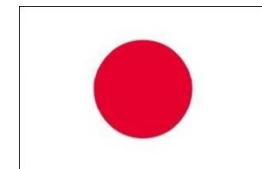# # 33: Bag analysis close item

M. Bergmann

Background to OIL #33

33	6	1.2.14.2.1.	bag analysis	ICE	50	discussion with meas. Experts required. Presentation by AUDI 257rev1	Drift correction method need to discussion in phase-1b	to be reviewed, then modify if necessary

- ▶ **According to gtr Annex 6, §1.2.14., gas analysers shall be:**
  - ▶ "…calibrated as soon as practical prior to analysis"
  - ▶ "…rechecked using the same gases. The test shall be considered acceptable if the difference is less than 2 per cent of the calibration gas value."
  - ▶ Calibration and check are not necessary before and after each bag.

- ▶ **Background to open issue #33:**
  - ▶ Is analysis void more often due to the new process?
  - ▶ Is it possible to implement a drift correction if the 2 per cent difference are exceeded?

M. Bergmann

Solution

▶ The quality and stability of gas analysers has increased significantly within the last decades. Thus, it is not necessary to calibrate and recheck the analysers before and after each bag analysis, but only before the first bag and after the last bag, respectively.

  ▶ Even after e.g. 30 min the deviation of the calibrated values and the check usually lie below 2 per cent.

▶ It is still allowed to perform recheck(s) between the initial calibration and the final recheck, if a lab has problems with analyser drift.

  ▶ Early recheck could enable to perform re-calibration, re-reading, re-recheck within 30 min.

▶ For each bag measurement, there is an overlay of several uncertainties caused by:

  ▶ Repeatability, noise of the analyser, Flush time of zero/calibration gas , drift, …

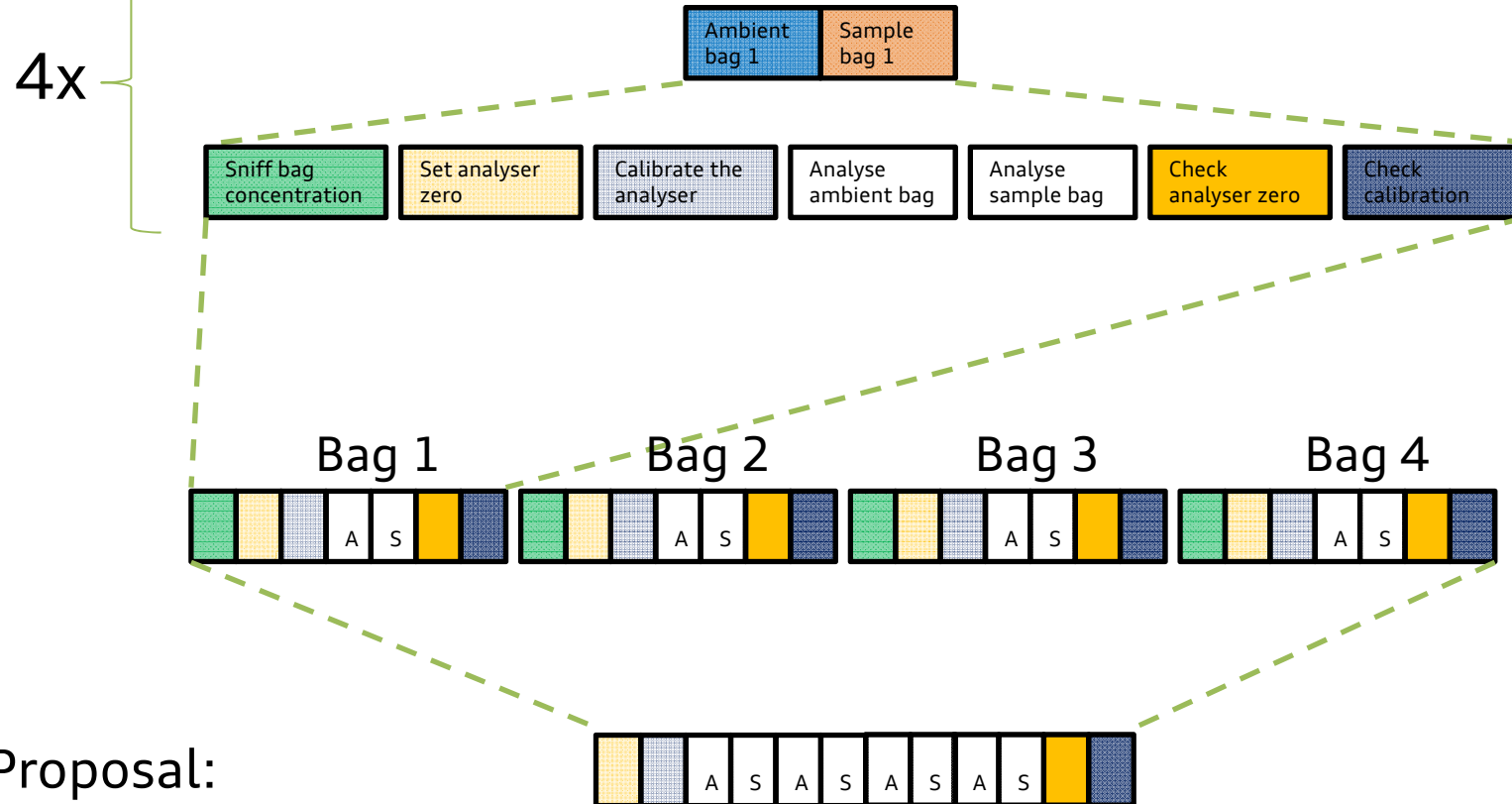▶ A correction method which works correctly for all cases is not available.

item #33 is withdrawn → close item

M. Bergmann

- Backup

Analysis of bags

4x

Ambient bag 1 | Sample bag 1

Sniff bag concentration | Set analyser zero | Calibrate the analyser | Analyse ambient bag | Analyse sample bag | Check analyser zero | Check calibration

Bag 1 | Bag 2 | Bag 3 | Bag 4

Proposal:

- Zero and span before the first and after the last bag
- Time after the test will be reduced to ~28 min (diesel test)

M. Bergmann