

Exhibit A – Scope of Work

PROJECT OVERVIEW

The City of Durham will utilize Sample Master® LIMS and Sample Master® Result Point® web portal to automate processes for the Water Management Department. Sample Master® and Result Point® will provide the wastewater and water quality laboratory with information tools to support efficient laboratory operations, including the production of timely and accurate analytical data and assessment reports.

Sample Master® supports the City of Durham's needs for instrument interfacing, data entry and storage, and processing and reporting of information; increasing employee efficiency, reducing turnaround time, supporting regulatory compliance requirements and allowing future growth. Sample Master® functionality matches the City of Durham desires for a fully developed, validated and supported system that is compatible with the existing infrastructure.

Static data will be uploaded into Sample Master®, allowing authorized users to query, add and modify client, project, method and other information. Seven years of data will be migrated from the existing legacy system into Sample Master®, providing historical access and data trending. Sample Master®'s ability to interface with other ODBC clients supports City of Durham's needs for statistical analysis and report development.

Result Point® supports the City of Durham's needs for clients external to the laboratory to have access to real-time laboratory results and reporting data, without the need to access Sample Master®. Additionally, Result Point® will improve laboratory staff productivity by minimizing the need for staff to respond to phone and email requests for results and reports.

The National Pollutant Discharge Elimination System (NPDES) Discharge Monitoring Report (DMR) will be developed to support the City of Durham's permit compliance.

LOCATION

The installation and configuration services will be performed at the City of Durham's Water and Wastewater Quality Laboratory. Some configuration and creation of any customizations or the functional requirement documents that describe the customization will be managed at ATL headquarters in West End, NC.

START AND COMPLETION DATES

The Project is estimated to begin on January 4, 2016 and shall be completed on or about April 26, 2016. Specific timelines for deliverables will be developed by the parties after the contract is finalized and the SOW approved.

DESCRIPTION OF SERVICES

ATL will perform the following services:

- 1. Software Installation Preparation:**

The preparation for software implementation consists of the following steps

Exhibit A – Scope of Work

- a. Strategic and Operational Planning - A formal review of the discovery and development process and human and system interfaces is mapped in the form of flow diagrams to form the basis of a roadmap for successful LIMS utilization. A review of the laboratory's strategic goals and a risk assessment.
- b. A review of the current laboratory and technology workflows.
 - i. **Requirements Document (RD):** ATL has extensive experience in meeting the needs of analytical laboratories and understands the requirements of the user. The workflow analysis process allows for definition and testing of the functional and technical requirements for potential technology solutions. This task provides the baseline for the development and configuration of a tailored solution to meet the laboratory's unique needs. Users are able to see firsthand how the various modules that make up the LIMS can help them achieve their individual and workgroup goals.
 - ii. **Workflow Creation:** Because no two laboratories are identical, workflow creation is the critical task to a successful LIMS deployment. The workflow creation exercise directs all stakeholders to actively participate in understanding the current operational processes. Once workflows have been created for each section of the laboratory, it is much easier to understand the entire process and look for areas of improvement. ATL's engineers have extensive expertise in migrating data from legacy systems and successfully migrating data, workflows, as well as static table data.
- c. A technology analysis of the current state of the IT environment including architecture (hardware/software) and operational processes.
 - i. **Project Readiness:** Once a laboratory assessment has been completed, including workflows, documents, and pre-installation checklists/templates, the final report will be shared with the team for review. The project managers can then finalize the project Gantt chart and dashboard.

Deployment

Upon completion of the software implementation preparation phase, the ATL team will assist the City of Durham in the installation of Sample Master® and Result Point®. The installation assistance shall include:

- a. **LIMS Optimization (use case scenarios):** ATL's systems team will work with the City of Durham to make sure that the computing environment has been optimized for maximum performance.
- b. **Plan for Parallel Testing:** Prior to putting a new LIMS into place, it is important to perform parallel testing to ensure that both systems are providing acceptable data outputs. Our engineers will assist with developing a plan for this testing.

Note: IQ Execution included in On-site installation (The ATL Advantage)

2. Configuration

After the LIMS software has been deployed, ATL engineers will work with the City of Durham team to configure the LIMS solution to meet the laboratory's needs while executing ATL's ISO Certified Quality Management System software development and configuration process.

Exhibit A – Scope of Work

As part of the configuration services, ATL Engineers will provide the following:

- a. **Static Table Data Population:** ATL will work with the City of Durham team to populate a template of static table data from City of Durham's legacy system so no re-entry of currently stored electronic data is required. ATL has extensive expertise in migrating data from numerous legacy systems and importing that information into ATL's data management systems.
- b. **Static Table Data Population QC (Quality Control):** Once all of the data is populated into a template, ATL's engineers will ask the City of Durham to review the data (Quality Control). ATL's Engineers may also import the data into the template from the legacy system, such as those based on Oracle, Microsoft SQL Server, DB2, Access, Paradox, Filemaker Pro and many others.
- c. **LIMS Tailoring to Each Laboratory Section:** The information from the Requirements Documents (RDs) and workflows will be incorporated into the configuration of the workflow for each department. System configuration also includes custom form captions to mirror the terminology that is utilized in the laboratory to facilitate acceptance.
- d. **LIMS Configuration:** Once the templates and checklists are completed, the ATL team will work to create a system that will accommodate the needs of the laboratory with a few typical use case scenarios for each laboratory section. This allows the team to envision how various test cases will be handled and also to know if any adjustments need to be made to the configuration. Once the team is satisfied with the use case scenarios, the system is ready to be installed.
- e. **Parser Development and Testing:** Once the City of Durham provides the instrument output files in XLS, CSV, TXT, XML or other common format, the ATL team will work to create and test a parser for each of the following instruments:
 - Nexion 300x ICP
 - OI Analytical Aurora 1030 TOC
 - QuikChem 8500 Lachat
 - PE Analyst 200
 - Dionex ICS 2000
 - RS 232
- f. **System Interfacing:** Once the City of Durham provides the database files, the ATL team will work to develop a Requirements Document (RD) that will define the specifications of the interface for HACH WIMS.

3. Training

During and after implementation, ATL will provide the following training services to the City of Durham:

- a. **Training Services:** ATL's certified trainers provide custom tailored on-site End-user and LIMS Database Administrator training as well as classroom style training and on-the-job training in smaller groups. ATL's certified trainers utilize a combination of training methods and also offer video tutorials. In addition, ATL also offers the following: LIMS Boot Camps in Pinehurst, NC, a 2-day Report Writing Class in Pinehurst, NC, and Web Based Training (Seminar and Interactive).

Exhibit A – Scope of Work

- b. **ATL's Training Plan:** ATL shall provide a certified trainer to provide four (4) days of custom tailored on-site End-user and LIMS Database Administrator training, to include classroom style training and on-the-job training in smaller groups which will address all the above-listed items at a minimum. Trainers will provide end-users and administrators with training manuals to review the functionality, focusing on features that are of particular importance to that group; these features include logging samples into the system, producing configured reports, importing instrument data files, and other system functionality. The training manuals also provide specific, easy to follow examples. This will be done in overview sessions as well as individual training provided where necessary.

Database Administrator Training Manuals are also provided that present information on the database schema (table structure), and review important management, administrative and maintenance tasks for the database administrator to perform prior to going live.

A portion of the on-site training is dedicated to creating and modifying the standard reports.

ATL shall provide specialized tools in each major aspect of the LIMS project. For example, data from the pre-installation phase surveys, checklists and templates feeds into the training phase which utilizes a combination approach to training.

- c. **Instrument Parser Training Plan:** ATL's certified trainers shall provide two (2) days of custom tailored on-site training on the instrument parsers developed and tested as described in Configuration.

ACCEPTANCE CRITERIA

ATL shall implement a project dashboard to be used to track and accept the project deliverables. The list of deliverables will be displayed on the project dashboard and as each deliverable is completed the cells are colored green, indicating that those items have been completed by ATL engineers. The parties will hold conference calls to review project progress and to review next steps and any open issues.

Exhibit A – Scope of Work

Task	Description of Completion
SOW executed	Signed contract
Software delivered and installed	Software to be shipped to client and installed on clients server
Customer Acceptance of Configuration	Software set up and configured to client needs
Documentation delivered	Installation manual, user manual and training manuals delivered along with video tutorials
System Interfacing	Interface with HACH WIMS, provide documentation
Training/ Knowledge Transfer	Administrator and End-user training completed
Instrument Parsers	Parsers installed and parser training completed, project transitioned to support
Final acceptance	ATL will provide test plan to ensure that system is performing properly – any issues that were identified in parallel testing were addressed.

Exhibit A – Scope of Work

CONTACTS

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ASSUMPTIONS or REQUIREMENTS

ATL Implementation team members assume that time is of the essence in executing this project, they anticipate full cooperation from the City of Durham team, and that ATL engineers will have access to the necessary server for software installation, implementation and end-user training.

ATL is an ISO 9001:2008 Certified firm and we follow our processes and procedures to ensure that we provide our customers with a quality system, backed by outstanding training and support.

To ensure a successful LIMS implementation, ATL dedicates personnel to specific roles commensurate with the implementation responsibilities.

ATL's expectation is that City of Durham will designate appropriate personnel specific to the identified implementation roles.