

# Coreshed Practicum

## Minnesota DNR

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# Coreshed© - A Total Core Management System

- Digital, safe, on-line core-curation, available 24-7, 365days/yr
- Native environment for Corescan data packages (photos, hyperspectral imagery, hyperspectral-based mineral maps, laser profile imagery, laser profile derived Geotech and calculated mineral logs)
- Repository for other data such as assay, geophysical logs, lithology
- Curation of archival third-party photography
- Geospatially referenced environment that allows for both 'core-box' view and original, digitally-reconstructed vertical boreholes
- Convenient platform by which to share and interact with local and global teams



**CORE STORAGE**

**CORE LIBRARY**

[LOG ON](#)

[Register](#) | [Demo](#)



#### Data Management

A centralised facility for hyperspectral core data, images, mineral maps and assay logs.



#### Fast Access

High speed retrieval and visualisation of your core library at both drill hole and core box scale.



#### Online Data Access

A web driven portal for secure, global, company-wide access.



#### Electronic Core Library

Long term electronic core sample library storage, management and recovery.

## LATEST NEWS

[more news](#)



1 Feb 2015

### Coreshed integration to form part of acQuire's latest GIM Suite 2.1 release

acQuire's latest GIM Suite 2.1 release incorporates direct connectivity between Corescan's web based virtual core library, Coreshed ([www.coreshed.com](http://www.coreshed.com)), and the acQuire...

[full story](#)

## Core Storage and Visualisation Services

Coreshed provides an infrastructure for digital core storage, visualisation and data management of drill core and other geological samples. The secure online service provides web based access to your core shed, serving core photography, mineral maps, abundances and other assay data through a web based management dashboard.

The storage and presentation of drill core records can put pressure on internal I.T. infrastructure. Coreshed offers a cost-effective and reliable solution with on-demand core retrieval and global access. Coreshed provides the following features:

- Online management of drill core and other geological samples
- Long term data archive and retrieval
- Instant online viewing of core imagery and mineral abundances
- Web driven portal for secure, global, user based access

Contact Coreshed to discuss how your core library can be better managed.

<https://dev.coreshed.com/cswebapp/signup?customer=mdnr>



In 2019, Corescan partnered with the Minnesota Department of Natural Resources (MDNR) to study 16,000 feet of archived mineral cores from MDNR's Drill Core Library in Hibbing. Corescan provided high resolution hyperspectral imaging of the core using its HCI-3 instrument (VNIR-SWIR). Thirty-two drill holes located within five focus areas in Northern and Central Minnesota were scanned and the hyperspectral data processed and interpreted by Corescan geologists. The results of this work and the use of the Coreshed web platform are proudly provided here free of charge by the MDNR and Corescan.

To find out more about Corescan's services, please visit [www.corescan.com.au](http://www.corescan.com.au)

## Login to your existing Coreshed account

Login to Coreshed

## Create a new Coreshed account

First name	Last name
Email address	
Username	
Password	
Organisation/Company name	
Industry type	

Create account

[Login to existing account](#)



# Coreshed Dashboard

The screenshot shows the Coreshed dashboard with the following sections:

- Project:** A table with columns for Name and Region. The selected project is "MDNR - International Falls Greenstone Belt Gold" in Minnesota.
- Drill Hole:** A table with columns for Name, Start, and End. It lists 12 drill holes, including ND-1 through ND-3, RR-1, S-2, SS-1 through SS-9, and TC35-1 through TC36-1.
- Details:** A summary of project information including Project ID, Name, Description, Location, Region, and Deposit Type.
- Inventory:** A summary of project assets including Drill Holes (5001), Total length (843,285m), Products (549204), and Storage space used (29.2TB).
- Map:** A map showing the project location in Minnesota, with several orange dots representing drill hole locations.

Annotations on the dashboard:

- An orange arrow points from the "Project & drillhole details" text to the Project and Drill Hole tables.
- An orange arrow points from "Select Project" to the Project table.
- An orange arrow points from "Select Drillholes" to the Drill Hole table.
- An orange arrow points from "UTM locations (collar)" to the Map.

# Using the Coreshed Dashboard

The screenshot shows the Coreshed dashboard with the 'Project' search bar containing the text 'international'. Below it, a table lists projects, with 'MDNR - International Falls Greenstone Belt Gold' highlighted. To the right, a 'Details' panel shows information for this project. Below the project list is a 'Drill Hole' table with columns for Name, Start, and End. The 'RR-1' row is highlighted.

Name	Start	End
ND-1	18'	603'
ND-2	29'	653'
ND-3	19'	409'
RR-1	6'	1,602'
S-2	4'	452'
SS-1	11'	588'
SS-4	39'	412'
SS-7	34'	722'
SS-8	31'	502'
SS-9	53'	400'
TC35-1	80'	462'
TC36-1	3'	403'

1. Enter project name in Project search bar
2. Click on Project name to view associated drillholes

3. Click on drillhole to select

The screenshot shows the Coreshed dashboard with the 'Drill Hole' table where 'RR-1' is selected. To the right, a 'Details' panel shows information for this drill hole. Below the drill hole list is a 'Drillhole Information' panel with detailed data.

Name	Start	End
ND-1	18'	603'
ND-2	29'	653'
ND-3	19'	409'
RR-1	6'	1,602'
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SS-9	53'	400'
TC35-1	80'	462'
TC36-1	3'	403'

### Project Information

Project id	MDNR Core Library
Project name	MDNR - International Falls Greenstone Belt Gold
Project description	-
Customer id	MDNR
Location	USA
Region	Minnesota
Deposit type	Orogenic Gold
Record last updated	2/24/2019, 19:25:20

### Drillhole Information

Drill hole id	TC36-1
Drill hole name	TC36-1
Drill hole description	-
Project id	MDNR Core Library
Corescan job reference	JA0429
Depth	2.999' to 402.999'
Length	400'
Collar location	483011,5382953
Collar location EPSG code	EPSG:32615
Collar location (WGS84)	48.59942553886474,-93.23043040857
Collar RL (metres)	-
Collar azimuth	-
Collar inclination	-
Drill hole type	-
Date drilled	-
Date scanned	-
Record last updated	2/27/2019, 01:04:46

# Part 1 – Coreshed - Navigation and Layout

- We'll begin with the MDNR – International Falls Greenstone Gold Project
- Type MDNR into the Project Search Bar
- Select International Falls
- Select borehole [TC35-1](#) and note core information
- Select 'Core Tray View' → navigate to [Tray 027](#)
- Investigate Base, Overlay and Transparency
  - Base=Core Photography; Overlay=\_Mineral class map (*hold CTRL+hover cursor*)
  - Base=Core Photography; Overlay= Tourmaline
  - Base=Core Photography; Overlay= Prehnite, then Epidote
- Double click at bottom of screen to change [Tray 028](#)
  - Base=Core Photography; Overlay= Carbonate
- Now – let's look at the entire borehole; navigate to Drill Hole View
- Zoom to full extent ("unzoom"); note Layout format:
  - **Stacked by Section**
  - Down hole

# Part 1 cont'd - Coreshed - Navigation and Visualization

- Note scale bars on left and right
- Close all windows except Photography
- R click on upper RH corner, “unzoom”
- In Stacked-Section mode, navigate to ~350ft; note tray numbers and depths at bottom left while scrolling; layout so ~5 trays showing
- Load another panel; let’s check out hyperspectral data –change to Mineralogy; choose `_Mineral` class map
- Load a 3<sup>rd</sup> panel – Mineralogy = Tourmaline
- Load a 4<sup>th</sup> panel – Mineralogy = Carbonate



# Part 1 cont'd - Coreshed - Navigation and Visualization

- Change the 3<sup>rd</sup> and 4<sup>th</sup> panels to correspond to the 2 shades of green
- Scroll down to ~400ft, what changes in alteration mineralogy do you see?
- Add a 5<sup>th</sup> panel to Chlorite (2250nm wavelength) composition
  - How does the Chlorite chemistry change approaching 400?
- Click any banner, hold, drag and drop onto the Core Photography. Drag off again if preferred.

## Part 2 - Coreshed - Navigation and Visualization (downhole mode)

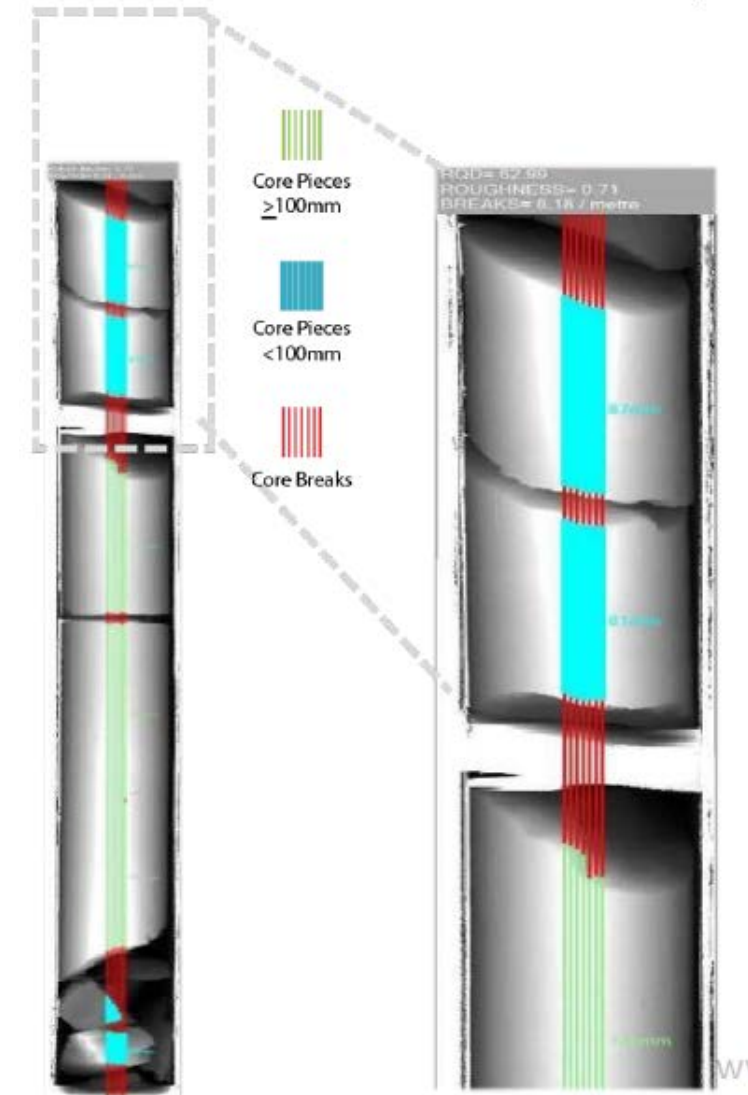
- Navigate back out to the Dashboard, and select **TC36-1**
- Navigate to Drillhole Mode, and choose *Drillhole* Layout
- Load 6 Panels
  - Geochem (Au\_ppm)
  - Mineral Logs
    - Log\_Tourmaline
    - Log\_Chlorite (Mg rich)
    - Log\_Chlorite (Fe rich)
    - Log\_Amphibole
- What associations are visible above/below the higher Au zone?

# Part 2 - Coreshed - Navigation and Visualization (downhole mode)



# Part 3 - Coreshed - Navigation and Visualization Geotechnical Parameters

- Navigate to drillhole RR-1
- Drillhole Mode &
- Load a new panel
  - Category = Geotechnical Parameters



## Bonus Example – How to find a minor minor... or ‘the hunt for green mica’

- Toggle to drillhole **SS-8**
- R click upper rh corner, zoom to full borehole
- Load 4 panels
  - Photography (Imagery)
  - Class map (Mineralogy)
  - Green Mica (Mineralogy)
  - Log: Green Mica (Mineral Logs)
- Can you see the green mica? Hint, it's at 457.1'-459.0'
- Drag Green Mica match image onto photography, use transparency slider

