

A facsimile from

PANalytical Inc.
Gary Godula - 724-853-7566

To: Michael Austin
Fax number: 304-558-3970

Date: 2/27/2008

Regarding: RFQ# 7780056 bid response

Comments: Meets AND exceeds RFQ#7780056

14 pages including cover

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2008 FEB 27 P 12:48
NORTHSTAR DIVISION
STATE OF NY

02/19/2008 15:11 7248536575

GODULA

PAGE 01/08



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

Request for Quotation

RFQ NUMBER
7780056

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
**MICHAEL AUSTIN
304-558-2402**

RFQ COPY
TYPE NAME/ADDRESS HERE

**PANalytical Inc.
136 Janyce Drive
Greensburg, PA 15601**

DIVISION OF HIGHWAYS
TRAFFIC SERVICES COMPLEX

190 DRY BRANCH ROAD
CHARLESTON, WV
25306 304-558-8984

| DATE PRINTED | TERMS OF SALE | SHIP VIA | FOB | FREIGHT TERMS |
|--------------|---------------|----------|-----|---------------|
| 02/07/2008 | | | | |

BID OPENING DATE: **02/27/2008** BID OPENING TIME **01:30PM**

| LINE | QUANTITY | UOP | CAT NO | ITEM NUMBER | UNIT PRICE | AMOUNT |
|---|----------|-----|--------|-------------|------------|------------------------------------|
| 0001 | 1 | EA | | 490-55 | | \$160,000.00 |
| <p>X-RAY FLUORESCENCE SPECTROMETER</p> <p>PROVIDE X-RAY FLUORESCENCE SPECTROMETER FOR THE ANALYSIS OF CEMENT, FLY ASH, LIMESTONE AND BLAST FURNACE SLAG IN ACCORDANCE WITH ASTM C114, ASTM C311 AND AASHTO M3020 SPECIFICATIONS. THE COMPUTER SYSTEM THAT WILL COME WITH UNIT IS TO BE A STAND ALONE AND NOT NETWORKED WITH THE LAN.</p> <p>PER THE ATTACHED SPECIFICATIONS</p> <p>VENDOR PREFERENCE CERTIFICATE</p> <p>CERTIFICATION AND APPLICATION* IS HEREBY MADE FOR PREFERENCE IN ACCORDANCE WITH WEST VIRGINIA CODE, 5A-3-37 (DOES NOT APPLY TO CONSTRUCTION CONTRACTS).</p> <p>A. APPLICATION IS MADE FOR 2.5% PREFERENCE FOR THE REASON CHECKED:</p> <p>() BIDDER IS AN INDIVIDUAL RESIDENT VENDOR AND HAS RESIDED CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR</p> <p>() BIDDER IS A PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR AND HAS MAINTAINED ITS HEAD-QUARTERS OR PRINCIPAL PLACE OF BUSINESS CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR 80% OF THE OWNERSHIP INTEREST OF BIDDER IS HELD BY ANOTHER INDIVIDUAL,</p> | | | | | | <p><i>For Package complete</i></p> |

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: *[Signature]* TELEPHONE: **724-893-7566** DATE: **27 Feb 08**

TITLE: **Sales Mgr** FEIN: **45-0483849** ADDRESS CHANGES TO BE NOTED ABOVE

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

02/19/2008 15:11 7248536575

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PAGE 02/08



State of West Virginia
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Request for Quotation

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| ADDRESS CORRESPONDENCE TO ATTENTION OF |
| MICHAEL AUSTIN 304-558-2402 |

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DIVISION OF HIGHWAYS
TRAFFIC SERVICES COMPLEX

190 DRY BRANCH ROAD
CHARLESTON, WV
25306 304-558-8984

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|---|----------|-----|--------|-------------|------------|--------|
| <p>PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR WHO HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR</p> <p>() BIDDER IS A CORPORATION NONRESIDENT VENDOR WHICH HAS AN AFFILIATE OR SUBSIDIARY WHICH EMPLOYS A MINIMUM OF ONE HUNDRED STATE RESIDENTS AND WHICH HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS WITHIN WEST VIRGINIA CONTINUOUSLY FOR THE FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION.</p> <p>B. APPLICATION IS MADE FOR 2.5% PREFERENCE FOR THE REASON CHECKED:</p> <p>() BIDDER IS A RESIDENT VENDOR WHO CERTIFIES THAT, DURING THE LIFE OF THE CONTRACT, ON AVERAGE AT LEAST 75% OF THE EMPLOYEES WORKING ON THE PROJECT BEING BID ARE RESIDENTS OF WEST VIRGINIA WHO HAVE RESIDED IN THE STATE CONTINUOUSLY FOR THE TWO YEARS IMMEDIATELY PRECEDING SUBMISSION OF THIS BID;</p> <p>OR</p> <p>() BIDDER IS A NONRESIDENT VENDOR EMPLOYING A MINIMUM OF ONE HUNDRED STATE RESIDENTS OR IS A NONRESIDENT VENDOR WITH AN AFFILIATE OR SUBSIDIARY WHICH MAINTAINS ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS WITHIN WEST VIRGINIA EMPLOYING A MINIMUM OF ONE HUNDRED STATE RESIDENTS WHO CERTIFIES THAT, DURING THE LIFE OF THE CONTRACT, ON AVERAGE AT LEAST 75% OF THE EMPLOYEES OR BIDDERS' AFFILIATE'S OR SUBSIDIARY'S EMPLOYEES ARE RESIDENTS OF WEST VIRGINIA WHO HAVE RESIDED IN THE STATE CONTINUOUSLY FOR THE TWO YEARS IMMEDIATELY PRECEDING SUBMISSION OF THIS BID.</p> | | | | | | |

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

| | | |
|------------------------------|------------------------|----------------|
| SIGNATURE <i>[Signature]</i> | TELEPHONE 724-853-7564 | DATE 27 Feb 08 |
|------------------------------|------------------------|----------------|

| | | |
|-----------------|----------------|-----------------------------------|
| TITLE Sales Mgr | FBN 45-0483849 | ADDRESS CHANGES TO BE NOTED ABOVE |
|-----------------|----------------|-----------------------------------|

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

02/19/2008 15:11 7248536575

GODULA

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

Request for Quotation

RFQ NUMBER
7780056

PAGE
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ADDRESS CORRESPONDENCE TO ATTENTION OF
**MICHAEL AUSTIN
304-558-2402**

RFQ COPY
TYPE NAME/ADDRESS HERE

DIVISION OF HIGHWAYS
TRAFFIC SERVICES COMPLEX

190 DRY BRANCH ROAD
CHARLESTON, WV
25306 304-558-8984

| DATE PRINTED | TERMS OF SALE | SHIP VIA | F.O.B. | FREIGHT TERMS |
|--------------|---------------|----------|--------|---------------|
| 02/07/2008 | | | | |

BID OPENING DATE: **02/27/2008** BID OPENING TIME **01:30PM**

| LINE | QUANTITY | UOM | CAT. NO. | ITEM NUMBER | UNIT PRICE | AMOUNT |
|---|----------|-----|----------|---------------------------|------------|--------|
| <p>BIDDER UNDERSTANDS IF THE SECRETARY OF TAX & REVENUE DETERMINES THAT A BIDDER RECEIVING PREFERENCE HAS FAILED TO CONTINUE TO MEET THE REQUIREMENTS FOR SUCH PREFERENCE, THE SECRETARY MAY ORDER THE DIRECTOR OF PURCHASING TO: (A) RESCIND THE CONTRACT OR PURCHASE ORDER ISSUED; OR (B) ASSESS A PENALTY AGAINST SUCH BIDDER IN AN AMOUNT NOT TO EXCEED 5% OF THE BID AMOUNT AND THAT SUCH PENALTY WILL BE PAID TO THE CONTRACTING AGENCY OR DEDUCTED FROM ANY UNPAID BALANCE ON THE CONTRACT OR PURCHASE ORDER.</p> <p>BY SUBMISSION OF THIS CERTIFICATE, BIDDER AGREES TO DISCLOSE ANY REASONABLY REQUESTED INFORMATION TO THE PURCHASING DIVISION AND AUTHORIZES THE DEPARTMENT OF TAX AND REVENUE TO DISCLOSE TO THE DIRECTOR OF PURCHASING APPROPRIATE INFORMATION VERIFYING THAT BIDDER HAS PAID THE REQUIRED BUSINESS TAXES, PROVIDED THAT SUCH INFORMATION DOES NOT CONTAIN THE AMOUNTS OF TAXES PAID NOR ANY OTHER INFORMATION DEEMED BY THE TAX COMMISSIONER TO BE CONFIDENTIAL.</p> <p>UNDER PENALTY OF LAW FOR FALSE SWEARING (WEST VIRGINIA CODE 61-5-3), BIDDER HEREBY CERTIFIES THAT THIS CERTIFICATE IS TRUE AND ACCURATE IN ALL RESPECTS; AND THAT IF A CONTRACT IS ISSUED TO BIDDER AND IF ANYTHING CONTAINED WITHIN THIS CERTIFICATE CHANGES DURING THE TERM OF THE CONTRACT, BIDDER WILL NOTIFY THE PURCHASING DIVISION IN WRITING IMMEDIATELY.</p> | | | | | | |
| BIDDER: | | | | <i>PAVALYAZAL PERLITZ</i> | | |
| DATE: | | | | <i>27 Feb 08</i> | | |

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

| | | |
|----------------------------|-------------------------------|-----------------------------------|
| SIGNATURE <i>Paul A...</i> | TELEPHONE 724-853 7566 | DATE 27 Feb 08 |
| TITLE <i>Sales MGR</i> | FEIN 45-0483849 | ADDRESS CHANGES TO BE NOTED ABOVE |

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

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GODULA

PAGE 04/08



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

Request for Quotation

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| RFQ NUMBER |
| 7780056 |

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| PAGE |
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| ADDRESS CORRESPONDENCE TO ATTENTION OF |
| MICHAEL AUSTIN |
| 304-558-2402 |

RFQ COPY
TYPE NAME/ADDRESS HERE

DIVISION OF HIGHWAYS
TRAFFIC SERVICES COMPLEX
190 DRY BRANCH ROAD
CHARLESTON, WV
25306 304-558-8984

| DATE PRINTED | TERMS OF SALE | SHIP VIA | FOB | FREIGHT TERMS |
|--------------|---------------|----------|-----|---------------|
| 02/07/2008 | | | | |

BID OPENING DATE: 02/27/2008 BID OPENING TIME 01:30PM

| LINE | QUANTITY | UOP | CAT NO | ITEM NUMBER | UNIT PRICE | AMOUNT |
|--|----------|-----|--------|-------------|------------|--------|
| <p>SIGNED: <i>[Signature]</i></p> <p>TITLE: <i>National Sales Mgr</i></p> <p>* CHECK ANY COMBINATION OF PREFERENCE CONSIDERATION(S) IN EITHER "A" OR "B", OR BOTH "A" AND "B" WHICH YOU ARE ENTITLED TO RECEIVE. YOU MAY REQUEST UP TO THE MAXIMUM 5% PREFERENCE FOR BOTH "A" AND "B". (REV. 12/00)</p> <p>NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: 33</p> <p>RFQ. NO.: 7780056</p> <p>BID OPENING DATE: 02/27/2008</p> <p>BID OPENING TIME: 1:30 PM</p> | | | | | | |

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

| | | |
|-------------------------------|-------------------------|-----------------------------------|
| SIGNATURE: <i>[Signature]</i> | TELEPHONE: 724-853-7566 | DATE: 27 Feb 08 |
| TITLE: Sales Mgr | FEIN: 45-0483849 | ADDRESS CHANGES TO BE NOTED ABOVE |

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



State of West Virginia
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 Post Office Box 50130
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02/19/2008 15:11 7248536575

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08

**Request for
 Quotation**

7780056

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MICHAEL AUSTIN
 306-558-2602

DIVISION OF HIGHWAYS
 TRAFFIC SERVICES COMPLEX
 190 DRY BRANCH ROAD
 CHARLESTON, WV 25306
 304-558-8984

RFQ COPY
 TYPE NAME/ADDRESS HERE

| BID OPENING DATE | DATE RECEIVED | QUANTITY | UNIT PRICE | TOTAL PRICE | REMARKS |
|--|---------------|----------|------------|-------------|---------|
| 02/07/2008 | 02/27/2008 | | | | |
| PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID. CONTACT PERSON (PLEASE PRINT CLEARLY): <i>Gary Rodola</i> ***** THIS IS THE END OF RFQ ***** TOTAL: <i>\$160,000.00</i> | | | | | |

SEE REVERSE SIDE FOR TERMS AND CONDITIONS
 SIGNATURE: *Michael Austin*
 TITLE: *Sales Manager*
 FIRM: *45-0483849*
 TELEPHONE: *724-853-7566*
 ADDRESS CHANGES TO BE NOTED ABOVE: *27 Feb 08*
 WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED "VENDOR"

AX06, PET and IIP200
 scrubbing
 including 12 standard cassettes for
 mm
 (H)
 nivalent
 U solids) including:
 W
 FORESCENE SPECTROMETER
 6
 7
 QTY 1
 QTY 3
 QTY 3
 remote control unit
 QTY 1
 10% CH4) gas bottles
 QTY 1
 QTY 1
 QTY 10
 QTY 1
 max. 52mm, max height 30mm.
 QTY 10
 QTY 1
 10% CH4) gas bottles
 QTY 1
 remote control unit
 QTY 3
 QTY 3
 QTY 1



PANalytical
A Spectris Company

Quotation

Michael Austin
WV Division Of Highways
190 Dry Branch Road
Charleston, WV 25306

Date: February 27, 2008

Quotation No.: 815F-GG Rev 0 Page 1 of 5

Inquiry No.: 7780056

PANalytical Inc. is pleased to submit its quotation for the products contained hereunder. This proposal shall not bind PANalytical until accepted by it in writing at its principal office in Natick, MA, upon the terms and conditions stated on the face and reverse hereof. This quotation is valid for 30 days from date hereof unless otherwise specified.

| Item | Qty. | Catalog Number | Description | Price |
|------|------|----------------|---|-------|
| 1 | 1 | 9430 644 00011 | <p align="center">PANalytical Axios 2.4kW Sequential X-Ray Spectrometer System and Claisse Fusion Instrument MEETS OR EXCEEDS STATE OF WV RFQ #7780056</p> <p>Axios SEQUENTIAL XRF SPECTROMETER A High Performance XRF Spectrometer Designed For Rapid Accurate Analysis Of Solids, Fused Beads, Pressed Or Loose Powder And Liquid Samples. Liquids And Loose Powders Require Optional Helium Flush.</p> <p>Including:</p> <ul style="list-style-type: none"> - 60kV, 100mA, 2.4kW ultra stable, programmable generator - Flow proportional detector and counting electronics - Scintillation detector and counting electronics - Vacuum system with displaced programmable air lock - "DOPS" - Direct Optical Position Sensing goniometer system with: Independent crystal and detector movement design. Each with: .0001" Precision and .0025" Reproducibility Specification. This robust system is unaffected by mechanical shocks or vibration and eliminates any effects of wear or backlash - Axios assures a reliably constant gas density when measuring liquids and loose powders in a helium atmosphere thanks to ultra-precise temperature and pressure control. This is crucial for ensuring good reproducibility for the analysis of especially light elements - Programmable changer for up to 4 tube filters: Brass; 100µ, 300µ & 400µ - Aluminum; 200µ & 750µ - Pb; 1mm (Beam Stop) Beryllium; 150µ for tube protection. - Programmable changer for up to 3 collimators: 100µ, 150µ, 300µ, 550µ, 700µ, & 4000µ - Programmable changer for up to 8 crystals: LiF (200, 220, & 440), PE, Ge, TIAP, PX-(1,2,3,4,5, & 6), & InSb - SPECTROMETER CABINET temperature Stabilization of ±.05° C. - Programmable sample spinner - Safety interlock system with fail safe lamp - Low volume programmable airlock for fast sample introduction - Heavy Duty Wheels - Dual Multi Channel analyzers with digital signal processing capability. These DMCA's provide the widest dynamic range of any XRF counting electronics package with almost no dead time correction. This counting electronics package can support count rates up to 3000Kcps for the flow detector, 1500Kcps for the scintillation detector and up to 4500 Kcps for the optional duplex detector. - This spectrometer incorporates a robust sample introduction system that loads samples through an airlock, off center from the X-ray tube to insure radiation safety, improve protection for the tube and allow the X-ray tube to be continuously energized for greater stability. The sample loading port can be equipped with an | |

This quotation supersedes all previous quotations, negotiations, statements, representations and promises and is valid for 30 days from the date hereof.

Terms of Delivery: CIP Destination

By: _____

Terms of Payment: 30% Down, 65% upon delivery, 5% upon completion of installation

Representative: Ron Amodeo for Gary Godula

PANalytical
136 Janyce Drive
Greensburg, PA 15601

Tel: (724) 853-7566
Fax: (724) 853-6575

Lead Time: _____


PANalytical
 A Spectris Company
Quotation

Michael Austin
 WV Division Of Highways
 190 Dry Branch Road
 Charleston, WV 25306

Date: February 27, 2008

Quotation No.: 815F-GG Rev 0 Page 2 of 5

Inquiry No.: 7780056

PANalytical Inc. is pleased to submit its quotation for the products contained hereunder. This proposal shall not bind PANalytical until accepted by it in writing at its principal office in Natick, MA, upon the terms and conditions stated on the face and reverse hereof. This quotation is valid for 30 days from date hereof unless otherwise specified.

| Item | Qty. | Catalog Number | Description | Price |
|------|------|-----------------------------|---|-------|
| 2 | 1 | 9430 644 92301 Included* | <p>optional dust collection system to vacuum samples during the loading process and reduce the risk on dust falling on the X-ray tube. The sample loading port also incorporates a sensor that distinguishes between liquid and solid samples and prevents the accidental loading of liquid samples into a vacuum environment.</p> <ul style="list-style-type: none"> - Mobility kit that includes an umbilical cord for power and utilities and a wall interface module for easy installation - Electronic Manual on CD and modem for Remote. <p>HIGH PERFORMANCE TUBE, Rh TARGET, 2.4 kW "SST" HIGH PERFORMANCE TUBE, Ideal for the measurement of elements Be - U. Window thickness has been selected to provide the best ultra-light element performance while minimizing the risk of reducing tube life. A totally new end window x-ray tube design, which offers the closest possible sample to anode coupling. Optimal coupling was accomplished by designing the tip of the tube very narrow and sharp through the use of a machined ceramic insulator. The tube also incorporates; A Philips Lighting patented filament design which reduces hot spots (a feature that improves tube life), ISOWATT Switchoverable kV and mA per element measurement with out the need for stabilization time, An electronic tube recognition system and a 2 year full part replacement warranty, no hours restriction.</p> <p><u>MASK/APERTURE</u> Pick One Size FIXED SYSTEM MASK/APERTURE - (37 mm)</p> <p>FIXED SYSTEM MASK/APERTURE - (30 mm)</p> <p>FIXED SYSTEM MASK/APERTURE - (27 mm)</p> <p><u>Sample Holders and Inserts for Solids</u> SAMPLE HOLDERS, 27 MM OPENING Stainless (Set of 4) PLASTIC INSERTS, 33 MM OPENING (Set of 8) SAMPLE HOLDER, 37 MM OPENING Stainless (1) Used for Remote Diagnostics</p> <p>PLASTIC INSERT, 33 MM OPENING (1) Used for Remote Diagnostics</p> | |
| 3a | 1 | 9430 645 20371 Included* | | |
| 3b | 1 | 9430 645 20301 Included* | | |
| 3c | 1 | 9430 645 20271 Included* | | |
| 4 | 1 | 9430 644 29431 | | |
| 5 | 1 | 9430 644 22331 | | |
| 6 | 2 | Included* | | |
| 7 | 2 | Included* | | |

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By:

Terms of Payment: 30% Down, 65% upon delivery, 5% upon
 completion of installation

Representative: Ron Amodeo for Gary Godula

PANalytical
 136 Janyce Drive
 Greensburg, PA 15601

Tel: (724) 853-7566
 Fax: (724) 853-6575

Lead Time:


PANalytical
 A Spectris Company
Quotation

Michael Austin
 WV Division Of Highways
 190 Dry Branch Road
 Charleston, WV 25306

Date: February 27, 2008Quotation No.: 815F-GG Rev 0 Page 3 of 5Inquiry No.: 7780056

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| Item | Qty. | Catalog Number | Description | Price |
|------|------|----------------|---|-------|
| 8 | 1 | 9430 645 18991 | <u>Primary Beam Filters</u> 1mm Pb BEAM FILTER <i>For beam stop of X-ray tube.</i> | |
| | | Included* | | |
| 9 | 1 | 9430 645 18401 | 400µm BRASS BEAM FILTER <i>400µm brass, for RhK tube lines.</i> | |
| | | Included* | | |
| 10 | 1 | 9430 645 18201 | 200µm Al BEAM FILTER <i>Beam filter 200µm Aluminium, for improvement of peak to background ratio and detection limits in the range of 6 to 10 keV.</i> | |
| | | Included* | | |
| 11 | 1 | 9430 645 18751 | 750µm Al BEAM FILTER <i>Beam filter 750µm Aluminium, for improvement of background and detection limits in the range of 13 to 17 keV.</i> | |
| | | Included* | | |
| 12 | 1 | 9430 644 78301 | <u>Primary Beam Collimators</u> COLLIMATOR 300 MICRONS <i>Primary collimator (0.30 mm) optimized for medium resolution and general purpose</i> | |
| | | Included* | | |
| 13 | 1 | 9430 644 78151 | COLLIMATOR 150 MICRONS <i>Primary collimator (0.15 mm) optimized for high resolution.</i> | |
| | | Included* | | |
| 14 | 1 | Included* | <u>Crystals and Multi-Layers</u> LiF 200 CRYSTAL, K - U, High Intensity <i>Monochromator for Routine Analysis of K - U</i> | |
| 15 | 1 | Included* | PE CRYSTAL, Al - Cl <i>Monochromator for Routine Analysis of P - Cl</i> | |
| 16 | 1 | Included* | PX-1 MULTI-LAYER, O - Mg, High Intensity <i>Synthetic Multi-layer Monochromator for the analysis of O - Mg. It has high reflectivity, is non-toxic and highly resistant to deterioration</i> | |
| 17 | 1 | Included* | <u>Computer System</u> DELL COMPUTER WITH FLAT PANEL DISPLAY | |
| 18 | 1 | Included* | <u>Integrated Sample Changer</u> X-Y SAMPLE CHANGER EXPANDABLE TO 168 POSITIONS <i>Can be outfitted with sample trays for sample cups, or different sizes of fused beads and pressed pellets. Includes 1 standard tray with 8 positions for sample cups/holders and 1 tray with 8 positions for universal positioners for cupped or uncupped samples.</i> | |
| | 1 | 9430 645 28001 | | |

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By: _____

Terms of Payment: 30% Down, 65% upon delivery, 5% upon completion of installationRepresentative: Ron Amodeo for Gary Godula
 PANalytical
 136 Janyce Drive
 Greensburg, PA 15601

 Tel: (724) 853-7566
 Fax: (724) 853-6575

Lead Time: _____



PANalytical
A Spectris Company

Quotation


Michael Austin
WV Division Of Highways
190 Dry Branch Road
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Date: February 27, 2008

Quotation No.: 815F-GG Rev 0 Page 4 of 5

Inquiry No.: 7780056

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| Item | Qty. | Catalog Number | Description | Price |
|------|------|--|---|---|
| 19 | 1 | Included* | <p>Analytical XRF Software "SUPER Q" ANALYTICAL XRF SOFTWARE PACKAGE Version 4.0 SuperQ is a powerful and flexible software package to be used in conjunction with the MagiX sequential XRF systems. It allows quantitative and qualitative operation, while also providing extensive processing facilities. Super Q provides extensive facilities for quantitative operation of the MagiX series of spectrometers. The measuring conditions per element (the "channels") are assembled automatically via the (NIH) National Institute for Health database and by sensing the spectrometer hardware available. Possible line-overlaps can be checked for. The goniometer angle on the sequential spectrometer and simultaneous (if fitted with either vacuum or partial vacuum goniometers) can be tuned per element and the pulse-height distribution checked on both sequential and simultaneous systems. Up to 10 channels can be specified per element for optimum measuring conditions for elements in the periodic table. Manual input of data from external data sources or dilution can be entered, while normalization and balance composition can also be applied. Drift correction can be applied via so-called "monitors". Numerous monitor samples can be used per monitor, allowing correction for change in background as well as sensitivity. Time validity can be set per monitor, causing operator warnings in case of time expiration. Several types of intensity corrections can be applied (e.g. background and inter-element effects corrections). The extensive PANalytical calibration model is available, allowing for corrections with Alpha's, Beta's, Gamma's and Delta's, as well as line overlaps. These corrections can be based on concentrations and/or count rates. For each element within a virtually unlimited amount of corrections can be applied. Even within the comprehensive PANalytical calibration model a choice can be made from three mathematical correction models.</p> | |
| | | | <p>Support Equipment TRAINING, 1-DAY ON-SITE</p> | |
| 20 | 1 | 9425 038 7032X | <p>R100 REFRIGERATED WATER COOLED WATER CHILLER Haskris refrigerated single pump (100 GPH) cooling system with a capacity of 3.85kW. It is equipped with a high water temperature cutoff and flow R-100 water cooled chiller with high capacity pump for Axios 2.4KW instruments</p> | |
| 21 | 1 | 9200 130 07181 | <p>CLAISSE M4 FUSION UNIT Including 3 Crucibles and 3 Molds</p> | |
| 22 | 1 | Claisse M4 | <p>2008 LIST PRICE 2008 PACKAGE DISCOUNT PRICE</p> | <p>\$ 222,078.00 \$ 160,000.00 Not Including Tax & Shipping</p> |
| | |  "Terms & Conditions 3-2005.doc" | <p>* A 12 MONTH SYSTEM WARRANTY IS INCLUDED. * A TWO YEAR (24 months) FULL REPLACEMENT X-RAY TUBE WARRANTY IS INCLUDED. NO PRORATION OR HOURS LIMITATIONS. * SPECIFIC TERMS AND CONDITIONS IN ATTACHED FILE. * SYSTEM INSTALLATION INCLUDED</p> | |

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Terms of Delivery: CIP Destination

By:

Terms of Payment: 30% Down, 65% upon delivery, 5% upon completion of installation

Representative: Ron Amodeo for Gary Godula

PANalytical
136 Janyce Drive
Greensburg, PA 15601

Tel: (724) 853-7566
Fax: (724) 853-6575

Lead Time:



PANalytical
A Spectris Company

Quotation

Date: February 27, 2008

Michael Austin
WV Division Of Highways
190 Dry Branch Road
Charleston, WV 25306

Quotation No.: 815F-GG Rev 0 Page 5 of 5

Inquiry No.: 7780056

PANalytical Inc. is pleased to submit its quotation for the products contained hereunder. This proposal shall not bind PANalytical until accepted by it in writing at its principal office in Natick, MA, upon the terms and conditions stated on the face and reverse hereof. This quotation is valid for 30 days from date hereof unless otherwise specified.

| Item | Qty. | Catalog Number | Description | Price |
|------|------|----------------|---|-------------|
| | | | Optional Items | |
| 23 | 1 | 9425 901 91004 | JA-6X COMPRESSOR, 110V WITH AIR PREP KIT | \$1,383.00 |
| 24 | 1 | 9425 038 70320 | TRAINING, 1-DAY ADDITIONAL ON-SITE <i>Travel expenses for Application Specialist included.</i> | \$1,000.00 |
| 25 | 1 | 9425 037 30600 | HP DESKJET COLOR PRINTER WITH CABLE | \$ 277.00 |
| 26 | 1 | 9430 644 29411 | SAMPLE HOLDERS, 32 MM OPENING Stainless (Set of 4) <i>Additional Sets</i> | \$ 694.00 |
| 27 | 1 | 9430 644 22331 | PLASTIC INSERTS, 33 MM OPENING (Set of 8) <i>Additional Sets</i> | \$ 156.00 |
| 28 | 1 | 9430 644 28001 | SAMPLE CHANGER TRAY FOR 8 SAMPLES OR CUPS <i>Extra Tray</i> | \$ 934.00 |
| 29 | 1 | 9430 644 15361 | PX10 CRYSTAL UPGRADE <i>Upgrading LIF200 Crystal to the multi-layer PX-10 Crystal for increased intensity. PX-10 crystal, 30 mm wide, 2d = 0.402 nm. A recommended choice for enhanced analysis, in the elemental range K - U.</i> | \$ 2,900.00 |
| 30 | 1 | 9430 644 58401 | SPARE PARTS-MODULE AXIOS <i>Spare Parts Module for Axios Can only be ordered when Spare part module is already ordered.</i> | \$12,010.00 |
| 31 | 1 | 9430 644 58481 | SPARE PARTS-MODULE EXTENDED AXIOS <i>Extended Spare Parts module for the Axios Can only be ordered when Spare part module is already ordered.</i> <i>Installation sign-off procedure.</i> <ol style="list-style-type: none">1. When the installation is completed, the installation engineer performs the <u>Factory Acceptance Test (FAT)</u>. The FAT is a series of electrical and mechanical tests that duplicate the quality and performance tests done in the factory prior to shipment. When the system passes the FAT, the customer then signs the FAT results form acknowledging that the system successfully duplicated or exceeded all functional requirements. At this point the system warranty begins.2. After the FAT is completed, a <u>System Acceptance Test (SAT)</u> is performed. The SAT consists of demonstrating to the customer how to set up and use the system and is performed by the installation engineer. This demonstration verifies that the system is ready for first use to the customer. After the SAT is complete the customer signs the SAT form.3. A voucher for on-site and factory application training, if applicable, is then given to the customer. | \$6,704.00 |

This quotation supersedes all previous quotations, negotiations, statements, representations and promises and is valid for 30 days from the date hereof.

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