

Drill Cuttings Re-Injection (CRI) Project Management Service

Terralog Technologies Inc provides a Cuttings Re-Injection (CRI) Project Management Service that includes technical support, data management & project management services for injection of drilling wastes (drill cuttings, waste fluids, muds, etc).

Terralog helps clients achieve Zero Discharge E&P operations. Our services help to meet operational-drilling objectives by ensuring successful CRI operations.

Terralog's Technical Services Group combines expertise in geo-mechanics, geology, rock mechanics, reservoir engineering, and environmental management with practical field experience in

long-term deep well injection operations.

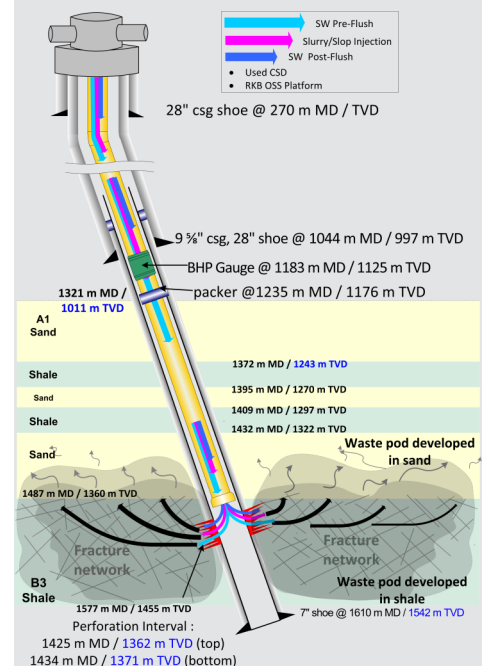
Terralog's CRI Project Management Service is built on our extensive experience in deep well disposal operations of upstream oil production wastes (e.g. drilling wastes, produced sands, oily viscous fluids, contaminated soils and tank bottoms).

CRI Project Management Service

1. **Technical-engineering support (exclusive of platform pumping services) in the CRI planning stage:**
 - Geological assessment
 - Equipment assessment
 - Well design
 - Injection strategy design
 - CRI Best Practices
2. **Project regulatory support:**
 - Liaison with regulatory agencies for project permitting
 - Detailed area-of-review for project permitting
 - Preparation of applications for regulatory approvals
 - Regulatory liaison and project documentation
3. **Daily technical-engineering support, process monitoring and reporting during active CRI operations:**
 - Design and implementation of optimum injection strategies
 - Analysis of injection data to optimize the injection strategy
 - Maintain formation injectivity
 - Ensure material containment in the disposal formation
 - Ensure CRI well performance and integrity
 - Maximize formation storage capacity
4. **Data management services** for CRI disposal operations, using TTI's specialized database applications and data management processes.
5. **Project documentation** (daily, weekly ops reporting) and regularly scheduled project meetings with the Drilling Rig Groups.

Service Benefits

- ✓ **Ensuring CRI Operations follow CRI Best Practices procedures & compliance**
- ✓ **Maintaining 'process control' during active CRI operations:**
 - Optimized injection strategy for a variety of waste streams (slurry, slop, well fluids, etc.)
 - Maintain waste material containment in the formation
 - Maximize formation storage capacity for injected waste streams (slurry, slop, etc).
 - Wellbore integrity
- ✓ **Properly designed, implemented and managed CRI operations during drilling operations**
- ✓ **Reliable and sustained CRI well performance during drilling operations, in terms of:**
 - Well availability/uptime
 - Wellbore integrity
 - Maximum well life



Zero Discharge Drilling Operations Using CRI Best Practices

- ✓ Integrated project management and technical support.
- ✓ Implementation of process control:
 - Maintain formation containment
 - Optimized injection strategies
 - Maintain wellbore integrity
 - Maximize formation storage capacity
- ✓ Data Management services for CRI disposal operations using specialized database applications and database processes
- ✓ Regulatory liaison and project documentation
- ✓ Rapid response capability for drilling rig/offshore platform based CRI operations
- ✓ Technical Support during active CRI operations
- ✓ Proven results to help achieve drilling objectives through successful, reliable CRI operations.

For more information please contact:

Terralog Technologies Inc
tticalgary@terralog.com
+1-403-216-4730
www.terralog.com

SFI[®], Slurry Fracture Injection[®],
TTI[®], and Terralog[®] are Trademarks,
property of Terralog Technologies Inc.

CRI Best Practices

Terralog helps clients successfully integrate environmental waste management into upstream E & P activities by following **CRI Best Practices** workflow processes. Related risk conditions are identified and mitigated, so that subsequent deep well disposal operations can be controlled.

Applying **CRI Best Practices** during each step of a deep well disposal project ensures successful and safe deep well disposal operations:

