Baker Hughes

# Proactively manage $CO_2$ storage risks with a simplified, no-intervention monitoring solution

## CarbonWatch autonomous $CO_2$ monitoring service

The CarbonWatch™ autonomous $CO_2$ monitoring service is a low-OPEX, no-intervention solution designed to simplify monitoring and help ensure the integrity of the sequestration site. CarbonWatch integrates five complementary remote field measurements—from shallow to deep into the reservoir—to enhance understanding of $CO_2$ conformance and confinement through $CO_2$ plume mapping, control spot verifications, caprock and fault structural integrity, and groundwater and soil quality.

### MANAGING RISKS IN NEAR REAL-TIME

CarbonWatch is the only system to track multiple measurements at various subsurface depths simultaneously. This data is collected and processed in near real-time, allowing operators to identify and respond to anomalous measurements quickly.

### MINIMIZING OPEX

CarbonWatch combines an array of 10 to 20 autonomous monitoring stations at the surface with multipurpose, commercially available, high-resolution sensors installed in a shallow well. This simplified, low-footprint monitoring design, combined with wireless data communication and weeks of power and data buffer capability, helps minimize OPEX and maintenance trips to the site.

### PROVIDING PEACE OF MIND

CarbonWatch monitors the integrity of the storage site for the life of the project. Continuous and near real-time monitoring allows operators to stay ahead of uncertainty and the wide range of integrated measurements provides assurance to local communities, regulators, investors, and other stakeholders.

### APPLICATIONS

- $CO_2$ site storage monitoring
- Periodic measurements of groundwater and soil quality

### BENEFITS

- Provides early warning of storage risks for fast, accurate response
- Saves 20 to 30% of subsurface monitoring OPEX compared to traditional measurements
- Gives peace of mind to local communities, regulators, and investors

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