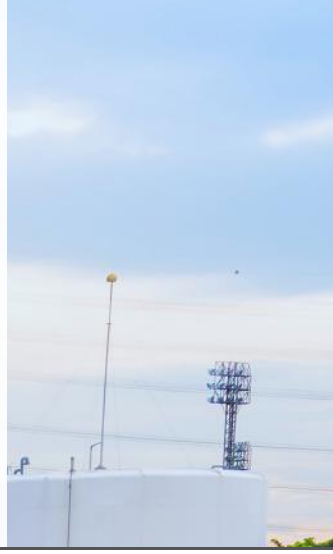
Customer Spotlight:
Water & Wastewater



Guadalupe-Blanco River Authority Dramatically Improves Lab Productivity and Data Quality Since Moving to ATL's Sample Master® LIMS

Lab sees 48% reduction in transcription errors since implementing LIMS

Organization Profile

The Guadalupe-Blanco River Authority (GBRA) provides stewardship for the water resources in its ten-county district in Texas. The mission of the GBRA is to support responsible watershed protection and stewardship, provide quality operational service and a commitment to provide conservation and educational opportunities for the citizens they serve.

The GBRA Laboratory is located at GBRA headquarters in Seguin, Texas and provides drinking water and wastewater testing services to support GBRA operations but also provides services to neighboring municipalities and the general public. The laboratory became NELAP-accredited in 2007 and is also an approved Texas Commission on Environmental Quality (TCEQ) laboratory to test environmental samples reported to the state of Texas.

The Laboratory staff includes the Laboratory Director, five analysts, sample custodian, customer project manager and a Quality Assurance officer. Testing performed includes basic wet chemistry, ion chromatography, gravimetric, nutrient and microbiological analysis and the labratory averages processing of 800-1000 samples per month. Testing and analysis is primarily for drinking water, wastewater and sludge matrices. The laboratory serves a population of 80,000 and tests the quality of drinking water in GBRA's water treatment plants with 43.9 MGD production.

Guadalupe-Blanco River Authority
www.gbra.org

"Sample Master® has greatly improved our overall workflow and accuracy. It has helped us to reduce errors, improve turnaround time and better meet the needs of our customers. The ability to parse data directly from instruments to LIMS has freed our staff to allow for more productive duties rather than continuous, repeated data transcription."

Kylie Gudgell
Laboratory Director

Guadalupe-Blanco River Authority Laboratory

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Their Challenge

The GBRA Laboratory used an internally developed LIMS for many years for sample management and reporting. As needs changed, the laboratory would make LIMS feature requests to their LIMS developer and wait for the updated version. This presented challenges since turnaround time on development requests would depend on development priorities at GBRA.

Over time, the GBRA laboratory assembled a list of challenges with the LIMS that prevented them from delivering consistently on their task responsibilities in a timely fashion. These included the following:

- The LIMS generated a sample number for every sample container and report, which created a large number of documents which needed to be managed.
- Data from the laboratory's instruments was transcribed manually into the LIMS. This process was time-consuming and prone to transcription errors.
- The user interface for the LIMS had a restricted design so searching for specific data was limited, difficult, and time-consuming.
- The LIMS did not easily allow for configurations changes to the user interface or to add/modify fields.

Guadalupe-Blanco River Authority Laboratory

The overwhelming amount of manual entry was negatively impacting turnaround time and the analysts were showing signs of stress due to the workload and focus on data entry. Also, creating new reports or modifying existing reports in the LIMS was not something the laboratory staff could do – this needed to be done by the developer. Finally, the laboratory was required to update their methods and reporting to ensure they were in compliance with NELAP accreditation and to maintain requirements as a TCEQ-approved laboratory. This in-house system was no longer meeting the laboratory's evolving needs and it needed to be retired.

Our Solution

Due to the growing list of capabilities the laboratory staff wanted from their LIMS, along with the evolving requirements for meeting NELAP accreditation and TCEQ reporting, GBRA decided to begin a search for a new LIMS. The laboratory put together an evaluation team to define LIMS requirements. From this effort, the team was able to create a Request for Proposal (RFP), which was released in 2014. The team developed a grading scale for LIMS capabilities, received RFP responses and narrowed the choices down to three LIMS vendors.

ATL Sample Master® LIMS was selected by the team in 2015 based on several factors including the fact that the product was modular in design so modules were selected based on functionality. GBRA also was impressed with the Master Query feature in Sample Master, which is a very easy-to-use tool for querying the LIMS dynamically. Another key reason for GBRA's decision was the fact that ATL has developed a web portal called Result Point® that provides GBRA's internal employees and external customers with secure 24/7 access to test results, status and reports – all a client needs is internet access via a browser. And finally, ATL highly recommended that GBRA interface their scientific instruments with Sample Master and eliminate manual entry of data into the LIMS.

INSTRUMENTS INTERFACED WITH SAMPLE MASTER® LIMS

HACH BOD Computer HQ40D
Dionex ICS-1000
Metrohm IC-881
Phoenix TOC Talk
Fusion TOC Teklink
Thermo Discrete Analyzer
Gallery Discrete Analyzer
HACH DR3900 Spectrophotometer

GBRA Analyst Preparing Test Tube Samples for Analysis

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The GBRA staff is very pleased with Sample Master and have noted the following areas where the laboratory has observed the positive impact of Sample Master LIMS since its arrival:

- The integration of the laboratory's instruments, which immediately eliminated most manual entry and boosted data quality and lab productivity.
- Every step of the sample management process experienced immediate improvement starting with sample login where the laboratory was able to begin setting up projects by customer – something they could not do in the previous LIMS.
- Improved laboratory automation also meant starting the use of barcode labels and hand held scanners, which provided positive results right away by automating data entry and information retrieval.
- The Master Query feature in Sample Master now allows the laboratory team to quickly answer internal and external customer requests with a few mouse clicks – dramatically cutting turnaround time and improving their customer service metrics.
- ATL's implementation, support and training resources have been invaluable in making the transition to Sample Master and giving comfort to GBRA in knowing that ATL will be there to protect their investment moving forward.
- Attending ATL's Sample Master LIMS Boot Camp provided several key LIMS users with hands-on training.

GBRA has observed quantifiable improvements since implementing Sample Master. This includes a 48% reduction in transcription errors. And GBRA's management has observed an improvement in staff morale as the elimination of manual data entry has allowed laboratory analysts to focus more time on what they like to do – sample analysis and chemistry. The laboratory looks forward to optimizing their investment in Sample Master and providing an even higher level of service to their customers.

GBRA Laboratory Team

Accelerated Technology Laboratories (ATL), headquartered in West End, NC, provides laboratory automation solutions to a variety of industries from analytical, environmental, food & beverage, water and wastewater, chemical, government, public health, clinical testing and manufacturing. ATL's LIMS products are installed in over 600 laboratories around the world and supported by a steadfast commitment to excellence in product quality, support and training. ATL is one of the few LIMS providers that is ISO 9001:2015 certified. For additional information, visit: www.atlab.com.