SunStar Laboratories LIMS System

LIMS SYSTEM
We utilize the Element Data system from Promium as our LIMS system. The LIMS is a database built on a SQL platform. This SQL database is on a server here at our laboratory and is built into a RAD-5 array. The database is backed up everyday to provide protection from loss in addition to the RAD-5 array's internal backup structure. The Element Data system LIMS has been used in our Laboratory since 2001 and is expected to take us far into the future.

CONFORMING LIMS
The LIMS system was directly designed with production and quality control guidelines for many laboratory practices. This LIMS system fully meets the requirements for ELAP, NELAP, and other laboratory protocols. Many internal controls and QC protocols are built into the LIMS. Permissions and access is controlled for allowance of different departments and personnel with in the laboratory.

LOGIN OF SAMPLES
During the login procedure all the information needed from the COC is entered into the database. Included in the login are sample conditions, temperature, Custody Seals, received on ice and sample containers are intact or broken. All Sample ID's along with date and time sampled are entered. The project manager assigns analytical testing methods and Turn Around Times are set for the project.

BATCHING
In the weight out room of the laboratory the samples are removed from the refrigerators and are individually weighed out for each test required. The LIMS system directs the laboratory technicians as to the samples to be weighed out and identifies the sample matrix type to aid in retrieval of samples that are stored in refrigerators by matrix. The Element LIMS data system has each individual test method pre coded in to include all needed information for preparing a batch. All needed QC info for batching a group of samples including blanks, duplicates, blank spikes, matrix spikes, and the number of samples allowable per batch is pre set with each method. This improves QC monitoring and production. After a group of samples are weighed out and batched the database assigns a status of Batched with in the database.

DATA REVIEW
At the completion of the analysis the analytical chemist reviews the data acquired from each batch. Upon completion of analysis by the analytical chemist the completed batches are updated to an Analyzed status. The status is updated to analyzed by the chemist with in the database. The completed data packet then goes to the QC data reviewer for a second party data review. After the data batch has had its second party review the batch is then updated to Reviewed by QC data reviewer. The data packet is then sent to the PM and placed in the project folder. Once the data packet is updated to reviewed the sample data is viewable on line through our web page.

REPORTING
The Element database LIMS system has a great set up for diversity in reporting. Many different report formats are available including custom report formats. Samples from a single sampling event can be included or excluded during reporting. Also sampling events from multiple days can be included together in a single report. The LIMS system is also able to generate many different EDD formats including custom EDD formats and EDF generation for Geotracker data.

ONLINE RESULTS
Customers have access to their results on line through our web site. The data present includes all log in information, test results for all tests reviewed, and PDF copies of the COC, work orders, and hard copy reports.