



**COMMITTEE D02 on PETROLEUM PRODUCTS, LIQUID FUELS, AND LUBRICANTS**

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**Sequence VIII Surveillance Panel Meeting Minutes  
Wednesday June 21, 2023  
Teams Meeting (Virtual)  
9:00 - 10:00 PM CDT**

**Minutes recorded by Patrick Lang**

**Direct any comments or corrections to: [patrick.lang@swri.org](mailto:patrick.lang@swri.org)**

The attendance list can be found as Attachment #1.

There were no membership changes brought to the attention of the panel.

**Agenda:**

The agenda can be found as Attachment #2.

**Minutes Approval:**

Pat Lang advised that the minutes from the May 24, 2023, virtual meeting were posted to the TMC website. A motion was made for approval of the minutes by Pat Lang and seconded by Adrian Alfonso. The minutes were approved with no objections or changes.

Per Action Item 1 from the May 24<sup>th</sup> meeting, Pat Lang advised the panel that Haltermann was informed that the previous batch of fuel that was considered to be on-target was V-00038. Haltermann was tasked with looking at the feedstock supplies for this fuel to see if it was still possible to obtain any of them to consider making a small batch to further help understand if the current fuel batch is an influence on test severity.

Pat Lang reported that the second action item from the last meeting was to complete two runs on oil 1009. The table below was shown summarizing the 1009 results:

Lab	1009	1009-1	1009 Mean*
SwRI	18.3	17.4	13.8
IAR	16.4	18.7	13.8
Avg	17.4	18.1	

\* Mean from 15 years ago

Andy Ritchie commented that the results were encouraging, and that this data provides a strong case for bringing in oil 1009-1 as a reference oil. These results are right where we wanted them and support the fact that this looks like a legitimate reblend of oil 1009 based on the results of these two runs.

George Szappanos agreed with Andy that 1009-1 at around 18 milligrams of weight loss is where we should land.

It was clarified at this point that we would be looking to keep the original targets from 1009 and the correction factor would be used to bring the current severe results back to the original targets.

Todd asked if we would be looking to access stripped viscosity in this matrix. Rich mentioned that we have not been watching stripped viscosity, but we should assess it as well with this matrix data. The panel agreed.

#### What's Next:

At this point, Travis Kostan went through a brief presentation created by the stats group that recommends a matrix design that could be used to:

- 1) Establish a correction factor
- 2) Introduce oil 1009-1 as a reference oil
- 3) Prove-out the 03-22 new bearing batch

Travis mentioned that we are looking to generate a constant correction factor. He cautioned that with a constant correction factor the higher weight loss tests may “fall of the cliff” as we observed with 1006-2 results. Since the severity issue seems to be aggravated with results above 20 mg, a fixed correction factor (currently estimated to be around 4 mg) will not compensate more for a higher weight loss since the data set used to generate the correction factor will not include any 1006-2 runs (approximately 30 mg).

The presentation and matrix design can be found as Attachment 3. The last slide shows some comments from the individual stats group members. One recommends that we should consider using some of the other data that was generated outside of this matrix (earlier scoping tests) to give the matrix more strength. Another comment advised that we should seek more candidate data. When this item was brought up, SwRI and IAR advised that typical candidate data is in 10 mg weight loss or below range and it is not common to see results above 20 mg weight loss.

Mike Deegan asked how candidate oils would be handled regarding this correction factor. Travis explained that the same correction factor would be applied to candidate and reference oils.

**Motion #1:**

Move forward with conducting the proposed testing matrix as defined in Attachment #3. This matrix will be used to generate an industry correction factor (ICF), approve the use of 03-22 bearing batch and bring oil 1009-1 in as a reference oil.

Pat Lang/Adrian Alfonso

Motion approved with no negatives (voting tally can be found on attendance list, see Attachment 1)

**GF-7 Category Reference Oil:**

Andy Ritchie stated that he would like for the industry to identify a GF-7 category reference oil and the Sequence VIII panel is encouraged to support it.

**Next Meeting:**

The next meeting will be called after the matrix is completed and the data has been analyzed.

**Attachment #1**

**Attendance List**

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√ = present

ASTM SEQUENCE VIII SURVEILLANCE PANEL  
VOTING MEMBERSHIP ATTENDANCE RECORD

June 21, 2023  
Teams

Motion #1  
Vote:

Name	Address	Attendance
Alfonso, Adrian	Intertek 5404 Bandera Road San Antonio, TX 78238 Phone: 210-647-9429 adrian.alfonso@intertek.com	✓
Bowden, Jason	OH Technologies, Inc. P.O. Box 5039 Mentor, OH 44061-5039 Phone: 440-354-7007 dhbowden@ohtech.com	✓
Savant, Amol	Valvoline 21st and Front Streets Ashland, KY 41101 Phone: 606-585-8982 acsavant@valvolineglobal.com	
Maddock, Ben	Afton Chemical 500 Spring Street P.O. Box 2158 Richmond, VA 23218 Ben.Maddock@aftonchemical.com	✓
Grundza, Rich	ASTM/TMC Phone: 412-365-1031 reg@astmtmc.org	✓
Hsu, Jeff	Shell Projects and Technology-USA 3333 Hwy 6 Houston, TX 77082 Phone: 281-544-8619 J.Hsu@shell.com	✓
Hairston, William	Haltermann Solutions 15600 W. Hardy Road Houston, TX 77060 Phone No: 832-647-9264 whhairston@haltermann.com	
Riou, Joseph	Southwest Research Institute 6220 Culebra Road P.O. Box 28510 San Antonio, TX 78228-0510 Phone: 210-522-6266 jriou@swri.org	✓

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**ASTM SEQUENCE VIII SURVEILLANCE PANEL  
VOTING MEMBERSHIP ATTENDANCE RECORD**

Name	Address	Attendance
Lanctot, Dan	Test Engineering Inc. 12718 Cimarron Path San Antonio, TX 78249-3423 Phone: 210-690-1958 dlanctot@tei-net.com	✓
Kowalski, Teri	Toyota Motor North America, Inc. 1555 Woodridge Ann Arbor, Mi 48105 Phone: 734-995-4032 Cell: 734-355-8082 teri.kowalski@tema.toyota.com	
Cosgrove, Bradley	GM Global Propulsion Systems Phone: 313-590-2186 Bradley.Cosgrove@gm.com	✓
Rubas, Paul	ExxonMobil Research and Engineering Company 600 Billingsport Rd. Paulsboro, NJ 08066 Email: paul.j.rubas@exxonmobil.com	✓
Tang, Haiying	Stellantis Phone: 248-512-0593 haiying.tang@stellantis.com	
Stockwell, Robert  <i>Joe Martinez</i>	Chevron Oronite Company LLC 4502 Centerview Drive Suite 210 San Antonio, TX 78228 Phone: 210-232-3188 Robert.stockwell@chevron.com	✓
Agudelo, Jorge	BP Lubricants USA 1500 Valley Rd Wayne, NJ 07470 Jorge.Agudelo@BP.com	

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**ASTM SEQUENCE VIII SURVEILLANCE PANEL  
VOTING MEMBERSHIP ATTENDANCE RECORD**

Name	Address	Attendance
Deegan, Mike	Ford Motor Company 17228 Federal Drive Allen Park, MI 48101 Phone: 313-805-8942 mdeegan@ford.com	✓
Ritchie, Andy	Infineum P.O. Box 735 1900 East Linden Ave. Linden, NJ 07036-0735 Phone: 908-474-2097 andrew.ritchie@infineum.com	✓
Szappanos, George	Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092 Phone: 440-347-2631 George.szappanos@lubrizol.com	✓

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**ASTM SEQUENCE VIII SURVEILLANCE PANEL  
NON-VOTING MEMBERSHIP and GUESTS ATTENDANCE RECORD**

Name	Address	Phone/Fax/Email	Attendance
Travis Kostan	SwRI		✓
Riccardo Affinito	Oronite		✓
Amanda Stone	Afton		✓
Todd Drorak	Infineum		✓
Seth Demel	Shell		✓
Rich Grandez	TMC		✓
Joe Martinez	Oronite		✓



## **Attachment #2**

### **Agenda**

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1. Welcome
2. Attendance
3. Approval of the minutes from the May 24, 2023, virtual meeting. Minutes posted to TMC website on June 2, 2023.
4. Action Items:
  - a. Provide Haltermann the batch code of the fuel batch that was being used when tests was performing well.---Done, batch V-000038
  - b. SwRI and IAR each conduct one run on oil 1009 using the 06-16 bearing batch.---Done
5. Next step to address the bearing weight loss severity situation:
  - a. Recommended matrix from the stats group (Travis Kostan)
6. Next Meeting will be at call of the chair
7. Adjournment

## **Attachment #3**

### **Stats Group ICF Matrix Recommendation**

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# Sequence VIII

## Correction Factor Matrix, RO 1009-1 Intro, and Bearing Batch Intro

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STATS GROUP

JUNE 2023

# Stats Group

- Amanda Stone, Afton
- Ricardo Affinito, Chevron Oronite
- Jo Martinez, Chevron Oronite
- Todd Dvorak, Infineum
- Martin Chadwick, Intertek
- Phil Scinto, Lubrizol
- Seth Demel, Shell
- Travis Kostan, SwRI
- Richard Grundza, TMC

# Matrix for Path Forward

The matrix below is a the minimum testing requested by the stats group for the development of a corrections, introduction of the re-blend of 1009, 1009-1, and the introduction of the new 03-22 bearing batch.

A1	A2	G1	G2
1009	704-1	1009	1009-1
704-1	1009-1	704-1	704-1
1009-1	1009-1	1009-1	1009-1

- Yellow highlighted = 06-16 (current) bearing batch
- Green highlighted = 03-22 (new) bearing batch

Note: IAR and SwRI have each run one 1009-1 on the 06-16 bearings, and IAR has additionally run a 704-1. Preliminary testing on 03-22 batch using Oil 1006-2 indicates similar performance of new bearing batch.

# Some Comments from Stats Group

Below are some comments received from statistics group members:

- The matrix is much stronger if some of the previously generated data from the two labs is usable in the analysis (2 runs on 1009-1 and 1 run on 704-1, though the latter is not as critical). Is this data acceptable for use? Otherwise, only two runs are proposed on 1009-1 with the current matrix on the current bearing batch, so the re-blend effect becomes somewhat confounded with any effect due to the new bearings.
- The panel (or CLOG) might want to consider not running a matrix to revive the test for cost/benefit reasons.
- While the statistics group is ok with moving forward, some members would still like to know if its possible to get chemical analysis of the reference oils and also more attempts at getting some candidate data at the current severity.