

Precious Metal Identification – First UK Application for the Thermo Scientific Niton XL2 XRF Analyzer

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–Paul Johnson, Managing Director, Phoenix County Metals



Metals reclaimed from many sources



Sorting, reselling, recycling precious metals

Thermo Scientific Niton XL2 Analyzer Benefits

- Accurate analysis for all precious metals and other elements of interest
- Point-and-shoot simplicity
- Reliable results in seconds
- Ruggedized with sealed construction

Phoenix County Metals

With its order placed before the instrument was officially available, Phoenix County Metals quickly benefited from its new handheld Thermo Scientific Niton XL2 XRF analyzer. The robust Niton® XL2 analyzer has proven ideal for Phoenix's application, which involves the identification of gold, silver, platinum, palladium, and rhodium from waste materials and products.

Located in the United Kingdom, Phoenix County Metals is a specialist precious metals recovery company that has been trading for nearly 40 years. The business collects, identifies, sorts, and resells or recycles many different types of precious metal.

Finding the Value with XRF

Phoenix reclaims metal from many different sources, including electronic equipment and scrap components to jet engine turbines, which contain platinum plated parts. The precious metals are then evaluated for resale. However, where this is not possible, non-ferrous metals and other materials with lesser value are disposed of via licensed contractors.

Any sensitive material, such as data on hard drives of computers or the like, is destroyed in a controlled and documented manner. The company is a recognized contractor for the cleaning and decontaminating of classified military equipment.

In advance of the official release of the recent Niton XL2 handheld XRF instrument, Phoenix was sufficiently impressed with the specification and competitive price point that it placed an order. As a result, they became the first UK owners of a Niton XL2 analyzer and have been suitably impressed with its performance.

The Niton XL2 instrument is used by Phoenix to monitor and immediately identify incoming materials, allowing them to be allocated to a particular process for recovery of their precious metal content. The software features within the instrument allow real-time monitoring of the recovery process and further streamline the company's tracking procedures.

Combining sophisticated electronics and a high-end XRF detector within a strong and robust housing for durability, the Niton XL2 analyzer allows the user to simply “point and shoot,” providing rapid results that are displayed on a full-color screen. Therefore, even non-technical persons can easily operate the instrument.

A comprehensive software suite provided with the instrument allows customization of the analyzer, including personalization of settings and the production of custom reports and certificates. The Niton XL2 analyzer also allows simple data transfer to a PC via USB cable or Bluetooth™, making communication of the results and their subsequent analysis or print-out quick and efficient.

Paul Johnson, managing director of Phoenix County Metals commented, “We are very pleased to have been the first UK customer for the Niton XL2 analyzer and the new model is already proving its worth. We appreciate the combination of speed and accuracy in a simple to operate and very durable XRF instrument. The ability to move the XRF instrument around our site means that materials can be identified immediately as they arrive.”

For further information on Phoenix County Metals please visit www.pcm-ltd.co.uk.

For more information on Thermo Scientific Niton XRF analyzers and how they can help meet your elemental analysis needs, contact your local Thermo Scientific Niton Analyzer representative or visit our website at www.thermoscientific.com/niton.



The Niton XL2 analyzer rapidly identifies incoming materials

The Thermo Scientific Niton XL2 Analyzer

<p>The Niton XL2 analyzer provides many distinct benefits:</p> <ul style="list-style-type: none"> • Very easy to use – even by non-technical personnel • Rugged design for real-world industrial environments • Truly nondestructive test with near instantaneous results • From turn on to trigger pull to results in seconds • Confident analysis from the pioneer in handheld XRF instrumentation <p>These features make it the ideal choice to:</p> <ul style="list-style-type: none"> • Analyze metal alloys for scrap recycling or final product QC • Carry out grade control, plant operations, and near-mine exploration • Screen electronics and consumer goods for lead, cadmium, and other toxic metals 	<p>Technical Specifications</p> <p><i>Weight:</i> 3 lbs. 5.8 oz. (1.53 kg)</p> <p><i>Dimensions:</i> 10.25 x 11 x 4 in. (256 x 275 x 100 mm)</p> <p><i>Tube:</i> Ag anode 45 kV maximum, 80 µA maximum</p> <p><i>Detector:</i> High-performance semiconductor</p> <p><i>System Electronics:</i> 400 MHz ARM 11 CPU 300 MHz dedicated DSP 80 MHz ASICS DSP for signal processing 4096 channel MCA 64 MB internal system memory/128 MB internal user storage</p> <p><i>Display:</i> Fixed angle, color, touch-screen display</p> <p><i>Standard Analytical Range:</i> >25 elements from S to U (varies by application)</p> <p><i>Data Transfer:</i> USB, Bluetooth, and RS-232 serial communication</p> <p><i>Alloy Modes:</i> Metal Alloy, Electronics Alloy, Precious Metals</p> <p><i>Bulk Modes:</i> Mining, Soil</p> <p><i>Plastics Modes:</i> RoHS Plastics, Toys & Consumer Goods Plastics, TestAll™, Painted Products</p> <p><i>Custom Modes:</i> Upon request (based on application feasibility)</p> <p><i>Data Entry:</i> Touch-screen keyboard, user-programmable pick lists, optional wireless remote barcode reader</p>
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