
Magnesium	Sulphur
Manganese	Zinc

Trace Metals/Minerals in Tallow

Barium	Potassium	Nickel
Calcium	Lithium	Phosphorous
Chromium	Magnesium	Lead
Copper	Manganese	Silicon
Iron	Sodium	Strontium
		Zinc

Pesticide Residues in Feeds, Ingredients and Grains

Compound	Tolerance Level (ppm)	Compound	Tolerance Level (ppm)
Aldrin	0.30	Lindane	4.0
Alpha-BHC	0.30	Methoxychlor	3.0
Chlordane	0.30	Mirex	0.10
DDT & Metabolites	5.0	PCB	3.0
Dieldrin	0.30	Toxaphene	7.0
Endrin	0.30	Chlorpyrifos (Dursban)	0.10
Heptachlor Epoxide	0.20		

Feeds and Ingredients & Grains

Ash	Insolubles in Oils
Aflatoxin (ELISA)	Moisture - Feed (2 hrs @ 135°C)
Aflatoxins (LC-MS/MS)	Moisture- Fats & Oils (1.25 hrs @ 135°C)
AME Calculation (Apparent Metabolizable Energy) (based on FAP, Insolubles, Moisture, FFA)	OSI (Oxidative Stability Index)
Chloride (Potentiometric)	Peroxides in Feed
Fat – Acid Hydrolysis	Peroxides in Oil
Fat – Rapid Soxhlet	Pesticide Residues
Fat – Soxhlet	pH
Fatty Acid Profile (FAP)	Protein (Combustion)
Free Fatty Acids (FFA)	Salt/Sodium (ICP)
Fiber, Crude	Vomitoxin (ELISA)
	Water Activity Ratio

Meats, Food Products, By-products, and Pet Food

Antibiotics (Tetracyclines)	Nitrates (Ion Chromatography)
Ash	Nitrites (Ion Chromatography)
Bone in Poultry (% by Calcium via ICP)	OSI (Oxidative Stability Index)
Carbohydrates (Calculation)	Peroxides in Oil
Chloride (Potentiometric)	Pesticide Residues
Cholesterol	pH
Chondroitin	Protein (Combustion)
Diacetate	Quaternary Ammonia (HPLC)
Fat – Acid Hydrolysis	Salt/Sodium (ICP)
Fat – Rapid Soxhlet	Scoville Heat Units
Fat – Soxhlet	Sugar, Total
Fatty Acid Profile (FAP)	Titrateable Acidity
Fiber, Dietary	Vitamin A
Free Fatty Acids (FFA)	Vitamin C
Glucosamine	B Vitamins
Kilocalories Calculation	Water Activity Ratio
Lactate	
Moisture - Meat (4 hrs @ 125°C)	
Moisture- Fats & Oils (1.25 hrs @ 135°C)	

Nutritional Labeling

General Analyses

Ash
Carbohydrates (Calculation)
Cholesterol
Fat – Acid Hydrolysis
Fat – Soxhlet
Fatty Acid Profile (FAP)
Fiber, Dietary

Kilocalories Calculation
Minerals (Calcium, Iron, Sodium)
Minerals (Calcium, Iron, Sodium, +)
Moisture - Meat (4 hrs @ 125°C)
Protein (Combustion)
Sugar, Total

Vitamins

Vitamin A (total)
Thiamine (B1)
Riboflavin (B2)
Nicotinic Acid (B3)

Nicotinamide (B3)
Pantothenic Acid (B5)
Pyridoxine (B6)
Pyridoxal (B6)

Biotin (B8)
Folic Acid (B9)
Cyanocobalamin (B12)
Ascorbic Acid (Vit C)

Results are reported in a standard analytical report format based on a 100 gram serving size for no additional charge. An official Nutritional Panel from the analytical results is available upon request for an additional charge.

A database calculated Nutritional Panel can also be provided in lieu of analytical results.

Residues

Mycotoxins via LC-MS/MS

Aflatoxin B1	α -Zearalenol*	Fumonisin B2
Alfatoxin B2	β -Zearalenol*	Ochratoxin A
Aflatoxin G1	Zeranol [α -Zearalanol]*	3-acetyl-DON
Aflatoxin G2	Taleranol [β -Zearalanol]*	15-acetyl-DON
Deoxynivalenol (Vomitoxin)	Zearalanone*	Ochratoxin
Zearalenone*	Fumonisin B1	T-2 Toxin
		Cycloplazonic Acid

*Urine EU Export

Organic Acids via LC-MS/MS

Isovaleric Acid	Taurine
Butyric Acid	Hippuric Acid

Dyes via LC-MS/MS

Acid Blue 9	Malachite Green	Rhodamine B
Brilliant Green	Methyl Violet B Base	Victoria Blue B
Crystal Violet	Patent Blue V	Victoria Pure Blue BO
Leucocrystal Violet	Patent Blue VF	
Leucomalachite Green	Rhodamine 6G	

Triazines via LC-MS/MS

Melamine	Benzoguanamine
Cyanuric Acid	Cyromazine (Larvadex)

Biogenic Amines via LC-MS/MS

Spermine	Cadaverine	Tryptamine
Spermidine	Histamine	Tyramine
Putrescine	2-Phenylethylamine	

Others via LC-MS/MS

Glycerol Hydraulic Fluid
Bisphenol A in Plastics

Residues

Fluoroquinolones via LC-MS/MS (antibiotic)

Oflaxacin	Ciprofloxacin	Lomefloxacin
Enoxacin	Enrofloxacin	Sarafloxacin
Norfloxacin	Danofloxacin	Difloxacin

Therapeutic Antibiotics via LC-MS/MS

Doxycycline	Sulfadiazine	Erythromycin
Demeclocycline	Sulfamerazine	Tylosin
Epi-oxytetracycline	Sulfamethazine	Neomycin
Epi-chlortetracycline	Sulfamethizole	Lincomycin
Epi- tetracycline	Sulfamethoxazole	Gentamicin
Sulfadiazine	Sulfathiazole	Penicillin

Russian Export Antibiotics via LC-MS/MS

Tetracycline	Chloramphenicol	Flavomycin (Bambermycin)
Oxytetracycline	Virginiamycin	Bacitracin
Chlortetracycline		

B-agonists via LC-MS/MS

Clenbuterol	Cimaterol	Salbutamol
Zilpaterol	Terbutalin	Cimbuterol
Ractopamine		

Nitrofurans Antibiotics via LC-MS/MS

Furazolidone	Nitrofurazone
Furaltadone	Nitrofurantoin

Coccidiostats via LC-MS/MS

Nicarbazin – DNC	Salinomycin
Nicarbazin – DHP	Narasin

Feed Additives

Alimet	Rhodimet
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Russian Export Testing

Chemistry Testing

Antibiotics—Tetracyclines
Flavomycin
Bacitracin

Pesticide Residues
Virginiamycin
Chloramphenicol

Microbiology Testing

Aerobic Plate Count
Salmonella sp. (ELFA)

Listeria monocytogenes (PCR)

Fish & Fisheries Products Hazards and Controls Guide

Residue	Level	Residue	Level
PCBs	2 ppm	Aldrin & Dieldrin	0.3 ppm
Diquat	2 ppm	Chlordane	0.3 ppm
Diuron and metabolites	2 ppm	Chlordecone	0.3 ppm
Endothall / Monomethyl ester	0.1 ppm	DDT, TDE, DDE	5 ppm
Fluridone	0.5 ppm	Methylmercury (out sourced)	1 ppm
Glyphosate	0.25 ppm	Heptachlor and Heptachlorepoide	0.3 ppm
2,4-D	0.1 ppm	Mirex	0.1 ppm

4th ed., 2011, p157

General Microbiology Personnel Proficiency Sample Program

This program is designed to validate the proficiency of laboratory personnel in testing APC, Coliforms, and Staphylococcus using Petrifilm. Samples are sent to participating labs up to two times per year and provide enough sample for up to 8 participants. Z-scores are calculated and reported for each individual.

Quantitative Microbiology

Total Plate Count

APC (Petrifilm)
APC @ 20°C (Petrifilm)

Anaerobic Plate Count (Petrifilm)
Psychrotrophic APC (Petrifilm)

Coliforms

Coliforms (Petrifilm)

Coliforms & *E. coli* (Petrifilm)

Bacillus sp.

Bacillus species Vegetative Count
Bacillus cereus Vegetative Count

Bacillus Confirmation

Other

Campylobacter sp. Enumeration (Cefex Agar)
Clostridium perfringens Vegetative Count
Enterobacteriaceae (Petrifilm)
Lactic Acid Bacteria Count (hetero & homofermentative)
Pseudomonas sp.
Staph. aureus (Staph Express Petrifilm)
Yeast & Mold (Petrifilm)

MPN

Listeria sp.
L. monocytogenes (PCR)
Salmonella sp. (PCR)

Qualitative Microbiology

E.coli O157:H7

E. coli O157:H7 – 24 hr (PCR)
E. coli O157:H7 – 24 hr (ECPT)

E. coli O157:H7 Confirmation*

Listeria

Listeria sp. Environmental Swab (ELFA)
Listeria sp. (ELFA)
Listeria sp. (PCR)

L. monocytogenes (PCR)
L. monocytogenes Confirmation*

Salmonella

Salmonella sp. (ELFA)
Salmonella sp. (PCR)

Salmonella sp. Confirmation*
Poly O

Campylobacter

Campylobacter sp. (Cefex Agar)
Campylobacter sp. (PCR)

Campylobacter sp. Confirmation*

Biochemical Identification

VITEK

*Confirmation pricing is based on the quantity and steps required for the confirmation process. Refer to page 16 for Confirmation Processes and Pricing. Confirmation will be performed according to customer requirements.

Sanitation/Environmental Monitoring (swabs or sponges)

APC—Petrifilm Swab

APC—Streak Plate

Coliforms/E. coli—Petrifilm Swab

Coliforms – MacConkey Streak Plate

Coliforms – VRB Streak Plate

Staph. aureus—Petrifilm Swab

Staph. aureus – Mannitol Streak Plate

Listeria sp. (ELFA)

Listeria sp. (PCR)

Salmonella sp. (ELFA)

Salmonella sp. (PCR)

Other targeted organisms are available upon request. Call for further information and pricing.

Shelf-life Studies

Basic Shelf-life Study

The Basic Shelf-life Study includes the setup and management of a fifteen point study held at one temperature. Additional time points and temperatures will accrue additional charges. A routine analysis report of shelf-life data will be provided to the customer in a format that is user friendly for statistical analysis by the customer.

Customized Shelf-life Study

Customized and larger scale shelf-life studies are available upon request. Additional charges may be added to the Basic Shelf-life Study price according to the defined scope of the study.

Overview

The WBA Analytical Laboratories® research team provides full-scale research services for live production, processing, further processing, sanitation, and food service applications both in microbiological and chemical fields. Our research professionals can work with your organization to design research plans and sampling protocols, develop methods, and provide testing services. Final reports include a detailed description of the project and subsequent data in an organized format ready for your organization to analyze.

Research services include activities such as:

- ⇒ Method Development
- ⇒ Method Evaluations
- ⇒ Process Intervention Studies for raw and fully cooked beef, pork, and poultry
- ⇒ Product Validations (i.e. RTE and microbial shelf-life)
- ⇒ Microbial Challenge Studies
- ⇒ DNA Fingerprinting (PFGE)
- ⇒ Bio-mapping of Microorganisms From Field to Processing
- ⇒ Controlled Inoculation Studies

Research project, method development and validation pricing is based on a combination of an hourly rate for the project manager and the cost for the required tests. Projects typically have a minimum charge for project management.

For more information about our research and validation services, please contact our staff at (479) 290-5064 or at www.wbalabs.com.

Terms & Conditions



ANALYTICAL SERVICES STANDARD TERMS & CONDITIONS

All analytical services provided by WBA Analytical Laboratories, Inc. ("WBAAL") are subject to the terms and conditions stated herein. As our client, you ("Client") understand and agree that submission of a Sample Submission Form ("SSF") or substitute to WBAAL constitutes acceptance of the terms and conditions as stated herein. To the extent that any Client order contains any terms or conditions that vary from the terms and conditions stated herein, all such additional or varying terms and conditions shall be of no force or effect and shall not be part of the Client/WBAAL relationship or contract, even if WBAAL performs the service requested.

CONFIDENTIALITY: Confidentiality is maintained by WBAAL in all interactions with Clients. Each party shall protect Information of the other party, using the same degree of care, but no less than a reasonable degree of care, as such party uses to protect its own confidential information. Each party shall disclose the other's Information only to its employees or contractors who have a need to know and are bound by obligations of confidentiality. Mutual nondisclosure agreements will be executed upon request. The Client agrees it will not use WBAAL's name or data (or the name or data of any Tyson Foods entity) in any manner which might cause harm to WBAAL's (or Tyson Foods') reputation and/or business. Under no circumstances is the name of WBAAL (or of any of its Tyson Foods affiliates) to be published, either alone or in association with that of any other party, without prior written approval.

SAMPLE SUBMISSION AND RETENTION: Samples should be submitted to WBAAL with a completed SSF and shipped to WBAAL in accordance with the instructions on the SSF. Chemistry samples will be held for two (2) weeks from the date of the final report, and microbiology samples will be held for one (1) week from the date of the final report, except (1) where samples have been used for testing and fully consumed; (2) where micro samples are destroyed upon completion of testing; (3) where suspect samples have been autoclaved; (4) where samples are returned early at the request of the Client; (5) where storage for the stated amount of time will compromise the integrity of the sample; or (6) where circumstances exist that prevent samples from being held for the stated amount of time. The Client shall reimburse WBAAL for the cost of returning samples.

RETEST ANALYSES: Retests performed at the Client's request may be charged to the Client if the retest confirms the original result. If the retest results are significantly different from the original result, the Client will not be charged for the retest.

HAZARDOUS SUBSTANCES AND PATHOGENS: Any package containing a sample containing or suspected of containing a pathogen or hazardous substance must be clearly identified as such and communicated to WBAAL prior to shipping. WBAAL reserves the right to refuse any shipment or sample that may pose a risk to its team members. The Client shall bear all extraordinary costs for adequate disposal of hazardous waste resulting from the sample(s) submitted, whether or not described as hazardous waste.

BILLING: All fees are charged directly to the Client as indicated under Invoice Information on the SSF, unless a third party acceptable to our credit department has been authorized via a signed statement indicating payment responsibility. It is assumed that the paperwork submitted with a sample describes the testing desired. If changes are made to the work order or to the party responsible for payment after the originally requested testing is initiated or completed, the Client must accept payment responsibility. Please notify WBAAL immediately if changes in testing are necessary.

PAYMENT TERMS: Prepayment or credit approval is required to establish a new account. Payment terms are net 15 days of invoice date. A 1½ % per month late charge may be added to all unpaid balances. Delinquent accounts may be served on a C.O.D. basis. All prices are subject to change without notice.

LITIGATION ASSISTANCE: If Client information is subpoenaed in response to any court of law or regulatory body having jurisdiction, WBAAL will make best efforts to notify the Client in advance of such subpoena deadline and allow Client to take appropriate steps to protect its information. All costs associated with litigation or dispute, including copying and submission of all documents subpoenaed, for oral or written testimony or preparation of same, or for any other purpose related to work provided by WBAAL in connection with the analyses/reports performed/completed for the Client, shall be paid by the Client. Such costs include, but are not limited to, hourly charges, travel, accommodations, mileage, counsel and all other expenses associated with said litigation or dispute.

WARRANTY AND LIMITS OF LIABILITY: WBAAL warrants that all services will be performed in a timely manner by competent personnel. THIS EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. Any services performed by WBAAL which are reasonably determined

Terms & Conditions



by Client to have been performed improperly in light of the above warranty, and which after investigation by WBAAL are acknowledged in writing by WBAAL's Vice President to have been performed improperly, shall be corrected by WBAAL without charge to Client, provided that Client provides WBAAL with a written request for such correction within two (2) months after Client knew or should reasonably have known of the problem. In no event will WBAAL (including its parent and affiliates, i.e., all entities owned, controlled, or under common control with, Tyson Foods, Inc. (collectively, "Tyson Foods")) be liable for any indirect, consequential, incidental, punitive, or special damages or for acts of negligence that are unintentional in nature, including, without limitation, damages for lost profit, business interruption, or other pecuniary loss, regardless of whether WBAAL has been advised of the possibility of such damages. Client further understands and agrees that WBAAL's total liability (including any liability of Tyson Foods) for damages relating to, or arising in connection with, any services provided hereunder, regardless of the form of action or theory of recovery shall not exceed the greater of \$2,500 or the amount paid by the Client for the particular analytical service. WBAAL and Tyson Foods accept no legal responsibility for the purpose for which the Client uses the test results or reports, or for any consequence of such use. Client agrees to indemnify and defend WBAAL and Tyson Foods from all claims, damages, liabilities, and expenses relating to Client's use of WBAAL's services or Client's marketing, distribution, sale, or other dissemination of Client's products or services. The allocations of liability in this WARRANTY AND LIMITS OF LIABILITY section represent the agreed and bargained-for understanding between the Client and WBAAL. WBAAL's fees for the services provided hereunder reflect such allocations.

CHOICE OF LAW AND VENUE. These terms and conditions shall be interpreted pursuant to the laws of the State of Arkansas without giving effect to its choice of law provisions. Litigation brought to contest disputes arising under this purchase order shall be brought only in the state or federal courts of the State of Arkansas.

WAIVER OF JURY TRIAL. WBAAL AND CLIENT IRREVOCABLY WAIVE THEIR RESPECTIVE RIGHTS TO TRIAL BY JURY OF ANY CAUSE OF ACTION, CLAIM, COUNTERCLAIM OR CROSS-COMPLAINT IN ANY ACTION OR OTHER PROCEEDING BROUGHT BY THE OTHER WITH RESPECT TO ANY MATTER ARISING OUT OF, OR IN ANY WAY CONNECTED WITH OR RELATED TO WBAAL SERVICE TO CLIENT, WHETHER BASED UPON CONTRACTUAL, STATUTORY, TORTIOUS OR OTHER THEORIES OF LIABILITY.

INTELLECTUAL PROPERTY: WBAAL operates under "need to know" principles within its organization to further protect its clients' information. WBAAL reserves the right to decline service to a client if the nature of the work presents a potential conflict of interest with other work either currently underway or previously completed for another party. WBAAL also operates under the principle that the outcome of its work is owned by the receiving client unless previously agreed to in writing between the parties.

FORCE MAJEURE: Neither party shall be liable for damages due to delay or failure to perform any obligation under this Agreement to the extent such delay nor failure results directly or indirectly from circumstances beyond the control of such party. Such circumstances shall include, but shall not be limited to, acts of God, acts of war, civil commotion's, riots, strikes, lockouts, acts of the government in either its sovereign or contractual capacity, perturbation in telecommunications transmissions, inability to obtain suitable equipment or components, accident, fire, water damages, flood, earthquake, or other natural catastrophe.

WAIVERS: No waiver of a breach, failure of any condition or any right or remedy in or granted under these Terms and Conditions will be effective unless it is in writing and signed by the party waiving the breach, failure, right, or remedy. No waiver of any breach, failure, right, or remedy will be deemed a waiver of any other breach, failure, right, or remedy, whether or not similar, nor will any waiver constitute a continuing waiver unless the writing so specifies.

SEVERABILITY: Any provision of this Agreement that in any way contravenes the law of any state or country in which this Agreement is effective will, in that state or country, to the extent the law is contravened, be considered separable and inapplicable and will not affect any other provision or provisions of this Agreement.

RELATIONSHIP OF THE PARTIES: WBAAL and Client agree that WBAAL is an independent contractor to Client and will not act as Client's employee, agent, representative or sponsor under the terms and conditions stated herein.

SUCCESSORS & ASSIGNS: This Agreement will inure to the benefit of, and be binding on, the successors and assigns of WBAAL and the Client.

PARAGRAPH HEADINGS: All paragraph headings are for convenience only and shall not be construed as a limitation of the scope of the particular sections to which they refer.

ENTIRE AGREEMENT: These Terms and Conditions constitute the final, complete, and exclusive statement of the terms of the agreement between the parties and supersede all prior and contemporaneous understandings or agreements of the parties. No party is relying on any representation or warranty outside those expressly set forth in this Agreement.