

**Lee County Board Of County Commissioners
Agenda Item Summary**

Blue Sheet No. 20020679

1. REQUESTED MOTION:

ACTION REQUESTED: Approve Bid Waiver # W-020554 to waive the formal quotation procedure and allow the Environmental Laboratory (Natural Resources Division) to purchase a Solaar M6 AA Atomic Absorption Spectrometer from Thermo Elemental for the lump sum price of \$51,959.00 which includes the spectrometer and associated components. A bid waiver has been requested because Thermo Elemental is the sole source provider of this equipment and this equipment includes several proprietary features, which are summarized in Attachment # 2.

WHY ACTION IS NECESSARY: According to Section 9.4.1 of the Lee County Purchasing and Payments Procedures Manual, approved by the Board on 3/21/00, purchases over \$50,000.00 must be approved by the Board.

WHAT ACTION ACCOMPLISHES: The purchase of this piece of equipment will allow the Environmental Laboratory to have a more efficient analysis procedure.

**2. DEPARTMENTAL CATEGORY:
COMMISSION DISTRICT #**

C8B

3. MEETING DATE:

06-25-2002

4. AGENDA:

- CONSENT
- ADMINISTRATIVE
- APPEALS
- PUBLIC WALK ON
- TIME REQUIRED:

**5. REQUIREMENT/PURPOSE:
(Specify)**

- STATUTE
- ORDINANCE
- ADMIN. CODE AC-4-1
- OTHER

6. REQUESTOR OF INFORMATION:

- A. COMMISSIONER
- B. DEPARTMENT *[REDACTED]*
- C. DIVISION **Natural Resources**

BY: **Roland Ottolini**

[Signature]

7. BACKGROUND:

On May 31, 2002, the Division of Purchasing received a request from the Natural Resources Division to obtain Board approval to acquire a Solaar M6 Atomic Absorption Spectrometer from Thermo Elemental for the Lee County Environmental Laboratory.

BACKGROUND CONTINUED ON PAGE TWO

8. MANAGEMENT RECOMMENDATIONS:

9. RECOMMENDED APPROVAL:

A Department Director	B Purchasing or Contracts	C Human Resources	D Other	E County Attorney	F Budget Services				G County Manager
<i>[Signature]</i> 6/13/02	<i>E. Flaumen</i> 6-12-02	N/A		<i>[Signature]</i> 6/13/02	OA <i>[Signature]</i> 6/13/02	OM <i>[Signature]</i> 6/13/02	Risk <i>[Signature]</i> 6/13/02	GC <i>[Signature]</i> 6-13-02	<i>[Signature]</i> 6/13/02

10. COMMISSION ACTION:

- APPROVED
- DENIED
- DEFERRED
- OTHER

RECEIVED BY
CO. ATT. *[Signature]*
6-13-02
4:05 PM

REC'D.
by CO. ATTY.
3:51 PM
6/13/02
CO. ATTY.
FORWARDED TO:
[Signature]
6/13/02 4:00 PM

BACKGROUND CONTINUED FROM PAGE ONE

Several of the Environmental Laboratory staff have visited various sites to view first hand the operation of the Solaar Atomic Absorption Spectrometer offered by Thermo Elemental so that they could effectively evaluate the equipment. The Environmental Laboratory staff have found features they like, therefore a bid waiver has been requested to purchase this equipment.

Account String # OC5370800100.506410

ATTACHMENTS: (1) Division Request for Purchase of Equipment
(2) Thermo Elemental's sole source letter and summary of proprietary features
(3) Thermo Elemental's Price Quotation

**MEMORANDUM
FROM
THE DEPARTMENT OF
PUBLIC WORKS
Division of Natural Resources**

02 MAY 31 PM 12: 54

Date: May 30, 2002

TO: Janet Sheehan
Purchasing Services

From: Elin Clemons



SUBJECT: Atomic Absorption Spectrometer

As planned for in the budget process, the Environmental Laboratory would like to acquire an atomic absorption spectrometer. This is a highly specialized piece of laboratory equipment and there are only two manufacturers in the United States.

Laboratory staff members visited several locations currently using the equipment to review operation and reliability. Staff procured quotes from the manufacturers, which are attached hereto. The quotes are quite similar. Environmental Lab staff members favor the ThermoElemental spectrometer. I concur with their recommendation. Freight is an added cost to the PerkinElmer quote. Additionally, the spectrometer manufactured by ThermoElemental includes a camera (and associated software and interface) mounted in the spectrometer which allows monitoring of sample processing which is not available in the PerkinElmer product.

I know there are several different ways of procuring this equipment and I will entrust that decision to you. Funding for the acquisition is available in account no. OC5370800100.506410.

Should you require any other information, do not hesitate to contact me. Thank you.

Attachments

cc: Roland Ottolini
Tony Pellicer
Keith Kibbey

Thermo Elemental

27 Forge Parkway
Franklin, MA 02038

(508) 520-1880
Fax: (508) 520-1732
www.thermoelemental.com

6 June 2002

Mr. Earl Pflaumer
Purchasing Agent
Lee County Purchasing Division
P.O. Box 398
Fort Myers, FL 33902-0398

Dear Mr. Pflaumer:

During the month of March, Tom Murphy (AA Product Sales Manager) and I performed a demonstration of the Solaar M6 Atomic Absorption Spectrometer at the Mote Marine Laboratory, Sarasota, FL for Mr. Keith Kibbey, Ms. Sue Fite, and Ms. Patty Barreto. The Thermo Elemental Solaar M6 AA is a highly automated, high performance atomic absorption spectrometer optimized for furnace and flame analyses.

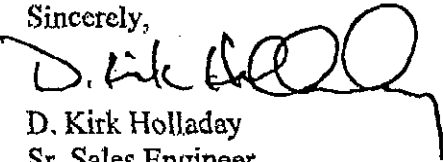
Please note that Thermo Elemental is the "sole manufacturer and distributor" of the Solaar M6 AA Spectrometer, and the "sole supplier" of the proprietary Graphite Furnace TV monitoring system. The GFTV allows for unrivalled, faster and easier furnace method development. Video images may be stored for future use. Most importantly for the bench chemist is furnace optimization of critical parameters such as: sample injection depth; hot injection temperature; droplet deposition; dry and ash temperatures; tube cleaning optimization; platform alignment; and may be used as a training tool (see attachment).

The M6 Solaar AA Spectrometer is also unique to other spectrometers in that it is the *only* instrument that employs two separate optical paths that allow switchover flame methods to furnace methods without operator intervention and without the use of mechanical motors and gears (which tend to wear and break with age). Separate compartments for furnace and flame atomizers provides instantaneous switchover.

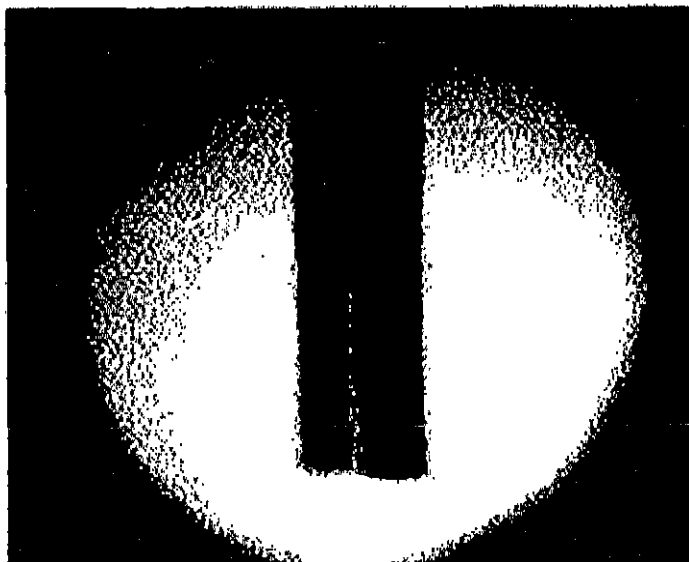
The Solaar software is standard with the Microsoft™ conventions. The Ash/Atomization feature of the software is also unique to Thermo Elemental and allows all furnace development to be completely compliant with all regulatory requirements. Data may be seamlessly exported to other Microsoft™ Windows software while real time results are also exported to a any LIMS system.

We appreciate the opportunity to work with Lee County. If there's any additional information you may require, please contact me 407-971-1308.

Sincerely,


D. Kirk Holladay
Sr. Sales Engineer

Thermo Elemental SOLAAR GFTV



Throughout the last 30 years, Thermo Elemental has been dedicated to the development of advanced, high performance AA systems. We are committed to developing reliable, problem-solving solutions offering greater productivity, ease of use and analytical performance.

Occasionally, new products are introduced which completely change the way we work. GFTV - Graphite Furnace Television is one such development. Overnight, GFTV has changed the face of furnace AA, providing hitherto unavailable information which greatly simplifies analysis and improves productivity.

GFTV takes you to the heart of graphite furnace analysis. A solid-state CCD camera brings live video to SOLAAR software and with it, the power of multimedia applications. GFTV provides a high definition image, clearly showing events inside the graphite tube. Watch as the sample capillary enters the tube for accurate adjustment of the injection depth. Watch as the sample is deposited ensuring uniform and accurate sample introduction.

During the furnace program, watch the sample dry to guarantee perfect drying conditions and the highest precision. Watch the ashing stage to ensure efficient matrix removal and monitor the presence of any residue. Watch the whole furnace cycle to ensure that the optimum analytical conditions are used for the highest quality results.

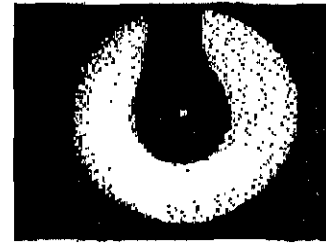
GFTV is the perfect method development tool.
This new and unique approach provides higher

productivity, better quality results and is very simple to operate. To use GFTV simply press a button on the SOLAAR software toolbar. The video window opens and immediately presents a live image of the graphite tube. The associated software offers a wide range of additional features including video capture for later playback and editing.

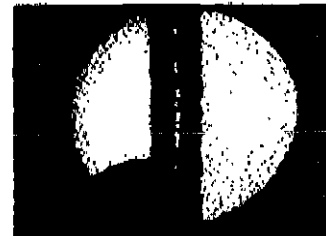
GFTV clearly illustrates our position as technology leaders in Atomic Absorption. When you consider AA, you need to consider SOLAAR, the most advanced system for your laboratory.

SOLAAR GFTV**THE PERFECT METHOD DEVELOPMENT TOOL**

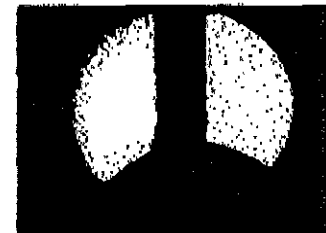
When the injection depth is set too high the sample may spread



If the injection depth is set too low, there is a tendency for the sample to be forced up the tube walls and to spread along the



When the injection depth is set correctly, the sample is deposited uniformly into a confined area of the cuvette. In the process, spreading of the sample will be minimal. Under these circumstances the reproducibility of the injection process will be excellent.



Some applications exhibit chemical interference effects, which may be partially overcome using a L'vov platform. The injection depth can be easily checked and the injection process monitored. GFTV can then be used to watch the drying and ashing phases for the best analytical results.


ORDERING INFORMATION
SOLAAR M Series GFTV

9428 410 20001

For further information please contact

Thermo Elemental Atomic Absorption, SOLAAR House, PO Box 207, St Andrews Road, Cambridge CB4 1YF, United Kingdom.
 Telephone +44 (0)1223 347400 Fax +44 (0)1223 347401 e-mail aamkt@unicamaa.co.uk web www.unicamaa.co.uk

The apparatus described in this leaflet has been designed as far as possible to meet high international safety standards when installed and operated in accordance with accepted procedure and with the safety precautions detailed in the User's Manual. We reserve the right to alter the specifications of the equipment described in this leaflet without prior notice.

Microsoft is a registered trademark and Windows is a trademark of Microsoft Corporation

Designed and printed in Great Britain Issue 04/99 Part No 9498 400 20121



A subsidiary of Thermo Electron Corporation.

ATTACHMENT #3

ThermoElemental

27 Forge Parkway Franklin, MA 02038
Tel: (508) 520-1880 Fax: (508) 520-1732
A Thermo Electron business

QUOTATION

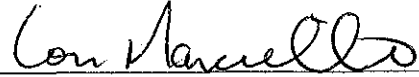
Number AA02130

LM/vmd

Lee County Environmental
60-2 Danley Drive
Fort Myers, FL 33907
Attn: Patty Barreto
Tel: 941-278-7070
Fax: 941-939-4850

We are pleased to quote, subject to the terms and conditions stated below and on the reverse side, our current prices as requested. Any performance requirements which exceed our standard specifications must be cleared with us in advance and must be stipulated on the purchaser's order.

Delivery: 30-45 Days

Signature: 

Lou Marciello

F.O.B.: Destination

Prices Firm: 90 Days

Title: Sales Operations Manager

Terms: Net 30

Date: May 15, 2002

Balances remaining unpaid at due date are subject to service charge of 1.5% per month until paid.

ITEM	QTY.	CATALOG NUMBER	DESCRIPTION	UNIT PRICE	TOTAL PRICE
1.	1	40020062	<p>SOLAAR M6 AA Spectrometer</p> <p>SOLAAR M6 double beam, automatic, multi-element atomic absorption spectrometer with dual atomizer compartments and direct system control via Local Control or external PC data station and software. The atomizer compartments may be used for various combinations of flame, vapor and Zeeman furnace operation. Includes as standard:</p> <ul style="list-style-type: none">✓ 6 lamp auto-aligning carousel with 6 lamp power supplies accommodating single or multi-element, data-coded or un-coded lamps, modulated at 200/240Hz. High energy, silica coated, optical system with self calibrating Echelle monochromator employing full temperature compensation and covering wavelength range 180-900 nm by use of a wide range PMT.✓ Wavelength location is by automatic peak searching and bandpass selection of nominal 0.2, 0.5 or 1.0nm is also automatic, with an additional 0.1nm bandpass at wavelengths less than 400nm.✓ Unique Stockdale double beam optics employ reference optics which are removed from the beam during the critical measurement period.✓ QuadLine background correction, for use with flame, vapor, segmented flow injection and furnace modes of operation, corrects for up to 2 Abs of background with a maximum error of 2% even on fast, transient signals.		\$25,500.00

ThermoElemental

27 Forge Parkway Franklin, MA 02038

Tel: (508) 520-1880 Fax:(508) 520-1732

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Lee County Environmental

Quotation No.: AA02130

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ITEM	QTY.	CATALOG NUMBER	DESCRIPTION	UNIT PRICE	TOTAL PRICE
			<ul style="list-style-type: none"> ✓ Low flow inert spray chamber, configured for all flame and sample types, employs an adjustable impact bead and flow spoiler for maximum sensitivity and highest precision. A Pt/Ir nebulizer is provided. An over pressure membrane is fitted and the working area is enclosed for safety. ✓ Reproducible flame conditions are assured by the use of binary gas flow control and programmable array state logic ensures safety in the case of main processor failure. Other safety features include pressure sensors on all oxidant/fuel lines, power failure protection, burner interlocks, drain sensor, flame arrestors, blow back valves and a UV flame sensor which operates with all flame types. Advanced laminar flow Universal burner with external cooling fins will work with all flame types, and provides up to 90 degree rotation for sensitivity adjustment. It may be dismantled for cleaning. ✓ The instrument may be purchased with a Local Control unit and is also supplied with the SOLAAR PC based Software Suite, including full Auto QC software, to provide a working system. ✓ The Local Control provides control of stand-alone SOLAAR M6 spectrometer for flame, vapor and furnace analysis. A high resolution, quarter VGA Liquid Crystal Display shows all operating conditions along with results, calibration and furnace peak graphics. Features linear and curved calibration algorithms for normal and standard additions calibration using a blank and up to 5 standards. Provides printer output and control of the autosamplers. The system stores up to 20 methods in non-volatile memory and provides full alphanumeric sample identification. The stored methods may be used to provide sequential multi-element analysis. Keypad features a minimum key configuration for ease of use. Choice of national languages. ✓ The alternative PC operating software runs within Microsoft Windows 95, 98 or NTv4 environment and provides ability to select and save user defined combinations of Windows on a single display, together with personalized attributes. The software provides automatic spectrometer and flame control, automatic vapor and mercury amalgam kit use, together with control of a range of flame autosampling and dilution accessories. Extensive and flexible file handling, a wide choice of calibration techniques, full alphanumeric sample identification, weight and dilution factor correction, hard copy report format control, post run editing and comprehensive printer support with full and informative error handling are also supplied. AA data may be easily exported into other standard applications packages such as word processors and spreadsheets. Also provided are comprehensive sequence control of the optional furnace system with advanced graphical signal and calibration displays, ash/atomize plotting and furnace autosampling, sample preparation control and automatic flame to furnace changeover. ✓ The PC software, accessed via a new Wizard based interface, also features a specially designed database facility for comprehensive storage of results and parameter sets. Results may be filtered and displayed in a variety of ways, together with extensive post-run editing and re-calculation of analysis data. A full audit trail of actions and post-run editing is maintained. Comprehensive password security protection, together with multiple usage method access is provided. Automated optional Validation package is available. 		

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Lee County Environmental
 Quotation No.: AA02130
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ITEM	QTY.	CATALOG NUMBER	DESCRIPTION	UNIT PRICE	TOTAL PRICE
2.	1	49020052	<p>✓ Software is available in English, French, German, Japanese and Polish. A complete user Help facility provides a comprehensive AA Cookbook for all techniques, context sensitive hypertext software Help and full Diagnostics and Method information.</p> <p>✓ Requires a suitable AA data station for operation (see Ordering Guide section of brochure for specification). The system may also be upgraded with all major accessories.</p> <p>Designed and manufactured by an ISO 9000 registered company.</p> <p>Suitable for 100 - 240v: 50/60Hz operation.</p> <p>Includes warranty on Parts, Labor and Travel for thirteen (13) months from Date of Shipment or twelve (12) months from Date of Installation, which ever comes first.</p>		
			<p>GF95 Zeeman Graphite Furnace (for M Series spectrometers only)</p>		\$18,500.00
			<p>Provides trace analysis facilities when used in conjunction with SOLAAR Zeeman Furnace Spectrometers and Data Station. Compatible with a wide range of graphite cuvettes, including electrographite, pyrocoated electrographite, platform and extended lifetime (ELC). Optical temperature control is provided for maximum sensitivity and reproducibility. Independently controlled internal and external cuvette gases provide long cuvette lifetime with the facility for up to 2 different gases. Safety interlocks for coolant pressure, inert gas, door open, head tilt, coolant temperature, magnet open, power and cuvette failure are standard. Intelligent coolant temperature sensor automatically modifies drying phase if coolant temperature varies. Includes cuvette lifetime counter.</p> <p>Suitable for 200/220/240V, 50/60Hz operation and is supplied suitable for the N. American and Japanese markets.</p>		
3.	1	48020001	<p>FS95 Furnace Autosampler (for M Series spectrometers only)</p> <p>Provides automatic sample and standard presentation and preparation for graphite furnace analysis. Up to 60 sample positions available as standard but when using 2 sample carousels consecutively up to 120 samples may be determined. Six reagent positions are provided which may be used for blanks, modifiers and standard solutions. Incorporates LOGIC, which provides truly intelligent dilution and autosampler loading guides. The self-contained design employs on-board wash and waste vessels with 1L capacity for long analysis. A range of advanced features includes enhanced washing, sampling delay and variable uptake and injection rates for the highest analytical performance. A robust mounting system is employed with a locking device for maximum stability.</p>		\$7,800.00
4.	1	37905581	<p>MERCURY COLD VAPOR SYSTEM for the sensitive determination of mercury (typical detection limit of 1ng). Consists of pump, special silica gas flow cell, modified burner mount and all necessary glassware. Suitable for operation on 110/120v 60Hz.</p>		\$1,610.00

ThermoElemental

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Lee County Environmental
 Quotation No.: AA02130
 Page 4

ITEM	QTY.	CATALOG NUMBER	DESCRIPTION	UNIT PRICE	TOTAL PRICE
5.	1	02-AA	<p>Standard Computer for IRIS Intrepid and Atomic Absorption</p> <p>Computer: Dell GX150 PIII 1.0 GHz Case: Minitower Base Mother Board: 133 MHz Bus Minimum CPU: Pentium III 1.0 GHz minimum Cache: 256 KB minimum RAM: 256 MB Non-ECC SDRAM minimum (1DIMM) Floppy Drive: 1.44 MB 3.5 Inch Floppy Drive Hard Drive: 20 GB minimum CD/RW: 12/8/32x CD-RW Min Video Controller: 16MB NVIDIA TNT2 Pro Video Card Keyboard: Standard Windows 2000 104 key Mouse: Microsoft PS/2 2-button Intellimouse w/Scroll-Gray Sound Card: Integrated Sound Blaster Compatible Operating System Windows 2000 LAN Integrated 10/100 3 Com Remote Wake-up NIC Ports: 1 serial, 1 parallel, 1 USB minimum Speakers: Internal Dell Business Audio Speakers Printer: HP DeskJet Color Monitor: 17" Color</p>		\$2,100.00
6.	1	41020001	<p>GFTV</p> <p>Solid state CCD camera, mounted in the spectrometer and providing high definition images of events inside the graphite furnace cuvette. Allows monitoring of the sample injection depth, sample injection, dry and ash phase processes on either the PC screen or separate monitor. (Requires GFTV Software and Interface Kit – 9423 393 96051 to provide a working system).</p>		\$1,700.00
7.	1	39396051	<p>GFTV Software and Interface Kit (USB Version)</p> <p>A multimedia utility that provides the necessary PC/spectrometer interface and software required to output GFTV video images on the AA system PC running in the Windows environment. Software support includes VideoBlaster, a Windows application for viewing live video, and Video for Windows, which allows GFTV video, images to be recorded for later playback and editing. Requires a SOLAAR spectrometer, fitted with the GFTV accessory, and a suitable PC with Windows installed.</p>		\$660.00
8.	1	14448200	<p>Water Recirculating System</p> <p>The water chiller/recirculator is designed to deliver one gallon per minute using a positive displacement pump. Pump pressure is adjustable from 20-100 psi. Temperature uniformity is $\pm 0.5^{\circ}\text{C}$. The digital LED readout is selectable in $^{\circ}\text{C}$ or $^{\circ}\text{F}$.</p> <p>Electrical specifications are 120V, 60Hz, and 10.8A. The chiller/recirculator carries both the CSA and CE marks.</p>		\$2,850.00

9.	1	39030131	Aluminum (Al) Data Coded HCL	\$265.00
10.	1	39030511	Antimony (Sb) Data Coded HCL	\$320.00
11.	1	39030331	Arsenic (As) Data Coded HCL	\$320.00
12.	1	39030561	Barium (Ba) Data Coded HCL	\$300.00
13.	1	39030041	Beryllium (Be) Data Coded HCL	\$445.00
14.	1	39030481	Cadmium (Cd) Data Coded HCL	\$320.00
15.	1	39030201	Calcium (Ca) Data Coded HCL	\$300.00
16.	1	39030241	Chromium (Cr) Data Coded HCL	\$300.00
17.	1	39030291	Copper (Cu) Data Coded HCL	\$265.00
18.	1	39030261	Iron (Fe) Data Coded HCL	\$300.00
19.	1	39030821	Lead (Pb) Data Coded HCL	\$300.00
20.	1	39030121	Magnesium (Mg) Data Coded HCL	\$300.00
21.	1	39030251	Manganese (Mn) Data Coded HCL	\$300.00
22.	1	39030801	Mercury (Hg) Data Coded HCL	\$250.00
23.	1	39030421	Molybdenum (Mo) Data Coded HCL	\$265.00
24.	1	39030281	Nickel (Ni) Data Coded HCL	\$300.00
25.	1	39030341	Selenium (Se) Data Coded HCL	\$380.00
26.	1	39030471	Silver (AG) Data Coded HCL	\$300.00
27.	1	39030111	Sodium (Na) Data Coded HCL	\$300.00
28.	1	39030381	Strontium (Sr) Data Coded HCL	\$320.00
29.	1	39030811	Thallium (Tl) Data Coded HCL	\$380.00
30.	1	39030301	Zinc (Zn) Data Coded HCL	\$300.00
Sub-total:				\$67,550.00
Less Incentive Discount:				-15,591.00
TOTAL:				\$51,959.00

You will need to provide the electrical power and any gas required for proper operation of the equipment. Standards for calibrating and standardizing the instrument will also be needed.

The purchase of a Plasma/Atomic Absorption/Atomcomp also includes the services of an engineer to install it. After the installation is complete, our engineer will train your operator in basic operation of the instrument, for up to two (2) days.

NOTES

1. Prices quoted are for instruments and accessories to be installed and used in the United States only.
2. Lease options are available.
3. Site preparation delays in excess of 60 days from delivery will constitute acceptance for payment purposes.