

White Paper: Field Evaluation of the SecureSample™ Adapter and Secure Cap System

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Subject: Independent Field-Testing Results Conducted by GeoChem and MultiChem

Executive Summary

SecureSample, LLC has developed a patented fluid sampling solution designed to improve safety, reduce contamination, and provide consistent, tamper-proof sampling across a wide range of industries. This system includes the **SecureSample Adapter** and **Secure Cap**, which together form an integrated solution for collecting samples from pressurized or hazardous environments.

In Q3 2025, SecureSample, in partnership with **Civitas Consulting**, initiated independent third-party field testing to evaluate system performance under real-world conditions. Civitas recruited **GeoChem** and **MultiChem**, two reputable fluid analysis firms with extensive field experience in oil, gas, and environmental sectors.

Both firms utilized standardized Key Performance Indicator (KPI) evaluation forms to assess the performance of the SecureSample system across metrics including **ease of use**, **safety**, **efficiency**, **durability**, and **overall satisfaction**.

Testing Partners

Civitas Consulting

Civitas served as the independent project coordinator, responsible for identifying and managing qualified testing organizations, ensuring data integrity, and consolidating results.

GeoChem

GeoChem specializes in field-based fluid sampling for environmental and industrial clients. Their team tested the SecureSample system on multiple produced water storage facilities.

MultiChem

MultiChem provides chemical and fluid analytics to upstream oil and gas operators. Testing was conducted on produced water storage facilities.

Field Testing Methodology

- **Product Tested:** SecureSample Adapter and Secure Cap as an integrated system
- **Testing Period:** May 2025-July 2025
- **Number of collected Samples:** 100 field samples
- **Testing Environments:**
 - Colorado, outdoor produced water storage locations, multiple sites (GeoChem)
 - Colorado, outdoor produced water storage locations, multiple sites (MultiChem)
- **Sample Types:** Produced water, chemical mixtures
- **Data Collection Tool:** Standardized KPI Form with Likert-scale responses and open comments
- **Evaluation Scale: Compared to current methodology**
 - Not Acceptable
 - Needs Improvement
 - Meets Expectations
 - Exceeds Expectations
 - Outstanding

Key Performance Indicators (KPI) Results Summary

KPI Category	Result Summary
Ease of Use	All reviewers rated the system as “Meets” or “Exceeds Expectations”. Products were intuitive, minimal instructions required for implementation.
Safety	Rated highly, Exceeds expectations: Testers reported reduced exposure to potential hazardous vapors, modifiable distance from sampling sites reducing potential exposure from confined spaces

KPI Category	Result Summary
Contamination Control	Exceeds Expectations, System effectively prevented environmental contamination and potential sample tampering.
Efficiency	Needs Improvement, increase in collection time was reported but considered acceptable. Both firms stated this would likely decrease with familiarity.
Durability	Meets, Exceeds Expectations. Adapter and cap withstood challenging field conditions without failure.
Overall Satisfaction	100% of testers rated the system as “Meets” or “Exceeds Expectations”. All indicated they would recommend the product in geographic areas where hazardous gases are more prevalent in produced water.

Tester Feedback

GeoChem

“The system is intuitive after initial use. The added safety benefits outweigh the minor time increase in setup.”

“Preventing sample contamination is critical in our line of work—SecureSample performed exceptionally.”

MultiChem

” Products did what they were designed to do, functioned well”.

“This is a professional-grade tool. The ability to collect clean samples remotely is a game changer in confined or toxic environments.”

“Initial setup takes slightly longer, but that’s part of learning a new system. With training, efficiency should improve significantly.”

Conclusions

The field testing confirmed that the **SecureSample Adapter and Cap System** functioned as designed in field operations, 100% of time. The system provides a safer, cleaner, and more secure alternative to traditional sampling methods. The system’s only noted limitation—a slight

increase in time for setup and collection—was acknowledged as a training-related issue, expected to improve with experience.

Both **GeoChem** and **MultiChem** validated the product's overall utility and performance, particularly highlighting its **safety advantages** and **tamper-proof capabilities**.

Recommendations-Conclusions

Based on these results, SecureSample recommends:

- Proceeding with scaled deployment and integration in operations where contamination, chain of custody and safety risks are high.
- Offering user training or demo videos to reduce onboarding time.
- Exploring industry-specific configurations to expand adaptability.
- Although the system was tested for pressurized water, in-line or grab sample testing for hydrocarbons in machine maintenance should show similar results with respect to function. The system is agnostic to fluid type.
- System is highly adaptable to unique configurations, depending to client-user needs
- Markets-Industries identified:
 - Energy
 - Machine maintenance: any high value asset which use water or hydrocarbons
 - Mining, Oil & gas, rail, aviation, marine
 - Defense: equipment, base camps
 - Food and Beverage: water, milk-dairy
 - Information Technology: Chillers, Boilers