

Meeting Minutes: Sequence VI SP Meeting – 29 October 2025

- 12:55 PM CST Meeting called to order
- T. Catanese (Chairman) reviewed agenda of meeting
- Meeting Minutes: September 17, 2025 Meeting Minutes
 - **Decision:** Unanimous approval of 17 September 2025 Meeting Minutes
- Review of Reference Oil Inventory
 - Current Reference Oils – refer to slides, quantities ranging from < 1.5 years to > 5 years
 - RO 542 getting low
 - Current TMC assignments are 40% 542, 40% 1010, 20% 544
 - **Tabled:** potential to shuffle assignments based on RO 542 quantity < 1.5 years
 - **Action:** TMC to contact supplier to confirm if reblend possible and timing – Complete, Wes contacted earlier today. Will report response once received.
 - 1010-3 introduction – being held at TMC. Analytical match supplier data, ready to be shipped.
 - **Decision:** Unanimous approval to start assigning 1010-3
 - **Action:** TMC to start assigning 1010-3
 - General Base Oil Discussion
 - PCMO generally has 3 RO as goal
 - ILSAC request for new GF-8 RO
 - **Action:** Contact ILSAC for more information on new RO definition. Representative technology for GF-7 or 8? Category Oil?
 - Include in PM
 - How to handle Reblends as Industry
 - Trigger for data review? TGC reminder?
 - **Tabled:** Establish best practices for timing of review of RO data.
 - Brief review of RO data (T. Dvorak)
 - Entire LTMS changed in 2018, only look at data after that
 - RO 542 and 544 may be slightly above target
 - Difficult to monitor RO performance in Seq. VI since engine dependent
 - **Decision:** keep with current targets for now
 - **Action:** TMC (Wes) to assemble RO data over time (i.e. KV40, KV100, HTHS, cold properties, etc.) for each batch and share for comparison
- Seq VI BL & FO Inventory
 - See slides for current inventory at TMC
 - Flush Oil is a little low
 - **Action:** Tony to review minutes to confirm once BL6 referenced, okay to use BL5 as long as reference with appropriate/same BL fluid
 - **Decision:** TMC to hold 10 drums of BL5 for future prove outs of new BL fluids. BL2 depleted.
 - **Action:** Tony to review meeting minutes to find information on bringing a new BL fluid in (possibly check May of 2023 since dates for 5 to 6)
 - **Action:** Tony to send out survey to labs to check inventories of BL6 and come up with need (what and when) to estimate life of BL6
- Fuel Sampling and Analysis
 - Request to review fuel sampling process: 6 month sampling to Saybolt and report values to TMC on website
 - Historical OEM request to see fuel degradation over time

- No known use or value from data
 - No members from GM on call at time
 - **Action:** M.Deegan to send email to GM asking if fuel sampling is still needed
 - 90/10 Rule discussion – still needed?
 - Can change fuel batch throughout test as long as C of A checks complete
 - If can change during test, why not be allowed more flexibility with tank
 - Potential challenge: what to name if 50/50 of batches
 - Historic perspective raised: Jeff Hsu previously supported 10%
 - General discussion on batch sizes/naming – Halterman has been making smaller batches of DCA fuel due to demand. May make bigger batch if demand keeps up.
 - **Tabled:** Keep 90/10 rule for now. Review more flexibility in future if needed.
 - If sampling removed, potential for rule goes away since naming confusion goes away
- Fuel Update (Halterman – in person, Indresh)
 - See slide for numbers provided by Halterman (E.Hennessy)
 - New batch of 45,000 gallons made; expect available for sale estimated 11/6
 - Will have 2 different batch numbers
 - Last batch (HF-2003) depleted/shipped out 10/27
- Comments from TMC for BL and Flush Oil purchasing (J. Clark)
 - TMC traditionally helped with BL and flush oil purchasing by overseeing the contract. TMC now a corporation, change from historical precedence
 - TMC will help facilitate and work with labs for blender, but will not be party to contract and will not take any overage into inventory unless contract explicitly absolves TMC of liability
 - Base Oil used is sourced from Singapore – potential challenges for acquisition
 - **Tabled:** potential new baseline or flush oil and consider alternative suppliers
- Seq. VIG News
 - Per API's request – VIG WG will no longer report to API – now part of VI SP. Future report outs through VI SP, PCEOCP and AOAP
 - Continue with 4 labs participation: Afton, Intertek, Lubrizol, and Southwest
- Seq. VIG Development Team Update
 - Review of ILSAC slide deck shared on September 11th to be shared as PDF with meeting materials
 - Reminder of goals and objectives
 1. Extend life of LY7 engine/platform
 2. Combine VIE with VIF
 3. Increase response and discrimination
 4. Better match real world conditions
 - To date status:
 - 3 labs involved (Afton, Intertek, and Southwest) – 4 engines (2 at SWRI)
 - Over 60 tests now – mix of Ros and candidates
 - Working on parts list
 - Mixture of fuel runs (EEE without DCA and DCA fuel)
 - Variety of running conditions/temperatures studied
 - Hardware changes/modifications:
 - Higher tension rings
 - Uncoated bearings
 - Walnut blasted skirts

- GM components vs. stock rebuild
 - Cylinder heads (new vs. rebuilt)
 - 1010 RO results
 - Southwest ran only RO 1010; Afton and Intertek ran some candidates in between as well (Runs 1-10 match exactly for Afton and Intertek)
 - Flat response observed on same fluid, regardless of conditions
 - RO Comparison
 - VIE RO targets in VIG results – limited data but promising. Same relative results to current vs. actual.
 - Viscosity Discrimination
 - Successful. One odd run invalidated one of Intertek runs.
 - Note: end of graph 3 data points different conditions
 - FM Discrimination
 - Successful. Observed FM response.
 - Summary
 - Demonstrated able to extend FE life on LY7
 - Some hardware challenges to deal with
 - Awaiting feedback from ILSAC on hardware changes
 - **Action:** M. Deegan to provide ILSAC response on hardware changes
 - Need ILSAC confirmation on testing conditions
 - All development at labs on hold until feedback from ILSAC received
 - Expect engine tear downs and photographs
 - Pending questions: new RO requirements? Aging requirements? Hardware support?
 - Appendix
 - Vehicle field trial data for temperature analysis
 - Oxidation data
 - Nitration data
 - Oxidation and Nitration with Changing Run Conditions
 - Fuel Dilution - overall very low
 - KV data
 - Not part of presentation, but Jason shared Afton data on fuel consumption plots
 - Potential item: plot consumption during break-in
 - Reminder: New RFQ process for hardware procurement needed
 - **Action:** B. Buscher to send PDF of presentation to include in minutes
 - **Action:** T. Catanese once receive to share
- Other topics?
 - B. Buscher raised viking pump issue – current pump in method is out of production, new replacement model has been suggested.
 - **Action:** B. Buscher to send Tony information for make, model, etc.
 - **Tabled:** once received, confirm equivalent before make motion. Potential e-ballot or meeting format depending on details. Expect future motion for acceptance to allow new pump as acceptable equivalent for current.
- Next meeting at call of chair
- Meeting adjourned at 3:34 PM CST