

SampleManager LIMS v21.1 Implementation at a Canadian Oil Sands Company

CASE STUDY

PROJECT AT A GLANCE

Business Sector:

- Oil & Gas
- Quality Control

Informatics Systems:

- SampleManager v21.1

Service Offering:

- Implementation
- Customization
- Change Management
- Training

Elements:

- 4 Sites
- 4 Labs
- 19 Months
- 3 CSols Team Members

The Canadian oil sand extraction business is poised to grow exponentially with the recent completion of the Transmountain Pipeline expansion as well as the LNG Canada facility in British Columbia. CSols Canada has been an important partner for Canadian oil and gas labs since its founding in 2010. Thermo Scientific™ SampleManager™ LIMS has long been recognized as the most suitable LIMS for the oil and gas industry, and CSols has more than 20 years of partnership history with SampleManager LIMS.

Recently, a long-time oil and gas producer client based in western Canada engaged CSols to work with Thermo Scientific on a SampleManager LIMS v21.1 implementation at four sites in Alberta. These sites had previously been using a Honeywell operational management tool (not a LIMS), which had gone off support. CSols had previously partnered with this client and Thermo Scientific

to implement SampleManager LIMS v 12.2 at other sites.

Objectives & Challenges

The client's goal was to get all sites harmonized on the same system, through the SampleManager implementations that were being managed by Thermo Scientific. CSols had worked with this client previously, so the director wanted CSols to advocate for them and represent their interests, given the lack of LIMS experience at these four sites.

Moving four sites from a system based primarily on Excel spreadsheets maintained by individual users to SampleManager v21.1 involved not only the technical aspects but also some significant organizational change management (OCM) work. The client had also recently suffered a cybersecurity incident, which put the project behind schedule before CSols even began.

In the previous system every user had unlimited access. This meant that hundreds of Excel spreadsheets were attached to the software, extracting data in the way that each user wanted to view it. This was obviously problematic because of the cybersecurity incident and was also a redundancy issue, because no one knew what spreadsheets anyone else had already created.

There were many months of discussion about how to retain data from the old system in SampleManager LIMS. The client needed to maintain user access to approximately 10 years' worth of data, and the layout of the old data wasn't a great match for the layout of the SampleManager backend.

Every go-live has been pushed back, due mostly to the cybersecurity incident that consumed a huge amount of time. Fortunately, the client is more interested in getting the project done right instead of quickly.

CSols' Role in the Solution

CSols was brought in late on the first site that went live because Thermo Scientific is technically doing the implementation, but at each additional site the team has done a little bit more. The beginning of the project involved many long meetings with senior-level people. Those meetings slowly faded away as the project got some momentum and achieved some successes. Their worries were somewhat relieved as the successes mounted.

A total software change always comes with issues. The users have been very resistant to changing anything and especially to the loss of permission to use the data with their trusty Excel sheets. CSols has extensive experience with OCM so the training and support for getting what they need from SampleManager LIMS has been very helpful.



There were varying levels of enthusiasm about the implementation as well as varying levels of knowledge about informatics systems. The CSols team held frequent meetings with the designated LIMS administrators. This allowed the users to become proficient incrementally, with supported practice, and the go-lives went smoothly.

The client's workload for CSols significantly exceeded the original agreement of one full-time employee (FTE), but they were happy to hire on additional CSols consultants. The lab staff's schedules were accommodated to make the implementation work for them.

Because the primary development team focused on the bulk of the project, dedicated CSols resources made on-the-fly adjustments to address lab requests as they arose. This ensured the main development effort remained on schedule and focused on core tasks. Providing help for everyday tasks, as well as the post-go-live support, made the lab feel heard and important instead of having to put their needs on a list to be done later. CSols understood the customizations, enhancing the value of the support for the client.

The CSols team's availability and knowledge allowed flexibility to adjust deployment styles to each site's different needs. For example, one site wanted CSols to parse all their static data, another wanted to enter the static data manually themselves, and the third wanted it all in a spreadsheet to match the changes to what was needed from the old system

Additional contributions from the CSols team included:

- Guidance for the lab leadership about where to draw the line between must-haves and nice-to-haves so that the project stayed on budget
- Preparation of each subsequent site while the Thermo Scientific team was doing big tasks for the in-process site
- Above and beyond effort for migration of the 10 years of old data
- Increased the value of the work the Thermo Scientific development team was doing by giving them more time to work with the client
- Specific technical help with issues such as networking, the rt5 (PIMS) interface, statistical quality control (SQC) module, VGL and C# coding, and data parsing

Benefits

As a result of the work that CSols has done in partnership with Thermo Scientific, this client has realized the following benefits:

- Movement toward their goal of LIMS standardization across the organization
- Updated and supported software
- Security gained by user access control
- Ability to do reporting without exporting data to Excel
- Faster, more hands-on implementation support
- Tighter control on processes and data

Overall...

These benefits have allowed the client's labs to improve their ability to serve the broader organization with **better reporting**, while increasing their system **security** and ensuring that their **harmonized LIMS** will serve them well into the future and position them well to take advantage of Canada's **new oil and gas infrastructure**.