

# ASTM Engine Oil Gelation Test (EOGT) WK86363 Update

EOGT Meeting  
January 20, 2026

Yong-Li McFarland



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# EOGT Membership

## 21 members

Sarah Fitzgerald, Afton Chemical  
Robert Stockwell, Chevron Oronite  
Quanchang Li, ExxonMobil  
Michael Deegan, Ford  
Melissa Chu, Infineum  
Angela Willis, Infineum  
Joe Franklin, Intertek  
Karina Gil, Intertek  
Yuliza Rocha, Intertek  
Michael Johnscher, ISP  
Michael Kunselman, KJA Group

Litchi Xie, Lubrizol Additive (Zhuhai) Co., Ltd.  
Victoria Fein, Lubrizol  
Jason Bowden, OH Technologies Inc  
Clarence McCollum, Richful (Xinxiang Richful)  
Greg Miiller, Savant Group  
Sean Alston, SGS North America  
Becky Grinfield, SwRI  
Yong-Li McFarland\*, SwRI  
John Loop, TMC  
Jared Cavaliere, Valvoline

\*Chair



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# New EOGT WK86363, ILS# 1854

- Ford request for a new Engine Oil Gelation Test (EOGT): request to add a new test filterability test to better screen oils for field issues
- Status:
  - Method: 1 draft (V10.3) uploaded on ASTM Collaboration Area
  - Oils: 11 potential reference oils offered; 17 oils received at TMC
  - Screening Tests and ILS: ILS tests completed
  - Timing: test available in April 2026

## Agenda:

- 1. Method and ballot review
- 2. Report form / LTMS comments



# EOGT Ballot

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ASTM International Designation: XXXX – XX

**Date:** January 15, 2026  
**To:** Subcommittee B and Committee D02 concurrently  
**Tech Contact:** Yong-Li McFarland, [ymcfarland@swri.org](mailto:ymcfarland@swri.org), 210-522-2715  
**Work Item #:** WK86363  
**Ballot Action:** Approval of a new test method

**Rationale:** A user requested a new test method to evaluate the filterability and gelation of engine oils due to field issues. Two other filterability methods, ASTM D6795 and D6794, were found not to discriminate against this failure mode. In March 2023, a task group was formed to work on developing this method with the user and other industry participants to correctly show gelation on a poor oil sample and no gelation on a good oil sample. These 2 oil samples were provided by the user and related to the gelation and decreased filterability in the field oils. The original field issue was believed to have been from calcium detergent drop out with elevated amounts of water in the oil that formed a gel, blocking filters and passage in the engine. This test was developed to be used as a bench test to screen oils for this issue. As such, this method has been added to new passenger car engine oil test specification and formal approval as an ASTM method is urgently needed.

The ILS was conducted between March and December of 2025, with the analysis producing the precision statement for the determinability, repeatability, and reproducibility on a range of industry engine oil samples. The ILS research report will be separately balloted.

**Ballot History:** This is the first ballot to the subcommittee and committee. This draft test method has been repeatedly reviewed and revised by the task group. Numerous updates on the method have been given at Subcommittee B Engine Oil meetings within the last 1.5 years with invitation to anyone having comments to join the task group. Due to requested urgent industry use for engine oil specifications, this ballot is submitted for concurrent ballot and was approved by the Subcommittee B and D02 chair.

Standard Test Method for

Measuring the Gelation Propensity of Engine Oils After Treatment with Acidified Water

## INTRODUCTION

Portions of this test method are written for use by laboratories that make use of ASTM Test Monitoring Center (TMC)2 services (see Annex A1).

The TMC provides reference oils, and engineering and statistical services to laboratories that desire to produce test results that are statistically similar to those produced by laboratories previously calibrated by the TMC.

In general, the Test Purchaser decides if a calibrated test stand is to be used. Organizations such as the American Chemistry Council require that a laboratory utilize the TMC services as part of their test registration process. In addition, the American Petroleum Institute and the Gear Lubricant Review Committee of the Lubricant Review Institute (SAE International) require that a laboratory use the

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Ballot dates: Jan 26 – Feb 27 weeks



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# Report forms – Updated 12-29-25

ASTM Test Method D XXXX Engine Oil Gelation Test Test Report Cover	
Version	VERSION
Method Version	METHVER
Conducted For	
TSTSPN1	
TSTSPN2	
LABVALID	V = Valid I = Invalid
TSTOIL	NR = Non-Reference Test Oil RO = Reference Oil Result
Test Number:	TSTNO
Oil Code:	OILCODE
Lab Oil Code:	LABOCODE
Test Stand:	FORM
Alternate Code:	ALTCODE1
Date Completed:	DTCOMP
Time Completed:	EOTIME
In my opinion this test <b>OPVALID</b> been conducted in a valid manner in accordance with the Test Method D XXXX and the appropriate amendments through the information letter system. The remarks included in this report describe the anomalies associated with this test.	
Submitted By:	SUBLAB
	Testing Laboratory
	SUBSIGM
	Signature
	SUBNAME
	Typed Name
	SUBTITLE
	Title
Final Report Cover Sheet	

ASTM D XXXX Report (Engine Oil Gelation Test) Test Data & Daily QC Form 2										
Lab:	LAB				Oil Code:	OILCODE				
Start of Test Date:	SOTDATE				End of Test Date:	DTCOMP				
Start of Test Time:	SOTTIME				End of Test Time:	EOTIME				
TESTKEY	TESTKEY				TESTKEY PAIR	PTESTKEY				
Reference Oil ID	REFOILID				Reference Oil Pair ID	PAIREFID				
Non-Reference Oil Test Result										
Non-Reference OILCODE	Date Started	Date Completed	Time to 40C (min)	Funnel Stem ID (mm)	Run 1 Volume (120sec)	Run 2 Volume (120sec)	Variance of Test Runs	Average Volume (120sec)		
OILCODE	STRDTCOC	DTCOMPOC	TIME40C	FNLSTMOC	VOLUM1OC	VOLUM2OC	DIFVAROC	VOLAVGOC		
Reference Test Results										
Reference Oil Pairs	Reference Oil Number	Reference Date Started	Reference Date Completed	Reference Time to Reach 40 C (min)	Reference Funnel Stem ID (mm)	Reference Run 1 Volume (120sec)	Reference Run 2 Volume (120sec)	Reference Variance of Test Runs	Reference Average Volume (120sec)	
TESTKEY	REFOILNO	REFSTDT	RFDTCOMP	RFTIME40	REFUNLID	REFVOL1	REFVOL2	REFVAR	REFVAVG	
PAIRED REF	PREFOLNO	PREFDST	PREFDTCP	PREFTIME	PREFNLID	PREFVOL1	PREFVOL2	PREFVAR	PREFVAVG	
N Value (Absolute difference between two reference test results)								NVALUE		
Daily QC Result										
Daily QC Sample Test Key	Daily QC Oil ID	Daily QC Start Date	Daily QC End Date	DailyQC Time to Reach 40 C (min)	DailyQC Funnel Stem ID (mm)	Daily QC Run1 Volume (120sec)	Daily QC Run2 Volume (120sec)	Daily QC Average Volume (120sec)	Daily QC Determinants Variance	
DQCTSTKY	DQCOILID	DQCSTDAT	DQCDTCMP	DQTIME40	DQFUNLID	DQCR1VOL	DQCR2VOL	DQCVLAVG	DQCDVARI	
Daily QC Operationally Valid? <sup>1</sup>								DQCOPVLD		
Daily QC Statistically Valid? <sup>2</sup>								DQCSTATV		
1 - Report "Y" if QC result was Operationally Valid, "N" if result was Operationally Invalid										
2 - Report "Y" if QC result is in acceptance range, "M" if MILD of range, "S" if SEVERE of range										
Test Data and Daily QC										

ASTM D XXXX Report (Engine Oil Gelation Test) Comments Form 3			
Lab:	LAB	Oil Code:	OILCODE
Lab Sample Code:	LABOCODE	Test Run Number:	TESTNO
Start of Test Date:	SOTDATE	Start of Test Time:	SOTTIME
End of Test Date:	DTCOMP	End of Test Time:	EOTIME
TESTKEY	TESTKEY	PAIRED TESTKEY	PTESTKEY
Number of Comment Lines:	TOTCOM		
OCOMR001			
OCOMR002			
OCOMR003			
OCOMR004			
OCOMR005			
OCOMR006			
OCOMR007			
OCOMR008			
OCOMR009			
OCOMR010			
OCOMR011			
OCOMR012			
OCOMR013			
OCOMR014			
OCOMR015			
OCOMR016			
Comments			



# LTMS Draft I

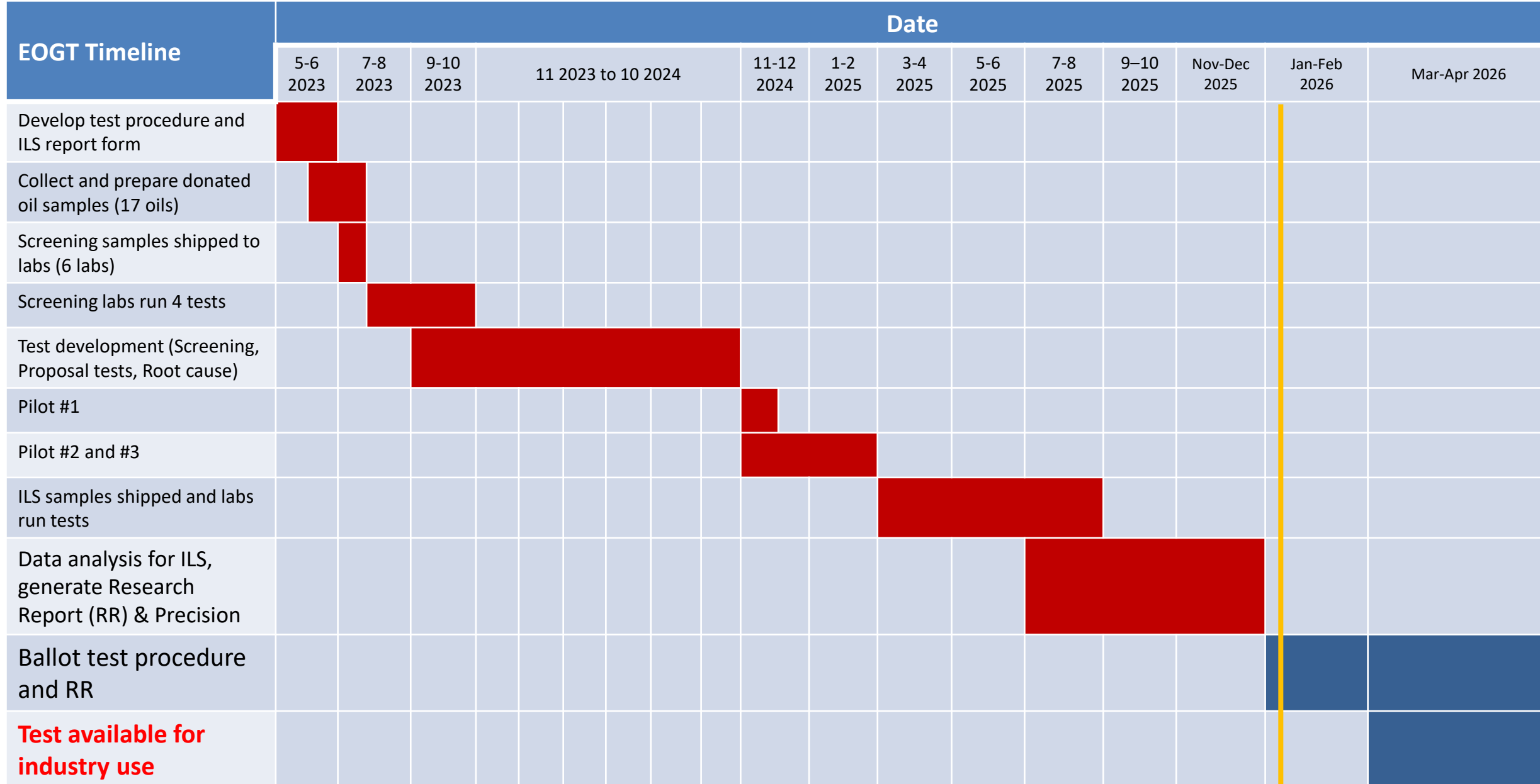
- See Document



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# Timeline – updated Dec 19, 2025





# Thank you for your support!

Participants		
Method Development (11)	Oil Donations (9)	Testing Labs (10)
Afton	Afton	Afton
ExxonMobil	Ford	Infineum
Ford	Infineum	Intertek
Infineum	Lubrizol	ISP
Intertek	OH Technologies (donate filters only)	Lubrizol
ISP	Oronite	Richful
Lubrizol	Subaru	Savant
Oronite	TMC (collection, shipping only)	SwRI
Savant	Toyota	TMC (monitoring system only)
SwRI		Valvoline
TMC		

