



Automating the Path to Decision -Ready Analytics
with Artificial Intelligence

Teren Introduction

About Us



FORECAST RISK. REDUCE EXPOSURE. IMPROVE RESILIENCE.

A year ago, debris flows brought 'unfathomable destruction' to Montecito

BY JOSHUA MOLINA

JANUARY 09, 2019 08:14 PM, UPDATED: JANUARY 09, 2019 08:26 PM



ged Illinois farms during planti
st corn and soybeans before it's

6:33 AM



NATURAL GAS

Landslides, explosions spark fear in pipeline country

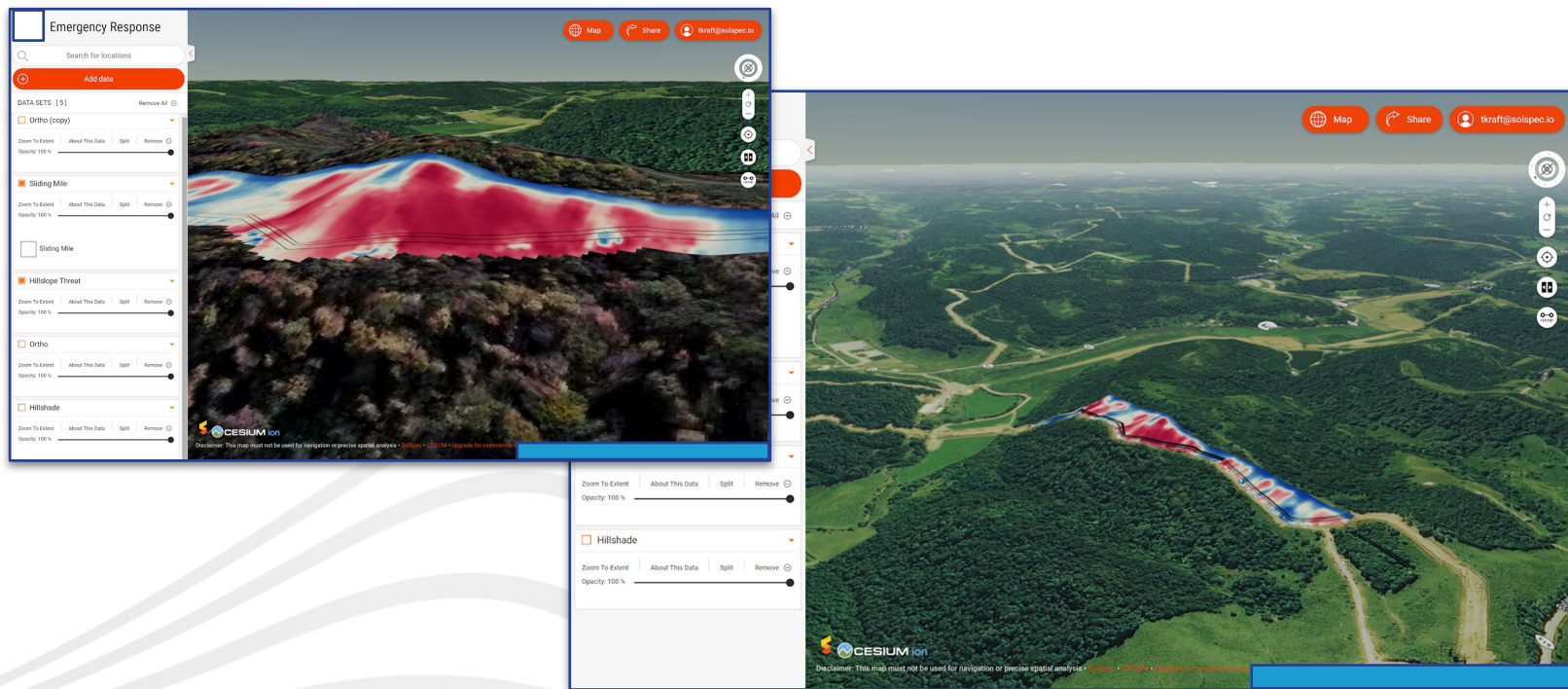
Mike Soraghan, E&E News reporter • Energywire: Tuesday, June 4, 2019



A landslide caused this September pipeline explosion near Aliquippa, Pa., in the Pittsburgh suburbs. The early-morning blast burned down the house of a family who escaped safely. It was one of six such pipeline incidents in Appalachia since early 2018 caused by landslides and similar hazards. Dennis Collins/Social Media/REUTERS/Newscom

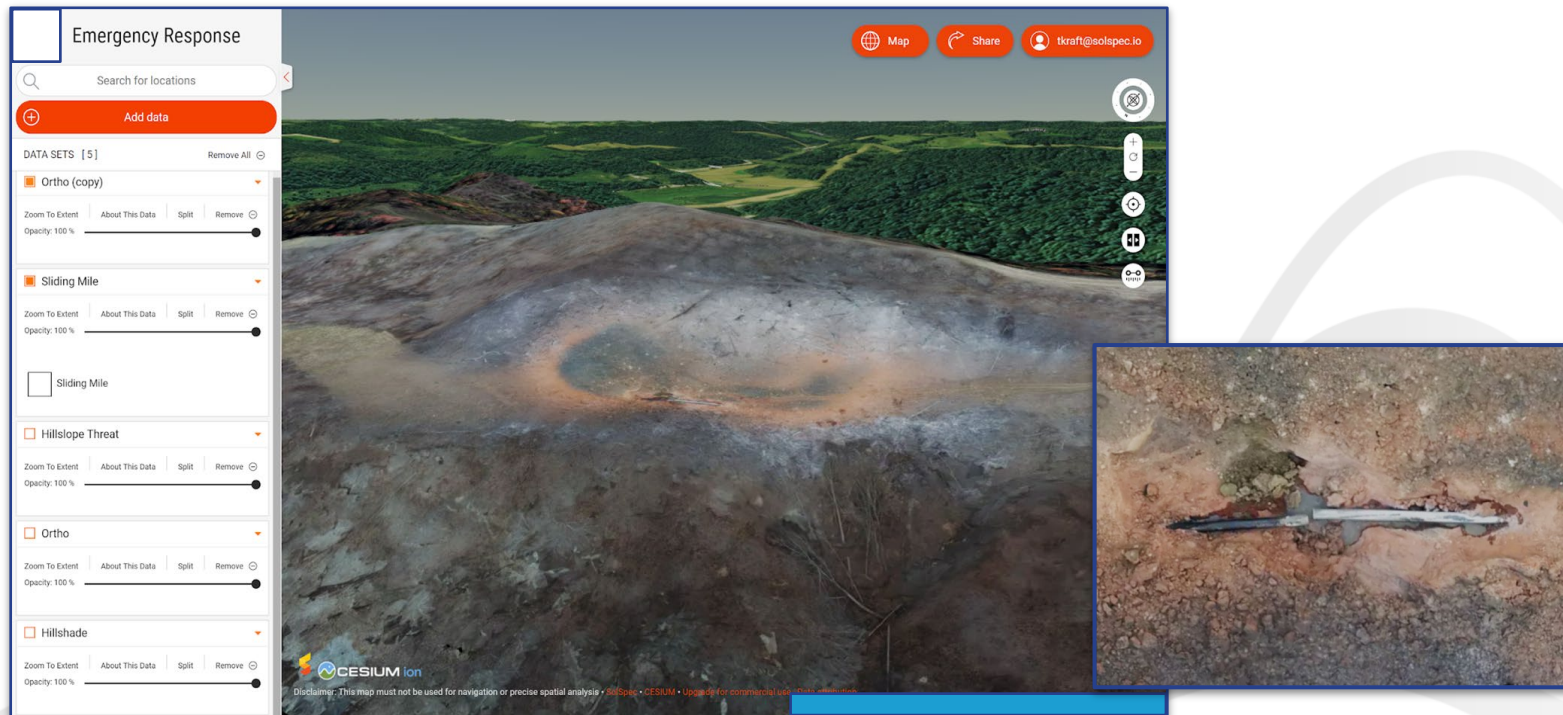
Predicting a Landslide Disaster

Case Study



Predicting a Landslide Disaster

Case Study



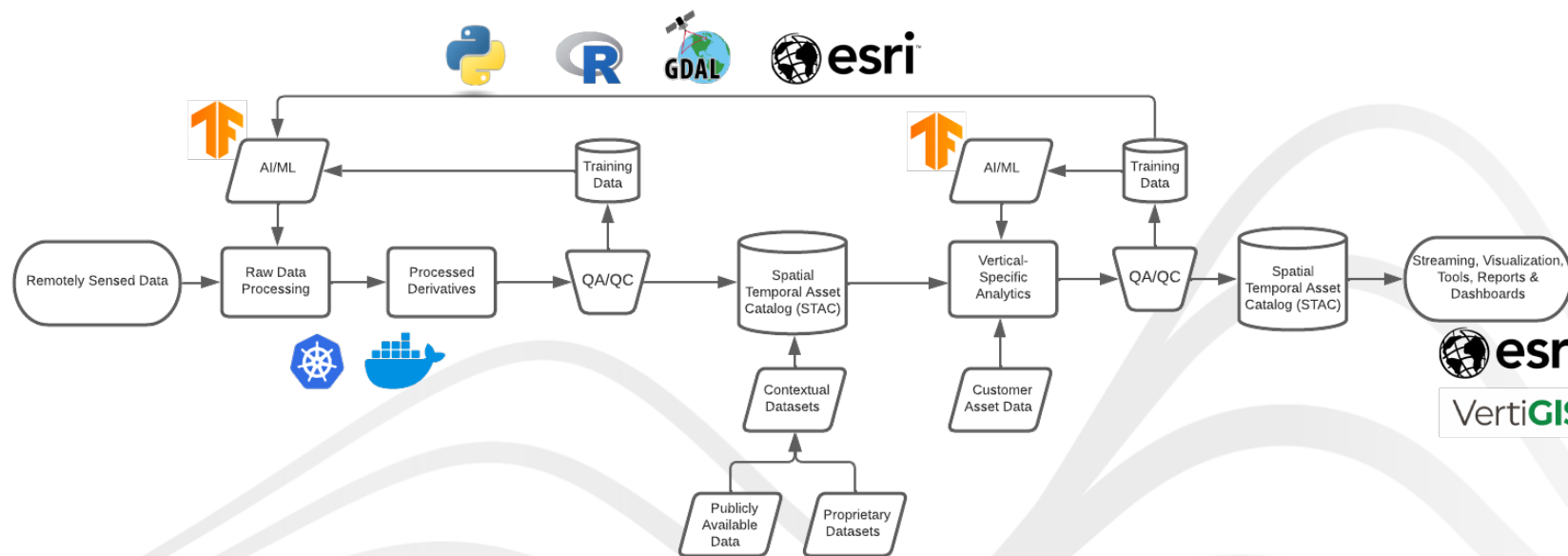
Geohazard Identification

LiDAR: the gold standard for landslide identification



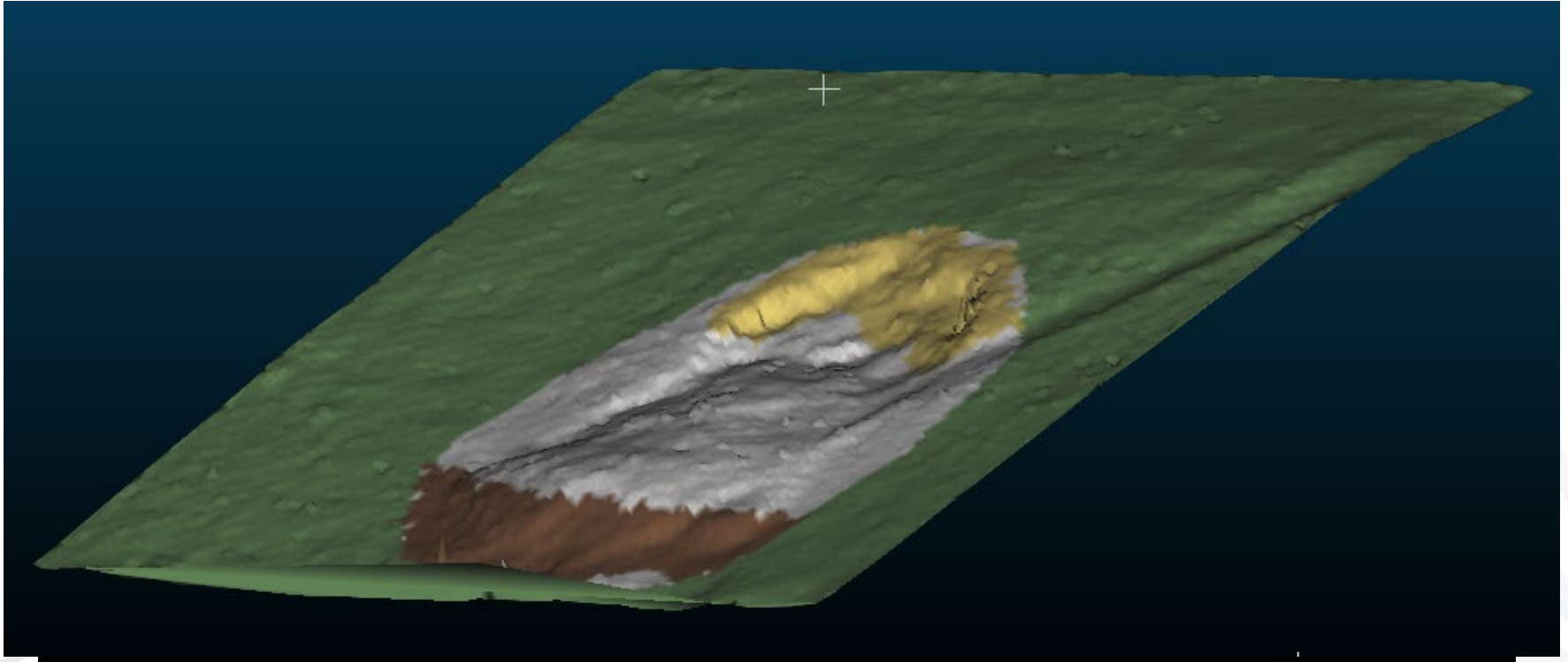
Teren Platform

The foundation for actionable insights



Point Cloud

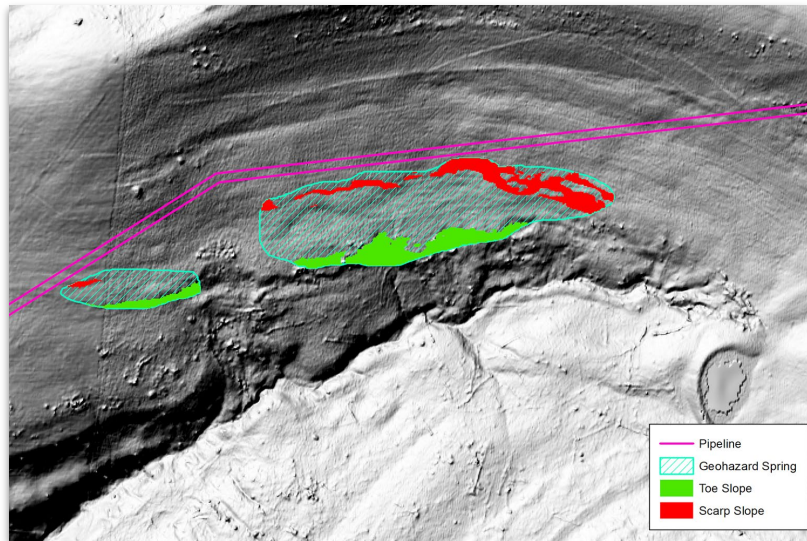
Change through time



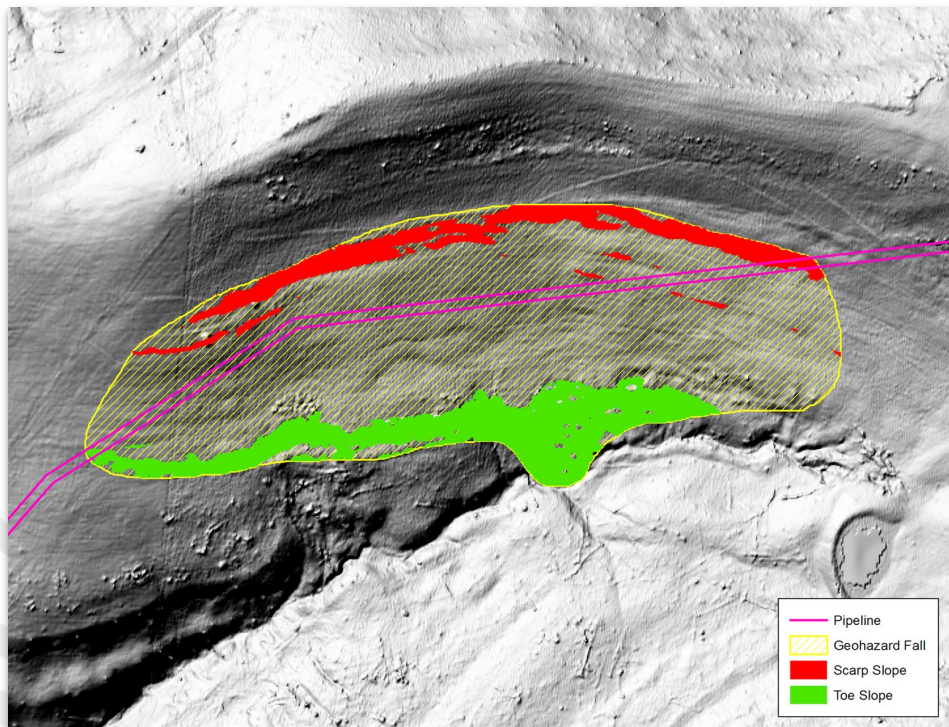
Change Detection

Measuring Growth **Over Time**

Time 1:



Time 2:



60,000 sq mi

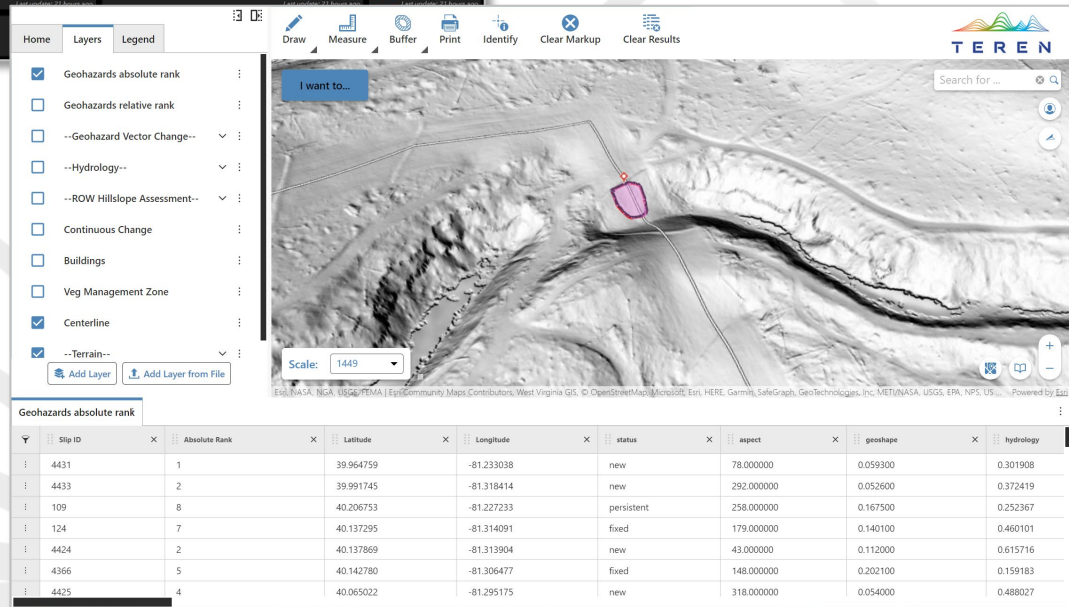
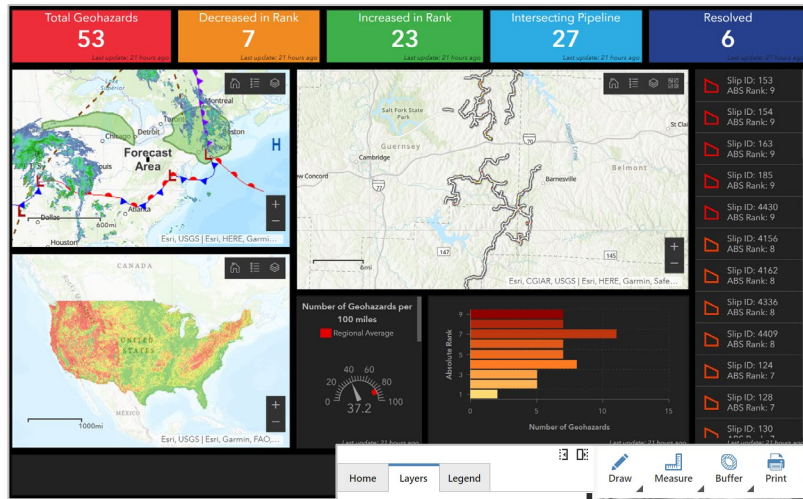
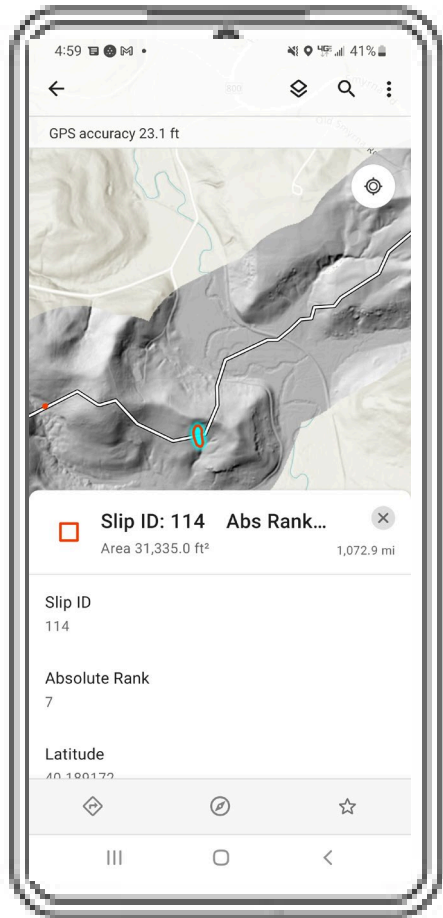
Acquired, processed, catalogued, indexed, and served to major pipeline operators

30,000 geohazards

Classified, quantified, tracked, and reported

136 Hours

To process 10,500 sq mi ~10cm resolution LiDAR



Case Study

Midstream operator in Appalachia

300 Mile Pipeline in Appalachia

Teren Case Study Before



246

Unprioritized Slips

3-5

Shut -ins per year

\$7M

Per day in lost revenue



Predicting a Landslide Disaster

Case Study



- 1 TB source data / derivatives
- Change through time
- Comprehensive, actionable analytics
 - Landslides, Hydrology, Contours, Depth of Cover, Buildings
- Bundled into decision -ready, prioritized queue
- SME enablement, actions, risk mitigation efforts
- Enabled fit for purpose spatial data
(even got the engineers to love GIS)

300 Mile Pipeline in Appalachia

Teren Case Study After



12

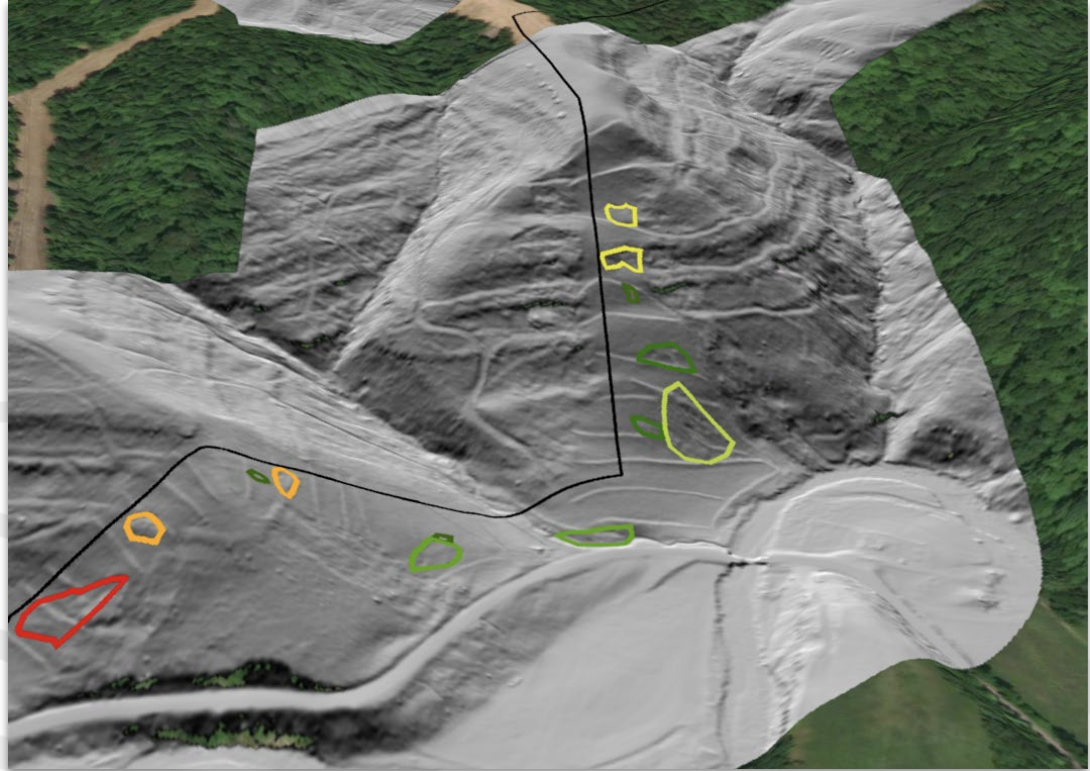
Slips unknown to customer

0

Shut-ins per year

90%

Reduction in Repair Budget





Thank you

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