# Sequence V Surveillance Panel Meeting
# July 18th, 2022 2 PM EST, via Webex

**Roll Call:**

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|---|---|
| Afton: | B. Maddock |
| BP: | J. Agudelo |
| ExxonMobil: | A. Montufar |
| Ford: | M. Deegan, R. Zdrodowski |
| General Motors: | N. Siebert |
| Haltermann: | E. Hennessy, P. Tumati |
| HCS Group: | I. Gabrel |
| Infineum: | D. Boese, C. Laufer, A. Ritchie (Chair) |
| Intertek: | A. Lopez |
| Oronite: | R. Stockwell |
| Shell: | J. Hsu |
| SwRI: | D. Engstrom, T. Kostan, P. Lang |
| TEI: | D. Grosch |
| TMC: | J. Clark |
| Valvoline: | A. Savant |

**Meeting Summary:**

- Haltermann sent the CoA and shipped the new fuel batch, which is expected to arrive on July 19th at IAR and SwRI.
- Rich Grundza's slidedeck "RAC Target Update and 1011-1 Target Review" was reviewed. The SP will reconvene on July 26th with questions and be ready to further discuss and ultimately vote on the motion raised at the June 2nd meeting. The panel will also review the progress/results of the first 940 tests run on the new fuel batch.

**Open Actions:**

1. From March 26th, 2021 meeting: **Lab engineers** to meet to investigate severity shifts (share operational data, build data, ratings, etc.). The TF has been productive and meeting frequently.
2. From Sept 9th, 2021meeting: **Statisticians Group** led by Doyle Boese (Infineum) to provide update around potential ways to improve current lab-based system. Interim recommendation is to not adopt a stand-based system.
3. From Sept 9th, 2021 meeting: **Haltermann** to report monthly inventory via email to V SP. Monthly updates are being provided.
4. From Nov 29th, 2021 meeting: **Haltermann** to include extra column in fuels data to indicate which fuel goes with which test.
5. From February 10th, 2022 meeting: **The VH Task Force** to assess number of parts remaining as it relates to the life of the test.
6. From February 10th, 2022 meeting: **Haltermann** to report average time it takes for them to respond back to the labs with RVP data.
7. From February 10th, 2022 meeting: The **VH Task Force** to discuss the lab responsibility to measure the fuel parameters as received (section 8.2) vs the use of the CoA.

8. From May 16th, 2022 meeting and June 2nd, 2022 meeting: **Bob Campbell** and **Andrew Stevens** to consider if their labs, Afton and Lubrizol respectively, would be willing to participate in helping Angela come up with a more realistic forecast number for the VH.
9. From May 23rd, 2022 meeting: **Haltermann** to communicate the fuel status through the next few weeks. Ex: Labs need to know delivery dates so they can make sure clean tanks are ready. ← COMPLETED
10. From May 23rd, 2022 meeting: **IAR, SwRI, and Afton labs** to let group know about stand options (as per Amol Savant's comments from prior meeting, see page 4 of May 16th minutes) ← COMPLETED
11. From May 23rd, 2022 meeting: **Haltermann** to coordinate with the labs to collect RVP data of the new fuel.
12. From June 2nd, 2022 meeting: **Fuel contract team** to discuss the fuel matrix changes and send back to the panel for review by June 13th, the expected date the CoA for the new fuel batch would be ready.
13. From June 13th, 2022 meeting: **Haltermann** to send to the group: the CoA of the new batch of fuel when it is available, along with the CoA of the current batch of fuel for comparison. ← COMPLETED
14. From June 22nd, 2022 meeting: **Afton lab** to share stand selection when available / ready for their fuel matrix test.
15. From July 18th, 2022 meeting: **SwRI** and **IAR** to send interim chem analysis of the first 940 tests.

Next call: Tuesday, July 26th at 2 PM EST via Webex

**Meeting Details:**

Prasad Tumati (Haltermann) sent the CoA to the labs (see attached "HF0295 N-000010.pdf" and previous batch's CoA "HF0295 GI0321NX10 TK79 Revised Archived 2020-05-01.pdf") and no concerns were raised. The Chair commented that the aromatics looked a little lower and the olefins looked slightly higher. Prasad replied that these were within specification. Fuel will arrive at IAR and SwRI the morning of July 19th. Both IAR and SwRI are ready with a tank to receive the fuel and to run the first tests. It was agreed that interim chem analyses would be sent to the whole panel for review.

There is about 3 months' worth of the current batch of fuel remaining at the IAR, SwRI, and Afton labs. There is about 1 test's worth of fuel remaining at the Valvoline lab.

Jeff Clark (TMC) reviewed the slidedeck (see attached "RAC Target Update and 1011-1 Target Review.pptx") that Rich Grundza (TMC) prepared. Mike Deegan (Ford) suggested that the panel writes down their questions for when the group meets again with Rich.

Discussion and questions during Jeff's review are captured below:

- Re: the EWMA plot on slide 6, Robert Stockwell (Oronite) asked if the updated target should shift the shape of the curve down. Jeff replied that the general shape is the same but not necessarily because some tests on one side might be on other side and might create inflection point, not just drag the plot down. Doyle Boese (Infineum) added that one could expect a delta if looking only at one oil, but we're looking at all reference oil with only one with their target changed.
- Slide 9 shows the 1011-1 target update. The Chair asked how different this is to the original blend 1011. Jeff pointed out the 2 rows of the table showing the target mean

and target standard deviation for comparison, which could be further discussed with Rich when he returns. The Chair thanked Jeff for going through the slidedeck and commented it looks like the reblend is ready to be introduced.

- For clarification, Al Lopez (Intertek) asked to confirm that the AES column shows the raw values of sludge with a mean of 8.41 merits, the next column is the SA, and next column is the AES severity adjusted which is 8.62 for 1011-1. But the mean we have today is 8.43. So even after the adjustments, we're 2 tenths milder for this oil. Doyle confirmed that is the way he understands this table as well. Al commented it's important to keep looking at these targets every 10, 20, 30 tests. Doyle warned that if you have a trend, you're taking the effect of time into the calculation of the target. It's a balance, either you get to use more data but you do it at the risk of including shifts or severity changes.
- Amol Savant (Valvoline) asked Doyle if the industry correction factor was taken into account for AES. Doyle guessed that it would be but he did not calculate these results. Jeff would also guess that ICF was taken into account for AES.
- Mike Deegan (Ford) asked if this table on slide 9 was only for 1011-1. Jeff replied yes but that the SAs that are being applied are from the lab charts.

The Chair summarized that at the next meeting, we will vote on the 940 motion (see June 2nd meeting minutes) from last month, make a decision on the 1011-1 targets, and get an update on the new fuel batch.

Amol Savant (Valvoline) asked if the fuel matrix was confirmed by the SP because the fuel contract still says TBD. The Chair recalled that this was discussed by the SP and 940 was weighted more in Row 1 (see May 23rd meeting minutes). The next rows would be discussed at subsequent calls once the first 940 runs are confirmed to make sludge.

Mike Deegan (Ford) asked if we addressed the OEM issue with the target updates. The Chair said as a technical group, we're addressing the RAC issue and ready to take action. But with regards to the limits issues, he noted it's probably a separate issue, not a SP issue. The panel looked at the impact (ie: RAC would go up by about 0.1 merits) but beyond that, it's not within the jurisdiction of the panel. He asked if there was any disagreement from the group. None were raised but Mike said he'd need to talk with API and see what the next steps are.

Meeting adjourned at 2:46 PM EST.

Appendix:

"RAC Target Update and 1011-1 Target Review.pptx"

RAC Target Update and 1011-1 Target R

"HF0295 N-000010.pdf"

HF0295 N-000010.pdf

“HF0295 GI0321NX10 TK79 Revised Archived 2020-05-01.pdf”

HF0295 GI0321NX10
TK79 Revised Archive