



Integrated Borehole Imaging for Structural Analysis and Vein Characterization

Project Overview

DGI completed Acoustic Televiewer (ATV) and Optical Televiewer (OTV) surveys across eight exploration drill holes at a gold project in northwestern Ontario. High-resolution borehole imaging was used to characterize structural features, map veins and lithological contacts, and evaluate structural controls on mineralization through correlation with gold assay data.

Challenges

- Required detailed structural characterization across multiple exploration drill holes.
- Needed accurate orientation data to improve interpretation of fractures, veins, foliation, and lithological contacts.
- Required consistent structural datasets to support geological and geomechanical models.

DGI Approach

- Conducted Acoustic Televiewer (ATV) and Optical Televiewer (OTV) surveys across eight drill holes totaling more than 1,800 metres of surveyed borehole.
- Interpreted over 2,100 geological features, including veins, fractures, faults, foliations, and contacts using high-resolution borehole imagery.
- Generated structural orientation datasets and stereonet analyses to identify dominant structural trends.
- Correlated interpreted vein occurrences with gold assay results to support geological interpretation and exploration planning.

Project Outcomes

- Delivered comprehensive structural datasets supporting geological and geomechanical interpretation.
- Identified dominant structural orientations across the property, improving understanding of the site's structural framework.
- Produced integrated structural and assay correlation datasets to help evaluate controls on gold mineralization and inform future exploration drilling.

PROJECT SNAPSHOT

- Region: Northwestern Ontario, Canada
- Commodity: Gold
- Rock Type: Archean greenstone belt volcanic and sedimentary rocks with intrusive syenite-monzonite bodies
- Operation Type: Exploration
- DGI Solution: Acoustic Televiewer, Optical Televiewer, Structural Interpretation & Vein Analysis