



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at [wvOASIS.gov](http://wvOASIS.gov). As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at [WVPurchasing.gov](http://WVPurchasing.gov) with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header 7

List View

- General Information**
- Contact
- Default Values
- Discount
- Document Information
- Clarification Request

Procurement Folder: 1985423

Procurement Type: Central Purchase Order

Vendor ID:

Legal Name: THERMO ELECTRON NORTH AM LLC

Alias/DBA:

Total Bid: \$105,583.00

Response Date:

Response Time:

Responded By User ID:

First Name:

Last Name:

Email:

Phone:

SO Doc Code: CRFQ

SO Dept: 0306

SO Doc ID: GEO2600000002

Published Date: 6/16/26

Close Date: 6/23/26

Close Time: 13:30

Status: Closed

Solicitation Description:

Total of Header Attachments: 7

Total of All Attachments: 7



Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Benchtop Powder XRD Instrument	1.00000	EA	105583.000000	105583.00

Comm Code	Manufacturer	Specification	Model #
41102704			

**Commodity Line Comments:** Please refer to quote # CPQ-00882895 for line item details.

Lead Time:

Approximately 3 months, subject to prior orders and system configuration.

\*In the event that we are awarded this RFP, Thermo Electron North America LLC hereby requests to conduct limited negotiations on the Terms and Conditions. This bid submission is subject to us expressly reserving the right to negotiate the Terms and Conditions and in no way shall submission of this bid constitute acceptance of, or a waiver of any objection to, the Terms and Conditions.

**Extended Description:**

See attached documentation for further details.



## *ARL X'tra Companion benchtop XRD*

CPQ-00882895

June 23, 2026

West Virginia Geological and Economic Survey

Larry McDonnell

2019 Washington Street East  
Charleston West Virginia 25305  
United States

Larry McDonnell  
West Virginia Geological and Economic  
Survey  
2019 Washington Street East  
Charleston West Virginia 25305  
United States

June 23, 2026

**ARL X'tra Companion benchtop XRD**

In response to the State of West Virginia bid number CRFQ-0306-GEO2600000002-2.

Please note that this proposal includes shipping and delivery charges, installation by a Thermo Fisher service engineer, and a 1-year manufacturer's warranty.

\*In the event that we are awarded this RFP, Thermo Electron North America LLC hereby requests to conduct limited negotiations on the Terms and Conditions. This bid submission is subject to us expressly reserving the right to negotiate the Terms and Conditions and in no way shall submission of this bid constitute acceptance of, or a waiver of any objection to, the Terms and Conditions.



David Mcanallen  
Sr. Instrument Sales Representative  
117, Cedar Crest Drive  
Huntington West Virginia 25704  
US  
Tel. : 304-654-1951  
david.mcanallen@thermofisher.com

# Sales Quotation

Quote Number	Version	Quotation Date	Page
CPQ-00882895	1.00	June 23, 2026	3
Lead Time	Payment Terms	Freight Terms	Expiration Date
Approximately 3 months, subject to prior orders and system configuration	NET 30 DAYS UPON INVOICE DATE	DEST. PREPAY & ADD	August 17, 2026
Company Name		Customer Name	
West Virginia Geological and Economic Survey		Larry McDonnell	

\* See end pages of quote for PO Submission details

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

## Customer Info:

Customer Name: Larry McDonnell  
Company Name: West Virginia Geological and Economic Survey  
Address: 2019 Washington Street East  
Charleston West Virginia 25305  
United States  
Phone: (304) 558-2063  
Email: larry.d.mcdonnell@wv.gov

## Sales Contact Info:

Contact Name: David Mcanallen  
Phone: 304-654-1951  
Email: david.mcanallen@thermofisher.com

## ARL X'tra Companion benchtop XRD

Item	Description	Qty
1.1	<p>XD-XTCOMP-CU ARL X'TRA Companion Cu <b>X-Ray safety Cabinet</b> With its small footprint, ARL X'TRA Companion can be easily and safely placed on a table with the computer nearby. <u>Main specifications</u> - H 650mm - D 660mm - W 720mm - 150kg around (without integrated chiller) - H 839mm - D 660mm - W 720mm - 180kg around (with integrated chiller) - Radiation enclosure with secure closure - Safety interlocks - Radiation outside the enclosure: less than 1 µSv/hr - Front door opening with lead glass window - Lightening system inside the enclosure - Opening security system via generator / tubeshield set - Emergency stop pushbutton on front panel - External light signal - XRD benchtop in compliance with all X-Ray safety regulations <b>X-Ray production</b> ARL X'TRA Companion X-Ray source is compliant with current norms and can be used with X-Ray tubes designed for standard international tubeshield. <u>X-ray generator</u> - Compact model - Maximum power: 600 Watts - Voltage and current range: 10-40 kV / 5-15 mA - Voltage and anode current increment: 1kV / 1mA - Stability for HV and anode current &lt; 0,01% at 10% mains variation - Electrical characteristics: single phase 220 Vac +/-10% - 50/60 Hz - Efficiency better than 85% (high stability through precision feedback control circuits) - Resin encapsulation, no oil. Air cooling. - Automatic ramp of the high voltage and emission current to pre-set values. - Connection pipe for the cooling system</p>	1

# Sales Quotation

Quote Number	Version	Quotation Date	Page
CPQ-00882895	1.00	June 23, 2026	4
Lead Time	Payment Terms	Freight Terms	Expiration Date
Approximately 3 months, subject to prior orders and system configuration	NET 30 DAYS UPON INVOICE DATE	DEST. PREPAY & ADD	August 17, 2026
Company Name		Customer Name	
West Virginia Geological and Economic Survey		Larry McDonnell	

\* See end pages of quote for PO Submission details

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

Item	Description	Qty
------	-------------	-----

- Control panel: check lamps for X-Rays on, Water and Safety circuit.  
 - Safety Devices tripped by: Overload, Overvoltage, Overcurrent, Interruption of water flow, failure of warning lamps, case open  
 - Computer controlled  
High voltage cable  
Tubeshield with shutter device  
 - One linear focus window  
 - Electromagnetic and mechanical safety shutter  
 - Opening and closing controlled by computer  
X-Ray tube, Copper wavelength  
 - Fine focus: 0,4x8 mm<sup>2</sup>, power: 1500W  
 - Used at 40kV max. / 15mA max. (to respect the max. X-Ray generator power)  
**Goniometer system and Optic parts**  
 ARL X'TRA Companion goniometer is ultra-compact, adopting stepper motors with optical encoders to ensure extremely precise angular positioning. The Theta/Theta configuration allows for easy sample preparation, as the measured surface remains in a horizontal plane while the detector tube and arms rotate. This configuration is ideal for all analyzes with samples that remain fixed in position.  
Main goniometer features  
 - Theta/Theta goniometer  
 - With 2 axes independently controlled by 2 stepper motors and optical encoders  
 - Measuring circle radius: 160mm  
 - Scanning angular range: -5° < 2theta < +160° (depending on accessories)  
 - Angular accuracy < +/- 0.02°  
 - Resolution FWHM < 0.04°  
 X-Ray beam collimation is obtained by variable slits that guarantee a perfect alignment of the beam in the equatorial plane, while in the axial plane the divergence is limited by interchangeable Soller slits.  
Main optic features  
 - Kbeta filter for copper wavelength  
 - Variable divergence slits: 0-4°  
 - Variable anti-divergence slits: 0-4°  
 - Variable receiving slits: 0-16 mm  
 - Soller slit: 2.3°  
**Sample holder**  
 ARL X'TRA Companion is provided with a fix sample holder and other supports can be chosen according to the customer needs.  
Fix sample holder  
 - Provided with a flat front-loading sample plate in Aluminum  
 - Square: 20x20 mm<sup>2</sup> / Depth: 1mm  
Reference sample for calibration  
 - Quartz support included  
**X-Ray detector**  
 ARL X'TRA Companion uses a latest generation detector. It is a direct conversion detector using semiconductor or semi-insulator sensors with the capacity to process every detected photon. Contrary to common X-ray imaging detectors, this detector is position, energy and time sensitive. For each ionizing particle (e.g. X-ray photon) it

# Sales Quotation

Quote Number	Version	Quotation Date	Page
CPQ-00882895	1.00	June 23, 2026	5
Lead Time	Payment Terms	Freight Terms	Expiration Date
Approximately 3 months, subject to prior orders and system configuration	NET 30 DAYS UPON INVOICE DATE	DEST. PREPAY & ADD	August 17, 2026
Company Name		Customer Name	
West Virginia Geological and Economic Survey		Larry McDonnell	

\* See end pages of quote for PO Submission details

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

Item	Description	Qty
	<p>digitally registers its position, energy, time of arrival and track shape. The information on each detected particle can be read-out immediately at maximum rate of 2.3 million hit pixels per second.</p> <p><u>Main features</u></p> <ul style="list-style-type: none"> <li>- 2D SSD TPX3</li> <li>- Sensitive in position, energy and time</li> <li>- Sensor material: Si (thickness of 300µm)</li> <li>- Acquisition mode: 0, 1 and 2D</li> <li>- Active area: 14x14 mm<sup>2</sup></li> <li>- Pixel size: 55x55 µm<sup>2</sup></li> <li>- Sensor pitch: 256 x 256 pixels</li> <li>- Dark current: none</li> <li>- Fast data acquisition</li> </ul> <p><b>Software</b></p> <p>ARL X'TRA Companion offers a specific modular design software package able to support the user in all activities. This software is able to support several types of analysis: from the full control of all the process and hardware settings (x-ray source, goniometer, detector, measurement set up) to data acquisition with a format file compatible with many data analysis modules.</p> <p><u>Control and Data acquisition Software</u></p> <ul style="list-style-type: none"> <li>- Run on Windows environment</li> <li>- Hardware control: Generator control (voltage, current and shutter control, generator/ tube and security status control)/ Detector control (acquisition mode, active area and threshold) / Goniometer Motor control (control and monitor of single motor positioning) / Sample changer (control and monitor of sample position, spinning and piston system)</li> <li>- Data collection: Possible batch mode data collection / Printouts and data savings/ export available during data collection / Possible programming cycles of measurements with a single or a multiple sample holder.</li> <li>- Automated result transmission to a LIMS</li> </ul>	
1.2	XO-CZ-COMPUTER Desktop Personal Computer (CZ)	1
1.3	XD-SI-SC51 Automatic Sample Changer 51mm (6-pos) Sample changer 51,5mm This sample changer (dedicated to 51,5mm steel rings) is designed for non-stop X-ray analysis of up to 6 samples in an automatic sequence under software control. The changer provides random access to sample position, so that samples can be measured in arbitrary order. 6-position sample changer for 51,5mm press - Multiple sample holder with spinner for 51,5mm steel rings - Sample changer with 6 positions - Sample rotation to minimize preferential orientation effects - Computer controlled - 2 steel top loading sample supports included (external / inner diameter: 51,5 / 22 mm – depth: 0,8mm) - See catalog (option) to complete up to 6 or possibility of using your own supports	1

# Sales Quotation

Quote Number	Version	Quotation Date	Page
CPQ-00882895	1.00	June 23, 2026	6
Lead Time	Payment Terms	Freight Terms	Expiration Date
Approximately 3 months, subject to prior orders and system configuration	NET 30 DAYS UPON INVOICE DATE	DEST. PREPAY & ADD	August 17, 2026
Company Name		Customer Name	
West Virginia Geological and Economic Survey		Larry McDonnell	

\* See end pages of quote for PO Submission details

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

Item	Description	Qty
1.4	<p><b>XD-SA-TOP</b></p> <p>Top loading sample support 51mm</p> <p>Steel top loading sample support, 51,5 / 22 mm (external / inner diameter) x 0,8mm (depth)</p>	4
1.5	<p><b>XD-SA-CLAY</b></p> <p>Clay oriented sample support 51mm</p> <p>Clay oriented aggregate mount sample support, 51,5 / 35 mm (external / inner diameter) x 2,5mm (depth)</p>	2
1.6	<p><b>XD-SA-ZERO</b></p> <p>Si zero background sample support 51mm</p> <p>Si zero background support, 51,5 / 24,7 mm (external / inner diameter) x 0,2mm (depth)</p>	1
1.7	<p><b>XD-WC-XTCOMP</b></p> <p>Integrated water chiller (510 Watts)</p> <p>Integrated water chiller (HECR006-A)</p> <ul style="list-style-type: none"> <li>- Cooling capacity: 510 Watts at ambient temperature 25°C</li> <li>- Cooling method: Peltier-type air-cooled</li> <li>- Circulating flow rate: 3l/min</li> <li>- Temperature stability: ±0.01 °C to ±0.03 °C</li> <li>- Set temperature range: 10 to 60 °C</li> <li>- Reservoir tank: 1.3 liter</li> <li>- With heating function and self-diagnosis.</li> <li>- Power supply: single phase 230V ±10%, 50/60Hz</li> </ul>	1
1.8	<p><b>XD-SW-ROUTINE</b></p> <p>Routine treatment software</p> <p><b>Routine treatment software</b></p> <p>Profex is a graphical user interface for Rietveld refinement of powder X-ray diffraction (XRD) data and it can be used for phase identification, phase quantification, structure refinement, and export of results and graphs to tables and figures.</p> <p><u>Data refinement</u></p> <ul style="list-style-type: none"> <li>- Graphical user interface for Rietveld refinement of powder X-ray diffraction (XRD) data</li> <li>- Used for phase identification, phase quantification, structure refinement, and export of results and graphs to tables and figures</li> <li>- Support for a variety of raw data formats</li> <li>- Export of diffraction patterns to various text formats (ASCII, ...) or graphics (PNG, SVG)</li> <li>- Batch conversion of raw data scans</li> <li>- Automatic control file creation and output file name management</li> </ul>	1

# Sales Quotation

Quote Number	Version	Quotation Date	Page
CPQ-00882895	1.00	June 23, 2026	7
Lead Time	Payment Terms	Freight Terms	Expiration Date
Approximately 3 months, subject to prior orders and system configuration	NET 30 DAYS UPON INVOICE DATE	DEST. PREPAY & ADD	August 17, 2026
Company Name		Customer Name	
West Virginia Geological and Economic Survey		Larry McDonnell	

\* See end pages of quote for PO Submission details

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

Item	Description	Qty
	<ul style="list-style-type: none"> <li>- Conversion of CIF and ICDD PDF-4+ XML structure files to BGMN structure files</li> <li>- Export of refined crystal structures to CIF and Castep CELL format</li> <li>- Internal database for crystal structure files, instrument configuration files, and predefined refinement presets</li> <li>- Computation of chemical composition from refined crystal structures</li> <li>- Batch refinement</li> </ul>	

Item	Description	Qty
2.0	278-1387100 JADE JS-3 and ICDD PDF-5 software packages  JADE Standard, with SM and WPF, is a perpetual license. PDF-5 must be renewed annually and is delivered via download.	1

<b>Quote Subtotal:</b>	<b>\$148,314.00</b>
<b>Promotions / Discounts:</b>	<b>- \$43,731.00</b>
<b>Quote total less discounts:</b>	<b>\$104,583.00</b>
<b>Shipping:</b>	<b>\$1,000.00</b>
<b>Quotation Totals:</b>	<b>\$105,583.00</b>

Billing plan:	30% invoiced on receipt of order. Payment on receipt of invoice 65% invoiced on delivery 5% invoiced on installation, or within 3 months of delivery if installation is delayed by customer – whichever occurs first
---------------	--

Sales tax exemption/resale certificates or direct pay permits must be provided with the order documents, if applicable. If valid sales tax exemption documentation is not provided, buyer shall pay all applicable federal, state and local taxes in addition to the price stated on this quotation.

## Purchase Order - Submission Details

Quote Number	Version	Quotation Date	Page
CPQ-00882895	1.00	June 23, 2026	8
Lead Time	Payment Terms		Expiration Date
Approximately 3 months, subject to prior orders and system configuration	NET 30 DAYS UPON INVOICE DATE		August 17, 2026
Inco Terms 1	Inco Terms 2	Shipping Method	
DEST. PREPAY & ADD		Air Freight	

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

1400 Northpoint Parkway  
West Palm Beach FL 33407

**To place your order and expedite shipment, please 1) sign and date the last page of this document; and 2) fax or e-mail it along with your Purchase Order to one of the addresses below.**

**To place an order via Ariba, please use Ariba Vendor Number AN01000155661.**

Please note-all Purchase Orders must show the vendor name of Thermo Electron North America LLC

Thermo Electron North America LLC  
5225 Verona Road  
Madison WI 53711

Thermo Electron North America LLC  
or  
1400 Northpoint Parkway  
West Palm Beach FL 33407

**Complete System Orders:**

Fax: 412-200-6542

e-mail: [usmadorderprocessing@thermofisher.com](mailto:usmadorderprocessing@thermofisher.com)

**Parts or Service Orders:**

Fax: 877-680-2565

e-mail: [USMAD.ServiceOE.PO@thermofisher.com](mailto:USMAD.ServiceOE.PO@thermofisher.com)

Notes:

- Items marked with an asterisk (\*) on the face of the quotation are non-Thermo Electron North America LLC products.
- Prices, warranty, installation and service on the items quoted herein are available only in the United States and may not be otherwise assigned.
- Tax exemption certificates or direct pay permits must be provided with the order documents, if applicable. If tax exemption documentation is not provided, buyer shall pay federal, state and local taxes in addition to the price stated on this quotation.
- Buyer shall not export or re-export technical data or products supplied by Thermo Electron North America LLC in violation of applicable export regulation. Buyer who exports products purchased hereunder assumes all responsibility for obtaining required export documentation, authorization, and payment of all applicable fees.
- All prices are quoted in USD

To keep you informed, we offer a convenient way to track your order status through our Order Lookup solution. Click [here](#) to access real-time updates and stay up to date on your shipment.

\*In the event that we are awarded this RFP, Thermo Electron North America LLC hereby requests to conduct limited negotiations on the Terms and Conditions. This bid submission is subject to us expressly reserving the right to negotiate the Terms and Conditions and in no way shall submission of this bid constitute acceptance of, or a waiver of any objection to, the Terms and Conditions.

# Purchase Order - Submission Details

Quote Number	Version	Quotation Date	Page
CPQ-00882895	1.00	June 23, 2026	9
Lead Time	Payment Terms		Expiration Date
Approximately 3 months, subject to prior orders and system configuration	NET 30 DAYS UPON INVOICE DATE		August 17, 2026
Inco Terms 1	Inco Terms 2	Shipping Method	
DEST. PREPAY & ADD		Air Freight	

Thermo Electron North America LLC  
 5225 Verona Road  
 Madison WI 53711  
  
 1400 Northpoint Parkway  
 West Palm Beach FL 33407

# Purchase Order - Submission Details

Quote Number	Version	Quotation Date	Page
CPQ-00882895	1.00	June 23, 2026	10
Lead Time	Payment Terms		Expiration Date
Approximately 3 months, subject to prior orders and system configuration	NET 30 DAYS UPON INVOICE DATE		August 17, 2026
Inco Terms 1	Inco Terms 2	Shipping Method	
DEST. PREPAY & ADD		Air Freight	

Thermo Electron North America LLC  
 5225 Verona Road  
 Madison WI 53711

1400 Northpoint Parkway  
 West Palm Beach FL 33407

## TERMS AND CONDITIONS OF SALE FOR PRODUCTS AND SERVICES


This quotation, and Seller's Terms and Conditions of Sale for Products and Services (which are hereby incorporated by reference into this quotation and any resulting contract), set out the terms on which Seller is offering to sell the product(s) and/or service(s) listed in this quotation. By issuing a purchase order or otherwise ordering or accepting product(s) and/or services, Buyer expressly confirms that it agrees to be bound by and agrees to the terms of this quotation and the Terms and Conditions of Sale for Products and Services to the exclusion of all other terms not expressly agreed to in writing by an authorized representative of Seller, and that the purchase and sale transaction between Buyer and Seller is governed by this quotation and Terms and Conditions of Sale for Products and Services. Any new or different provisions contained in any document issued by Buyer in response to this offer are expressly rejected. Seller's Terms and Conditions of Sale for Products and Services can be found on the Thermo Fisher Scientific website at [www.thermofisher.com/terms-tena](http://www.thermofisher.com/terms-tena) and will be sent to Buyer via mail or e-mail upon request. The Terms and Conditions of Sale for Products and Services are subject to change by Seller, from time to time.

As an Authorized representative of the Buyer, your signature below creates an agreement to buy the products and services listed herein and your acceptance of the Seller's Standard Terms and Conditions of Sale included herein as the sole and exclusive terms for your purchase.

BUYER

SELLER

By: \_\_\_\_\_

By:  \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: David Mcanallen

Print Title: \_\_\_\_\_

Print Title: Sr. Instrument Sales Representative

Date: \_\_\_\_\_

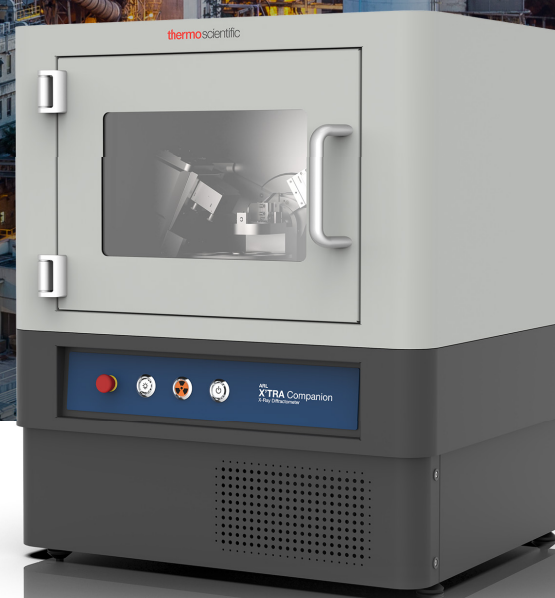
Date: June 23, 2026

\_\_\_\_\_ Initial here to indicate Buyer's agreement to automatically apply Seller's Standard Terms and Conditions of Sale for Products and Services to all future orders of Products and Services from Seller, whether or not the Agreement is referenced on Seller's quote or Buyer's Purchase Orders, for \_\_\_\_\_ (write # of years) from later date of the parties' signature, or until either party provides written notice that this Agreement is terminated.

**ThermoFisher**  
SCIENTIFIC

# Thermo Scientific ARL X'TRA Companion

Next-level routine control benchtop  
X-ray diffractometer



**thermo** scientific

# Introduction

The microstructure of a material reveals connections between its formation process and its final properties. However, the complex and heterogenous qualities of mineral compounds presents constant challenges when studying their microstructures.

For example, the varied compositions of cement or clinker can be adjusted to affect specific properties such as reactivity, setting time, or color. It is well known that reactivity will depend on the C3S/C2S ratio, while C3A will influence the setting time, and C4AF will impart a different color to the cement. The quality of products is therefore dependent on the phase minerology of cements.

To ensure a product's desired qualities, accurate and reproducible analyses must be performed. A combination of XRF and XRD appears to be an excellent solution to this challenge, as it is able to provide routine, on-line process and quality control of the various mineral phases.

# ARL X'TRA Companion

As demand for advanced technology increases, instrumentation keeps pace by advancing in sophistication and performance. However, this does not mean that advanced technology must be synonymous with increased complexity.

The Thermo Scientific™ ARL™ X'TRA Companion has been developed under the premise that high performance and precision should be associated with ease of use and efficiency, for daily operation with complete peace of mind.



ARL X'TRA Companion is a  $\theta/\theta$  Bragg-Brentano benchtop X-ray diffractometer perfectly suited for routine control. Its state-of-the-art configuration uses advanced technical features to deliver accuracy, precision, safety, and ease of use. As a plus, it comes with a one-click data treatment software to ensure reliable results.

Innovative, easy to use XRD benchtop equipment you can rely upon for precision, performance and flexibility

## Completely safe

ARL X'TRA Companion components are mounted in a shielded cabinet in accordance with international X-ray safety rules, equipped with lead glass windows, flushing lamps and safety interlocks.

## Robust design

ARL X'TRA Companion's sturdy design counteracts disturbances from shock or vibration, allowing it to be deployed in almost any environment.

## Enhanced performance

ARL X'TRA Companion  $\theta/\theta$  goniometer is ultra-compact, adopting stepper motors with optical encoders, to ensure extremely precise angular positioning and reproducibility.

## High quality data

ARL X'TRA Companion incorporates the latest generation of detector, offering speed and accuracy with superior data quality.

## Customizable to your needs

ARL X'TRA Companion provides various dedicated solutions for all types of pressed samples (Polysius, Hertzog, other pressed pellets). These fully meet analytical requirements and optimize data quality.

## Intuitive software analysis

ARL X'TRA Companion reveals the full potential of your data thanks to a reliable and easy-to-use analysis software designed to quickly and simply extract the information you are looking for.

## Combinable with other data

ARL X'TRA Companion data may be easily combined with XRF data to increase accuracy and allow for more insightful interpretation of results.

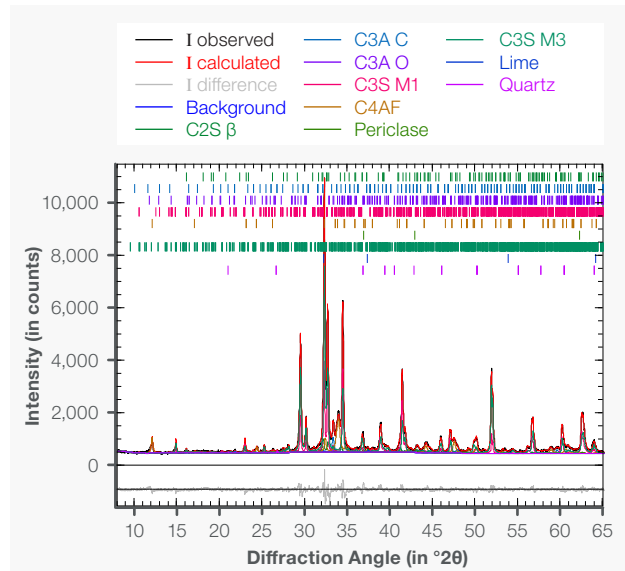
# Analysis of Cement Clinker according to ASTM C1365

A clinker sample was measured (21 x 10 min) and a Rietveld fit was carried out consecutively using a fundamental parameter approach. Comparing standard deviations calculated from the repetitive refinements with limits given by ASTM C1365 clearly shows that results are in good agreement with the norm, as determined by considering C3A total and C3S total.

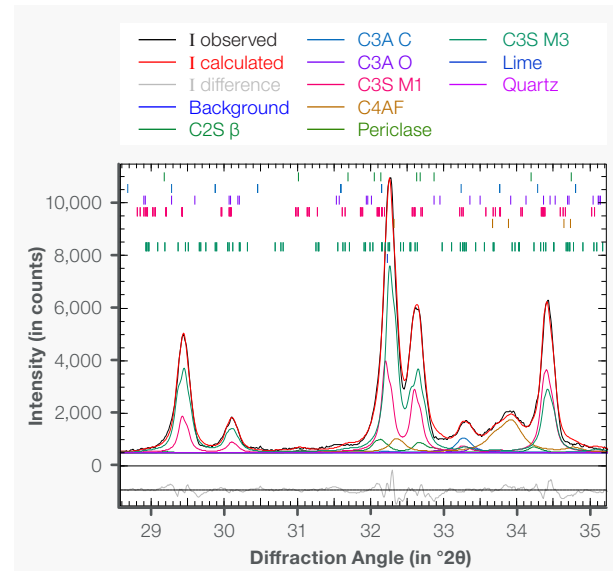
The ARL X'TRA Companion XRD yields data in compliance with ASTM C1365 norm for analyzing clinker samples. The one-click Rietveld refinement based on a fundamental parameter approach is an extremely robust method with high reproducibility which yields accurate results even for C3S M1 and M3. This makes clear the **ARL X'TRA Companion is the perfect solution for any process control tasks in the cement industry.**

	Average values	STDEV	ASTM
	(in %)	(1 $\sigma$ in %)	C150
C3S M1	30.81	1.08	
C3S M3	46.32	1.08	
C3S Total	77.13	0.25	0.74
C4AF	12.08	0.20	0.64
C2S $\beta$	6.09	0.18	0.49
C3A Cubic	2.57	0.34	
C3A Ortho	1.23	0.39	
C3A Total	3.80	0.14	0.47
Lime	0.21	0.06	
Periclase	0.59	0.06	0.23
Quartz	0.10	0.03	

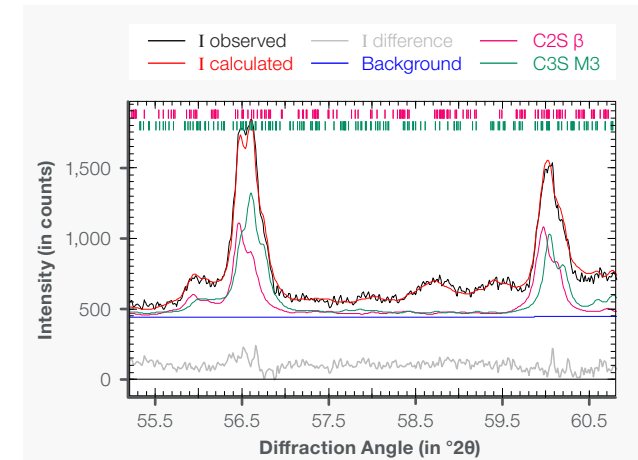
Results of the 21 consecutive refinements of clinker (values in weight percent).



Rietveld fit of clinker (10 min acquisition).



Rietveld fit of clinker (29-35° 2θ).



Measurement of clinker (55-61° 2θ). Fit for C3S M1 (purple) and C3S M3 (green) explains intensity and shape of the reflections well.

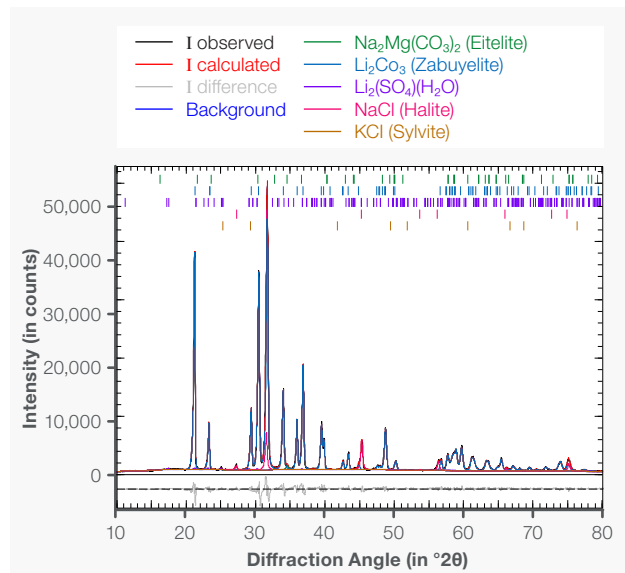
# Quality Control of $\text{Li}_2\text{CO}_3$ from Salars by XRD analysis

Salars are salt flats or salt pans where lithium is extracted as  $\text{Li}_2\text{CO}_3$  or  $\text{LiOH}$  from brines or saltwater through a series of evaporation steps. Lithium carbonate is a widely used material in the production of batteries, ceramics, and glass, among other materials. Its purity and crystallinity are crucial to ensure the quality of the final product. Thanks to the XRD technique, it is possible to control this quality. Two powdered samples of  $\text{Li}_2\text{CO}_3$  from Salars were measured using reflection geometry. The samples were measured for 10 minutes each. Phase quantification was performed with a one-click Rietveld refinement using a fundamental parameter approach.

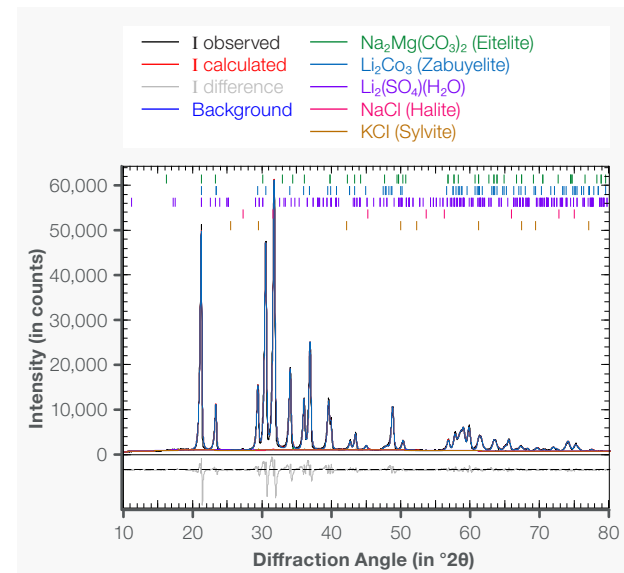
The table shows results from the refinements and allows one to observe that both samples are of different quality. For further processing it is important to have phase-pure material with high total Li content. The Li content can be indirectly ascertained from Rietveld refinements assuming stoichiometric phases with known Li content. Sample A is contaminated with 3.3 wt% NaCl and other minor phases which results in a total Li amount of 18.0 wt%, which is in good agreement with the reference value of 17.2 wt% from chemical analysis. Sample B is of better quality and contains minor contaminations which results in a total Li of 18.7 wt% (reference: 18.5 wt%). Both samples are completely crystalline.

This demonstrates that XRD is a powerful technique to assess the quality and purity of  $\text{Li}_2\text{CO}_3$  in a short time because it can indirectly measure the total Li content of the sample as well as contaminants which could impact the price and further processing of the material.

In conclusion, the one-click Rietveld refinement based on a fundamental parameter approach is an extremely robust method with high reproducibility and therefore **the ARL X'TRA Companion is the perfect solution for any process control or quality control task.**



Rietveld fit of  $\text{Li}_2\text{CO}_3$  sample A (10 minutes).



Rietveld fit of  $\text{Li}_2\text{CO}_3$  sample B (10 minutes).

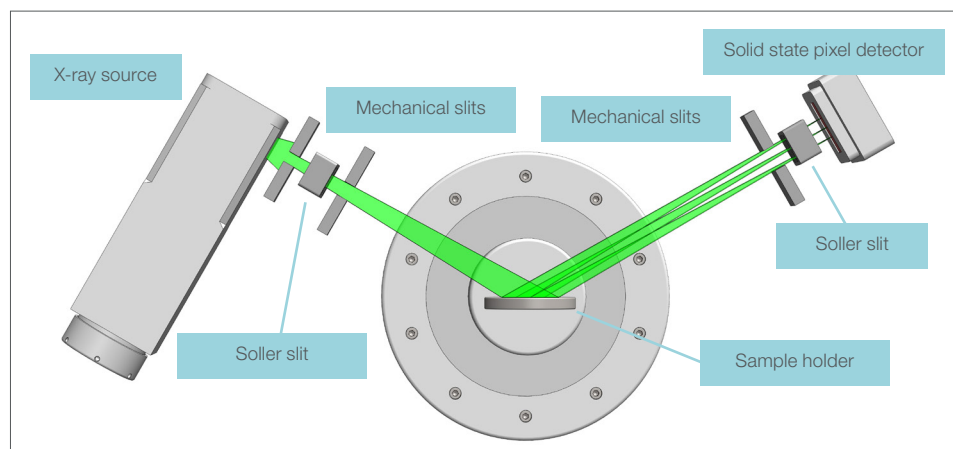
Phase	Sample A (in wt%)	Sample B (in wt%)
$\text{Na}_2\text{Mg}(\text{CO}_3)_2$ (Eitelite)	0.7 (1)	0.2 (1)
$\text{Li}_2\text{CO}_3$ (Zabuyelite)	95.3 (2)	99.5 (2)
$\text{Li}_2(\text{SO}_4)(\text{H}_2\text{O})$	0.7(1)	0.2 (1)
NaCl (Halite)	3.3 (1)	0.1 (1)
KCl (Sylvite)	0	0
<b>Total Li (XRD/Reference)</b>	<b>18.0 / 17.2</b>	<b>18.7 / 18.5</b>

Results of Rietveld refinement on  $\text{Li}_2\text{CO}_3$  samples (3 $\sigma$  in brackets).

# Description and attachments

The design of the Thermo Scientific ARL X'TRA Companion is based on a vertical  $\theta/\theta$  Bragg Brentano geometry (160 mm radius) for convenient sample preparation and sample handling. It is the perfect companion for XRD qualitative and quantitative analysis of polycrystalline materials.

ARL X'TRA Companion operates at 600 Watts (copper or cobalt radiation) and an integrated water chiller is available. A precise control of the radial and axial collimation of the beam is ensured with mechanical slits, Soller slits and variable beam knife.



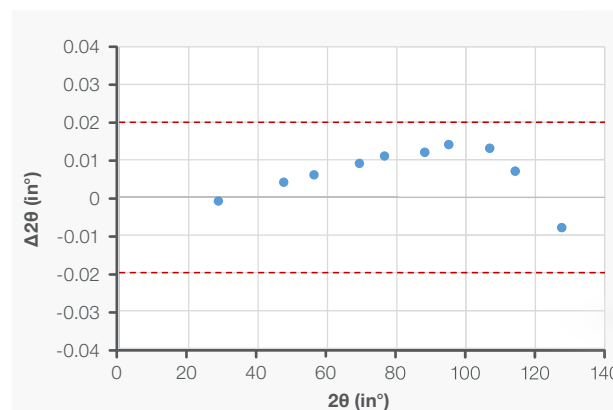
Schema of the geometry of the  $\theta/\theta$  goniometer.

The modular support design of the ARL X'TRA Companion allows users to exchange pre-aligned sample stages without requiring a lengthy realignment procedure.

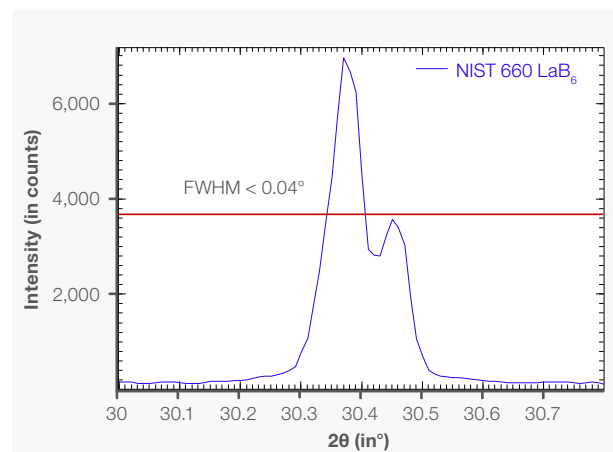
The standard sample stage incorporates one device that precisely orients both the translational and rotational orientation of the stage relative to the goniometer.

A reconfiguration of the diffractometer with a new sample batch is achievable in a few minutes.

The ARL X'TRA Companion provides very fast resolute data collection due to its state-of-the-art solid state pixel detector (55x55 $\mu$ m pitch) and it comes with one-click Rietveld quantification capabilities and automated result transmission to a LIMS.



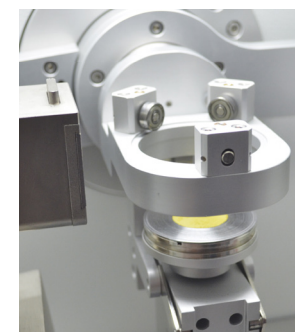
An angular accuracy better than  $\pm 0.02^\circ$  over the whole  $2\theta$  range guarantees optimal instrument alignment to support accurate and reliable analysis. Test with a Si powder.



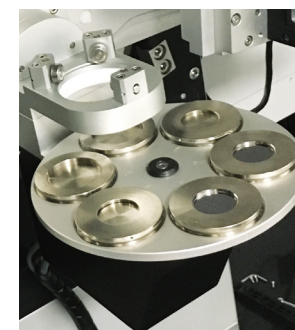
An angular resolution  $< 0.04^\circ$  FWHM can be measured easily in standard configuration. Test with a  $\text{LaB}_6$  powder.



ARL X'TRA Companion benchtop X-ray diffractometer.



Spinning sample stage.



6-position sample changer  $\phi$  51.5 mm (optional  $\phi$  40 mm version).

# Complementary techniques Service

## XRF and XRD

**X-ray fluorescence** (XRF) analysis determines the elemental composition of a sample but does not provide information about how the various elements are combined together. Such mineralogical information is only available through **X-ray diffraction** (XRD).

In a typical crystalline sample, XRF might measure, for example, the total Ca concentration or the total Fe concentration. XRD permits analysis of the phases or compounds in crystalline materials such as rocks, minerals, and oxide materials and products. In the same sample, XRD takes the analysis a stage further and gives information about CaO, CaCO<sub>3</sub>, and Ca(OH)<sub>2</sub> content, and other Ca phases, or the levels of Fe phases, such as FeO, Fe<sub>2</sub>O<sub>3</sub>, Fe<sub>3</sub>O<sub>4</sub>, Fe<sub>3</sub>C, and other Fe phases.

Therefore, combining the results of both XRF and XRD techniques allows for a better and more complete characterization of any given crystalline sample.



ARL QUANT'X  
Versatile EDXRF

ARL OPTIM'X  
Compact WDXRF

ARL PERFORM'X  
Advanced WDXRF

ARL 9900  
XRF/XRD

## Customized solutions for peak performance

When you invest in Thermo Scientific measurement equipment, you not only benefit from product performance, you also enjoy peace of mind and maximum uptime with optimal service solutions provided. We offer a full suite of services and support designed to respond quickly and flexibly to diverse service needs and requests. Select only the service options you want or add them later for efficient, high-performance day-to-day use of your instrument.

## Benefits of our service solutions

- Increase productivity and sample throughput
- Maximize resources from our diverse service solutions
- Boost uptime thanks to quick resolution plan
- Drive decisions and maximize instrument performance
- Reduce costs with increased production capability



Learn more at [thermofisher.com/xrf](https://thermofisher.com/xrf)

Learn more at [thermofisher.com/bea-services](https://thermofisher.com/bea-services)

# About Thermo Fisher Scientific

Thermo Fisher Scientific is the world leader in serving science. Our mission is to enable our customers to make the world healthier, cleaner and safer. We help our customers accelerate life sciences research, solve complex analytical challenges, improve patient diagnostics, deliver medicines to market and increase laboratory productivity. Through our premier brands – Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific and Unity Lab Services – we offer an unmatched combination of innovative technologies, purchasing convenience and comprehensive services.

Find additional information or request a quote at  
[thermofisher.com/xtra](https://thermofisher.com/xtra)

 Learn more at [thermofisher.com/xrd](https://thermofisher.com/xrd)

**thermo** scientific

**For research use only. Not for use in diagnostic procedures. For current certifications, visit [thermofisher.com/certifications](https://thermofisher.com/certifications)**

© 2023 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. BR41439\_E 05/23



# CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)  
06/18/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Aon Risk Services Northeast, Inc. Boston MA Office 53 State Street Suite 2201 Boston MA 02109 USA	<b>CONTACT NAME:</b> _____															
	<b>PHONE (A/C. No. Ext):</b> (866) 283-7122	<b>FAX (A/C. No.):</b> (800) 363-0105														
<b>E-MAIL ADDRESS:</b> _____																
<b>INSURED</b> Thermo Electron North America LLC@ Thermo Fisher Scientific Inc. 1400 Northpoint Parkway, Suite 50 West Palm Beach FL 33407 USA		<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: Travelers Property Cas Co of America</td> <td>25674</td> </tr> <tr> <td>INSURER B: ACE Property &amp; Casualty Insurance Co.</td> <td>20699</td> </tr> <tr> <td>INSURER C: ACE American Insurance Company</td> <td>22667</td> </tr> <tr> <td>INSURER D: ProAssurance Specialty Insurance Company</td> <td>17400</td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Travelers Property Cas Co of America	25674	INSURER B: ACE Property & Casualty Insurance Co.	20699	INSURER C: ACE American Insurance Company	22667	INSURER D: ProAssurance Specialty Insurance Company	17400	INSURER E:		INSURER F:	
INSURER(S) AFFORDING COVERAGE	NAIC #															
INSURER A: Travelers Property Cas Co of America	25674															
INSURER B: ACE Property & Casualty Insurance Co.	20699															
INSURER C: ACE American Insurance Company	22667															
INSURER D: ProAssurance Specialty Insurance Company	17400															
INSURER E:																
INSURER F:																

**COVERAGES**      **CERTIFICATE NUMBER:** 570121010161      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER: _____			G71815067006 SIR applies per policy terms & conditions	07/01/2025	07/01/2026	EACH OCCURRENCE	\$2,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000
							MED EXP (Any one person)	\$10,000
							PERSONAL & ADV INJURY	\$2,000,000
							GENERAL AGGREGATE	\$4,000,000
							PRODUCTS - COMP/OP AGG	Excluded
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY  <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			TC2JCAP-7439L260-TIL-25	07/01/2025	07/01/2026	COMBINED SINGLE LIMIT (Ea accident)	\$2,000,000
							BODILY INJURY (Per person)	
							BODILY INJURY (Per accident)	
							PROPERTY DAMAGE (Per accident)	
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$25,000			XEUG71815080006	07/01/2025	07/01/2026	EACH OCCURRENCE	\$10,000,000
							AGGREGATE	\$10,000,000
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY <small>ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)</small> <small>If yes, describe under DESCRIPTION OF OPERATIONS below</small>	Y/N N	N/A	UB5P0275212551K	07/01/2025	07/01/2026	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER	
							E.L. EACH ACCIDENT	\$1,000,000
							E.L. DISEASE-EA EMPLOYEE	\$1,000,000
							E.L. DISEASE-POLICY LIMIT	\$1,000,000
C	<input checked="" type="checkbox"/> Products Liability			G72530494005 Completed Ops-Claims Made SIR applies per policy terms & conditions	07/01/2025	07/01/2026	Aggregate Limit	\$5,000,000
							Each Claim	\$5,000,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**  
 RE: BID# CRFQ-0306-GEO2600000002-2. The General Liability, Automobile Liability, Products Liability-Completed Operations and Umbrella Liability policies have been amended to include as an Additional Insured the organization named herein, Geological & Economic Survey, but only to the extent required by written contract. Commercial General Liability, Automobile Liability, Products Liability-Completed Operations and Umbrella Liability policies are Primary and Non-Contributory for the term of the contract, but only to the extent required by written contract. A waiver of Subrogation is granted in favor of Certificate Holder in accordance with the policy provisions of the General Liability, Automobile Liability, Products Liability-Completed Operations, Umbrella Liability and workers' compensation policies, but only to the extent required by written contract.

<b>CERTIFICATE HOLDER</b>  Geological & Economic Survey 1 Mont Chateau Road Morgantown WV 26508 USA	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	<b>AUTHORIZED REPRESENTATIVE</b>  

Holder Identifier :

570121010161

Certificate No :





**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

**SCHEDULE**

Name Of Additional Insured Person(s) Or Organization(s)	Location(s) Of Covered Operations
Any person or organization who you have agreed to include as an additional insured under a written contract or agreement, provided such contract was executed prior to the date of loss	Any project or location.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

**A. Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

**B.** With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

**C.** With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

## WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

### SCHEDULE

<b>Name Of Person Or Organization:</b>
As required by written contract signed by both parties prior to loss.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph **8. Transfer Of Rights Of Recovery Against Others To Us** of **Section IV – Conditions:**

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products- completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

## **PRIMARY AND NONCONTRIBUTORY – OTHER INSURANCE CONDITION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

The following is added to the **Other Insurance** Condition and supersedes any provision to the contrary:

### **Primary And Noncontributory Insurance**

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that:

(1) The additional insured is a Named Insured under such other insurance; and

(2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART  
**SCHEDULE**

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
Any person or organization whom you have agreed to include as an additional insured under a written contract or agreement, provided such contract was executed prior to the date of loss.	Any project or location.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

**A. Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured

will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

**B. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
  2. Available under the applicable Limits of Insurance shown in the Declarations;
- whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

## **BLANKET ADDITIONAL INSURED**

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM  
MOTOR CARRIER COVERAGE FORM

The following is added to Paragraph c. in A.1., **Who Is An Insured**, of SECTION II – COVERED AUTOS LIABILITY COVERAGE in the BUSINESS AUTO COVERAGE FORM and Paragraph e. in A.1., **Who Is An Insured**, of SECTION II – COVERED AUTOS LIABILITY COVERAGE in the MOTOR CARRIER COVERAGE FORM, whichever Coverage Form is part of your policy:

This includes any person or organization who you are required under a written contract or agreement

between you and that person or organization, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to name as an additional insured for Covered Autos Liability Coverage, but only for damages to which this insurance applies and only to the extent of that person's or organization's liability for the conduct of another "insured".

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**DESIGNATED INSURED FOR LIABILITY COVERAGE –  
PRIMARY AND NON-CONTRIBUTORY  
WITH OTHER INSURANCE**

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

**SCHEDULE OF ADDITIONAL INSURED PERSONS OR ORGANIZATIONS**

**ANY PERSON OR ORGANIZATION AS REQUIRED  
BY CONTRACT OR AGREEMENT.**

**PROVISIONS**

1. The following is added to Paragraph **c.** in **A.1., Who Is An Insured**, of **SECTION II – LIABILITY COVERAGE**:

This includes any person or organization designated in the Schedule Of Additional Insured Persons Or Organizations who you are required under a written contract or agreement between you and that person or organization, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to name as an additional insured for Liability Coverage, but only for damages to which this insurance applies and only to the extent of that designated person's or organization's liability for the conduct of another "insured".

2. The following is added to Paragraph **5., Other Insurance**, in **B., General Conditions**, of **SECTION IV – BUSINESS AUTO CONDITIONS** :

Regardless of the provisions of paragraph **a.** and paragraph **d.** of this part **5. Other Insurance**, this insurance is primary to and non-contributory with applicable other insurance under which the person or organization designated in the Schedule Of Additional Insured Persons Or Organizations is the first named insured when the written contract or agreement between you and that designated person or organization, that is signed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, requires this insurance to be primary and non-contributory.

POLICY NUMBER: UB-5P027521-25-51-K

## **WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT**

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit any one not named in the Schedule.

### **SCHEDULE**

#### **DESIGNATED PERSON:**

#### **DESIGNATED ORGANIZATION:**

ANY PERSON OR ORGANIZATION FOR WHICH THE INSURED HAS AGREED BY WRITTEN CONTRACT EXECUTED PRIOR TO LOSS TO FURNISH THIS WAIVER.

#### **INCLUDING:**

CITY OF SAN DIEGO, ITS RESPECTIVE ELECTIVE OFFICIALS, EMPLOYEES, AGENTS AND REPRESENTATIVES. ADDRESS: CITY OF SAN DIEGO PURCHASING AND CONTRACTING DEPT. 1200 THIRD AVENUE, SUITE 200 SAN DIEGO, CA 92101-4195

Any person or organization for which the employer has agreed by written contract, executed prior to loss, may execute a waiver of subrogation. However, for purposes of work performed by the employer in Missouri, this waiver of subrogation does not apply to any construction group of classifications as designated by the waiver of right to recover from others (subrogation) rule in our manual.



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

State of West Virginia  
 Centralized Request for Quote  
 Laboratory

<b>Proc Folder:</b> 1985423		<b>Reason for Modification:</b>	
<b>Doc Description:</b> Benchtop Powder X-Ray Diffraction Instrument		Addendum No. 01	
<b>Proc Type:</b> Central Purchase Order			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2026-06-16	2026-06-23 13:30	CRFQ 0306 GEO2600000002	2

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

**Vendor Customer Code:**

**Vendor Name :** Thermo Electron North America LLC

**Address :**

**Street :** 1400 Northpoint Pkwy, Suite 10,  
**City :** West Palm Beach  
**State :** FL **Country :** USA **Zip :** 33407

**Principal Contact :** Leticia Antonio

**Vendor Contact Phone:** 702-964-4969 **Extension:**

**FOR INFORMATION CONTACT THE BUYER**  
 Larry D McDonnell  
 304-558-2063  
 larry.d.mcdonnell@wv.gov

\*In the event that we are awarded this RFP, Thermo Electron North America LLC hereby requests to conduct limited negotiations on the Terms and Conditions. This bid submission is subject to us expressly reserving the right to negotiate the Terms and Conditions and in no way shall submission of this bid constitute acceptance of, or a waiver of any objection to, the Terms and Conditions.

**Vendor Signature X** \*  **FEIN#** 43-1992201 **DATE** 06/22/2026

~~All offers subject to all terms and conditions contained in this solicitation~~

**ADDITIONAL INFORMATION**

Addendum No. 01  
 To attach answers to vendor questions.

Bid opening date and time still remains 06/23/2026 at 1:30PM EST/EDT.

No other changes

INVOICE TO		SHIP TO	
GEOLOGICAL & ECONOMIC SURVEY 1 MONT CHATEAU RD		GEOLOGICAL & ECONOMIC SURVEY 1 MONT CHATEAU RD	
MORGANTOWN US	WV	MORGANTOWN US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Benchtop Powder XRD Instrument	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
41102704			

**Extended Description:**  
 See attached documentation for further details.

**SCHEDULE OF EVENTS**

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
-------------	--------------	-------------------

# SOLICITATION NUMBER: CRFQ GEO26\*02

## Addendum Number: 01

---

The purpose of this addendum is to modify the solicitation identified as (“Solicitation”) to reflect the change(s) identified and described below.

### Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

### Description of Modification to Solicitation:

To attach answers to vendor questions.

Bid opening date and time still remains 06/23/2026 at 1:30PM EST/EDT.

No other changes

**Additional Documentation:** Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

### Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

Vendor Answers from WV Geological Survey for CRFQ-0306-GEO2600000002:

Question: Under general requirements (3.1.1.3) "Benchtop X-Ray diffractometer must be covered under an extended warranty agreement for a minimum of one year." Is this a request of warranty beyond the one-year warranty period that is included with the instrument? Meaning, you are requesting 2 years of warranty?

Answer:

**WV Geological Survey is seeking a warranty of at least one year.**

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: CRFQ GEO26\*02**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

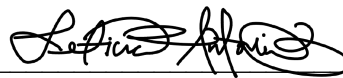
(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2            | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Thermo Electron North America LLC

Company



Authorized Signature

06/22/2026

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.



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

State of West Virginia  
 Centralized Request for Quote  
 Laboratory

<b>Proc Folder:</b> 1985423			<b>Reason for Modification:</b>
<b>Doc Description:</b> Benchtop Powder X-Ray Diffraction Instrument			
<b>Proc Type:</b> Central Purchase Order			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2026-06-05	2026-06-23 13:30	CRFQ 0306 GEO2600000002	1

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

**Vendor Customer Code:**  
**Vendor Name :**  
**Address :** Thermo Electron North America LLC  
**Street :** 1400 Northpoint Pkwy, Suite 10,  
**City :**  
**State :** West Palm Beach **Country :** FL **Zip :** 33407  
**Principal Contact :** Leticia Antonio  
**Vendor Contact Phone:** 702-964-4969 **Extension:**

**FOR INFORMATION CONTACT THE BUYER**

Larry D McDonnell  
 304-558-2063  
 larry.d.mcdonnell@wv.gov

\*In the event that we are awarded this RFP, Thermo Electron North America LLC hereby requests to conduct limited negotiations on the Terms and Conditions. This bid submission is subject to us expressly reserving the right to negotiate the Terms and Conditions and in no way shall submission of this bid constitute acceptance of, or a waiver of any objection to, the Terms and Conditions.

**Vendor Signature X** \*  **FEIN#** 43-1992201 **DATE** 06/22/2026

~~All offers subject to all terms and conditions contained in this solicitation \*~~

**ADDITIONAL INFORMATION**

The State of West Virginia Purchasing Division, is soliciting bids for the agency, West Virginia Geological and Economic Survey to establish a contract for the one-time purchase of a Benchtop Powder X-Ray Diffraction (XRD) Instrument, per the attached documentation.

\*\*\*READ ALL TERMS AND CONDITIONS AND SPECIFICATIONS IN ITS ENTIREITY - SEE ATTACHED FILE NAMED: CRFQ GEO26\*02 - SOLICITATION DOCUMENTATION\*\*\*

\*\*\*\*Questions regarding the solicitation must be submitted in writing to Larry.D.McDonnell@wv.gov prior to the question period deadline listed in the attached documentation\*\*\*\*

INVOICE TO		SHIP TO	
GEOLOGICAL & ECONOMIC SURVEY 1 MONT CHATEAU RD		GEOLOGICAL & ECONOMIC SURVEY 1 MONT CHATEAU RD	
MORGANTOWN	WV	MORGANTOWN	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Benchtop Powder XRD Instrument	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
41102704			

**Extended Description:**

See attached documentation for further details.

**SCHEDULE OF EVENTS**

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
-------------	--------------	-------------------

## INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. **REVIEW DOCUMENTS THOROUGHLY:** The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. **MANDATORY TERMS:** The Solicitation may contain **mandatory** provisions identified by the use of the words "**must**," "**will**," and "**shall**." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. **PRE-BID MEETING:** The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A **MANDATORY PRE-BID** meeting will be held at the following place and time:

All Vendors submitting a bid must attend the **mandatory** pre-bid meeting. Failure to attend the **mandatory** pre-bid meeting shall result in disqualification of the Vendor's bid. No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in but are charged with knowing all matters discussed at the pre-bid.

Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

**4. VENDOR QUESTION DEADLINE:** Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions **must be submitted on or before the date listed below and to the address listed below to be considered.** A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are non-binding.

Submitted emails should have the solicitation number in the subject line. Question

Submission Deadline: June 12, 2026 by 2:00PM EST

Submit Questions to: Larry D. McDonnell  
2019 Washington Street, East Charleston, WV 25305  
Fax: (304) 558-3970  
Email: [larry.d.mcdonnell@wv.gov](mailto:larry.d.mcdonnell@wv.gov)

**5. VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

**6. BID SUBMISSION:** All bids must be submitted on or before the date and time of the bid opening listed in section 7 below. Vendors can submit bids electronically through *wvOASIS*, in paper form delivered to the Purchasing Division at the address listed below either in person or by courier, or in facsimile form by faxing to the Purchasing Division at the number listed below. Notwithstanding the foregoing, the Purchasing Division may prohibit the submission of bids electronically through *wvOASIS* at its sole discretion. Such a prohibition will be contained and communicated in the *wvOASIS* system resulting in the Vendor's inability to submit bids through *wvOASIS*. The Purchasing Division will not accept bids or modification of bids via email.

**Bids submitted in paper, facsimile, or via wvOASIS must contain a signature. Failure to submit a bid in any form without a signature will result in rejection of your bid.**

A bid submitted in paper or facsimile form should contain the information listed below on the face of the submission envelope or fax cover sheet. Otherwise, the bid may be rejected by the Purchasing Division.

VENDOR NAME:

BUYER:

SOLICITATION NO.:

BID OPENING DATE:

BID OPENING TIME:

FAX NUMBER:

Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason.

**Bid Delivery Address and Fax Number:**

Department of Administration, Purchasing Division 2019 Washington Street East  
Charleston, WV 25305-0130  
Fax: 304-558-3970

**7. BID OPENING:** Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery or via delivery by mail).

Bid Opening Date and Time: June 23, 2026 at 1:30PM EST

Bid Opening Location:

Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

**8. ADDENDUM ACKNOWLEDGEMENT:** Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgement Form. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

9. **BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

10. **ALTERNATE MODEL OR BRAND:** Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand **shall** clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items **may** be grounds for rejection of a Vendor's bid.

This Solicitation is based upon a standardized commodity established under W. Va. Code § 5A-3-61. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

11. **COMMUNICATION LIMITATIONS:** In accordance with West Virginia Code of State Rules §148-1-6.6.2, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

12. **REGISTRATION:** Prior to Contract award, the apparent successful Vendor **must** be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

13. **UNIT PRICE:** Unit prices **shall** prevail in cases of a discrepancy in the Vendor's bid.

14. **PREFERENCE:** Vendor Preference may be requested in purchases of motor vehicles or construction and maintenance equipment and machinery used in highway and other infrastructure projects. Any request for preference must be submitted in writing with the bid, must specifically identify the preference requested with reference to the applicable subsection of West Virginia Code § 5A-3-37, and must include with the bid any information necessary to evaluate and confirm the applicability of the requested preference. A request form to help facilitate the request can be found at: [www.state.wv.us/admin/purchase/vrc/Venpref.pdf](http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf).

**15A. RECIPROCAL PREFERENCE:** The State of West Virginia applies a reciprocal preference to all solicitations for commodities and printing in accordance with W. Va. Code § 5A-3-37(b). In effect, non-resident vendors receiving a preference in their home states, will see that same preference granted to West Virginia resident vendors bidding against them in West Virginia. Any request for reciprocal preference must include with the bid any information necessary to evaluate and confirm the applicability of the preference. A request form to help facilitate the request can be found at: [www.state.wv.us/admin/purchase/vrc/Venpref.pdf](http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf).

**15. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:**

For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37 and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors.

**16. WAIVER OF MINOR IRREGULARITIES:** The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.7.

**17. ELECTRONIC FILE ACCESS RESTRICTIONS:** Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or remove access restrictions to allow the Purchasing Division to print or electronically save documents provided that those documents are viewable by the Purchasing Division prior to obtaining the password or removing the access restriction.

**18. NON-RESPONSIBLE:** The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1- 5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform or lacks the integrity and reliability to assure good-faith performance.”

**19. ACCEPTANCE/REJECTION:** The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.6. and § 148-1-6.3.”

20. **WITH THE BID REQUIREMENTS:** In instances where these specifications require documentation or other information with the bid, and a vendor fails to provide it with the bid, the Director of the Purchasing Division reserves the right to request those items after bid opening and prior to contract award pursuant to the authority to waive minor irregularities in bids or specifications under W. Va. CSR § 148-1-4.7. This authority does not apply to instances where state law mandates receipt with the bid.

21. **EMAIL NOTIFICATION OF AWARD:** The Purchasing Division will attempt to provide bidders with e-mail notification of contract award when a solicitation that the bidder participated in has been awarded. For notification purposes, bidders must provide the Purchasing Division with a valid email address in the bid response. Bidders may also monitor wvOASIS or the Purchasing Division's website to determine when a contract has been awarded.

22. **EXCEPTIONS AND CLARIFICATIONS:** The Solicitation contains the specifications that **shall** form the basis of a contractual agreement. **Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid.** Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

## GENERAL TERMS AND CONDITIONS:

**1. CONTRACTUAL AGREEMENT:** Issuance of an Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance by the State of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid, or on the Contract if the Contract is not the result of a bid solicitation, signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

**2. DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

**2.1. "Agency" or "Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

**2.2. "Bid" or "Proposal"** means the vendors submitted response to this solicitation.

**2.3. "Contract"** means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

**2.4. "Director"** means the Director of the West Virginia Department of Administration, Purchasing Division.

**2.5. "Purchasing Division"** means the West Virginia Department of Administration, Purchasing Division.

**2.6. "Award Document"** means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

**2.7. "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

**2.8. "State"** means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

**2.9. "Vendor" or "Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

**3. CONTRACT TERM; RENEWAL; EXTENSION:** The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

**Term Contract**

**Initial Contract Term:** The Initial Contract Term will be for a period of \_\_\_\_\_. The Initial Contract Term becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the Purchasing Division, Attorney General, and Encumbrance clerk (or another page identified as \_\_\_\_\_), and the Initial Contract Term ends on the effective end date also shown on the first page of this Contract.

**Renewal Term:** This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to \_\_\_\_\_ successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

**Alternate Renewal Term** – This contract may be renewed for \_\_\_\_\_ successive \_\_\_\_\_ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

**Delivery Order Limitations:** In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

**Fixed Period Contract:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within \_\_\_\_\_ days.

**Fixed Period Contract with Renewals:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within \_\_\_\_\_ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that:

the contract will continue for \_\_\_\_\_ years;

the contract may be renewed for \_\_\_\_\_ successive \_\_\_\_\_ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's Office (Attorney General approval is as to form only).

**One-Time Purchase:** The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

**Construction/Project Oversight:** This Contract becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the Purchasing Division, Attorney General, and Encumbrance clerk (or another page identified as \_\_\_\_\_), and continues until the project for which the vendor is providing oversight is complete.

**Other:** Contract Term specified in \_\_\_\_\_

**4. AUTHORITY TO PROCEED:** Vendor is authorized to begin performance of this contract on the date of encumbrance listed on the front page of the Award Document unless either the box for "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked in Section 3 above. If either "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked, Vendor must not begin work until it receives a separate notice to proceed from the State. The notice to proceed will then be incorporated into the Contract via change order to memorialize the official date that work commenced.

**5. QUANTITIES:** The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

**Open End Contract:** Quantities listed in this Solicitation/Award Document are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

**Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.

**Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

**One-Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

**Construction:** This Contract is for construction activity more fully defined in the specifications.

**6. EMERGENCY PURCHASES:** The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One-Time Purchase contract.

**7. REQUIRED DOCUMENTS:** All of the items checked in this section must be provided to the Purchasing Division by the Vendor as specified:

**LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits upon request and in a form acceptable to the State. The request may be prior to or after contract award at the State's sole discretion.

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.

**8. INSURANCE:** The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether that insurance requirement is listed in this section.

Vendor must maintain:

**Commercial General Liability Insurance** in at least an amount of: \$1,000,000.00 per occurrence.

**Automobile Liability Insurance** in at least an amount of: \_\_\_\_\_ per occurrence.

**Professional/Malpractice/Errors and Omission Insurance** in at least an amount of: \_\_\_\_\_ per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

**Commercial Crime and Third Party Fidelity Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Cyber Liability Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Builders Risk Insurance** in an amount equal to 100% of the amount of the Contract.

**Pollution Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Aircraft Liability** in an amount of: \_\_\_\_\_ per occurrence.

**9. WORKERS' COMPENSATION INSURANCE:** Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

**10. VENUE:** All legal actions for damages brought by Vendor against the State shall be brought in the West Virginia Claims Commission. Other causes of action must be brought in the West Virginia court authorized by statute to exercise jurisdiction over it.

**11. LIQUIDATED DAMAGES:** This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

\_\_\_\_\_ for \_\_\_\_\_.

Liquidated Damages Contained in the Specifications.

Liquidated Damages Are Not Included in this Contract.

**12. ACCEPTANCE:** Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

**13. PRICING:** The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

**14. PAYMENT IN ARREARS:** Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software maintenance, licenses, or subscriptions may be paid annually in advance.

**15. PAYMENT METHODS:** Vendor must accept payment by electronic funds transfer and P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

**16. TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

**17. ADDITIONAL FEES:** Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia, included in the Contract, or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

**18. FUNDING:** This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available. If that occurs, the State may notify the Vendor that an alternative source of funding has been obtained and thereby avoid the automatic termination. Non-appropriation or non-funding shall not be considered an event of default.

**19. CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.

**20. TIME:** Time is of the essence regarding all matters of time and performance in this Contract.

**21. APPLICABLE LAW:** This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code, or West Virginia Code of State Rules is void and of no effect.

**22. COMPLIANCE WITH LAWS:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

**SUBCONTRACTOR COMPLIANCE:** Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

**23. ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

**24. MODIFICATIONS:** This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

**25. WAIVER:** The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

**26. SUBSEQUENT FORMS:** The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

**27. ASSIGNMENT:** Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments.

**28. WARRANTY:** The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

**29. STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

**30. PRIVACY, SECURITY, AND CONFIDENTIALITY:** The Vendor agrees that it 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 [www.state.wv.us/admin/purchase/privacy](http://www.state.wv.us/admin/purchase/privacy).

**31. YOUR SUBMISSION IS A PUBLIC DOCUMENT:** Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

**32. LICENSING:** In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor 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, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

**SUBCONTRACTOR COMPLIANCE:** Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

**33. ANTITRUST:** In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to 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 Vendor.

**34. VENDOR NON-CONFLICT:** Neither Vendor nor its representatives are permitted to have any interest, nor shall they acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency.

**35. VENDOR RELATIONSHIP:** The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

**36. INDEMNIFICATION:** The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

**37. NO DEBT CERTIFICATION:** In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State. By submitting a bid, or entering into a contract with the State, Vendor is affirming that (1) for construction contracts, the Vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, neither the Vendor nor any related party owe a debt as defined above, and neither the Vendor nor any related party are in employer default as defined in the statute cited above unless the debt or employer default is permitted under the statute.

**38. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

**39. REPORTS:** Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at [purchasing.division@wv.gov](mailto:purchasing.division@wv.gov).

**40. BACKGROUND CHECK:** In accordance with W. Va. Code § 15-2D-3, the State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check. Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

**41. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS:** Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process.
- c. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
  1. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
  2. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

**42. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL:** In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a “substantial labor surplus area”, as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

**43. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE:** W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$1 million, the Vendor must submit to the Agency a disclosure of interested parties prior to beginning work under this Contract. Additionally, the Vendor must submit a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-work interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

**44. PROHIBITION AGAINST USED OR REFURBISHED:** Unless expressly permitted in the solicitation published by the State, Vendor must provide new, unused commodities, and is prohibited from supplying used or refurbished commodities, in fulfilling its responsibilities under this Contract.

**45. VOID CONTRACT CLAUSES:** This Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

**46. ISRAEL BOYCOTT:** Bidder understands and agrees that, pursuant to W. Va. Code § 5A-3-63, it is prohibited from engaging in a boycott of Israel during the term of this contract.

**DESIGNATED CONTACT:** Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) Leticia Antonio, Proposal Specialist

(Address) 1400 Northpoint Pkwy, Suite 10, West Palm Beach, FL, 33407

(Phone Number) / (Fax Number) 702-964-4969 / (412)200-6542

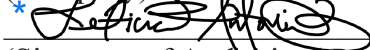
(email address) leticia.antonio@thermofisher.com

**CERTIFICATION AND SIGNATURE:** By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

*By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.*

**Thermo Electron North America LLC**

(Company)



(Signature of Authorized Representative)

Leticia Antonio, Proposal Specialist

(Printed Name and Title of Authorized Representative) (Date)

702-964-4969 / (412)200-6542

(Phone Number) (Fax Number)

leticia.antonio@thermofisher.com

(Email Address)

\*In the event that we are awarded this RFP, Thermo Electron North America LLC hereby requests to conduct limited negotiations on the Terms and Conditions. This bid submission is subject to us expressly reserving the right to negotiate the Terms and Conditions and in no way shall submission of this bid constitute acceptance of, or a waiver of any objection to, the Terms and Conditions.

Revised 8/24/2023

REQUEST FOR QUOTATION  
**Benchtop Powder X-Ray Diffraction Instrument**  
CRFQ GEO26\*02

---

**SPECIFICATIONS**

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of West Virginia Geological and Economic Survey to establish a contract for the one-time purchase of a Benchtop Powder X-Ray Diffraction (XRD) Instrument. The XRD Instrument will be used by West Virginia Geological and Economic Survey geoscientists in laboratory applications to determine minerals within rock samples.
  
2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
  - 2.1 **“Contract Item”** means a benchtop, X-Ray Diffraction (XRD) instrument as more fully described by these specifications.
  
  - 2.2 **“Pricing Page”** means the pages, contained in wvOASIS or attached as Exhibit A, upon which Vendor should list its proposed price for the Contract Items.
  
  - 2.3 **“Solicitation”** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
  
  - 2.4 **"Co"** means the element Cobalt, atomic number 27.
  
  - 2.5 **"Cu"** means the element Copper atomic number 29.
  
  - 2.6 **"Fe"** means the element Iron, atomic number 26.
  
  - 2.7 **"Mn"** means the element Manganese, atomic number 25.
  
  - 2.8 **"Ni"** means the element Nickel, atomic number 28.
  
3. **GENERAL REQUIREMENTS:**
  - 3.1 **Mandatory Contract Item Requirements:** Contract Item must meet or exceed the mandatory requirements listed below.
    - 3.1.1 **Benchtop Powder XRD Instrument**
      - 3.1.1.1 X-Ray Diffractometer (XRD), to be used for the purposes of qualitatively and quantitatively identifying phase analysis of polycrystalline materials in rock samples. Must be powder XRD and not a single crystal XRD.

REQUEST FOR QUOTATION  
**Benchtop Powder X-Ray Diffraction Instrument**  
**CRFQ GEO26\*02**

---

The diffractometer must be new, benchtop design, and use American standard electrical power (110-120 V).

**3.1.1.2** The X-Ray Diffraction (XRD) system must have software that performs phase identification, quantitative analysis, crystal structure, and Rietveld Refinement at minimum. In addition, the following specifications are required:

1. Benchtop XRD system must be capable of operating at a minimum of 600-watts and not exceeding 1,200 watts of X-ray power using a standard Cu XRD x-ray tube.
2. The system must have a continuously variable divergence slit that keeps the irradiated area of the sample constant throughout the entire 2-theta measurement range.
3. The system must include a high-speed silicon strip detector capable of suppressing fluorescence effects of Fe, Co, Mn or Ni.
4. The system must come with an extended crystalline database, such as ICDD PDF2, PDF4+ and other PDF4s, as well as a Crystallography Open/Online Database. One license is required for a minimum of one year.
5. System must have a sample changer with spinning capability that can be easily removed or added by the user.
6. Accessories should include a reference specimen, Ni K $\beta$  filter for Cu radiation, and an anti-scatter protector at the minimum.

**3.1.1.3** Benchtop X-Ray Diffractometer must be covered under an extended warranty agreement for a minimum of one year.

#### **4. CONTRACT AWARD:**

**4.1 Contract Award:** The Contract is intended to provide Agencies with a purchase price for the Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.

**4.2 Pricing Page:** Vendor should enter a unit price for the total cost of the device on the commodity line in wvOASIS. Vendor should complete the Pricing Page in full as failure to complete the Pricing Page in its entirety may result in Vendor's bid being disqualified.

REQUEST FOR QUOTATION  
**Benchtop Powder X-Ray Diffraction Instrument**  
**CRFQ GEO26\*02**

---

Vendor should type or electronically enter the information into the Pricing Page to prevent errors in the evaluation.

**5. PAYMENT:**

**5.1 Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

**6. DELIVERY AND RETURN:**

**6.1 Shipment and Delivery:** Vendor shall deliver the Contract Items within sixty (60) working days after receiving a purchase order or notice to proceed. Contract Items must be delivered to Agency at 1 Mont Chateau Road, Morgantown, WV 26508.

**6.1.1** Delivery must take place Monday through Friday 8:00 a.m. to 4:30 p.m.

**6.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if the shipment of the Contract Items will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the Contract, and/or obtaining the Contract Items from a third party.

Any Agency seeking to obtain the Contract Items from a third party under this provision must first obtain approval of the Purchasing Division.

**6.3 Delivery Payment/Risk of Loss:** Vendor shall deliver the Contract Items F.O.B. destination to the Agency's location.

**6.4 Return of Unacceptable Items:** If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.

**6.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

REQUEST FOR QUOTATION  
**Benchtop Powder X-Ray Diffraction Instrument**  
CRFQ GEO26\*02

---

**7. VENDOR DEFAULT:**

**7.1** The following shall be considered a vendor default under this Contract.

**7.1.1** Failure to provide Contract Items in accordance with the requirements contained herein.

**7.1.2** Failure to comply with other specifications and requirements contained herein.

**7.1.3** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

**7.1.4** Failure to remedy deficient performance upon request.

**7.2** The following remedies shall be available to Agency upon default.

**7.2.1** Immediate cancellation of the Contract.

**7.2.2** Immediate cancellation of one or more release orders issued under this Contract.

**7.2.3** Any other remedies available in law or equity.



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

State of West Virginia  
 Centralized Request for Quote  
 Laboratory

<b>Proc Folder:</b> 1985423			<b>Reason for Modification:</b>
<b>Doc Description:</b> Benchtop Powder X-Ray Diffraction Instrument			
<b>Proc Type:</b> Central Purchase Order			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2026-06-05	2026-06-23 13:30	CRFQ 0306 GEO2600000002	1

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

**Vendor Customer Code:**

**Vendor Name :**

**Address :** Thermo Electron North America LLC

**Street :**

**City :** 1400 Northpoint Pkwy, Suite 10

**State :** West Palm Beach      **Country :** FL      **Zip :** 33407

**Principal Contact :** Leticia Antonio

**Vendor Contact Phone:** 702-964-4969      **Extension:**

**FOR INFORMATION CONTACT THE BUYER**  
 Larry D McDonnell  
 304-558-2063  
 larry.d.mcdonnell@wv.gov

\*In the event that we are awarded this RFP, Thermo Electron North America LLC hereby requests to conduct limited negotiations on the Terms and Conditions. This bid submission is subject to us expressly reserving the right to negotiate the Terms and Conditions and in no way shall submission of this bid constitute acceptance of, or a waiver of any objection to, the Terms and Conditions.

**Vendor Signature X\***       **FEIN#** 43-1992201      **DATE** 06/22/2026

~~All offers subject to all terms and conditions contained in this solicitation~~

**ADDITIONAL INFORMATION**

The State of West Virginia Purchasing Division, is soliciting bids for the agency, West Virginia Geological and Economic Survey to establish a contract for the one-time purchase of a Benchtop Powder X-Ray Diffraction (XRD) Instrument, per the attached documentation.

\*\*\*READ ALL TERMS AND CONDITIONS AND SPECIFICATIONS IN ITS ENTIREITY - SEE ATTACHED FILE NAMED: CRFQ GEO26\*02 - SOLICITATION DOCUMENTATION\*\*\*

\*\*\*\*Questions regarding the solicitation must be submitted in writing to Larry.D.McDonnell@wv.gov prior to the question period deadline listed in the attached documentation\*\*\*\*

INVOICE TO		SHIP TO	
GEOLOGICAL & ECONOMIC SURVEY 1 MONT CHATEAU RD		GEOLOGICAL & ECONOMIC SURVEY 1 MONT CHATEAU RD	
MORGANTOWN	WV	MORGANTOWN	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Benchtop Powder XRD Instrument	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
41102704			

**Extended Description:**  
See attached documentation for further details.

**SCHEDULE OF EVENTS**

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
-------------	--------------	-------------------

	Document Phase	Document Description	Page
GEO260000002	Final	Benchtop Powder X-Ray Diffraction Instrument	3

**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions



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

State of West Virginia  
 Centralized Request for Quote  
 Laboratory

<b>Proc Folder:</b> 1985423		<b>Reason for Modification:</b>	
<b>Doc Description:</b> Benchtop Powder X-Ray Diffraction Instrument		Addendum No. 01	
<b>Proc Type:</b> Central Purchase Order			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2026-06-16	2026-06-23 13:30	CRFQ 0306 GEO2600000002	2

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

**Vendor Customer Code:**  
**Vendor Name :** Leticia Antonio  
**Address :**  
**Street :** 1400 Northpoint Pkwy, Suite 10  
**City :** West Palm Beach  
**State :** FL **Country :** USA **Zip :** 33407  
**Principal Contact :** Leticia Antonio  
**Vendor Contact Phone:** 702-964-4969 **Extension:**

**FOR INFORMATION CONTACT THE BUYER**

Larry D McDonnell  
 304-558-2063  
 larry.d.mcdonnell@wv.gov

\*In the event that we are awarded this RFP, Thermo Electron North America LLC hereby requests to conduct limited negotiations on the Terms and Conditions. This bid submission is subject to us expressly reserving the right to negotiate the Terms and Conditions and in no way shall submission of this bid constitute acceptance of, or a waiver of any objection to, the Terms and Conditions.

**Vendor Signature X\***  **FEIN#** 43-1992201 **DATE** 06/22/2026

~~All offers subject to all terms and conditions contained in this solicitation~~\*

**ADDITIONAL INFORMATION**

Addendum No. 01  
To attach answers to vendor questions.

Bid opening date and time still remains 06/23/2026 at 1:30PM EST/EDT.

No other changes

INVOICE TO		SHIP TO	
GEOLOGICAL & ECONOMIC SURVEY 1 MONT CHATEAU RD		GEOLOGICAL & ECONOMIC SURVEY 1 MONT CHATEAU RD	
MORGANTOWN US	WV	MORGANTOWN US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Benchtop Powder XRD Instrument	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
41102704			

**Extended Description:**  
See attached documentation for further details.

**SCHEDULE OF EVENTS**

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
-------------	--------------	-------------------

	Document Phase	Document Description	Page
GEO260000002	Final	Benchtop Powder X-Ray Diffraction Instrument	3

**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions