D5133 Scanning Brookfield Surveillance Panel Teleconference Minutes

A D5133 Scanning Brookfield Surveillance Panel Teleconference was held on Tuesday October 27th 2022 at 9:30 am CDT. The following were in attendance:

| Mike | Jennings | Afton Chemical | |
|------------|-------------|------------------------------|--|
| Alexandera | Romo-Mendez | Chevron Oronite | |
| lan | Abaigar | Chevron Oronite | |
| John | Loop | Test Monitoring Center | |
| Matt | Schlaff | Intertek Automotive Research | |
| Karina | Gil | Intertek Automotive Research | |
| Yong-Li | McFarland | Southwest Research Institute | |
| Mike | Birke | Southwest Research Institute | |
| Adam | Ramos | Southwest Research Institute | |
| John | Bucci | Savant Group | |
| Maggie | Smerdon | Savant Group | |
| Gordon | Cox | Savant Group | |
| Greg | Miiller | Tannas Company | |

The antitrust statement was reviewed followed by roll call and review of membership.

Oil GIC18

Data was presented on oil GIC18. There were 13 data points collected and two means and limits were proposed: one using a simple average and one using a lab weighted average. After discussion John Bucci made a motion to adopt the lab weighted average and limits and that the limits be re-evaluated once 30 total data points have been collected. The motion was seconded by John Loop. The motion passed unanimously.

For new business, it was discussed that the Technical Guidance Committee (TGC) had a meeting. The meeting was to discuss the scope and purpose of the TGC, and how it can help surveillance panels, particularly with control charting and performing precision matrices. The floor was then open for any new business. None was presented. The meeting was adjourned at 10:05 am.

Respectfully Submitted,
Matt Schlaff
Intertek Automotive Research
ASTM D02.0B.07 D5133 Surveillance Panel Chair



D874 SCANNING BROOKFIELD SURVEILLANCE PANEL TELECONFERENCE

Matt Schlaff Intertek Automotive Research 10/27/2022



AGENDA



- Antitrust statement
- Roll Call
- New Reference GIC18 Round Robin
- Adjournment

ASTM ANTITRUST STATEMENT



ASTM International is a not-for-profit organization and developer of voluntary consensus standards. ASTMs leadership in international standards development is driven by the contributions of its members: more than 30,000 technical experts and business professionals representing 135 countries.

The purpose of antitrust laws is to preserve economic competition in the marketplace by prohibiting, among other things, unreasonable restraints of trade. In ASTM activities, it is important to recognize that participants often represent competitive interests. Antitrust laws require that all competition be open and unrestricted.

It is ASTMs policy, and the policy of each of its committees and subcommittees, to conduct all business and activity in full compliance with international, federal and state antitrust and competition laws. The ASTM Board of Directors has adopted an antitrust policy which is found in Section 19 of ASTM Regulations Governing Technical Committees. All members need to be aware of and compliant with this policy. The Regulations are accessible on the ASTM website http://www.astm.org/COMMIT/Regs.pdf).

• Electronic recording of ASTM meetings is prohibited.

ROLL CALL



OIL GIC18



- To add a third refence oil after oil 58 became discrimination oil
- To be a borderline oil Current GF6 limit is 12.0 for GI

<u>Table 1</u>
D5133 Reference Oil Targets and Acceptance Bands

| | | | | | | Acceptance Bands* | |
|-------|----------|--|----|------|------|-------------------|-------|
| | | | | | | 95 | i% |
| Test | Oil Code | Parameter | | Mean | sR | Lower | Upper |
| GI by | 1009 | Gelation Index | 16 | 7.3 | 0.68 | 6.0 | 8.6 |
| D5133 | 62 | Gelation Index | 35 | 17.0 | 3.90 | 9.4 | 24.6 |
| | GIA17 | Gelation Index | 18 | 19.0 | 1.87 | 15.4 | 22.7 |
| | 58 | Gelation Index (Discrimination Oil) | 17 | <6.0 | N/A | <6.0 | 7.2 |
| | GIC18 | Gelation Index | 13 | 10.0 | 1.21 | 7.6 | 12.3 |
| | GIC18 | Gelation Index | 13 | 10.3 | 1.21 | 7.9 | 12.7 |

*95% Acceptance Bands = Mean +/- (1.960 x sR)

RAW DATA AND CALCULATION OF MEANS



| Lab | Value | |
|-----|-------|--|
| В | 9.5 | |
| В | 9.9 | |
| В | 10 | |
| AU | 7.3 | |
| AU | 7.6 | |
| Α | 10.2 | |
| Α | 10.4 | |
| Α | 10.5 | |
| D | 11.4 | |
| D | 10.2 | |
| D | 10.6 | |
| G | 10.9 | |
| G | 10.9 | |
| | | |

| Simple Mean | | | |
|-------------|------|------|--|
| Mean | 10.0 | | |
| s.d. | 1.21 | | |
| n | 13 | | |
| Bands | 7.6 | 12.3 | |
| Range | 7.3 | 11.4 | |

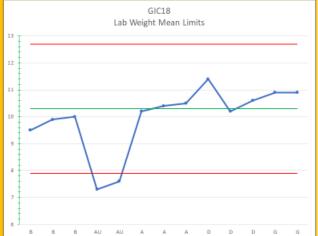
| D-1- | c | | l-1 401 | 04 (2020 |
|-------|----------|--------|---------------|----------|
| Data | Contribu | tea by | lab since 10/ | 01/2020 |
| Lab | AC | oc | Grand Total | % |
| Α | 89 | 8 | 97 | 31% |
| AU | 9 | | 9 | 3% |
| AY | 8 | | 8 | 3% |
| В | 48 | | 48 | 15% |
| D | 68 | 24 | 92 | 30% |
| E1 | 8 | 1 | 9 | 3% |
| G | 28 | 8 | 36 | 12% |
| 1 | 6 | | 6 | 2% |
| S | 6 | | 6 | 2% |
| Grand | | | | |
| Total | 270 | 41 | 311 | |

| Lab | Average | Weight Contribution | | |
|-----------------|---------|------------------------|-----|--|
| В | 9.8 | 15% | 1.5 | |
| AU | 7.5 | 3% | 0.2 | |
| Α | 10.4 | 31% | 3.2 | |
| D | 10.7 | 30% | 3.2 | |
| G | 10.9 | 12% | 1.3 | |
| Simple Average | 10.0 | 9% | 0.9 | |
| Lab Weighted Av | 10.3 | | | |

CONTROL CHART COMPARISON







POTENTIAL MOTIONS



 Accept GIC18 as addition reference oil and use simple average for acceptance bands

Mean: 10.0 Limits: 7.6 to 12.3

 Accept GIC18 as addition reference oil and use lab weighted average for acceptance bands

Mean: 10.3 Limits: 7.9 to 12.7

- Other options?
- Re-evaluate after more data has been generated (30+ points)

NEW BUSINESS



- Technical Guidance Committee (TGC) recent meeting
 - Scope and Purpose of TGC
 - Control Chart System
 - Precision Matrix
 - Actions when there are issues with control charts and reference oils
- Any other new business

DISCUSSION



Thank you.