

Capability Statement

ISC Geoscience LLC, based in Clear Creek County, Colorado, specializes in near-surface geophysics, geologic site mapping, and remote sensing. We apply innovative, non-invasive methods to real-world situations. ISC Geoscience is experienced in planning and performing geophysical services around the globe.

Applications

- Archaeological Geophysics
- Airfield Assessments – compass rose surveys, pavement condition index (PCI), void detection, rebar/dowel mapping, vegetation mapping
- Beach Erosion
- Environmental Site Assessments (ESA)
- Geologic Mapping – mapping layer interfaces, stratigraphy, geomorphology, structural geology, depth to bedrock, depth to water table
- Military Applications – detection/discrimination /classification of unexploded ordnance (UXO), landmines, improvised explosive devices (IED), tunnel detection, underground facility detection
- Civil Engineering Applications – levees, dams, foundation assessment, depth to bedrock, depth to water table, seepage mapping
- Geohazards – sinkholes, voids, landslides
- Green Energy – wind farms, solar farms
- Leak Detection - retention ponds, rivers, flat roofs
- Solar Farms – depth to bedrock, depth to water table, grounding potential, corrosion potential, soil thermal properties, solar panel functionality
- Saltwater Intrusion – map saltwater/freshwater interface
- Seismic Site Classification – Vs30 (Vs100)
- Seismic Hazard Analysis (SHA)
- Tunnel & Void Detection – old mine works, drug tunnels, tunnels into military facilities, escape tunnels from jails or prisons, sinkholes
- Wind Farms – depth to water table, depth to bedrock, seismic site classification, void detection, soil strength mapping along heavy equipment paths, grounding potential, thermal soil properties, utility detection, void detection
- Infrastructure Projects – roads, bridges, tunnels
- Railroad Assessment – ballast fouling, tie quality, rail quality
- Subsurface Utility Engineering (SUE)/utility locating. ASCE 38-22 & ASCE 75-22

Methods

Electrical Methods

- Electrical resistivity tomography (ERT)
- Electrical Resistivity Imaging (ERI)
- Fall of potential
- Misse-a-la-masse (MALM)
- Vertical Electrical Sounding (VES)
- Spontaneous Potential or Self Potential (SP), also called half-cell potential

Electromagnetic Methods

- Ground Penetrating Radar (GPR)
- Frequency Domain Electromagnetic Induction (FDEM)
- Time Domain Electromagnetic Induction (TDEM)
- Metal Detecting
- Very Low Frequency (VLF)
- Magnetotelluric (MT) method
- Audio Magnetotelluric (AMT)
- Controlled Source Audio Magnetotelluric (CSAMT)

Potential Field Methods

- Gravity Method
- Magnetic Method
- Spontaneous Potential or Self Potential (SP)

Seismic Methods

- Multichannel Analysis of Surface Waves (MASW)
- Refraction Microtremor (ReMi)
- Passive seismic methods
- Enhanced Spatial Auto-Correlation (ESPAC)
- Spatial Auto-Correlation (SPAC)
- Horizontal to Vertical Spectral Ratio (HVSr)
- Seismic Reflection
- Seismic Refraction Tomography (SRT)

Non-Destructive Testing and Evaluation (NDT&E)

- Spectral Analysis of Surface Waves (SASW)
- Impact Echo (IE) method

Unmanned Aerial Systems (UAS) (Drones)

- Imagery, Photos, Videos, LIDAR
- Magnetometer
- Photogrammetry

Company Snapshot

Business Name: ISC Geoscience LLC

Business Address: 2420 Colorado Blvd. #597
Idaho Springs, CO 80452

Phone Number: 720-507-7965

Email: ryan.e.north@iscgeoscience.com

Web: www.iscgeoscience.com

CAGE Code: 8EWZ6

Unique Identity ID: GRUUNKQFYDC2

EIN: 84-3036023

NAICS Codes

- 541330- Engineering Services
- 541360- Geophysical Surveying and Mapping Services
- 541380- Testing Laboratories
- 541370- Surveying and Mapping (except geo-services)
- 541620- Environmental Consulting Services
- 541715- R&D in the Physical Sciences
- 541990- Professional, Scientific, and Technical Services

Certifications

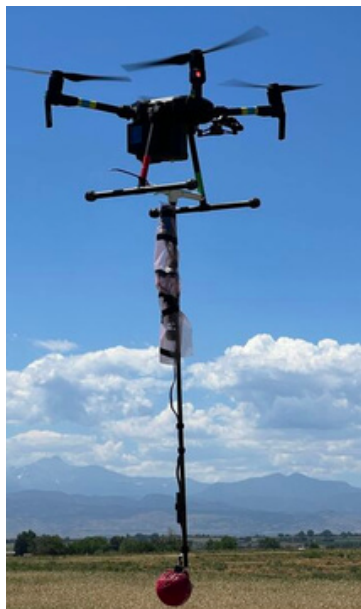
- OSHA 10, 30, 40 (HAZWOPER)
- First Aid & CPR

Insurance Coverages

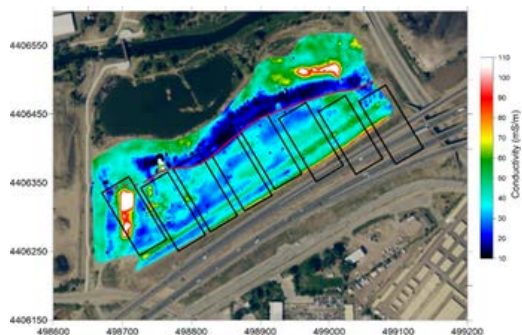
- Professional Liability- \$1 Million
- General Liability - \$2 Million
- Automobile- \$1 Million
- Workers Compensation
- Umbrella- \$1 Million

Licenses and Registrations

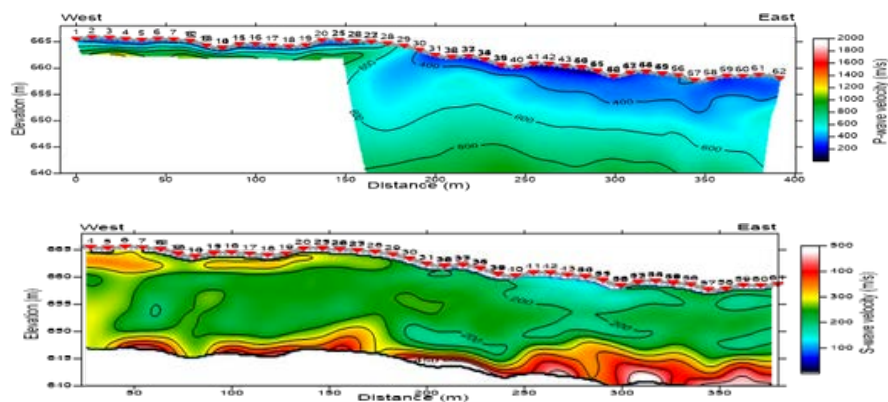
- California Professional Geophysicist (PgP)
- Louisiana Professional Geologist (PG)
- Mississippi Registered Professional Geologist (RPG)
- Puerto Rico Professional Geologist (PG)
- Texas Registered Professional Geoscientist (RPG)
- FAA Part 107 UAS Certificate
- Geographic Information System Professional (GISP)
- eRailSafe
- Transportation Worker Identification Card (TWIC)



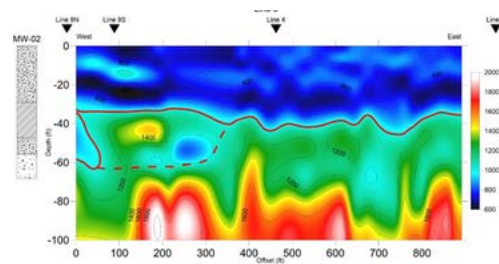
Drone-mounted magnetometers allow us to access spaces that used to be difficult to navigate. One drone pilot can cover a square acre field in two hours.



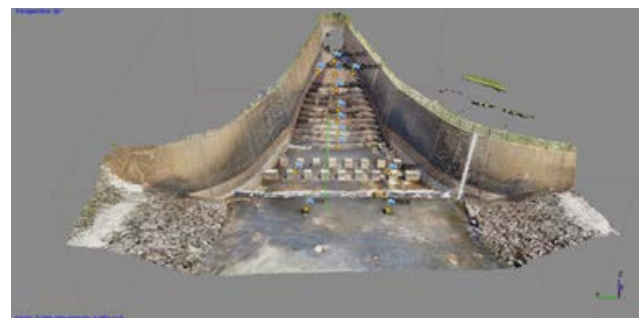
Vehicle towed surveys to map the boundaries of old waste disposal cells using a Geosensors R6 EM instrument and Impulse Radar Raptor-45 real-time sampling GPR array. By using vehicle-mounted instruments we were able to acquire data about 5 times faster than if we were to do the survey of foot.



SRT & MASW surveys to map bedrock depth and flow paths. SRT & multichannel analysis of surface waves MASW surveys to detect a fault under a caliche layer.



Photogrammetry results from both ground-based and UAS platforms to create orthomosaics, digital elevation models, volume calculations, and 3D models of structures to improve interpretation of defects.



All of our staff are ready to travel around the globe with limited lead time. We have passports, global entry, and our equipment is prepared to ship with a ATA Carnet.