

CEMLab[®]

Cement Lab Data Management System

Overview

The design and testing of slurry are integral aspects of every cementing job. This process is both time-consuming and costly due to the variability of conditions across different wells. Traditionally, cementing engineers and lab technicians relied on paper forms to record test results. With the introduction of Microsoft Excel[®], people began to take advantage of electronic filing. This significantly improved reporting quality; however, what was missing with this approach was the management of numerous reports and search functions.

Without an efficient lab database, challenges such as difficulty in designing cement slurries, waste of resources in having to repeat similar tests, managing large amounts of slurry data, lack of evidence when problems arise, and non-standard practices across labs within a company.

To streamline cement lab operations, Pegasus Vertex, Inc. developed CEMLab, an integrated database management application. CEMLab formulates slurry, calculates lab amounts for all ingredients (cement, dry and liquid additives, salts, and water), stores API test results, and generates weight-up sheets and lab reports.

This software provides quick access to slurry formulations and testing statuses anywhere, anytime. Its advanced search function enables users to swiftly locate formulas and tests.





Features

- Web-based application
- Centralized database for multiple labs
- Integration with Azure Active Directory
- Multi-user online collaboration
- Formulation designs and calculations for lead slurry, tail slurry, spacer, and wash
- Flexible workflow: assign, submit, finalize, reassign, and redesign
- 12 standard tests and user-define test
- Search by various combined criteria
- Master material database
- Optimized data read/write speed for large lab data
- Job tracking and due date checking
- Lab data analysis
- Equipment database with calibration
- Remote submission of test and review requests
- Density/porosity input
- Excel® reports: test sheet, full reports, summary, and cost report
- Email notification
- Lot number, mixing order, history log
- Cost calculation and super sack functionality
- Lab management and user management with permission assignment (admin only)



Dashboard



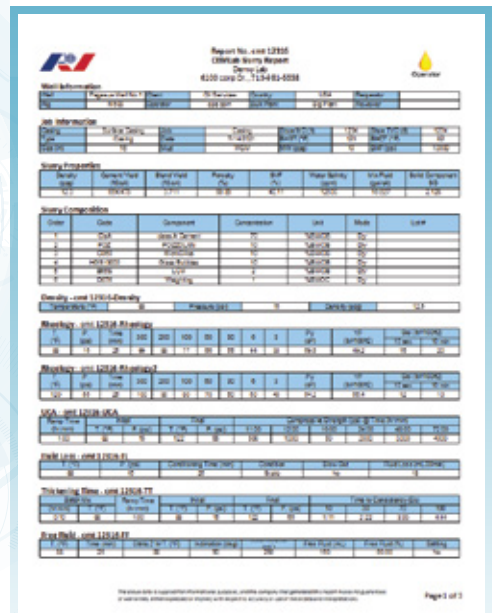
Slurry Design



Rheology (Test)

Server Requirements

- Dual-core Intel or AMD processor, 1.4 GHz or higher (Quad-core CPU recommended, not compatible with ARM processor)
- Windows Server® 2016
- .Net Framework® 3.5 and 4.7.2
- IIS Server®, Version 10.0
- Microsoft SQL Server® 2016 Express
- 4 GB RAM (8 GB Recommended)
- 40 GB of free disk space



Cementing Lab Report