



DIY Drone Data Capture and Utilization for Enhanced Landfill Planning and Operation

Brett Snell, P.L.(Eng.), LEED AP

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Introductions



**Associated
Engineering**



- **Brett Snell**, P.L.(Eng.), LEED AP

Site Challenges

**Waste
Placement /
Waste Grading**

**Daily / Weekly
Inspections**

**Access to
Survey**



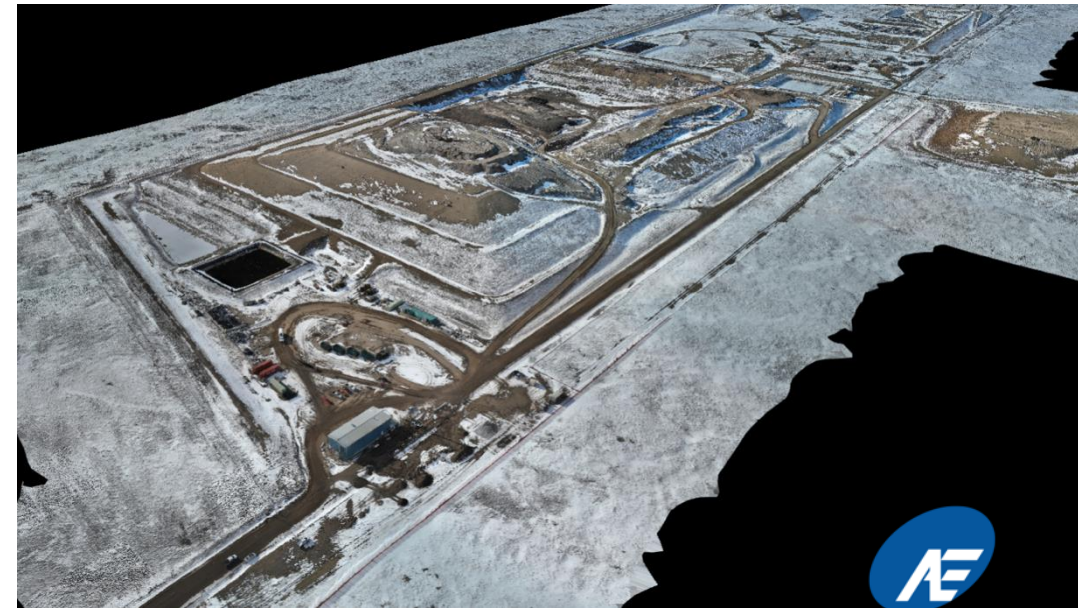
Drones / Data Processing Software

- Drone Imagery
- Oblique photos (Bird's eye view)
- Top/down photos



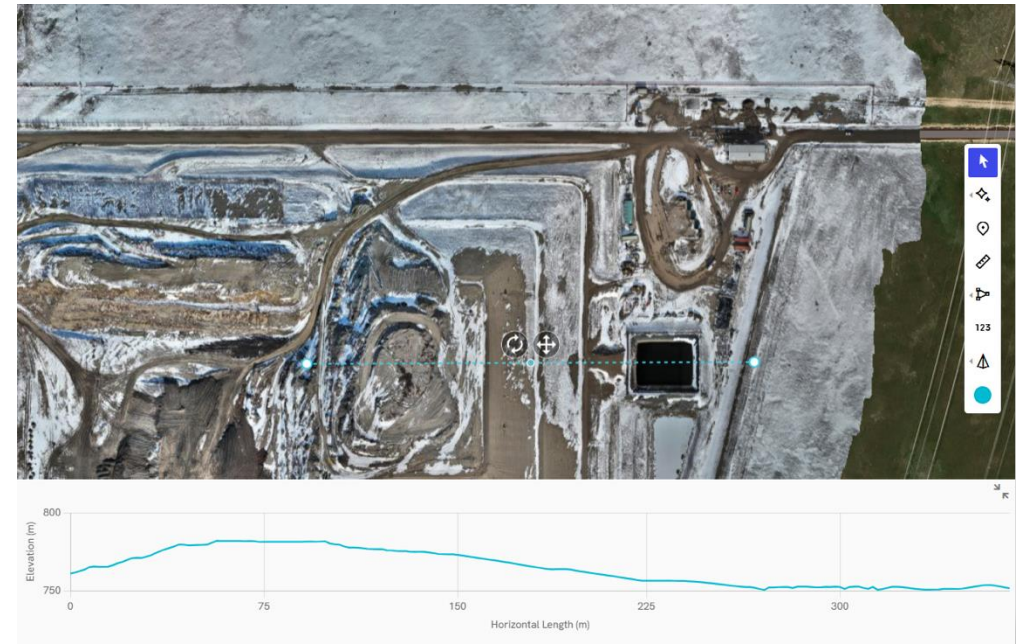
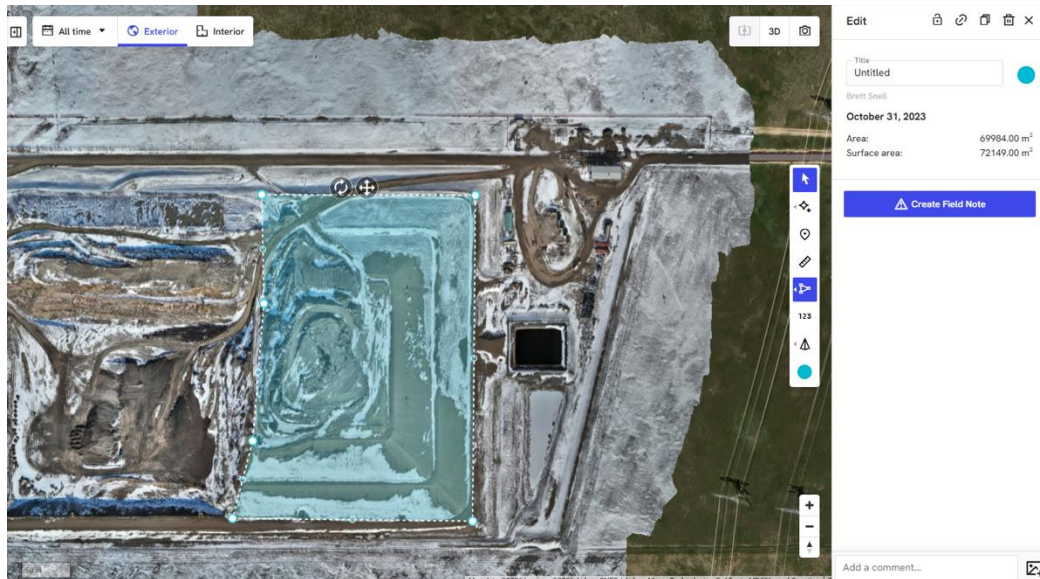
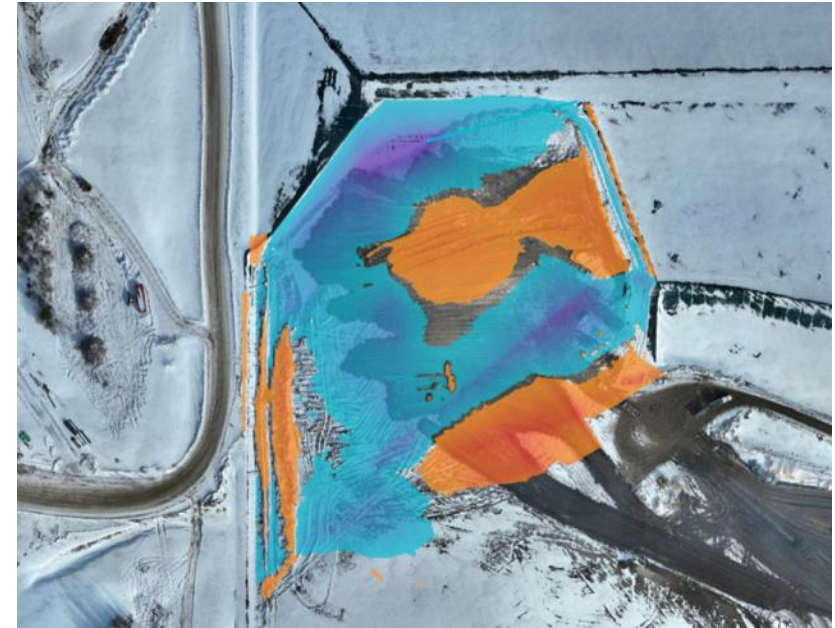
Drones / Data Processing Software

- Data Processing Software Imagery

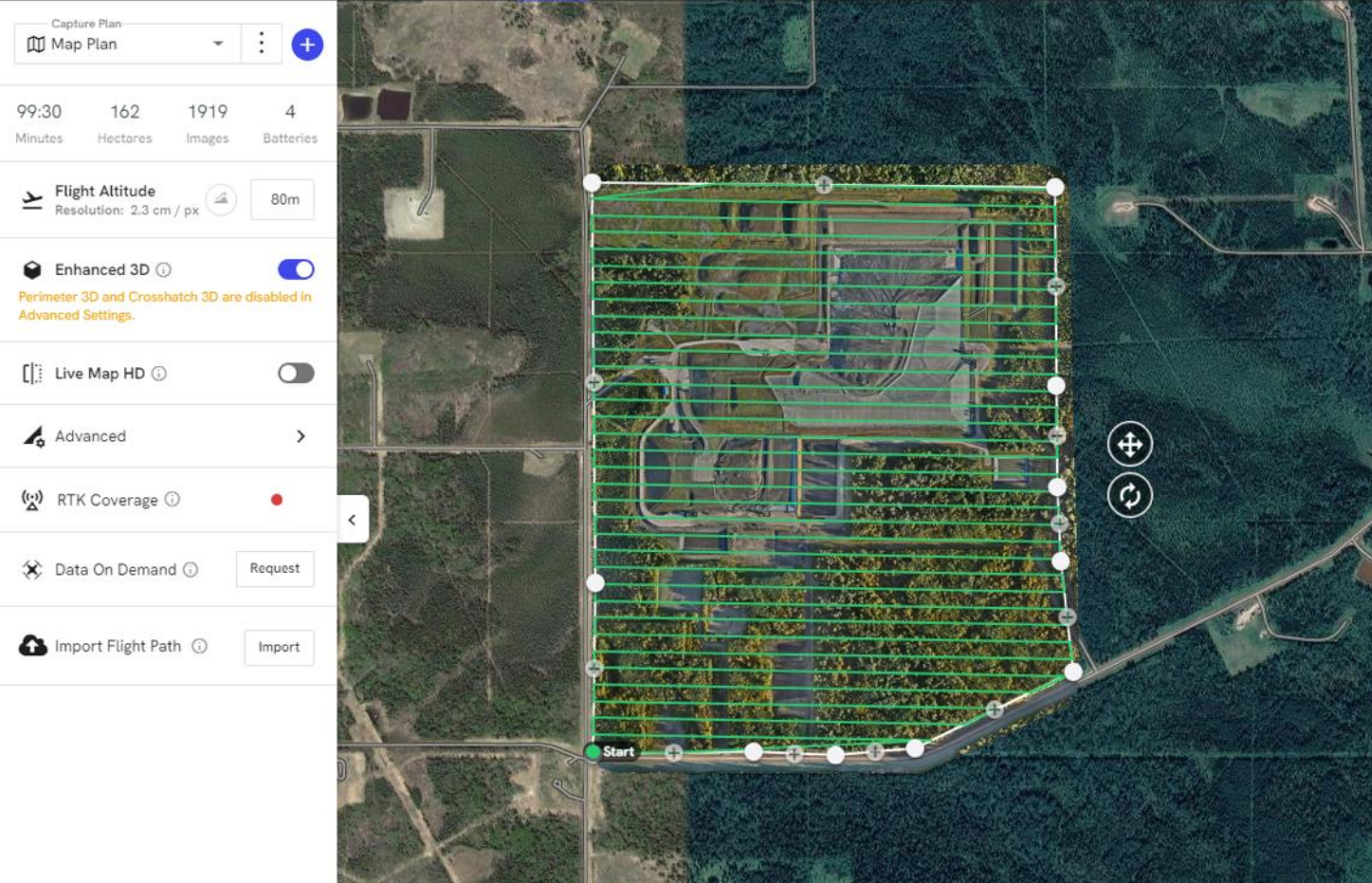


Drones / Data Processing Software

- Data Processing Uses
- Heat Maps / Areas / Profiles



Drones - Mapping



Training Drone Selection Data Processing

Getting Set up to Run your own system

Training

- UAV Vertical, Level Flight, AUAV Tech,
- Not all drones require training.



Drones

Small:

- Accuracy
- Average flight time - minutes
- Cost
- No training required (size dependent)



Drones

Medium:

- Accuracy
- Average flight time - minutes
- Cost



Drones

Large:

- Accuracy
- Average Flight time - minutes
- Cost



Data Processing Software

DroneDeploy

DroneLink

**Other
Platforms**



Support in initial Set up

- Training (As required/dependent on drone)
- Drone Selection
- Data Processing Software Selection
- Upload Data from Drone (In-office)
- Setting up Ground Control (GCP) – improve accuracy





Questions?

Brett Snell - snellb@ae.ca