

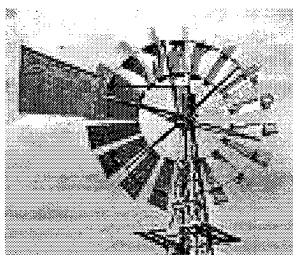


Schedule of Fees

Effective
September 2011

Analytical Services

Soils
Plant Tissues
Feeds
Fertilizers
Nematodes
Waters
Microbiological
Oilseed
Environmental
Manure/Sludge



A & L Plains Analytical Labs, Inc.

P.O. Box 1590

Lubbock, Texas 79408

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A&L PLAINS ANALYTICAL LABORATORIES, INC.

P.O. Box 1590

Lubbock, Texas 79408-1590

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Price List

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ALL PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

GENERAL INFORMATION

TURNAROUND TIME

Results of routine analyses are usually reported in 3 to 4 working days. Turnaround time for other analyses is dependent upon the tests being performed. Please contact the laboratory if you have a question about which tests are considered routine. "Rush" results are sometimes available when arrangements have been made and will be assessed an additional **"RUSH" FEE**. However, in fairness to clients whose work may be delayed by such "Rush" arrangements, we may, at times be unable to comply with "Rush" requests.

SAMPLE HOLDING AND DISPOSAL

Samples are held for varying lengths of time, depending on their stability and the amount of storage space required. All samples will be held for three weeks after analysis. If longer-term storage is necessary, a storage fee will be charged based on the type of sample being held. Please contact the laboratory if samples need to be saved.

HAZARDOUS WASTE SAMPLES

Samples which require special means of disposal (e.g. Hazardous Waste, Pesticide, Formulations, etc) will be returned to the client after analysis at the client's expense.

WARRANTY AND LIMITS OF LIABILITY

Our warranty is limited to the accuracy of analyses of samples as received. We assume no responsibility for the purpose for which the client uses the test results, nor liability for any other warranties, expressed or implied, including warranties of fitness for particular purpose or for merchantability made by the client. These terms and conditions shall supersede any conflicting terms and conditions stated on any purchase order, or other order of work submitted by the client.

RECORD STORAGE

Analytical reports are filed at the laboratory by report number along with the information sheets submitted with samples and are held for 7 years. Please use the report number when you have questions concerning a report.

INVOICING AND STATEMENTS

All work reported during the week is invoiced at the beginning of the following week. Terms are net 30 days. Accounts past due 30 days will receive a statement the following month with added service charges shown.

DISCOUNTS

In some cases, discounts are available for volume work. Consult the laboratory for discount terms. **NO discounts will be allowed on overdue accounts.**

CONFIDENTIALITY

All work will be performed in confidence. Results are released only to the client.

SPECIAL REPORTING PROCEDURES

Facsimile (FAX) Reporting: Per Request (Free)

Overnight Letter Delivery: Available at cost of carrier.

Telephone Reporting: Reports may be telephoned at \$5.00 per report.

E-mail Service: No charge for PDF and Excel formats.

AGRONOMIC ASSISTANCE SERVICES

A&L Staff professionals can provide Agronomic Training Seminars and Educational Meetings for the agricultural industry. Contact one of our Agronomists for more information.

CONSULTING AND FIELD INSPECTION

Consultation, Field Inspection, Official Weighing, and Sampling services are available. Fees are \$50.00 to \$100.00 per hour plus expenses and mileage. Vehicle mileage is \$0.75 per mile.



SOIL ANALYSIS

When submitting soil samples, please identify each sample with a maximum of 6 letters/numbers along with the type of test desired. If fertilizer recommendations are requested, please list the crop and attainable yield goal.

<u>BASIC SOIL TEST PACKAGES</u>	<u>Price/Sample</u>	
	*WITH	WITHOUT
	Recommendations	
Basic Test S1A: Organic Matter, Available Phosphorus (P1 Weak & P2 Strong Bray Phosphorus), Exchangeable Potassium, Magnesium, Calcium, Soil pH, Buffer pH, calculated Cation Exchange Capacity, and Percent Cation Saturation, Nitrate-Nitrogen ...	\$12.60	** \$10.80
Basic Test S1B: Same as S1A, except Sodium Bicarbonate Phosphorus (For P1 reporting add \$1.00)	\$14.60	** \$12.80
Basic Test S2: Basic S1A or S1B plus Sodium, Soluble Salts, Excess Lime	\$15.60	** \$13.80
**NOTE: If NO Nitrate-Nitrogen test is desired, please indicate on Soil Information Sheet and deduct	\$ 4.00	** \$ 3.40

SULFUR AND MICRONUTRIENT TEST PACKAGES

Basic Test S3: Sulfate Sulfur, Zinc, Manganese, Iron, Copper, and Boron	\$12.60	\$11.60
Basic Test S4: Zinc, Manganese, Iron and Copper	\$ 8.40	\$ 7.40
Basic Test S5: Sulfate Sulfur and Zinc	\$ 6.30	\$ 5.30
Basic Test S5A: Boron and Zinc.	\$ 6.30	\$ 5.30
Basic Test S6: Sulfate Sulfur, Zinc, Manganese, and Boron	\$11.60	\$10.60
Basic Test S7: Sulfate Sulfur, Zinc and Boron	\$ 9.60	\$ 8.60

*Recommendations include up to two crops or yields. Additional recommendations available	Each	\$ 2.00
Recommendations made from old Report	Each	\$ 8.00
Archive retrieval (for reports over one year old)	Each	\$ 5.00
Graphical Report	Each	\$ 0.50
Mehlich III Phosphorus extraction (per sample)	Each	\$ 1.50

CONTAINER AND GREENHOUSE MIX TESTS by Saturated Paste Extract (One Quart of sample is required)

Basic Test S8: pH, Conductivity, Ammonia-Nitrogen, Nitrate-Nitrogen, Phosphorus, Potassium Magnesium, Calcium, Sodium, and Sulfur	\$38.50
Basic Test 8A: Test S8 plus Aluminum, Manganese, Iron, Copper, Zinc, and Boron	\$44.00
Basic Test S8B: DTPA Extraction of Manganese, Iron, Copper, Zinc, and Boron	\$27.50

INDIVIDUAL ANALYSIS OF EXTRACTABLE SOIL NUTRIENTS

Zinc, Manganese, Iron, Copper (Per Element)	\$ 2.80	\$ 2.40
Boron, Sulfate Sulfur	\$ 4.00	\$ 3.60
Sodium, Potassium, Magnesium, Calcium, P1, P2, Bicarbonate, Mehlich III Phosphorus(Per Element)	\$ 5.00	\$ 4.60
Molybdenum	\$26.00	\$25.00
Nitrate-Nitrogen	\$ 6.00	\$ 5.00
Ammonia-Nitrogen		\$20.00
Chloride		\$18.00

SOIL ANALYSIS



ADDITIONAL SOIL CHEMICAL ANALYSIS

Price/Sample

Atrazine (by Immunoassay)	\$70.00
Cation Exchange Capacity Total (by Saturated Paste Extract)	\$42.00
Cation Exchange Capacity Total (Total - by Ammonium Acetate Saturation)	\$30.00
Composite Sample Preparation	\$ 7.00
Conductivity (Saturated Paste)	\$15.00
Conductivity (Soluble Salts - 1:2 Soil : Water)	\$10.00
ESP (Includes Ammonium Acetate extractable Sodium und Soluble Sodium from Saturated Paste Extract. Total Cation Exchange Capacity also required)	\$54.00
Heavy Metals (e.g. Arsenic, Cadmium, Chromium, etc)	See Metal Analysis on Page 10
Humic Acid	\$44.00
Moisture	\$10.00
Nitrogen - Total (T.K.N.)	\$25.00
Oil Contamination	\$50.00
Organic Carbon	\$50.00
Organic Matter - Colorimetric	\$10.00
Organic Matter - by Combustion	\$15.00
pH (1:1 Soil : Water)	\$ 6.00
pH (Saturated Paste)	\$12.00
Phosphorus - Total	\$20.00
SAR (Saturated Paste Extract - Includes Soluble Cations and Saturation Percentage)	\$44.00
SAR (1:1 Extract)	\$36.00

SOIL PHYSICAL MEASUREMENTS

Bulk Density (Disturbed Soil)	\$20.00
Particle Size Analysis - Hydrometer Method (Percent Sand, Silt, Clay and Textural Classification) ..	\$20.00

SLUDGE LAND APPLICATION PACKAGE

Basic Text M4	\$250.00			
Total Nitrogen	Ammonia Nitrogen	pH	Lead	Nickel
Total Phosphorus	Organic Nitrogen	Total Solids	Cadmium	Copper
Total Potassium	Nitrate Nitrogen	Total Volatile Solids	Zinc	

<u>NEMATODE ASSAY</u> (A separate, full sample bag needed and soil must be moist when sampled)	
Complete Parasitic Nematode Analysis	\$40.00

SITE SPECIFIC SOIL ANALYSIS PACKAGES AVAILABLE

Inquire

Please call lab for available analyses and pricing.

PLANT ANALYSIS



Discounts are available for samples which are submitted dried and ground. Inquire for prices.
 (Minimum Volume: 100 grams WET - 5-10 grams DRY.)

PLANT ANALYSIS TEST PACKAGE

	Price/Sample	
	With Interpretations	Without Interpretations
Basic Test PT1: Phosphorus, Potassium, Magnesium, Calcium, Sodium, Iron, Aluminum, Manganese, Boron, Copper, Zinc . . .	\$19.60	\$15.60
Basic Test PT2: Test PT1 plus Nitrogen AND Sulfur	\$24.60	\$22.20
Basic Test PT3: Test PT1 plus Nitrogen or Sulfur	\$22.40	\$19.00
Basic Test PT4: Nitrogen, Phosphorus and Potassium	\$17.00	\$15.60
Basic Test PT4a: Nitrate-Nitrogen, Phosphorus, Potassium (PETIOLES)	\$17.00	\$15.60
Individual Analysis (per Element)		\$15.00
Chloride		\$18.00
Nitrate-Nitrogen		\$12.00
Heavy metals (e.g. Arsenic, Cadmium, Chromium, etc.)	See Metal Analysis on page 10	

A sample preparation fee of \$10.00 will be added for all plant tissues samples that need to be washed or prepped.

DO NOT SUBMIT PLANT SAMPLES IN PLASTIC BAGS!

MANURE ANALYSIS



!WARNING!

Do NOT ship manure samples in glass containers or fill containers more than 1/4 full of gas producing manures.

MANURE TEST PACKAGES

Basic Test M1:	Moisture, Total Nitrogen, Phosphorus, and Potassium	\$33.00
Basic Test M2:	Test M1 plus Sulfur, Calcium, Magnesium, Sodium, Iron, Aluminum, Manganese, Copper and Zinc	\$49.50
Basic Test M3:	Basic Test M2 plus Cadmium, Chromium, Lead and Nickel . . .	\$99.50
Effluent Manure:	(For Liquid Manure, Waste Waters, Lagoon) Total Nitrogen, Phosphorus, Potassium, Sulfur, Calcium, Magnesium, Sodium, Iron, Aluminum, Manganese, Copper, Zinc, pH and Electrical Conductivity	\$49.50

ELEMENTAL ANALYSIS

Phosphorus, Potassium, Sulfur, Magnesium, Calcium, Sodium, Iron, Aluminum, Manganese,
 Copper, Zinc, Cadmium, Cobalt, Lead, Molybdenum, Nickel *each element* \$18.00

INDIVIDUAL ANALYSIS

Ash	\$12.00	Boron	\$18.00
Moisture (Oven 110 c)	\$10.00	C:N Ratio	\$44.00

OILSEED ANALYSIS



(DISCOUNTS NOT AVAILABLE)

COTTONSEED

Price/Sample

Basic Test C-1:	Oilmill Grade (USDA recognized cottonseed chemist) Foreign Matter, Moisture, Free Fatty Acid, Oil Content, Ammonia, Quality Index Deduction, Quantity Index, GRADE	\$29.50
Basic Test C-2:	Basic C-1 PLUS Lint	\$33.00
Basic Test C-3:	Free Fatty Acid	\$17.00
Basic Test C-4:	Oil	\$21.00

PEANUTS

Basic Test P-1:	Moisture, Oil, Protein, Free Fatty Acid	\$25.00
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SOYBEANS

Basic Test SB-1:	Moisture, Oil, Protein	\$24.00
Basic Test SB-2:	Moisture, Oil, Protein, Crude Fiber	\$49.50

CRUDE EDIBLE OILS (*Cottonseed, Sunflower, Corn, Soybean, Peanut*)

Basic Test O-2:	Moisture and Volatile Matter	\$18.00
Basic Test O-3:	Moisture, Insolubles, Unsaponifiables	\$45.00
Basic Test O-4:	Total Fatty Acid	\$33.00

OIL MILL CONTROL SAMPLES

Basic Test CU-1:	Protein, Oil, Moisture	\$19.50
Basic Test CU-1A:	Moisture, Oil (Spent Pellets/Hull)	\$17.00
Basic Test CU-2:	Hulls (Includes percent meats, whole seed, hull oil and cleaned hull oil)	\$19.50
Basic Test CU-3:	Black Seed (residual Lint)	\$19.50
Basic Test CU4:	Crude Fiber	\$19.50
Basic Test CU5:	Protein Only	\$13.00

OFFICAL SAMPLES (REFEREE)

Basic Test CO-1:	Protein, Oil, Moisture	\$22.50
Basic Test CO-2:	Protein, Moisture	\$20.00
Basic Test CO-3:	Protein only	\$16.00

SUNFLOWER SEED

Basic Test SF-1:	Foreign Matter, Oil, Moisture (NCPA, NIOP, or AOCS rules)	\$29.50
Basic Test SF-2:	Moisture, Oil (as received, NIOP rules)	\$24.00
Basic Test SF-3:	Foreign Matter only	\$20.00
Basic Test SF-4:	Oil only	\$21.00

Composite fee for bulk samples (per sample group) \$10.00

FERTILIZER AND LIME ANALYSIS

When submitting fertilizer samples, please indicate the estimated % of nutrients expected. AOAC methods are used where applicable.

FERTILIZER TEST PACKAGES

Price/Sample

Total Nitrogen (N), Total Phosphorus (P ₂ O ₅), and Potassium (K ₂ O)	\$55.00
Total Nitrogen (N), and available Phosphorus (P ₂ O ₅)	\$44.00
Total Nitrogen (N), available Phosphorus (P ₂ O ₅), and Potassium (K ₂ O)	\$57.00

BASIC TEST W2N: Nutrient Solutions (for water containing fertilizer. Please specify expected levels.)

Nitrate and Ammonia Nitrogen, Phosphorus, and Potassium	\$60.00
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ELEMENTAL ANALYSIS

Aluminum, Calcium, Chromium, Cobalt, Copper, Iron, Magnesium, Manganese, Molybdenum, Nickel, Sodium, and Zinc.

One of the Above	\$18.00	Two of the Above	\$30.00	Each Additional	\$12.00
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INDIVIDUAL ANALYSIS

Boron	\$18.00	Phosphorus - Total	\$20.00
Brix (%Sugar as)	\$18.00	Phosphorus (P ₂ O ₅) - Available (<i>citrate soluble</i>)	\$27.00
Chloride	\$18.00	Phosphorus (P ₂ O ₅) - Ortho	\$20.00
Insoluble Solids	\$15.00	Phosphorus (P ₂ O ₅) - Poly (Non-Ortho) requires Total P ₂ O ₅	\$40.00
Moisture (110°) (Dry Sample Only)	\$10.00	Phosphorus (P ₂ O ₅) - Water Soluble	\$20.00
Nitrogen - Ammonia	\$20.00	Potassium (K ₂ O)	\$25.00
Nitrogen - Nitrate	\$15.00	Specific Gravity	\$10.00
Nitrogen - Total	\$25.00	Silica (SiO ₂)	\$45.00
Nitrogen - Water Soluble	\$25.00	Sulfur (Elemental)	\$40.00
Nitrogen - Water Insoluble	\$25.00	Sulfur - Sulfate	\$25.00
pH	\$ 6.00	Sulfur - Total	\$30.00

LIMESTONE MATERIALS

Calcium, Magnesium, Total Neutralizing Value	\$33.00
Calcium and Magnesium Content	\$22.00
Moisture	\$10.00
Sieve Analysis Per Screen Size (please specify screen size)	\$15.00
100 or 325 mesh	\$20.00
Total Neutralizing Value (CaCO ₃) Equivalent)	\$20.00

Effective Calcium Carbonate Determination: CCE, Moisture, 8, 20, 40, 60, and 100 mesh sieves .. \$66.00

Relative Neutralizing Value: CCE, Moisture, 10, 40, 60 mesh sieves .. \$55.00

Limestone Elemental Analysis Calcium, Sulfate Sulfur, Boron, Phosphorus, Potassium, Aluminum, Sodium, Zinc, Iron, Magnesium, Manganese, and Copper .. \$55.00

Flue Dust or High Potassium Lime Calcium, Sulfate Sulfur, Boron, Phosphorus, Potassium, Aluminum, Sodium, Zinc, Iron, Magnesium, Manganese, and Copper .. \$60.00

A sample preparation fee of \$10.00 will be added for all dry fertilizer products, suspensions, and limestone requiring preparation.

FEED ANALYSIS



BASIC FEED TEST PACKAGES

	<u>Price/Sample</u>
Basic Test F2A: Moisture, Crude Protein, Crude Fat, Acid Detergent Fiber, TDN, Net Energy, Ash	\$27.50
Basic Test F2B: Test F2A plus Acid Detergent Insoluble Protein	\$35.00
Basic Test F3: (Mineral Analysis) Phosphorus, Potassium, Magnesium, Calcium, Sodium, Iron, Manganese, Sulfur, Copper, Zinc	\$24.00
Basic Test F4: Moisture and Crude Protein	\$15.00
Basic Test F4A: Moisture and Nitrate	\$15.00
Basic Test F5: Moisture, Crude Protein, Calcium, Phosphorus	\$23.00
Basic Test F6: Moisture, Crude Protein, Acid Detergent Fiber, Calculated TDN, Net Energy, Calcium, Phosphorus, Potassium, Magnesium, Sulfur	\$31.50
Basic Test F6A: Moisture, Crude Protein, ADF, NDF, TDN, Relative Feed Value	\$27.50
Basic Test F7: Moisture, Crude Protein, Acid Detergent Fiber, TDN, Net Energy	\$22.00
Basic Test F8: Moisture, Crude Protein, Acid Detergent Fiber, TDN, Net Energy, Calcium, Phosphorus	\$27.50
Basic Test F9: Moisture, Crude Protein, Crude Fat, Crude Fiber	\$25.00

INDIVIDUAL FEED ANALYSIS

Acid Detergent Insoluble Protein	\$22.00	Moisture (Oven 110°)	\$10.00
Aflatoxins (Quantitative)	\$60.00	Moisture in Meat	\$25.00
Ammonia	\$20.00	Non-Protein Nitrogen (Urea and Ammonia)	\$30.00
Ash	\$12.00	Peroxide Value	\$20.00
Calcium	\$18.00	pH	\$ 6.00
Calcium and Phosphorus	\$20.00	Phosphorus	\$18.00
Chloride	\$18.00	Protein, Pepsin Digestible (includes Crude Protein)	\$25.00
Fat in Meat	\$30.00	Protein, Pepsin Digestible (w/Tests F2,F4 thru F9)	\$15.00
Fat, Crude	\$15.00	Prussic Acid (Cyanide)	\$25.00
Fiber, Crude	\$21.00	Salt	\$18.00
Fiber, Neutral Detergent or Acid Detergent	\$21.00	Selenium	\$48.00
Iodide	\$33.00	Sulfur	\$15.00
Lignin	\$40.00	Urea	\$30.00

LIQUID FEED ANALYSIS

Free Fatty Acid (Rancidity)	\$20.00
Moisture (Toluene Distillation)	\$20.00
Moisture (Toluene Distillation) and Protein	\$30.00
Non-Protein Nitrogen (as Urea)	\$30.00

MINERAL ANALYSIS - SUPPLEMENTS AND PREMIXES

Phosphorus, Calcium, Magnesium, Potassium, Sodium, Iron, Copper, Manganese, Zinc Each Element	\$18.00
All of the above	\$60.00
Boron	\$27.50
Aluminum	\$18.00
Sulfur (Gravimetric)	\$30.00
Selenium	\$48.00
Sample preparation fee required for all Mineral Analysis - Supplements and Premixes	\$10.00



WATER ANALYSIS

BASIC WATER TEST PACKAGES

Price/Sample

Livestock Suitability

Basic Test W1: Sodium, Calcium, Magnesium, Chloride, Conductivity, Total Dissolved Solids, Sulfate, Nitrate, and pH	\$29.50
Basic Test W1A: Basic Test W1 plus Iron and Copper	\$40.50

(One quart of sample in a clean, plastic container is required)

Irrigation Suitability:

Basic Test W2: Sodium, Calcium, Magnesium, Chloride, Conductivity, Sulfate, Nitrate, pH, Carbonate, Bicarbonate, Phosphorus, Potassium, Total Dissolved Solids, SAR, and Boron	\$49.00
Basic Test W2A: Basic Test W2 plus Copper, Iron, Manganese, and Zinc.	\$74.00

(One quart of sample in a clean, plastic container is required)

Nutrient Solutions Test - For Water Containing Added Fertilizer

Basic Test W2N: Nitrate-Nitrogen, Ammonia-Nitrogen, Phosphorus, and Potassium	\$60.00
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*(Minimum of one quart of sample in a clean, plastic container is required.
Estimates of % N-P-K must be included with sample.)*

Domestic Suitability - For Home Drinking Water

Basic Test W3: Purity (Total Coliform), Nitrate, Calcium, Magnesium, pH, Total Hardness, Conductivity, and Total Dissolved Solids	\$38.50
Basic Test W3A: Basic Test W3 plus Copper, Iron, Manganese and Zinc	\$60.00

This test require sterile bottles, refrigeration and 24 hour delivery to the laboratory for reliable results.

**Samples MUST be received in the laboratory Monday through Thursday.
Weekend surcharge applies for sample received/submitted on Fridays!**

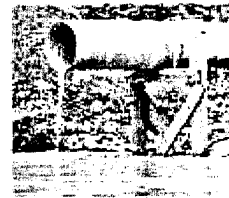
(Two separate sample containers are required. Contact laboratory for additional instructions.)

Fish Pond Suitability

Basic Test W4: Dissolved Oxygen, pH, Nitrite-Nitrate Nitrogen, Ammonia-Nitrogen, Chloride . . .	\$45.00
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**This test requires refrigeration and 24 hour delivery to the laboratory for best results.
Samples MUST be received in the laboratory Monday through Thursday.
(Requires one quart of sample filled to the top of container so that there is no airspace left.)**

Proper sampling methods and containers are essential for accurate analysis.
If you have any questions concerning correct sampling procedures and containers,
please contact the laboratory before submitting samples.



WATER AND WASTEWATER ANALYSIS

INDIVIDUAL ANALYSIS

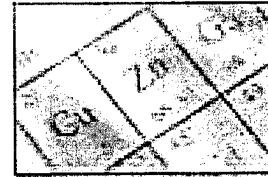
	<u>Method</u>	<u>Price/Sample</u>
Acidity, Total	2310	\$10.00
Alkalinity, Total	2320 B	\$10.00
BOD (Biochemical Oxygen Demand) - 5 Day		
Received on Monday or Friday	5210 B	\$45.00
Received on Tuesday, Wednesday or Thursday ...	5210 B	\$30.00
Boron		\$10.00
COD (Chemical Oxygen Demand)	5220 D	\$25.00
Chloride	4500 Cl B	\$18.00
Chlorine, Residual		\$25.00
Coliform, Fecal (Membrane Filter)	9222 D	\$25.00*
Coliform, Total (Membrane Filter)	9222 B	\$25.00*
Conductance (Specific)	2510 B	\$10.00
Dissolved Oxygen	4500 O G	\$15.00
Fluoride (No Distillation)	4500 F C	\$25.00
Hardness, Total	2340 B	\$24.00
Metals (Cadmium, Lead, etc.)		See Metal Analysis
N-phuric (Titration)		\$20.00
Nitrogen-Ammonia	4500NH3 E	\$20.00
Nitrogen-Nitrate	4500NO3 E	\$15.00
Nitrogen-Nitrite	4500NO2 E	\$15.00
Nitrogen-Nitrate & Nitrite	4500NO3 E	\$25.00
Nitrogen-Total (TKN)	4500Norg B	\$25.00
Oil and Grease	5520 D	\$65.00
pH	4500 H B	\$ 6.00
Phosphorus, Ortho	4500 P E	\$20.00
Phosphorus, Total	4599 O E	\$20.00
SAR	Flame AA	\$25.00
Silica (SiO ₂)	4500 Si D	\$45.00
Solids-Dissolved	2540 C	\$15.00
Solids-Suspended	2540 D	\$15.00
Solids-Total	2540 B	\$15.00
Solids-Volatile	2540 E	\$15.00
Specific Gravity	4500 SO4 E	\$15.00
Total Petroleum Hydrocarbons (TPH)	418.1 or 1005	Call

*** Requires sterile bottle, refrigeration, and 24 hour delivery to the lab. Samples must be received Monday through Thursday.**

***** Volume discounts are available. Please contact the laboratory for specific information.**

Laboratory Reference Methods:
 Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-0200,1983
 Standard Methods for Examination of Water and Wastewaters
 Test Methods for Evaluating Solid Waste, EPA-SW-846-1986

METAL ANALYSIS



Instrumentation

<u>Metal</u>	<u>Flame AA</u>	<u>Hydride</u>
Aluminum	\$18.00	
Arsenic		\$48.00
Cadmium	\$18.00	HMCDH . \$36.00
Calcium	\$18.00	
Cobalt	\$18.00	
Copper	\$18.00	
Chromium	\$18.00	
Iron	\$18.00	
Lead (Liquid)		GC \$35.00
Lead (Solids - requires digest)		GC \$45.00
Magnesium	\$18.00	
Manganese	\$18.00	
Mercury *		\$48.00
Molybdenum	\$25.00	
Nickel	\$18.00	
Potassium	\$18.00	
Selenium		\$48.00
Sodium	\$18.00	
Zinc	\$18.00	
Digest Fee	\$10.00	
Additional metals not listed	INQUIRE	
Graphite Furnace Determination	By REQUEST	INQUIRE

INSTRUMENTATION

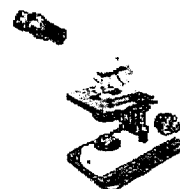
Flame AA	Flame Atomic Absorption
Graphite Furnace	Carbon Rod Atomizer
Hydride	Hydride Generator with AA detection

*Mercury is analyzed by Cold Vapor with AA detection.

Laboratory Reference Methods:

- Water and Wastewater - Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, 1983
- Sludge and Solids - Test Methods for Evaluation Solid Waste, EPA-SW 846, 1986

MICROBIOLOGY



<u>WATER</u>	<u>Price/Sample</u>
Coliform, Fecal (membrane Filter)	\$25.00
Coliform, Total (membrane Filter)	\$25.00
E.Coli and Total Coliform (same sample, same time)	\$30.00
Enterococci	\$35.00
Fecal Streptococcus Plate Count	\$35.00
Standard Plate Count (aerobic)	\$25.00
Standard Plate Count (anaerobic)	\$25.00
Iron Bacteria	\$25.00
<u>SOLIDS (Food, Soil, Sludge, etc)</u>	
Coliform, Fecal (multiple Tube Fermentation)	\$35.00
Coliform, Total (Simplate)	\$25.00
E.Coli Plate Count	\$25.00
Lactobacillus	Call
Listeria	Call
Mold and Yeast Count	\$30.00
Salmonella Screen (presumptive)	\$36.00
Standard Plate Count (aerobic)	\$25.00
Standard Plate Count (anaerobic)	\$25.00
<u>FEED</u>	
Mycotoxins:	
Aflatoxin (Quantitative)	\$60.00
Fumonisin (Quantitative)	\$60.00
Vomitoxin (DON) (Screen)	\$60.00
Zearalenone (F2) (Screen)	\$60.00
T-2 (Screen)	\$60.00
Ochratoxin	\$60.00
All of the above Mycotoxins	350.00
Yeast and Mold Count	\$30.00
Salmonella Screen (presumptive)	\$36.00
Standard Plate Count (aerobic)	\$25.00
Standard Plate Count (anaerobic)	\$25.00
Other microbiological services available	INQUIRE
Consultation service	INQUIRE
Sample preparation fee -uniform sample-	\$ 5.00
Weekend Fee	\$25.00

All Microbiology samples must be received in the laboratory Monday through Thursday before 3 p.m., otherwise subject to weekend fee.

**Volume discounts may be available. Please contact the laboratory for specific information.

A&L HISTORY

A&L'S HISTORY

A&L Agricultural Laboratories, Inc. was formed by Don Ankerman and Dr. Richard Large in 1971 to serve the agricultural industry with comprehensive analyses of soils, plants, water, feeds, fertilizers, and chemicals, along with interpretations and recommendations. The parent company began operations in Memphis, TN and has since grown to several regional laboratory locations throughout the United States and one in Canada. This growth has been accomplished by providing quality service, innovations, and good management.

As part of a national network, A&L Plains Laboratories is comprised of a wide range of highly technical and skilled specialists which insures that A&L is able to provide high quality services as well as rapid responses to our client's needs. In addition to servicing agriculture, A&L provides analytical services to industries such as environmental, mining, food products, turf and landscape, nurseries and many others.

QUALITY ASSURANCE

The purpose of the laboratory QA/QC program is to ensure the consistent production of reliable data of high accuracy and precision. This is accomplished by: (1) The use of standard methods (or validated state-of-the-art methods if standard methods are not available. (2) An established set of procedures for checking the accuracy and precision of all tests and for maintenance of all instruments and (3) use of written standard operating procedures to train all personnel in quality assurance procedures and to assure that the quality assurance plan is being followed.

The level of quality control required is dependent on the kind of analysis, but must include at least one blank, at least one standard or known sample, an appropriate number of spiked samples and blanks, and an appropriate number of samples run in duplicate, typically at least ten percent.

Additional numbers and kinds of quality control samples can be analyzed for an additional fee. Please contact the laboratory to arrange for additional quality control samples or reporting.

APPROVALS

A&L Plains Laboratory is approved by the Texas Agricultural Extension Service for analyzing soil samples for the ASCS programs.

A&L Plains Laboratory is inspected routinely by the TNRCC Program Services United and is approved to do water analysis by that organization, as well as the West Texas Regional Water Utilities.

A&L Plains Laboratory employs highly trained and skilled personnel including certified crop advisors, certified oilseed chemists, TNRCC trained chemists and Regional Water Utilities chemists.

A&L Plains Laboratory personnel has successfully completed Silliker Labs methods in Food Microbiology.

CHECK SAMPLE PROGRAMS

A&L Laboratories Inter-Laboratory Check Sample	Soil, Water, Feed, Fertilizer, Plant Tissue Program
National Alfalfa Hay Testing Association	Alfalfa Hay
U.S. EPA Laboratory Performance Evaluation	Water Quality Parameters
American Oil Chemist Society	Cottonseed, Peanuts, Sunflower, Aflatoxin
American Organization of Agricultural Chemists	Fertilizer
Texas Feed and Forage	Feed
North American Proficiency Testing Program	Soil, Water, Plant

Dedicated Exclusively to Providing Quality Service to the Agricultural Industry

