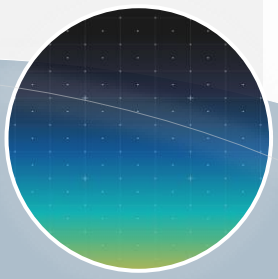
BIG GUNS ENERGY SERVICES

Your Trusted Partner in CCUS GeoContainment™

BGES stands at the forefront of Canada's subsurface testing and evaluation services, recently spotlighted in the prestigious 2023 Energy Business Review cover story. With accolades including the 2022 “Company of the Year”, and recognition as Oil & Gas Canada’s “Consultant of the Year”, plus a spot among Alberta Oil Magazine’s “Top 200 companies”, we pride ourselves on delivering unparalleled solutions. Spanning across diverse sectors — from oil & gas to cutting-edge fields like carbon capture, utilization & storage (CCUS) and hydrogen energy storage — our innovative approach continues to redefine industry standards.



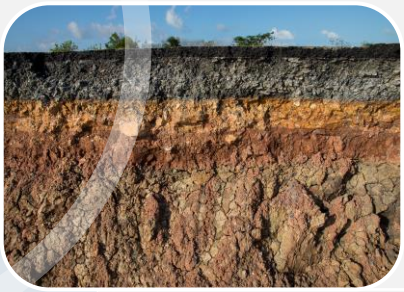
Geocontainment is essential for the success of carbon capture, utilization & storage (CCUS), ensuring the safe containment of CO_2 in designated formations such as saline aquifers, depleted oil & gas reservoirs, and salt caverns, etc. Caprock integrity plays a crucial role in maintaining containment by sealing the CO_2 within the storage zone and preventing leakage pathways.

BGES provides comprehensive assessments for storage capacity, injectivity, and geocontainment, covering the entire process from initial geological studies to geotechnical lab testing, in-situ testing, logging, and numerical modelling.

Our multidisciplinary Geoscience & Engineering team collaborates closely with clients to provide tailored solutions at every stage of the CCUS project lifecycle, minimizing environmental, operational, and financial risks. With our proven track record and commitment to excellence, BGES is well-equipped to support CCUS initiatives and contribute to global efforts in combating climate change.

Our Comprehensive Workflow For CCUS

1



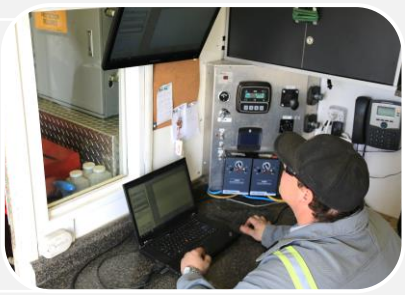
Site Selection & Geological Studies

Our workflow begins with comprehensive geological studies for site screening and selection, evaluating factors like storage capacity, seal integrity, leakage pathways, subsurface proximity, and surface conditions. A geological model can be developed to assess risks, forecast storage capacity and determine project feasibility.

2

In-Situ Reservoir Testing

Injectivity testing provides insights into subsurface characteristics and fluid mobility. These tests validate initial geological studies by offering data on formation parameters, heterogeneities, and connectivity. Results help refine estimates for storage capacity and injectivity, enhancing reservoir modelling.



3

Site Characterization & Well Integrity Assessments

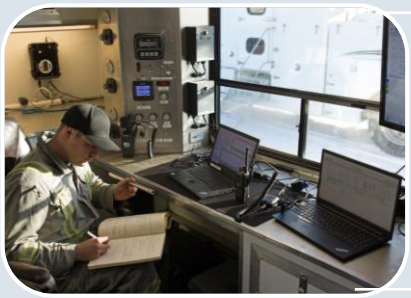
Site assessment includes tests to characterize the storage formation and its sealing caprocks. Legacy wells in the area are assessed using well integrity logs for leakage risks. BGES specializes in formation evaluation through casing, well integrity logging, and fluid flow profiling, ensuring comprehensive site analysis.

4

Geotechnical Lab Testing

In our lab, core samples are meticulously preserved and stored. BGES excels in specialized tests, including triaxial analyses, porosity, permeability, capillary pressure, and CO2 core floods. These tests provide rock physical and mechanical properties as crucial inputs for geomechanical modelling.

5



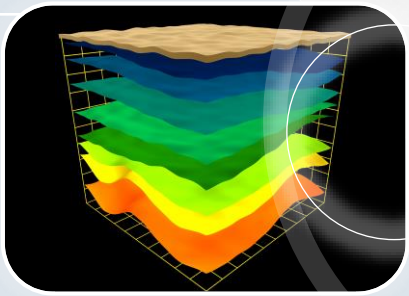
In-situ Stress Testing

BGES is highly experienced in performing DFITs using advanced equipment and skilled technicians. These tests yield critical data on in-situ stresses and pressure limits in the storage unit. Our specialized Professional Engineer (P.Eng / IntPE) provides insightful analysis in a comprehensive report.

6

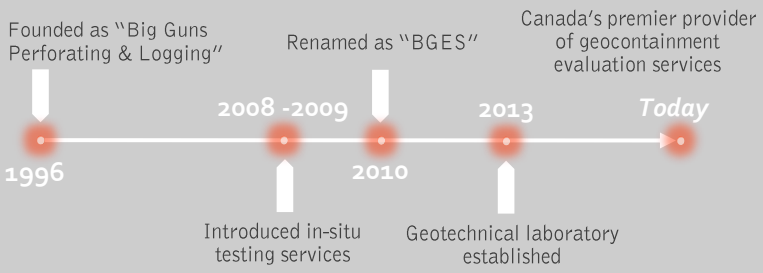
Modelling & Simulation

An integral part of the workflow is the development and integration of geological, reservoir/flow, geochemical, and geomechanical models. These models are vital for predicting changes in in-situ stresses and other parameters throughout a CCUS operation to ensure long-term containment and safety.



COMPANY HISTORY

Originally founded in 1996 as a cased-hole wireline company, BGES has undergone a remarkable transformation into a technology-driven firm focused on geoscience, engineering, and data acquisition. With long-term clients including Canada's Big 4 oil producers and major utilities, we are trusted partners in the industry. As a leading provider of geocontainment evaluation for global clean energy initiatives, our core mission is to mitigate safety, environmental, and financial risks through technical expertise and operational proficiency.



THE BGES ADVANTAGE

Scientific

Expertise

Quality-Focused

BGES excels in merging science and practice, leveraging expertise, and prioritizing work quality through real-world experience, cross-disciplinary knowledge, R&D, technology, and advanced testing methods.

Integrated

Flexible

Cost-Effective

We provide cost-effective solutions by seamlessly integrating services, streamlining field operations, and offering customized, flexible options to meet specific requirements.

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