Title	Calibration Verification & Drift Correction of ARL 3460 and 4460 Spectrometers	**Location**	Chem. Lab

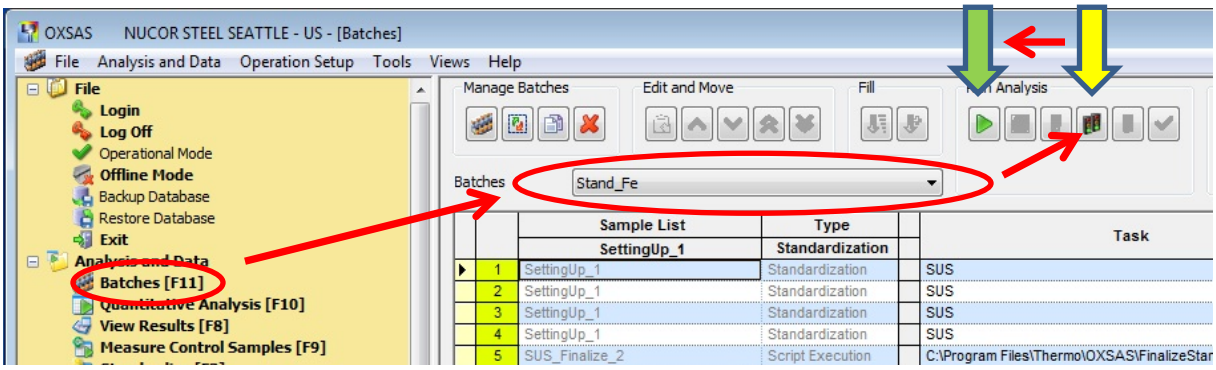
Safety Apparel, Tools or Equipment Needed;

Coverall and/or Greens (optional)	Glasses w/ Side Shields	Steel Toed Boots w/ Metatarsals

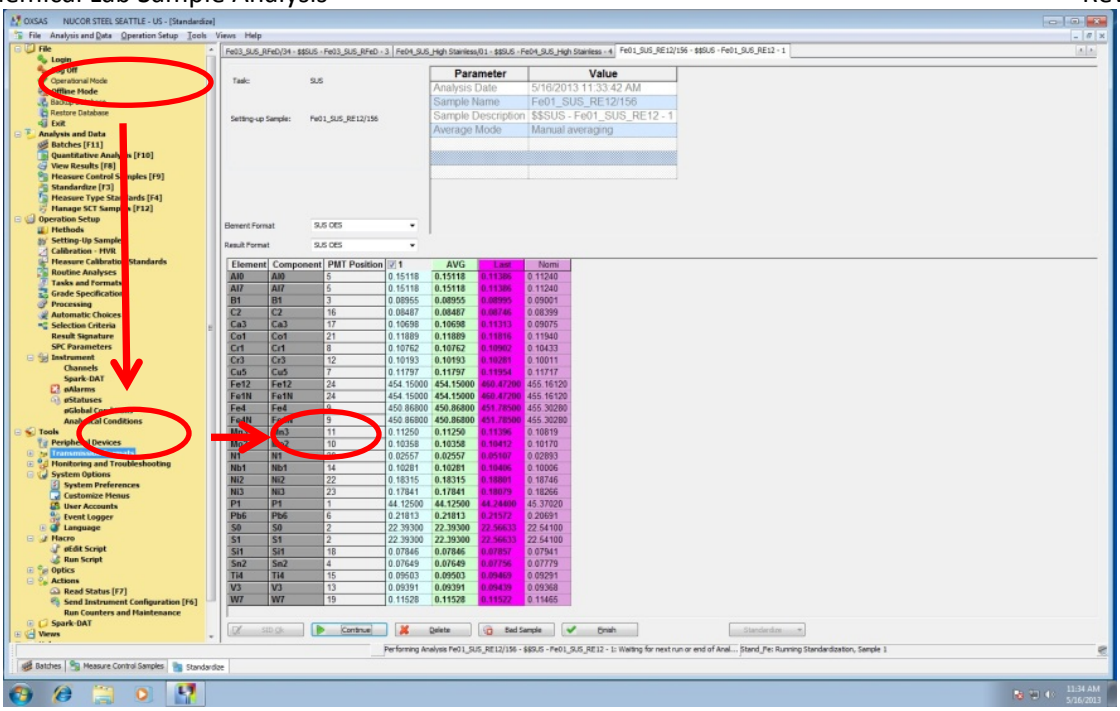
Note: The calibration of the primary spectrometer needs to be verified at the beginning of each shift and at approximately 4 and 8 hours into the shift. The results of this verification shall be logged. If the spectrometer is found to be out of calibration, use the following drift-correction procedure to bring it back within the acceptable range.

Standardization Procedure for OXSAS Software on all Spectrometers

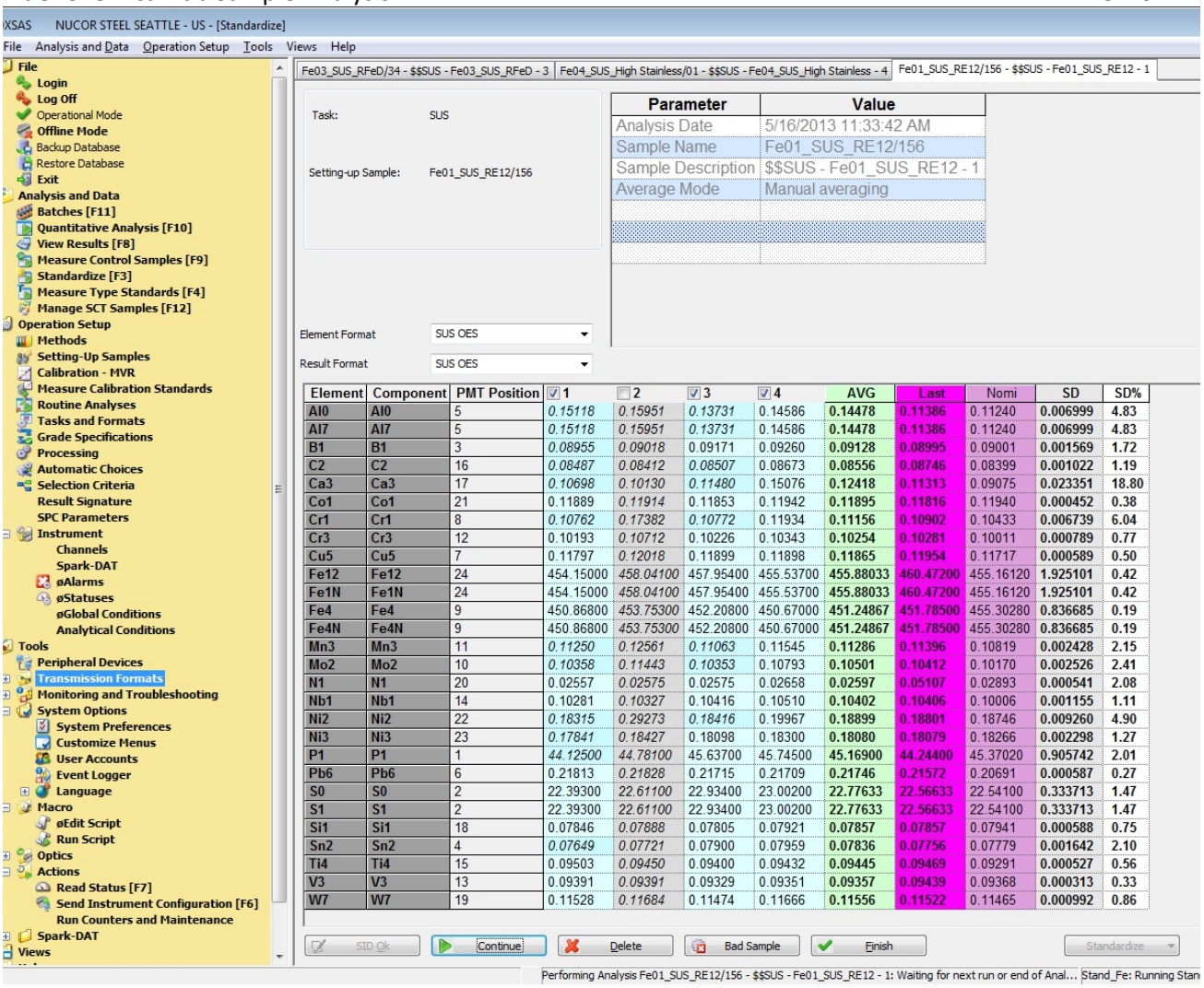
1) From the main screen, select “batches” (red circle below) or press F11.
2) In the drop down box select the batch that shows the 4 required SUS samples as well as the 5th “finalize” step.
3) Click on the button under the yellow arrow to run all SUS samples.
4) Click the “Run” button under the green arrow.



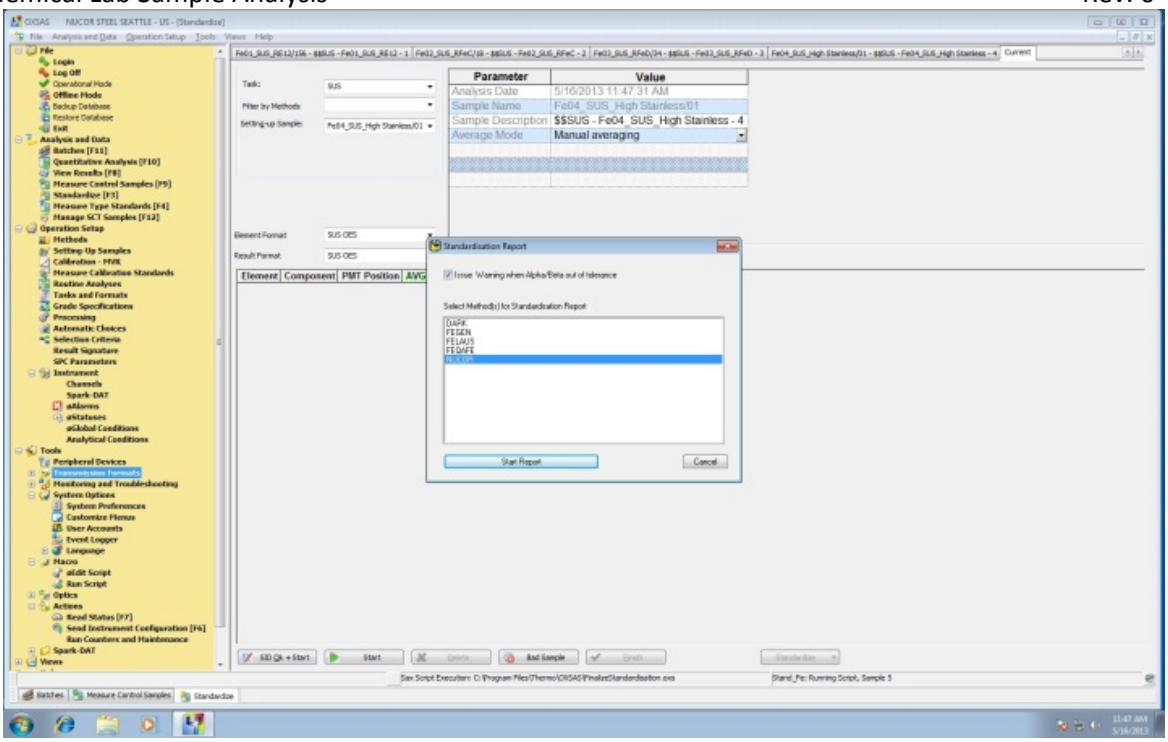
5) Check that the SUS sample ID matches the ID shown (circled) and place it on the spark stand.
6) Hit “continue” to analyze the sample (circled).
7) Adjust sample to test fresh area and hit “continue” to analyze the sample (circled) again.
8) Once you have two analyses that agree well, click “finish” (circled) to progress to the next sample and repeat steps 5 through 8. For most elements, agreeable results are under a standard deviation percentage of 3%. Some elements such as Calcium can typically be more variable so obtaining low SD% for these elements is not imperative. More attention should be paid to elements relevant to our process (C, Mn, S, P, Si, Cu, Cr, Mo, Sn , Ni, Nb, V, Pb, Al and N).



This is what the screen will look like when you have burned multiple samples. Columns that are "checked" at the top will be used in the standardization. The SD% shows the variation, and this should be under 3% for the elements we are looking for.



9) Once the 4th SUS standard had been analyzed, click “finish”, select “NUCOR” on the drop down and click “Start Report”…and you are almost done!



10) Analyze check standard and ensure the elements are within the specified ranges.
11) Document the verification