

L42 Surveillance Panel Meeting minutes  
PRI Apollo Room, Warrendale, PA  
April 6<sup>th</sup>, 2005

Attendees:

Cory Koglin  
Robert Burrow  
Don Bell  
Don Bartlett  
Chris Schenkenberger  
Jerry Gropp  
Brian Koehler  
Harold Chambers  
Don Lind  
Frank Farber  
Dale Smith  
Bill Sullivan  
Thelma Marougy

**Prior Meeting Minutes**

February meeting was only to approve the Stoddard solvent, not on the web site. The information letter was released. Cory was asked to issue minutes.

March 17<sup>th</sup>, 2005 TF teleconference minutes were approved.

**Motion Bartlett/Schenkenberger.** Vote 5, 0, 0

**TMC 115 Blend Update**

Current supply of TMC 115

- TMC ~8 gallons
- Afton-11 tests (5.5gallons)
- Lubrizol-11 tests (5.5gallons)
- Parc-17 tests (8.5 gallons)
- SWRI-16 tests (8 gallons)
  
- TOTAL = ~35.5 gallons

Only approximately 35.5 total gallons available in labs and TMC.

There are two separate blends of new oil because of a tank 3-drum limit, but same raw materials. Testing begins this week at Parc.

Blend Codes are as follows:

PES24247-150

PES24247-152

**Motion Gropp/Lind** Since the supplier is going to run 5 tests on one blend (called TMC 116), that the oil that is released to the industry for testing/referencing that the oil be from the same drums the 5 tests are going to be run at Parc. The guidelines for the second half (3 drums) of the blend would be decided at a later date. Batch number to focus on is PES24247-150. It was agreed, that, for the moment that we propose that the industry start testing on one batch (3-drums) and keep them separate and call them TMC 116 and 116-1 respectively. Batch PES24247-152 will be TMC 116-1. Vote was 4, 0, 0.

**History:** TMC 115 used Ameriscore stocks, now using Exxon Mobil core stocks after merger but a different base stock blend. There fore this blend should be designated with a new oil code, not TMC 115. The panel wants to give the oil a new number i.e., TMC 116 because of the base stock differences. Prior runs were within the noise of the test, it looks like the results are on top.

How do we bring TMC 116 into the system? Only 3 labs are currently running L-42. We want the stand to be referenced first and need 9 results at a minimum and use the same gear batch. Afton agreed to work a trade to get 604/637 hardware to another lab to have a minimum of two runs on that batch too.

1. SwRI agrees to purchase/ run the 604/627 TMC 116 runs and next reference series of candidates.
2. **Action Item:** Telecom call schedule mid week of April 16th week.

**Motion Sullivan/Schenkenberger** Afton, SwRI, Parc, 3 tests on a referenced stand using 604/637 gear batch on TMC 116. Vote 5, 0, 0/unanimous

## **L42-1 Acceptance Outline**

All 4 labs plan on participating in a matrix to approve the L42-1

### **Task force recommendation**

- 1) TMC tasked to coordinate/complete data dictionary needed for L42-1 by June 1st, 2005.
- 2) Task force to review data dictionary at June ASTM meeting.
- 3) Lab visits to be performed by Task force prior to starting test matrix by August 23rd, 2005.
- 4) Establish labs can all run same torque targets & establish appropriate torque targets
  - a) All 4 labs to use P8L604/637 gear batch for L42-1 test development matrix, running 2 axles per lab using appropriate oil to establish whether labs can achieve same score level with same torque targets and L42-1 draft specification. If oil used has a well defined history to the pass/fail line, this data could determine whether the shock targets below are appropriate.
  - b) Target Shock 1 torque: -83lb-ft on coast side (torque based on TMC database for 604/637 gearbatch mean torque value, TMC115 oil)

- c) Target Shock 2 torque: -335lb-ft on coast side (torque based on TMC database for 604/637 gearbatch mean torque value, TMC115 oil)
  - d) Hold Teleconference/meeting between labs to review data, plots, torque targets, etc.
- 5) Establish test correlation and discrimination with old L42 test
  - 6) Establish research report
  - 7) **October 5th, 2005 SP meeting to be held tentatively in Cleveland to review matrix data, approve L42-1, and vote to input data into research report.**
  - 8) **Ballot research report**

**Motion Sullivan/Schenkenberger** Accept the Task force recommendation above.  
Vote: 5, 0, 0/unanimous

Tentative plan after teleconference/meeting review:

- Goal is to prove the new L42-1 test runs consistent across 4 labs (repeatability) on one gear batch and establish score targets based on running test to targeted shock torques.

**Motion Gropp/Sullivan** Hold approximate 8 gallons TMC 115 oil at TMC for future possible use in L-42-1 testing. Vote: 5, 0, 0/unanimous.

Current TMC 114 Quantity

- TMC ~18 tests (9 gallons)
- Afton-4 tests (2gallons)
- Lubrizol-12 tests (6gallons)
- Parc-2 tests (1 gallon)
- SWRI-0 tests (0 gallons)

Total 34 tests (1/2 gallon per test)

**Motion Sullivan/Bartlett** – Put a freeze on using TMC 114 (older passing chemistry) inventories at labs and TMC and save it for the L-42-1 testing if needed. Vote 5, 0, 0

### **L42-1 TGC Precision guideline proposal**

No precision statement in L-42, LTMS SA N/A and use the TMC 115 (219 chartable tests, 3/29/05) using scoring value of 9.12. (Pooled by lab and TMC 115) See TMC presentation and proposal. Looking at 8.43 for January 2004/2005 vs. a 9.12 for all data.

**Motion** by Mr. Farber/second Bartlett second to accept 9.12, Vote 4, 0, 1.



L42.pdf

## **Precision statement**

PRI LRI significant digit is not an issue because raters rate scoring to a whole number and it is reported the same. Everyone seemed comfortable.

## **L-42 Round-Robin Rating**

5 L42 pinion/rings were supplied to all 4 labs for a rater round robin. The raters were to rate scoring and bright burnish on all parts. The data shows rating variation between and within labs, especially in rating the bright burnish on the gears.

**Motion Gropp/Koehler** pinions sent to Harold Chambers and John Dharte and have them provide an actual scoring number, determine whether the parts are acceptable or unacceptable (will not establish a value for burnish) if the pinions were placed before him at an LRI meeting. Report only the scoring value.

Vote 5, 0, 0-motion passes

Harold wants us to attempt to determine what the cause is and how we can prevent it. As Harold sees it, he does not like bright burnish and tends to think of it as being an example of a test that should be declared an invalid test.

Adjourn at 2:26 Whitton/Bartlett