

CURISDATA

DATA QUALITY
MANAGEMENT SYSTEM

Cement Laboratory Module





CURISDATA KEY COMPONENTS

Project Management

- Structured work flow process
- Activities scheduling
- Customer specific requirements
- Data input error monitoring
- Design & cost calculators
- Test analysis and validation
- Standard and customized test reporting

Resource Management

People

- Technical qualification
- Experience training
- Utilization

Equipment

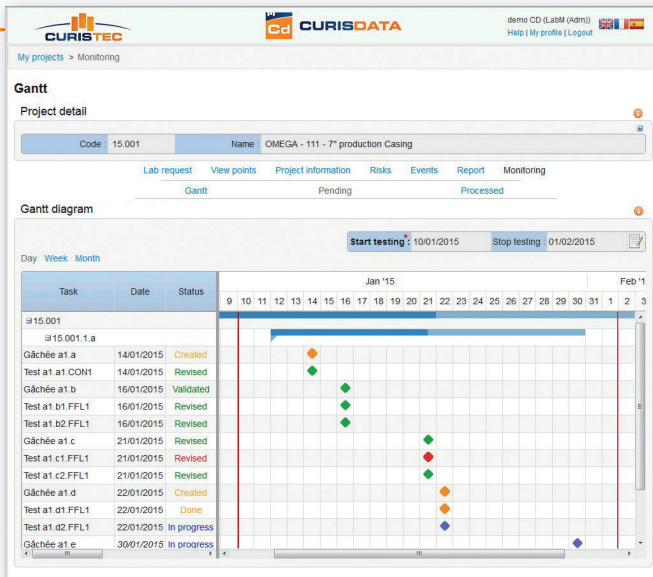
- Location
- Maintenance
- Calibration
- Utilization
- Life of the equipment
- Spare part inventory
- Accessory

Materials

- Location
- Quality control
- Chemical compliance
- Chemical inventory

Quality Management

- Chemical & equipment safety processes
- API & ISO standards monitoring
- Real time process monitoring
- Risk assessment & analysis
- Automatic quality cycle reviews
- Management of change
- Key performance indicator



The screenshot shows the 'Equipment list' table with columns for Code, Name, Family, Manufacturer, Status, and View. The table lists various pieces of equipment such as Rheometers, Consistometers, Presses, and Drying Ovens, along with their respective manufacturers and current statuses.

Code	Name	Family	Manufacturer	Status	View
A.0.0.NC.RHE	Eq NC	Rheometer		NC	→
A.0.1.OP.RHE	Eq OP	Rheometer		OP	→
A.0.1.OP.TRI	Active	Triaxial	Dami	NC	→
A.001.CON	Consistometer	Consistometer	DAME	NC	→
A.001.PRE	Press	Press		OP	→
A.001.RHE	Rheometer	Rheometer	Chandler	OP	→
A.001.UCA	UCA 1	UCA	Halliburton services	NC	→
A.002.CON	Consistometer	Consistometer	Chandler	NC	→
A.002.PRE	Press	Press		OP	→
A.002.UCA	UCA 2	UCA	Halliburton services	NC	→
A.004.DRO	Drying Oven 4	Drying Oven	Blinder	NC	→
A.005.DRO	Drying Oven 5	Drying Oven	Blinder	NC	→
A.018.OP.UCA	Eq OP	UCA		NC	→
A.039.OP.RHE	Eq OP	Rheometer		OP	→
B.0.0.NC.BAL	Eq NC	Balance		NC	→
B.0.0.OP.BAL	Eq OP	Balance		OP	→
C.0.0.OP.CON	Eq OP	Consistometer		NC	→
M.0.0.NC.MIX	Eq NC	Mixer		NC	→
M.0.0.OP.MIX	Eq OP	Mixer		OP	→
U.0.0.NC.UCA	Eq NC	UCA		NC	→

The screenshot displays the 'Skills list' table with columns for Skills, Internal (Total, Higher level), External (Total, Higher level), and View. The table lists various skills such as Mixing, Brazilian, Consistometer, Crush, Density F, Density S, Expansion, Fluid loss, Free water, MPRO, PPA, Rheology, SAGD, Settling, SGSA, Triaxial, UCA, UCS, and Ultrasonic, along with their internal and external levels and counts.

Skills	Internal		External		View
	Total	Higher level	Total	Higher level	
Mixing	5	Expert	0		→
Brazilian	3	Senior	0		→
Consistometer	3	Expert	0		→
Crush	2	None	0		→
Density F	3	Expert	0		→
Density S	3	Expert	1	Expert	→
Expansion	2	Senior	0		→
Fluid loss	2	Expert	0		→
Free water	2	Expert	0		→
MPRO	2	None	0		→
PPA	0		0		→
Rheology	4	Expert	0		→
SAGD	2	None	0		→
Settling	2	Expert	0		→
SGSA	2	Expert	0		→
Triaxial	2	None	1	Expert	→
UCA	3	Expert	0		→
UCS	2	None	1	Expert	→
Ultrasonic	2	None	0		→

CURISDATA helps you to efficiently and effectively manage your cement laboratory(s). It allows you to reduce the time and cost associated with redundant or re-work testing, data capture, data mining, chemical inventory, equipment calibration / maintenance scheduling, staff training and certifications, quality processes, and report generation. **CURISDATA** helps you obtain and maintain your quality management compliance qualification as outlined in either ISO 9001 or API Q2.



Intermediate report

Project: 15.001 OMEGA - 111 - 7" production Casing
Code: 15.001.1.a1 REP1 Internal reference: 102.2015.02.R01.01.a

Composition	15.001.1.a1	Customer	ALPHA	Unit	ALPHA US	Date	01/12/2015
Country	USA	Block	B	Field	OMEGA	Well name	OMEGA111

Job type	Line	OD casing [in]	7	Open hole [in]	9.5
MD [ft]	18503.937	TVD [ft]	18503.937		
BHST [°F]	464.000	BHCT [°F]	401	BHP [psi]	652669.820
T Initial [°F]	80	Time to bottom [min]	30	P Initial [psi]	500

COMPOSITION						
Service company	Mix fluid [tq]	Yield [tq]	Density [SG]	Slurry type	Porosity [%]	Tail
CUR	Cement	Class H Cement	Cement	3.200	/	/
CUR	Water	Fresh Water	Liquid	1.000	/	/
CUR	Silica	Silica Flour	Solid	2.500	35.000	% C
CUR	Retarder	Retarder HT	Solid	1.800	0.200	% C
CUR	Defoamer	Defoamer	Liquid	1.010	1.000	lit

FREE FLUID[Test 15.001.1.a1.b2.FFL1]	FREE FLUID[Test 15.001.1.a1.M1.FFL1]	FLUID LOSS[Test 14.011.0.aest1.2.FL01]
2.000 ml/250ml in 2hrs	2.500 ml/250ml in 2hrs	API Fluid Loss = 52.206
At 73.000°F and 0.000° inclination	At 72.000°F and 0.000° inclination	In 30 min at 72°C and 1000 psi
Sedimentation No	Sedimentation No	
Comment	Comment	Comment

THICKENING TIME[Test 15.001.1.a1.1.COM1]	
Consistency	Time
40 Bc	469.000 [min]
70 Bc	536.000 [min]
100 Bc	697.000 [min]
POD [min]	431.000
Comment	

Written by	AF	Checked by	GG	Approved by	APB
Date	01/12/2015	Date	01/12/2015	Date	01/13/2015

Communication Management

Documented communication processes

CLIENT ↔ SERVICE COMPANY
OPERATIONS ↔ LABS

Multi labs networking

- Test results
- Customer requirements
- Process changes
- Cement / Rock / Fluids

Reporting

- Generic and customized test reporting
- Document communication chain
- Embedded data processors

Data Management

- Multi-lab capture, storage and search
- Complete security system
- User specific designation
- Documented data entry, access and use
- Drill down search engine
- Mining and analysis tools

CURISDATA demo CD (LabM (Admin))

Search

Select: Project Units Choice

Request

Additive equals to Retarder HT

Additive equals to Class H Cement

Density between 1.700 [SG] 2.000 [SG]

Service company equals to OKC

Test results Free water[FFL] <= 2.000 [%]

Execute

The search results have 1 rows

Project code	Project name	Project date	Project manager	View
15.001	OM - 111 - 7" production ...	06/01/2015	demo CD	

Result grid visualization: CSV

Version: RC1.2.0_20150427_2300
App DB version: 20150421

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Multi-lingual





CURISDATA TECHNICAL FEATURES

Laboratory Workflow Modules

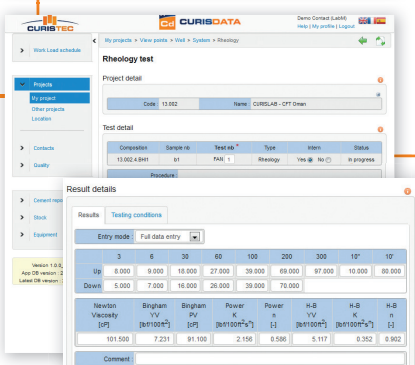
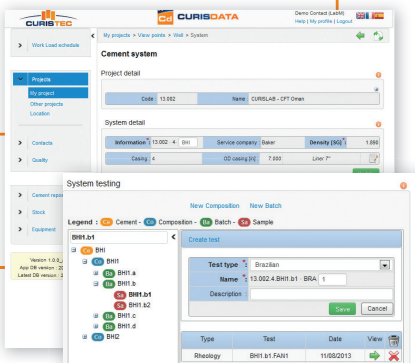
- Web-compliant remote test request and results reporting
- Multi-laboratory networking capabilities
- Cement / Rock / Fluids modules
- Conventional, compressible and salt cement design calculator
- Pre-defined or customized test worksheets
- Testing instructions and processes
- Electronic slurry component weight recordings
- Test specific slurry volume calculator
- Industry standard or customer specific mixing instructions and testing processes
- Slurry cost calculators
- Risk analysis
- Standard and customized test reporting templates

Chemical, Equipment and Staffing Modules using Flash Codes and/or iPads

- Cement and chemical sample tracking
- Real-time and automatic chemical inventory management
- Chemical specific performance windows and characteristics
- Real-time equipment status, inventory and utilization tracking
- Equipment calibration / maintenance scheduling and tracking
- Spare part inventory management
- Staff utilization
- Import and export of cement, chemical and equipment data

Quality Management and Reporting Modules

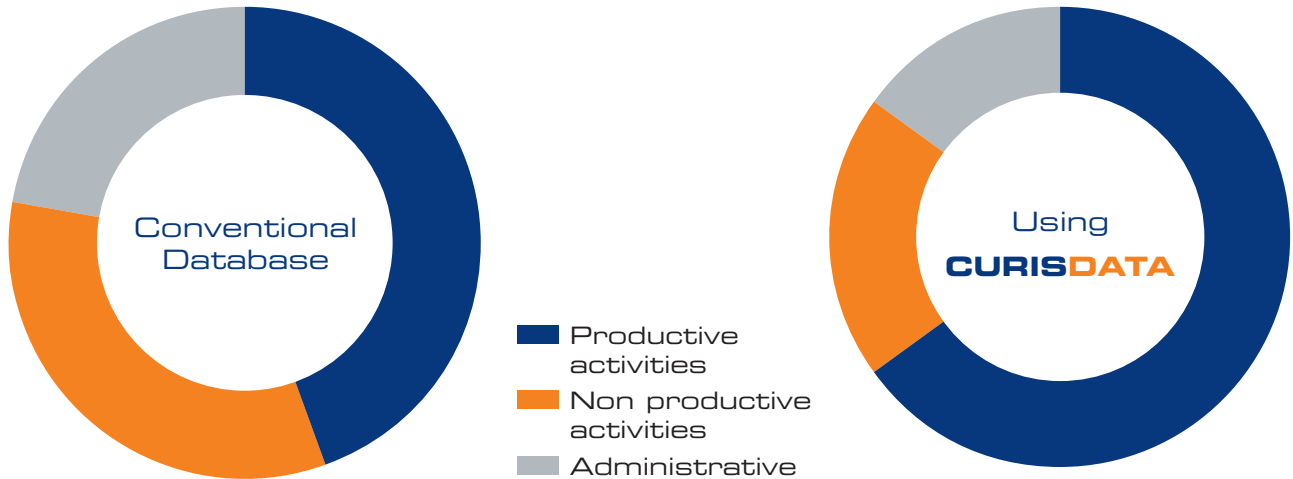
- Quality process workflow database
- Quality process adherence monitoring and tracking
- HSE and MSDS databases
- Data and result reporting security via user specific designations
- Staff training and certifications
- Equipment status, calibration and maintenance
- Chemical compliance monitoring and reporting
- Multi-level database search capability





HOW DOES **CURISDATA** CREATE VALUE?

Cement Laboratory Productivity Index

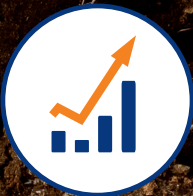


CURISDATA is a complete laboratory data quality management system that enables you to:



Manage Laboratory Cost

- Increase equipment utilization
- Optimize staffing assignments
- Decrease non-scheduled equipment repairs
- Reduce redundant and re-work actions



Increase Business Unit(s) Productivity

- Increase equipment utilization
- Lower administrative time requirements



Demonstrate Quality Management Systems

- ISO/API quality process adherence
- Health, safety and environmental standards
- Personnel certification and training
- Data monitoring, mining and reporting

CURISTEC is a privately-owned industry recognized technology company, specializing in oil & gas geomechanics, wellbore integrity, cement integrity, materials testing, engineering software and consulting services.

With engineers in France, Vietnam, Americas, and Abu Dhabi (CurisCotta), CURISTEC is globally positioned to deliver solutions based on an integration of science, engineering and field experience for your projects. **The quality of the service is the same independently from where it is provided.**

CURISTEC's dedicated materials testing laboratory in France and Abu Dhabi (2016), can easily and quickly test **the properties of your formations and cements.**

CURISTEC creates leading edge user friendly **software applications based on the latest sciences and technologies** with CurisIT developers located in Spain and China.



CURISDATA is a complete data quality management system that helps you manage your cement lab

CURISDATA is a complete web-compliant **Data Quality Management System** for your cement laboratories. Its key features enable you to increase your laboratory productive activities and helps you manage toward API QM2 or ISO 9001 quality specifications.

CURISDATA's project management tools, cement slurry calculators, chemical library, and risk analysis features help reduce non-productive testing due to cement test design errors.

CURISDATA helps reduce the time required for non-testing and administrative activities such as documentation requirements for: equipment maintenance / calibration records, staff training and certifications, quality process adherence, chemical compliance and inventory management.

CURISDATA's single server data storage platform provides a cost efficient secure way to capture, archive and access laboratory data from multiple locations. This enables you to reduce the amount of redundant and re-work testing.

System requirements

Server

- Tomcat 7.x or higher
- DB Oracle 9.x or Postgre 9.x or higher
- 2GB of RAM
- Java™ 7 Virtual Machine or higher

Web client

- Firefox 5.x+ or
- Chrome 10.x+ or
- IExplorer 10.x+

iPad client

- iOS 7.1 or higher

The development of CurisData was sponsored by Rhône-Alpes region of France.



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