



State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

# Request for Quotation

RFQ NUMBER  
 DEP15368

PAGE  
 2

ADDRESS CORRESPONDENCE TO ATTENTION OF  
 CHUCK BOWMAN  
 304-558-2157

RFQ COPY

TYPE NAME/ADDRESS HERE

Thermo Niton Analyzers  
 900 Middlesex Turnpike Bldg 8  
 Billerica MA 01821

ENVIRONMENTAL PROTECTION  
 DEPARTMENT OF  
 ENVIRONMENTAL ENFORCEMENT  
 601 57TH STREET SE  
 CHARLESTON, WV  
 25304 304-926-0499

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
02/17/2011				

BID OPENING DATE: 03/16/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATIONS IN ACCORDANCE WITH SECTION 148-1-4(F) OF THE WEST VIRGINIA LEGISLATIVE RULES AND REGULATIONS.</p> <p>NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION          PURCHASING DIVISION          BUILDING 15          2019 WASHINGTON STREET, EAST          CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: CB-23</p> <p>RFQ. NO.: DEP15368</p> <p>BID OPENING DATE: 03/16/2011</p> <p>BID OPENING TIME: 1:30 PM</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:</p> <p>-----</p> <p>CONTACT PERSON (PLEASE PRINT CLEARLY):</p> <p>-----</p>						

RECEIVED

MAR 15 A 10:04

PURCHASING DIVISION  
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
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TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE
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WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

# Request for Quotation

RFQ NUMBER  
 DEP15368

PAGE  
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF  
 CHUCK BOWMAN  
 304-558-2157

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~~ROBISON ANALYTICAL INC~~  
 900 MIDDLESEX TURNPIKE BUILDING 8  
 BILLERICA MA 01821

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ENVIRONMENTAL PROTECTION  
 DEPARTMENT OF  
 ENVIRONMENTAL ENFORCEMENT  
 601 57TH STREET SE  
 CHARLESTON, WV  
 25304 304-926-0499

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
02/17/2011				

BID OPENING DATE: 03/16/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	7	EA		845-81		
<p>FLUORECENCE (XRF) ANALYZER</p> <p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IS SOLICITING BIDS FOR SEVEN(7) THERMO SCIENTIFIC NITON XL2 500 X-RAY FLOURESCENCE ANALYZERS (OR EQUALS), PER THE FOLLOWING SPECIFICATIONS, BID REQUIREMENTS, TERMS &amp; CONDITIONS, AND THE ATTACHED BID SCHEDULE.</p> <p>VENDORS BIDDING AN 'OR EQUAL' TO THE MANUFACTURER AND MODEL NUMBER NOTED ABOVE SHOULD IDENTIFY THE MANUFACTURER AND MODEL NUMBER BEING BID AS WELL AS SUBMITTING PERTINENT SPECIFICATION AND PERFORMANCE INFORMATION TO ALLOW THE AGENCY TO SUFFICIENTLY EVALUATE THE PROPOSED INSTRUMENT FOR EQUALITY TO THE SPECIFICATIONS AS ADVERTISED. THE AGENCY RESERVES THE RIGHT TO REQUEST ADDITIONAL INFORAMTION FROM ANY VENDOR AT ANY TIME DURING THE EVALUATION PROCESS. FAILURE OF ANY VENDOR TO PROVIDE THE REQUESTED INFORMATION WITHIN THE TIME FRAME REQUESTED MAY RESULT IN THE DISQUALIFICATION OF THE VENDORS BID AND ANY CONSIDERATION FOR AWARD.</p> <p>THE MODEL/BRAND/SPECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY PARTICULAR BRAND OR VENDOR. VENDORS WHO ARE BIDDING ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT LITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR REJECTION OF THE BID. THE STATE RESERVES THE RIGHT</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

**GENERAL TERMS & CONDITIONS**  
**REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at [www.state.wv.us/admin/purchase/vrc/hipaa.htm](http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

**INSTRUCTIONS TO BIDDERS**

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).

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# TECHNICAL SPECIFICATIONS FOR X-RAY FLUORESCENCE (XRF) ANALYZERS

**Description:** Thermo Scientific Niton® XL2 500 X-RAY Fluorescence Analyzers (hereinafter "XRF units") or equivalent.

**Quantity:** Seven (7) units

**Minimum Requirements:**

1. 45 KV/2 Watt - Ag Anode X-Ray Tube
2. **XRF units must detect the following elements, at a minimum:** Sulfur (S), Potassium (K), Scandium (SC), Titanium (Ti), Vanadium (V), Chromium (Cr), Manganese (Mn), Iron (Fe), Cobalt (Co), Nickel (Ni), Copper (Cu), Zinc (Zn), Arsenic (As), Selenium (Se), Rubidium (Rb), Strontium (Sr), Zirconium (Zr), Palladium (Pd), Silver (Ag), Cadmium (Cd), Tin (Sn), Antimony (Sb), Barium (Ba), Tungsten (W), Gold (Au), Mercury (Hg), Lead (Pb), Niobium (Nb), Molybdenum (Mo), Hafnium (Hf), Tantalum (Ta), Rhenium (Re), Bismuth (Bi).
3. Two (2) rechargeable battery packs. Batteries must support up to 10 hours of continuous operation on a single charge.
4. Battery Charger
5. AC Power Supply
6. Carrying Case
7. Shielded Belt Holster
8. SpectraView Element Scanner
9. Integrated Angled Touch Screen with Large Intuitive Color Icons
10. Virtual Keyboard for Data Entry
11. Password-protected Set-up and Operation with multiple radiation safety features.
12. Niton Data Transfer (NDT©) Software Suite for easy data downloading and viewing, remote control with user personal computer (PC) and grade library modification.
13. PC connection cable
14. Certified reference material and/or standard per included calibration suite
15. Bluetooth Wireless Connectivity
16. RFID for test stand recognition
17. Spare Polypropylene (187-1555) window material (2)
18. No-charge, on-site operator training
19. Soil Analysis mode of operation with soil calibration for environmental assessments and metals in soils and sediments analysis at concentrations generally < 2%.
20. Mining Analysis mode of operation with easy to use calibration for rapid metal and mineral content analysis at concentrations > 0.1% in ore and concentrates. For analysis of mining samples including concentrates, slags, etc.
21. Twenty-four (24) Month Warranty

Technical Specification Requirements for XRF Analyzer

WV DEP/EE/HW

January 28, 2011

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22. Garmin 10 Global Positioning System (GPS)
23. Calibration of XRF units must not require a docking station or computer interface
24. No-charge software updates for life of analyzer
25. No-charge firmware updates for life of analyzer
26. Must operate in a portable test stand without connection to a computer
27. Rapid RCRA metals analysis
28. Low RCRA metals detection limits
29. XRF shell must be constructed of durable LEXAN® plastic
30. The XRF unit must be dust-proof and waterproof

Bid Schedule  
DEP15368

Company Name: Thermo Niton Analyzers  
Address: 900 Middlesex Turnpike Bldg 8  
Billerica MA 01821

The DEP reserves the right to request additional information and supporting documentation regarding unit prices when the unit price appears to be unreasonable.

ITEM NO.	* QUANTITY	DESCRIPTION	EA	TOTAL
1.0	7	Fluorescence (XRF) Analyzer	23,995.00	\$ 167,965.00
<b>TOTAL</b>				\$ 167,965.00

If bidding an "or equal" to the basis of the specification, please indicate the manufacturer and model number in the space provided below.

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Signature: *Jama Beheil*  
Date: 3/14/2011

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

**West Virginia Code §5A-3-10a states:** No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate. *as applicable to Thermo Niton Analyzers LLC.*

**DEFINITIONS:**

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (**West Virginia Code §61-5-3**), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: Thermo Niton Analyzers LLC

Authorized Signature: [Signature] Date: 3-14-11

State of Massachusetts

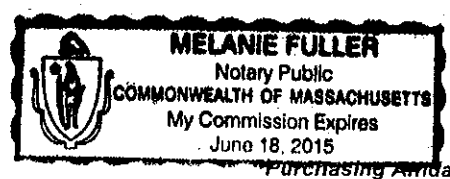
County of Middlesex, to-wit:

Taken, subscribed, and sworn to before me this 14<sup>th</sup> day of March, 2011.

My Commission expires June 18, 2015.

**AFFIX SEAL HERE**

**NOTARY PUBLIC** Melanie Fuller



**ThermoFisher**  
SCIENTIFIC

RFQ Number DEP15368

The world leader  
in serving science

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## Bid Response for Department of Environmental Protection of Environmental Enforcement

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Department of Environmental Protection of Environmental Enforcement

601 57<sup>th</sup> Street SE

Charleston WV 25304

Bid Response Due Date: March 16, 2011 1:30 PM

RFQ Number DEP15368

Submitted by:

Thermo Niton Analyzers LLC

Laura Zubiell

900 Middlesex Turnpike Bldg 8

Billerica, MA 01821

Toll Free: +1 800-875-1578

Extension 210-1359

Fax: +1 978-215-6121



Thermo NITON Analyzers LLC

900 Middlesex Turnpike  
Building 8

Billerica, MA 01821  
USA

+1 978 670-7460 ph  
+1 978 670-7430 fax

[www.thermo.com/niton](http://www.thermo.com/niton)



## Objective


We are pleased to submit a proposal in support of Thermo Scientific's Niton® XL2 500 Analyzer as the benchmark for superior analytical performance, training and support.

The Niton® XL2 500 Series x-ray fluorescence (XRF) analyzer is the solid value choice for your toughest testing applications. Where low detection limits and high sample throughput are critical, our perfect combination of hardware, software, and direct industry experience are combined to provide you with a solution to your most difficult analytical requirements. The chart below details the sensitivity, or LODs<sup>1</sup>, of the Niton XL2 500 using mining analysis for an SiO<sub>2</sub> matrix, a typical soil matrix (SiO<sub>2</sub> with Ca/Fe), and SRM matrix. Mining analysis is a fundamental parameters (FP) calibration offering greater flexibility and accuracy for complex or unknown grade composition as typically found in minerals and ores.

Time Matrix	Limits of Detection in ppm (mg/kg)		
	SiO <sub>2</sub>	Soil	SRM
Ba	160	180	180
Sb	40	55	60
Sn	40	55	60
Cd	50	55	55
Pd	30	30	30
Ag	20	30	30
Mo	A/S	A/S	A/S
Nb	30	35	50
Zr	20	20	25
Sr	20	25	25
Rb	20	25	25
Bi	20	25	25
As	20	25	25
Se	20	25	25
Pb	20	20	20
W	120	130	165
Zn	20	25	35
Cu	40	60	65
Ni	60	60	60
Co	50	320	320
Fe	100	N/A	N/A
Mn	140	175	175
Cr	100	125	125
V	70	125	230
Ti	100	160	360
Ca	260	N/A	N/A
K	440	750	N/A
S	3010	4250	5200

## Price and Technical Description

We are pleased to provide the following quotation requested in support of our Niton XL2 500 Mining Analyzer.

Product	Standard Accessories and Features	Specifications
<p><b>Niton® XL2 500 Mining Analyzer</b></p>  <p><b>Excitation Configuration</b></p> <p>Miniaturized 45kV/2 Watt Ag Anode X-Ray Tube</p>	<ul style="list-style-type: none"> <li>➤ Two rechargeable 6-cell battery packs</li> <li>➤ Battery charger; AC power supply</li> <li>➤ Carrying case</li> <li>➤ Shielded belt holster</li> <li>➤ SpectraView element scanner</li> <li>➤ Integrated Angled touch screen with large intuitive color icons</li> <li>➤ "Virtual" keyboard for data entry</li> <li>➤ Password-protected set-up and operation with several other radiation safety features</li> <li>➤ NDT© software suite for easy data downloading and viewing, remote control and grade library modification –</li> </ul> <p><b>NO Charge Software and Firmware updates for life of analyzer</b></p> <ul style="list-style-type: none"> <li>➤ PC connection cable</li> <li>➤ Certified reference material</li> <li>➤ Bluetooth Wireless Connectivity</li> <li>➤ <b>Garmin- 10 GPS System Wireless</b></li> <li>➤ RFID for test stand recognition (test stand not included)</li> <li>➤ <b>24-month limited warranty</b> on parts, labor and accessories</li> <li>➤ Spare Polypropylene (187-1555) window material (2)</li> <li>➤ No-charge, on-site operator training included in North America</li> </ul> <p>Only. Please contact Thermo Fisher Scientific Niton Analyzers or your local Niton Analyzers distributors for details on training in other geographical locations</p>	<p><b>(D) – Soil Analysis</b></p> <p><b>(M) – Mining Analysis</b></p> <p><b>Pricing for RFQ Number DEP15368</b></p> <p><b>XL2 500 Mining Analyzer \$23,995.00/Unit</b></p> <p><b>(7) XL2 500 Mining Analyzers \$167,965.00</b></p>


**"D" ELEMENT SUITE – Standard on Niton XL2 500 Analyzer**

Calibration Mode	Hardware Configuration	Source	Standard Element Set
Soils Analysis "D"	Niton XL2 500	X-Ray Tube	S, K, Ca, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Zr, Pd, Ag, Cd, Sn, Sb, Ba, W, Au, Hg, Pb
Soil calibration for environmental assessments and metals in soils and sediments analysis at concentrations generally < 2%.			
Certified reference standards included. Soil/Mining Kit and test stand not included.			

**"M" ELEMENT SUITE – Standard on Niton XL2 500 Analyzer**

Calibration Mode	Hardware Configuration	Source	Standard Element Set
Mining Analysis "M"	Niton XL2 500	X-Ray Tube	S, K, Ca, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Zr, Nb, Mo, Pd, Ag, Cd, Sn, Sb, Ba, Hf, Ta, Re, W, Pb, Bi
Easy to use calibration for rapid metal and mineral content analysis at concentrations >0.1% in ore and concentrates. Ideal for analysis of mining samples including concentrates, slags, etc			
Certified reference standards included. Test stand and soil/mining kit not included.			

**Additional XL2 Included**

1.1 Product name and code		Specification
Garmin-10 GPS-10		Compact, lightweight and IPX7 waterproof, the GPS 10 sends GPS satellite signals to your Bluetooth equipped Niton XL3t.
1.2		

## Warranty Terms Information

UNLESS OTHERWISE EXPRESSLY AGREED IN WRITING, ALL SALES ARE SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

1. **GENERAL.** Thermo NITON Analyzers LLC hereby offers for sale to the buyer named on the face hereof ("Buyer") the products listed on the face hereof (the "Products") on the express condition that Buyer agrees to accept and be bound by the terms and conditions set forth herein. Any provisions contained in any document issued by Buyer are expressly rejected and if the terms and conditions in this Agreement differ from the terms of Buyer's offer, this document shall be construed as a counter offer and shall not be effective as an acceptance of Buyer's document. Buyer's receipt of Products or Seller's commencement of the services provided hereunder will constitute Buyer's acceptance of this Agreement. This is the complete and exclusive statement of the contract between Seller and Buyer with respect to Buyer's purchase of the Products. No waiver, consent, modification, amendment or change of the terms contained herein shall be binding unless in writing and signed by Seller and Buyer. Seller's failure to object to terms contained in any subsequent communication from Buyer will not be a waiver or modification of the terms set forth herein. All orders are subject to acceptance in writing by an authorized representative of Seller.
  2. **PRICE.** All prices published by Seller or quoted by Seller's representatives may be changed at any time without notice. All prices quoted by Seller or Seller's representatives are valid for thirty (30) days, unless otherwise stated in writing. All prices for the Products will be as specified by Seller or, if no price has been specified or quoted, will be Seller's price in effect at the time of shipment. All prices are subject to adjustment on account of specifications, quantities, raw materials, cost of production, shipment arrangements or other terms or conditions, which are not part of Seller's original price quotation.
  3. **TAXES AND OTHER CHARGES.** Prices for the Products exclude all sales, value added and other taxes and duties imposed with respect to the sale, delivery, or use of any Products covered hereby, all of which taxes and duties must be paid by Buyer. If Buyer claims any exemption, Buyer must provide a valid, signed certificate or letter of exemption for each respective jurisdiction. Buyer shall be solely responsible for obtaining any and all necessary licenses, registrations, certificates, permits, approvals or other authorizations required by federal, state or local statute, law or regulation pertaining to the use or possession of the products contemplated herein that include radioactive isotopes, or x-ray tubes if any.
  4. **TERMS OF PAYMENT.** Seller may invoice Buyer upon shipment for the price and all other charges payable by Buyer in accordance with the terms on the face hereof. If no payment terms are stated on the face hereof, payment shall be net thirty (30) days from the date of invoice. If Buyer fails to pay any amounts when due, Buyer shall pay Seller interest thereon at a periodic rate of one and one-half percent (1.5%) per month (or, if lower, the highest rate permitted by law), together with all costs and expenses (including without limitation reasonable attorneys' fees and disbursements and court costs) incurred by Seller in collecting such overdue amounts or otherwise enforcing Seller's rights hereunder. Seller reserves the right to require from Buyer full or partial payment in advance, or other security that is satisfactory to Seller, at any time that Seller believes in good faith that Buyer's financial condition does not justify the terms of payment specified. All payments shall be made in U.S. Dollars.
  5. **DELIVERY, CANCELLATION OR CHANGES BY BUYER.** The Products will be shipped to the destination specified by Buyer, F.O.B. shipping point. Seller will have the right, at its election, to make partial shipments of the Products and to invoice each shipment separately. Seller reserves the right to stop delivery of Products in transit and to withhold shipments in whole or in part if Buyer fails to make any payment to Seller when due or otherwise fails to perform its obligations hereunder. All shipping dates are approximate only, and Seller will not be liable for any loss or damage resulting from any delay in delivery or failure to deliver which is due to any cause beyond Seller's reasonable control. In the event of a delay due to any cause beyond Seller's reasonable control, Seller reserves the right to terminate the order or to reschedule the shipment within a reasonable period of time, and Buyer will not be entitled to refuse delivery or otherwise be relieved of any obligations as the result of such delay. Products as to which delivery is delayed due to any cause within Buyer's control may be placed in storage by Seller at Buyer's risk and expense and for Buyer's account. Orders in process may be canceled only with Seller's written consent and upon payment of Seller's cancellation charges. Orders in process may not be changed except with Seller's written consent and upon agreement by the parties as to an appropriate adjustment in the purchase price therefor. Credit will not be allowed for Products returned without the prior written consent of Seller.
  6. **RETURN OF PRODUCTS/RESTOCKING CHARGE.** Buyer must obtain permission from Seller prior to returning Products. The request must be received within ten (10) days of receipt of the Products. Older items, service parts, and discontinued items cannot be returned for credit. In order to obtain a RMA number, Buyer must contact Seller's customer support. Seller, in its discretion, may impose a twenty (20%) percent restocking charge of the price paid for any item authorized for return for credit.
  7. **TITLE AND RISK OF LOSS.** Notwithstanding the trade terms indicated above and subject to Seller's right to stop delivery of Products in transit, title to and risk of loss of the Products will pass to Buyer upon delivery of possession of the Products by Seller to the carrier, provided, however, that title to any software incorporated within or forming a part of the Products shall at all times remain with Seller or the licensor(s) thereof, as the case may be.
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RFQ Number DEP15368

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Notwithstanding the above, Seller's infringement related indemnification obligations shall be extinguished and relieved if Seller, at its discretion and at its own expense (a) procures for Buyer the right, at no additional expense to Buyer, to continue using the Product; (b) replaces or modifies the Product so that it becomes non-infringing, provided the modification or replacement does not adversely affect the specifications of the Product; or (c) in the event (a) and (b) are not practical, refund to Buyer the amortized amounts paid by Buyer with respect thereto, based on a five (5) year amortization schedule. THE FOREGOING INDEMNIFICATION PROVISION STATES SELLER'S ENTIRE LIABILITY TO BUYER FOR THE CLAIMS DESCRIBED HEREIN.

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## Bid Attachments

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- XL2800 Specification Sheet

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## Installation and Training

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No charge onsite Installation/Training will be provided by:  
Thermo Fisher Scientific Representative:

Adam Robison  
Robison Analytical, Inc.  
Exclusive Representative for: Thermo Scientific  
NITON Analyzers

10284 Oxford Dr.  
Pickerington, Ohio 43147  
Ph: 614-604-7096 or Cell: 614-634-8082  
Fax: 740-756-4346  
Email: [adam.robison@att.net](mailto:adam.robison@att.net)

Free Radiation Safety Training will be provided by:  
Thermo Niton Analyzers, LLC  
Please visit [www.thermo.com/niton](http://www.thermo.com/niton) to register for upcoming classes.

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## Important Business Information

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Tax ID# 75-3072320

Cage/Ncage Code: 01JQ0

D&B# 17-816-3093 178163093

NAICS Code: 334516

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Company Size: Large Business

# Thermo Scientific Niton XL2 500 Series Mining Analyzers

## Elemental Limits of Detection in SiO<sub>2</sub> and SRM Matrices Using Mining Analysis

The Niton® XL2 500 Series x-ray fluorescence (XRF) analyzer is the solid value choice for your toughest testing applications. Where low detection limits and high sample throughput are critical, our perfect combination of hardware, software, and direct industry experience are combined to provide you with a solution to your most difficult analytical requirements. The chart below details the sensitivity, or LODs<sup>1</sup>, of the Niton XL2 500 using mining analysis for an SiO<sub>2</sub> matrix, a typical soil matrix (SiO<sub>2</sub> with Ca/Fe), and SRM matrix. Mining analysis is a fundamental parameters (FP) calibration offering greater flexibility and accuracy for complex or unknown grade composition as typically found in minerals and ores.



Limits of detection (LODs) are dependent on the following factors:

- Testing time
- Interferences/Matrix
- Level of statistical confidence

**Please Note:**

Ongoing research and advancements in our Niton XL2 analyzers will lead to continual improvement in many of the values detailed in this chart. Contact a Thermo Fisher Scientific office, or your local representatives for the latest performance specifications.

Element detection limits shown for 60 second/filter analysis time in air path. Please note that analysis time is based on your requirements, and, in most cases, shorter times will give you the detection limits you require. For example, if analysis time was reduced to 15 seconds/filter, then the detection limits obtained would be twice the values shown in the chart. Similarly, increasing the analysis time will reduce the detection limits by the square root of the increase factor.

<sup>1</sup> Definition and Procedure for the Determination of the Method of Detection Limit, 40 CFR, Part 136, Appendix B, Revision 1.11, U.S. Environmental Protection Agency, U.S. Government Printing Office: Washington, DC, 1995.

Limits of Detection in ppm (mg/kg)

Time Matrix	60s per filter		
	SiO <sub>2</sub>	Soil	SRM
Ba	150	180	180
Sb	40	55	60
Sn	40	55	60
Cd	50	55	55
Pd	30	30	30
Ag	20	30	30
Mo	A/S	A/S	A/S
Nb	30	35	50
Zr	20	20	25
Sr	20	25	25
Rb	20	25	25
Bi	20	25	25
As	20	25	25
Se	20	25	25
Pb	20	20	20
W	120	130	165
Zn	20	25	35
Cu	40	60	65
Ni	60	80	80
Co	50	320	320
Fe	100	N/A	N/A
Mn	140	175	175
Cr	100	125	125
V	70	125	230
Ti	100	160	350
Ca	280	N/A	N/A
K	440	750	N/A
S	3010	4250	5200

Table 1: Element list shown is not exhaustive. For limits of detection for elements not shown, please contact a Thermo Fisher Scientific office, or your local representative.

In addition to the offices listed below, Thermo Scientific Niton Analyzers maintains a network of sales and service organizations throughout the world.

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