



TRUSCAN™

EMPOWERING REAL-TIME DECISION MAKING



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TRUSCAN™

EMPOWERING REAL-TIME DECISION MAKING

Boart Longyear's TruScan™ core or chip imaging and X-ray fluorescence (XRF) system provides near real time high-definition core or chip images and matrix-matched geochemical results. This pamphlet has been prepared as a guide to mining and exploration clients as an introduction to the technology and the value it can add to your operation.

The TruScan system's value rests on a trinity of capabilities, combining to deliver value that is far greater than the sum of its individual parts.

ACCURACY

Boart Longyear's proprietary 'matrix-matched' calibration method, in combination with its continuous scan of the core or chip sample, delivers the most accurate XRF-geochemical results as compared to peer technology and p-XRF. Each data point is quantified and processed through a systematic QAQC procedure, ensuring data integrity.

SPEED

Geochemical information along with the HD core images are constantly being transferred to a secure AWS storage bucket either through the mobile network, Wi-Fi, or satellite.

ACCESSIBILITY

Access to the secure AWS storage bucket database is then distributed to you and your chosen employees allowing you to leverage your global expertise, in real time, from anywhere in the world.



WHAT IS TRUSCAN™?

TruScan is a fully integrated, rugged and mobile imaging and geochemical technology housed in a mine-specification trailer and can operate in the most challenging greenfield environments, as well as within the relative comfort of a core yard. With its ability to scan 60 to 100m of core per 12-hour shift (depending on required data density) and many more meters per shift on RC chips. A single unit can potentially scan the core from multiple drill rigs, legacy core, or a combination of both. The unit delivers high-definition images and matrix-matched calibration derived XRF-assays to your team on site and (when internet connectivity is available) to an AWS bucket.

**Please note: TruScan™ can only deliver highly accurate results on elements for which it is calibrated, i.e. if the calibration samples are not assayed for U, TruScan™ will not be able to deliver results for U and the samples will require re-assaying with a calibration made from Boart Longyear's library being an alternative. Truscan is likely to be able to provide results for other parameters such as LOI. This may be possible for your site as well. Please discuss with a Boart Longyear Geochemist if you have any specific needs.*



WHAT IS DELIVERED?

TruScan delivers high-density geochemical data from Li to U in 10 cm intervals, or as requested along with single meter or multi-meter averages and custom intervals (lengths such as feet or yards are also available). This is achieved through a continuous scan of the core. Alongside the geochemical data, high-definition wet, dry, and ultra-high-definition images of the core or chips are also delivered.

The HD core or chip images can be examined alongside the real-time assays using Boart Longyear's TruView platform which provide an unprecedented level of detail, allowing for real-time decision making from anywhere in the world.



WHAT IS MATRIX-MATCHED CALIBRATION?

Each orebody is unique. In the same way we would expect each one to have a unique geophysical response as well as mineralogical and processing characteristics, every orebody (every rock for that matter) has a unique XRF response.

Even in instances where two rocks have the exact same chemical composition, as the mineralogy and the distribution of elements varies, so too will the XRF signal. Knowing this, TruScan's matrix-matched calibration casts away the one-size-fits-all model of p-XRF factory calibrations and instead relies on calibrating to your rocks using the assays you trust.

With that in mind, the more information provided to Boart Longyear about the lithologies and mineralization expected to be scanned, the better the resulting calibration will perform.

The TruScan system is also equipped to handle greenfield projects and projects with limited previous drilling. Boart Longyear can draw upon its geochemical experts and extensive library of well-assayed samples and prepare a calibration to suit the general anticipated geology of the project. Through cooperating with you throughout the drilling program, we are also able to augment the calibration for whatever lithologies and mineralization may be intersected.

WHAT DO WE NEED TO PREPARE?

In order to provide the best service and the most accurate assays possible, there are several pre-mobilization tasks that need to be completed.

Firstly, by providing answers to the following questions, preparation time can be minimized:

- 1 What type of tray is the core held in? (Please list all makes and models used or provide pictures if unsure.)
- 2 What sort of core will be scanned - full core, half core, quarter core? We can scan all of these.
- 3 How much of the core to be scanned has been assayed, for which elements and using which methods?
- 4 Are pulps available from the legacy drillholes?
- 5 If none of the core has been assayed, have other holes intersecting the same lithologies and mineralization styles been assayed and are pulps available from these assays?
- 6 Where will the core be scanned (at the rig, the core yard)?
- 7 Are you able to provide a domestic capacity power supply (i.e., 2 x 10amp @ 240v) to the unit? (If this is not possible Boart Longyear can provide a generator.)
- 8 Please describe the core to be scanned and the mineralization styles (specifically noting target commodity, alteration styles and geochemical vectors.)
- 9 Will there be any core racking in place that we can set up around the machine?
- 10 What sort of connectivity is available on your site? (NONE, Wifi, landline, mobile network, or do you require satellite)

Ideally, following the selection and delivery of the sample pulps to Boart Longyear, our geochemists will build a calibration ready for deployment. We strongly recommend that sample selection is done in close collaboration with our geochemists. In addition, we recommend the delivery of any legacy core from the area to be scanned to Boart Longyear so that the calibration can be tested prior to mobilization.

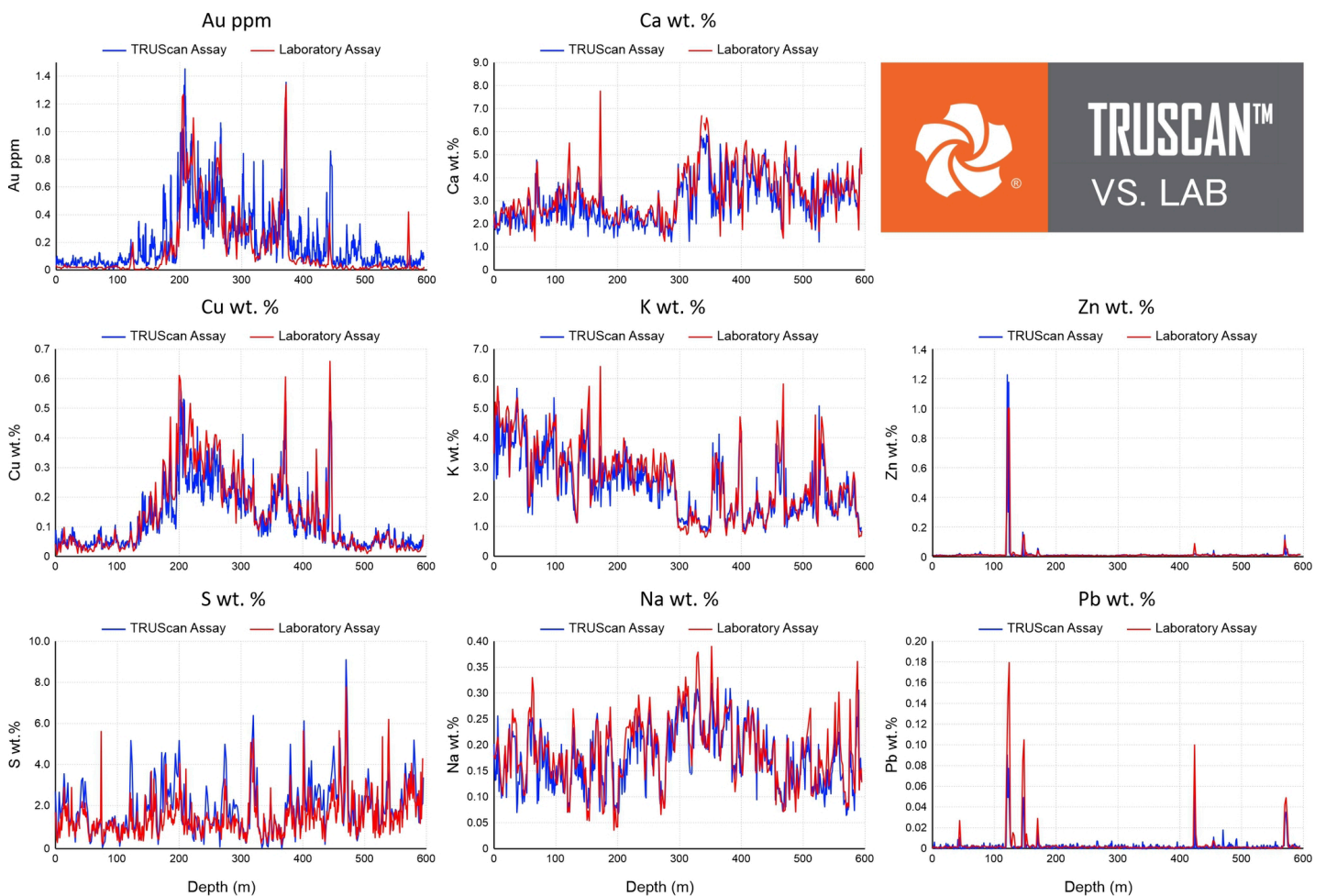
X-ray Fluorescence (XRF) analysis has long been a widely utilized assay technique in many parts of the global resources industry. Uptake in the form of both lab and portable-XRF has been highest in the bulk commodities such as iron ore and, to a lesser but still significant extent, the base metal space.

Gold miners have equally made use of the XRF but in a more limited capacity. Without the ability to directly measure Au reliably, focus has been concentrated on elements associated with Au and pathfinders.

In addition to providing accurate assays for these elements — and all elements between Li and U — TruScan technology stands alone as a unique offering that can deliver accurate Au assays for a variety of deposit types.

TruScan technology's unique combination of a state-of-the-art XRF scanner, coupled with optimal customized fluorescence excitation, matrix-matched calibration, and rigorous QAQC procedures, combine to deliver results that compare well to traditional laboratory assays but with the added benefits of near real-time turnaround and the significant savings associated with not needing to cut and pack core.

Moreover, TruScan equipment allows for the drilling of 'efficient meters' through the termination or extension of holes as guided by the real-time data, and the follow-up of newly discovered anomalies that can be achieved while the drill rig is on site, reducing the costs associated with following up on targets and the need for further costly mobilizations.



TRUSCAN AU CAPABILITIES

Deposit Type		<0.2 g/t	0.2-1.0 g/t	1.0-5.0 g/t	>5.0 g/t	Nugget effect
Carlin Type	Weathered	No	No	Yes/No	Yes	Minimal
	Primary	Yes/No	Yes	Yes	Yes	Minimal
Intrusion-related Au		Yes/No	Yes	Yes	Yes	Problematic in some cases
Porphyry		Yes/No	Yes	Yes	Yes	Minimal
High Sulphidation Epithermal	Weathered	No	Yes/No	Yes	Yes	Minimal
	Primary	Yes/No	Yes	Yes	Yes	Minimal
Low Sulphidation Epithermal		Yes/No	Yes	Yes	Yes	Can be extreme
Skarn		Yes/No	Yes	Yes	Yes	Minimal
IOCG-U		Yes/No	Yes	Yes	Yes	Minimal
VMS		Yes/No	Yes	Yes	Yes	Minimal
Orogenic Au	Free Gold	Yes/No	Yes	Yes	Yes	Can be extreme
	Refractory	Yes/No	Yes	Yes	Yes	Minimal

In addition to the assays delivered, TruScan provides WET, DRY and Ultra High Definition images and more.

WET IMAGE



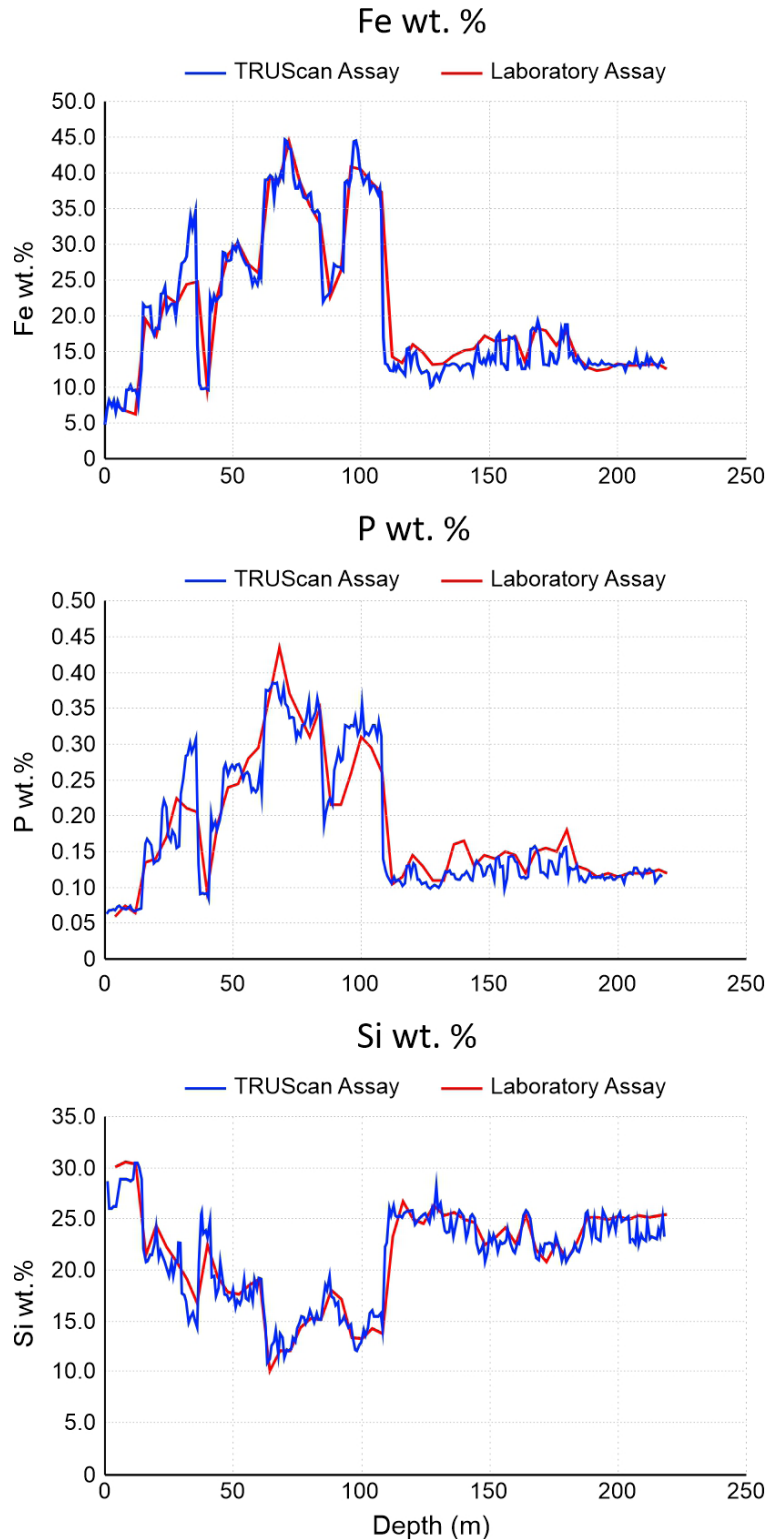
DRY IMAGE



IRON ORE

TruScan technology is extremely well-suited for scanning both iron ore core and chips, and can comfortably handle the large concentration ranges in Fe and all associated and deleterious elements such as V, P, Si, Al, Mn, and LOI along with Li through to U once calibrated.

TruScan technology's unique combination of matrix-matched calibration, customizable X-ray excitation, and QAQC procedures allow for the measurement of elemental concentration in iron ore systems allowing for use in exploration, resource drilling, and grade control.



Go to Boart Longyear's YouTube channel to see TruScan in action!
To find out how TruScan can improve your orebody knowledge, go to
www.boartlongyear.com/truscan

 **BOART LONGYEAR**™

