**The Great Equalizer (%CV) Worksheet**

Your shipment of CK control materials arrived late. You only have 3-days’ worth of your current lot number before you need to use the shipment you just received to maintain your QC practices for that analyte. You check the L-J chart to see if the method’s performance has been stable.





**Based on your review of the provided QC charts, you conclude the following**:

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**The Great Equalizer (%CV) Worksheet**

You recall that you only need 8-10 control measurements to determine a reasonable estimate for your observed mean for the new shipment of control materials. For the next 3 days, you analyze the new shipment in parallel with the current lot number and obtain the following measurements: Each measurement obtained on the new lot number falls within the range noted in the package insert.

|  |  |  |
| --- | --- | --- |
|  | Level 1 (Lot # 1-456) U/L | Level 3 (Lot # 3-456) U/L |
| Day 1 | 67.0 | 611.0 |
| 64.0 | 610.0 |
| 64.0 | 612.0 |
| Day 2 | 61.0 | 608.0 |
| 64.0 | 610.0 |
| 64.0 | 610.0 |
| Day 3 | 64.0 | 610.0 |
| 65.0 | 610.0 |
| 63.0 | 609.0 |
| **Mean** |  |  |

You know there is insufficient time to obtain a reasonable estimate of the SD for the new shipment before it must be placed into use. You also know that the SD often changes with concentration, so you are aware that you cannot use the SD directly from the current lot number and apply it to the new lot number. You decide to apply the great equalizer, %CV, because % CV can be used at the cross-over between 2 different lot numbers of control materials. Refer to Worksheet: Applying %CV 605 for assistance.

**You create the new L-J charts based on the new mean and calculated SD derived from the %CV. Complete the charts by labeling the Y-axis with the control values. (Page 3)**

The % CVs for the current lot #s are as follows:

Lot # 1-123 \_\_\_\_\_\_\_\_\_\_ Lot # 3-123 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Applying the %CV to materials of similar concentration, the derived SD for the new lot numbers are as follows:

Lot # 1-456 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lot # 3-456 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tomorrow, your analysts can begin using the new lot number of QC materials as the current and plotting their observed values on the charts you just created.

