

# 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 geomechanics, geology, rock mechanics, reservoir engineering, and environmental management with practical field experience in

long-term deep well injection operations.

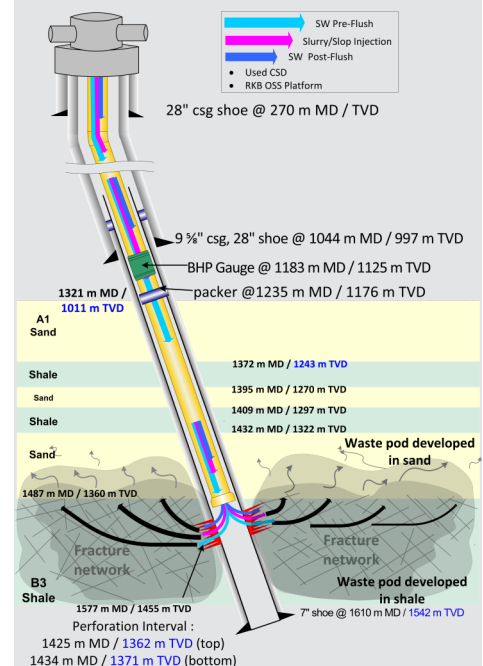
**Terralog's CRI Project Management Service** is built on our extensive experience in deep well disposal operations of upstream oil production wastes (e.g. drilling wastes, produced sands, oily viscous fluids, contaminated soils and tank bottoms).

## CRI Project Management Service

- 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
- 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
- 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
- Data management services** for CRI disposal operations, using TTI's specialized database applications and data management processes.
- 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:

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## 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:

