



Test Monitoring Center

6555 Penn Avenue
Pittsburgh, PA 15206-4489
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MEMORANDUM: 01-130

DATE: October 29 , 2001

TO: Claire Whitton, Chairman, OSCT Surveillance Panel

FROM: Donald Lind

SUBJECT: OSCT Reference Oil Test Results from April 1, 2001 through September 30, 2001

A total of 80 OSCT reference oil results from 2 laboratories were completed during the period April 1, 2001 through September 30, 2001.

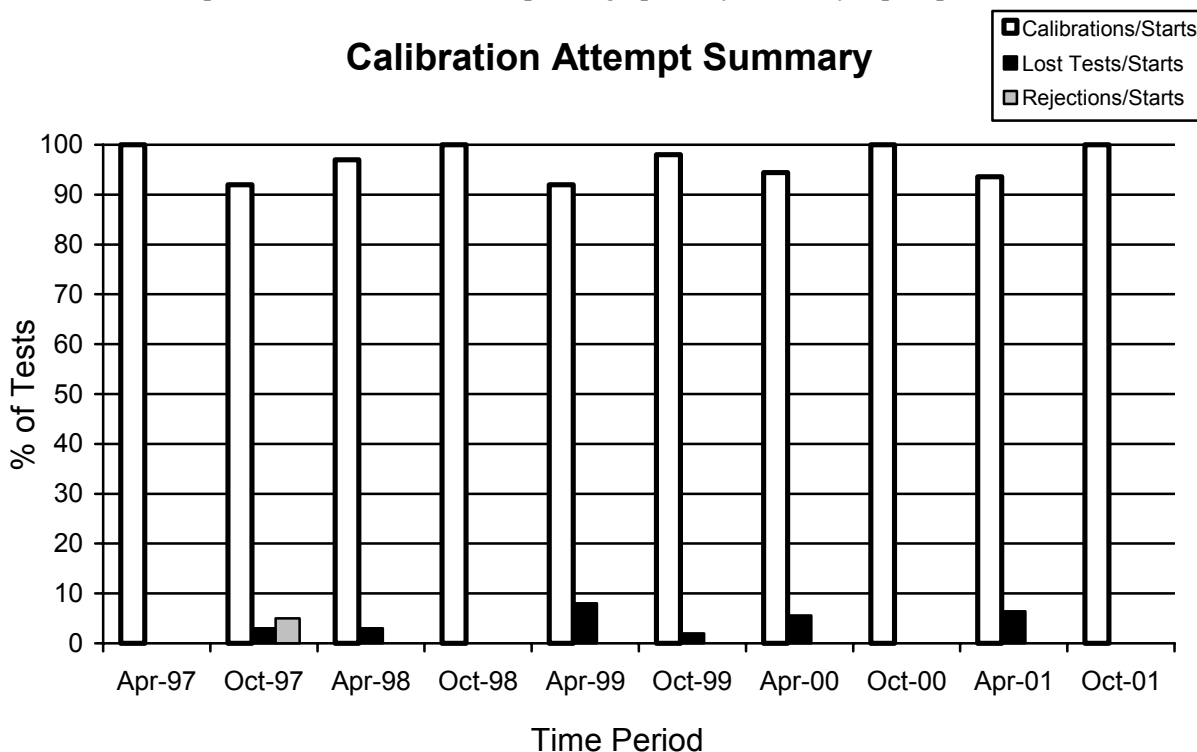
The following table summarizes the status of the reference oil test results reported to the TMC this report period:

Elastomer Type		TMC Validity	No. of Test Oil Results
Fluoroelastomer	Operationally and Statistically Acceptable	AC	26
	Statistically Unacceptable	OC	0
	Operationally Invalid	LC	0
	Aborted	XC	0
	Information Only	NN	0
Polyacrylate	Operationally and Statistically Acceptable	AC	30
	Statistically Unacceptable	OC	0
	Operationally Invalid	LC	0
	Aborted	XC	0
	Information Only	NN	0
Nitrile	Information Only	NI	22
	Operationally Invalid	LI	0
	Information Only	NN	0
	Aborted	XI	2
	TOTAL		80

The following chart shows the laboratory bath distribution for data reported during this report period:



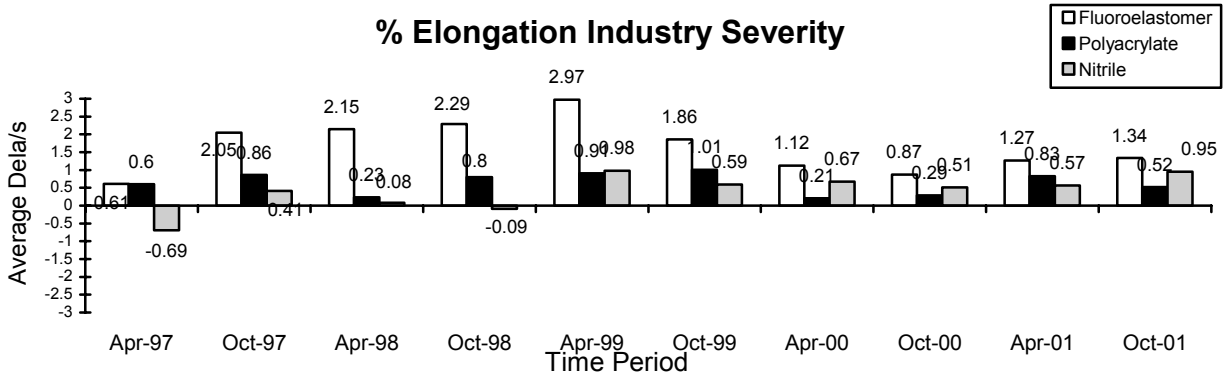
Attempted calibration tests are depicted graphically below by report period:



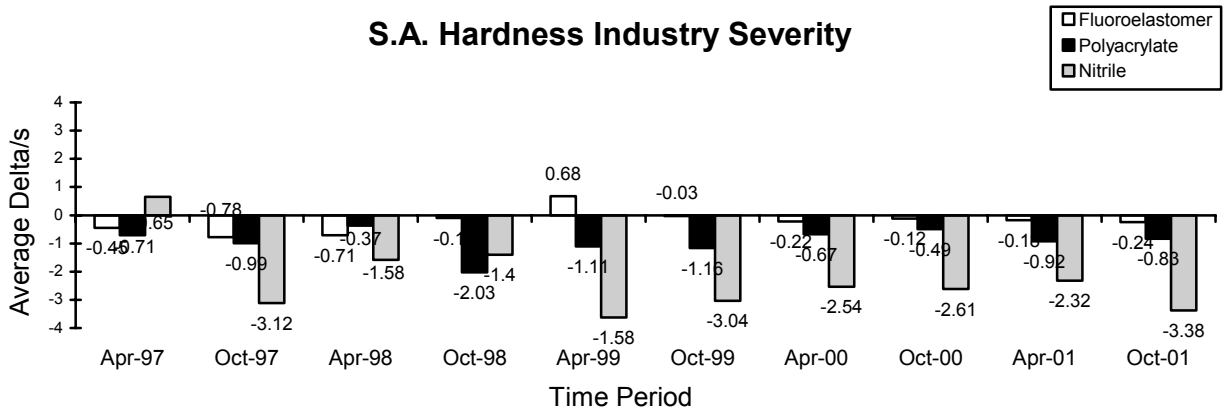
The calibrations per start rate has increased slightly when compared to the previous period, while the lost test per start rate has decreased slightly with respect to the previous period. There were no statistically rejected tests this report period, for the eighth period in a row. All rates are well within historical levels.

INDUSTRY TEST SEVERITY

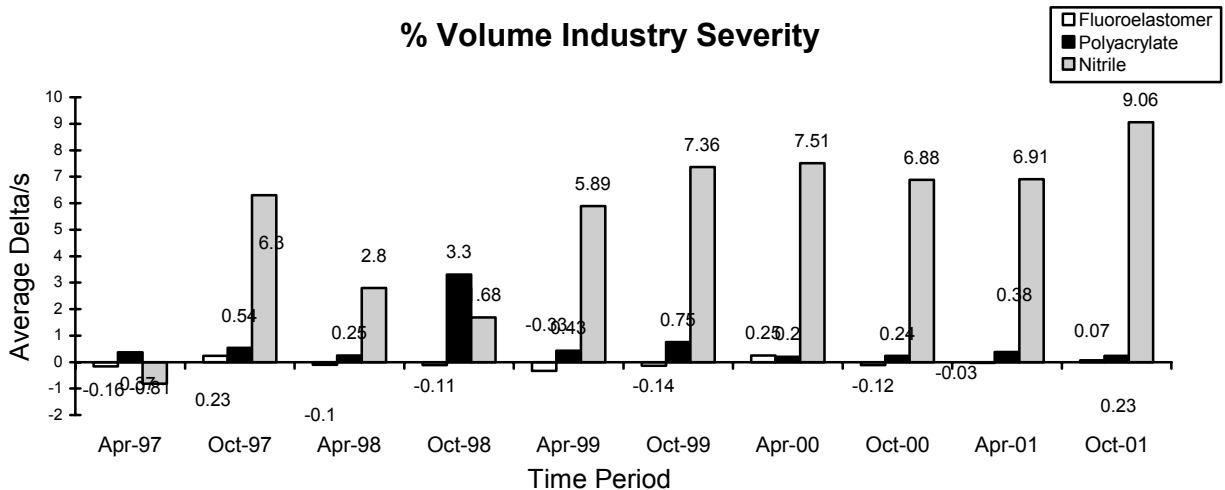
Percent elongation industry mean delta/s bar charts for each elastomer material are shown below by report period. Percent elongation for all three materials (fluoroelastomer, nitrile and polyacrylate) trended mild for the period.



S.A. hardness industry mean delta/s bar charts for each elastomer material are shown below by report period. S.A. hardness for all three materials (fluoroelastomer, nitrile and polyacrylate) trended mild for the period.

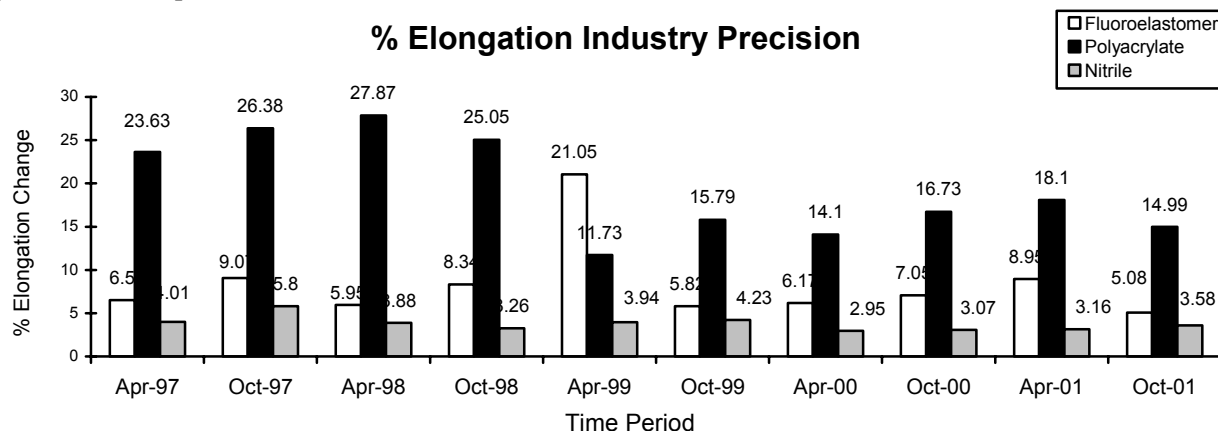


Percent volume industry mean delta/s bar charts for each elastomer material are shown below by report period. Nitrile materials were significantly mild of target. Fluoroelastomer was on or near target and polyacrylate materials trended slightly mild this period. Both labs experienced mild results with the nitrile elastomer, some as high as 14 standard deviations from target.

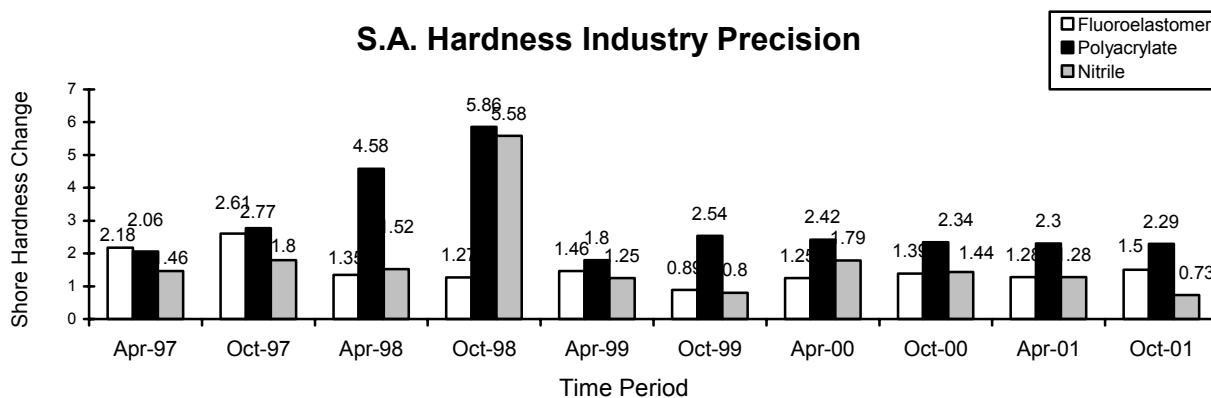


INDUSTRY TEST PRECISION

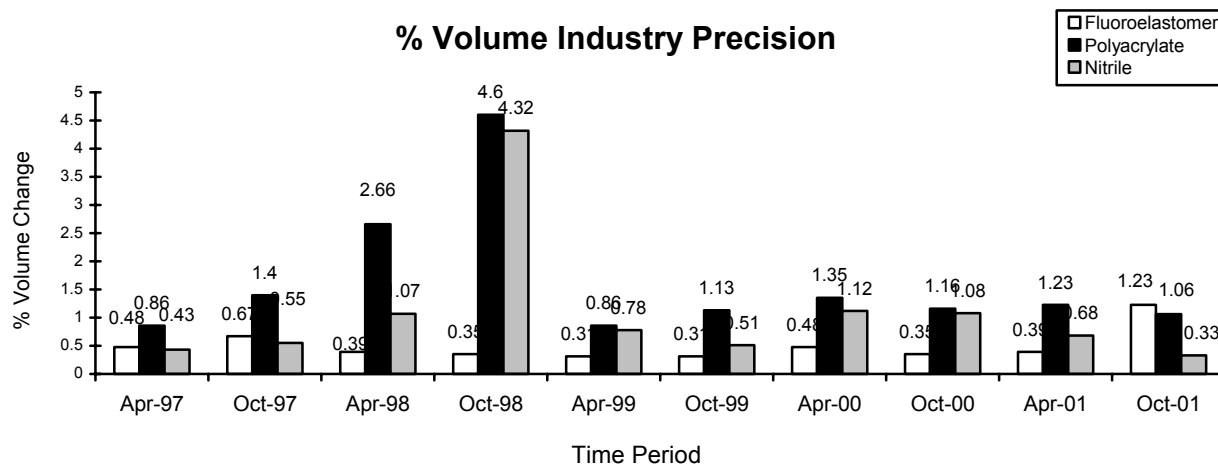
Percent elongation industry precision estimates for elastomer material are shown below by report period. Precision for fluoroelastomer and polyacrylate materials has degraded with respect to the previous period, while nitrile precision has changed little with respect to the previous period. Precision for all parameters compares well with historical rates.



Shore hardness industry precision estimates for elastomer material are shown below by report period. Precision for all elastomers compares well with the previous period and historical rates.

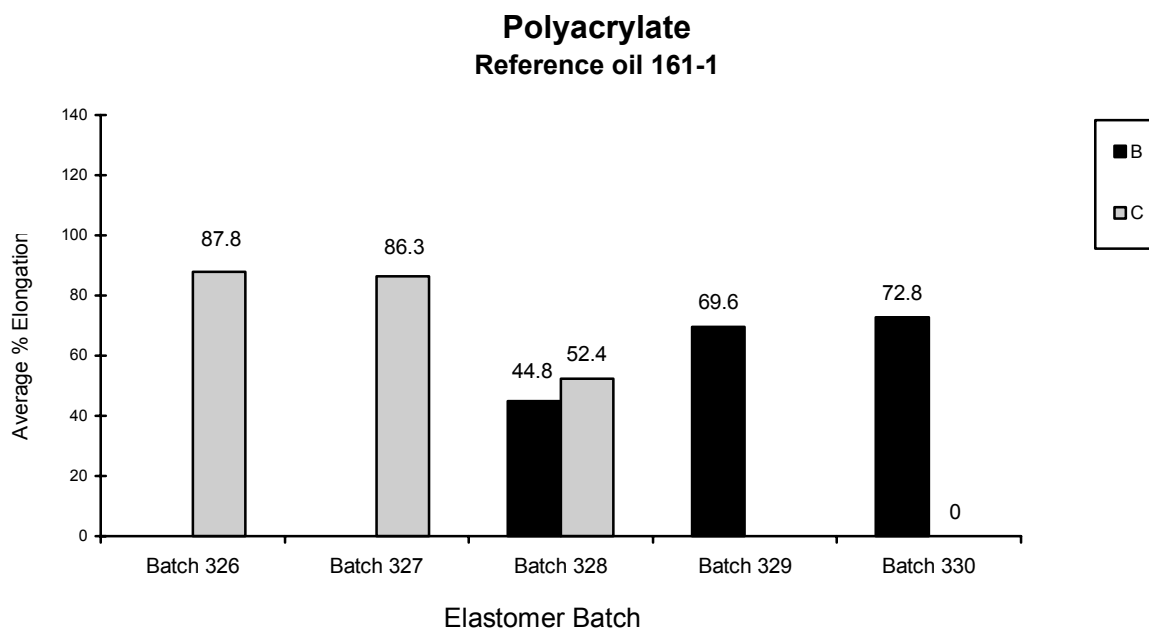
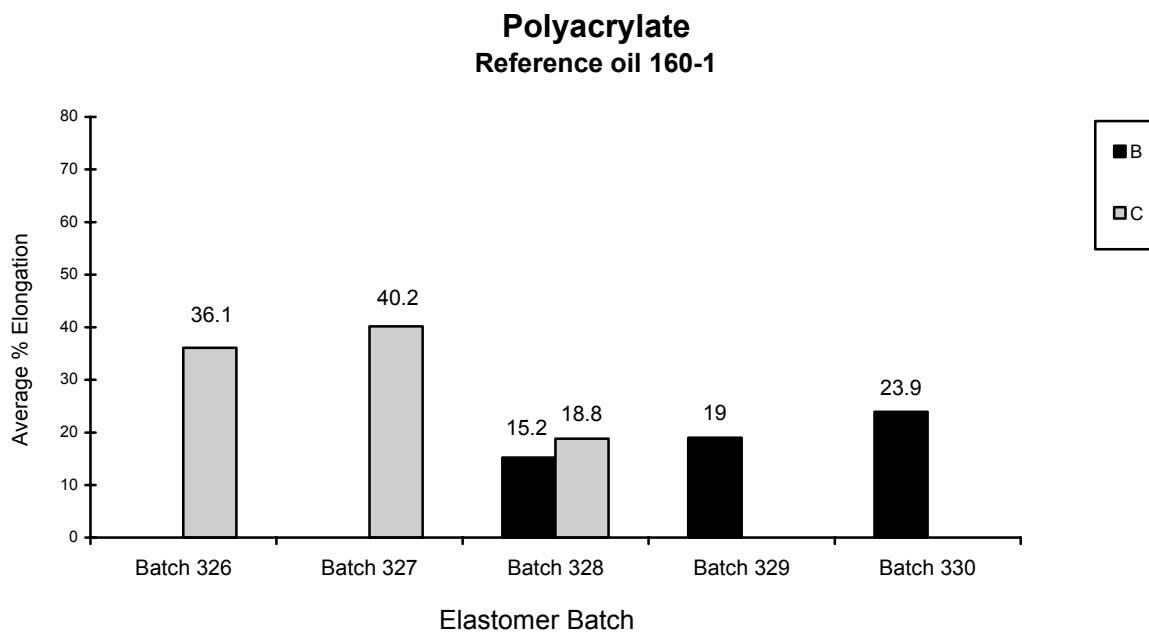


Percent volume industry precision estimates for elastomer materials are shown below by report period. Precision for polyacrylate and nitrile elastomers have degraded with respect to the previous period and precision for the fluoroelastomer material has improved slightly and compares well with respect to the previous periods.

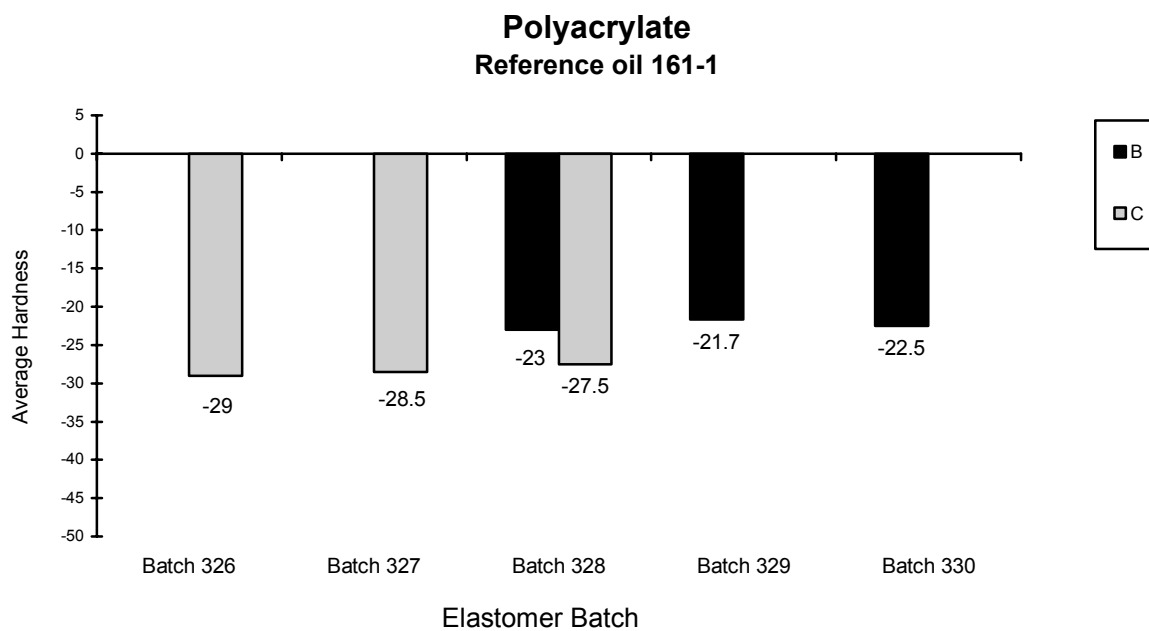
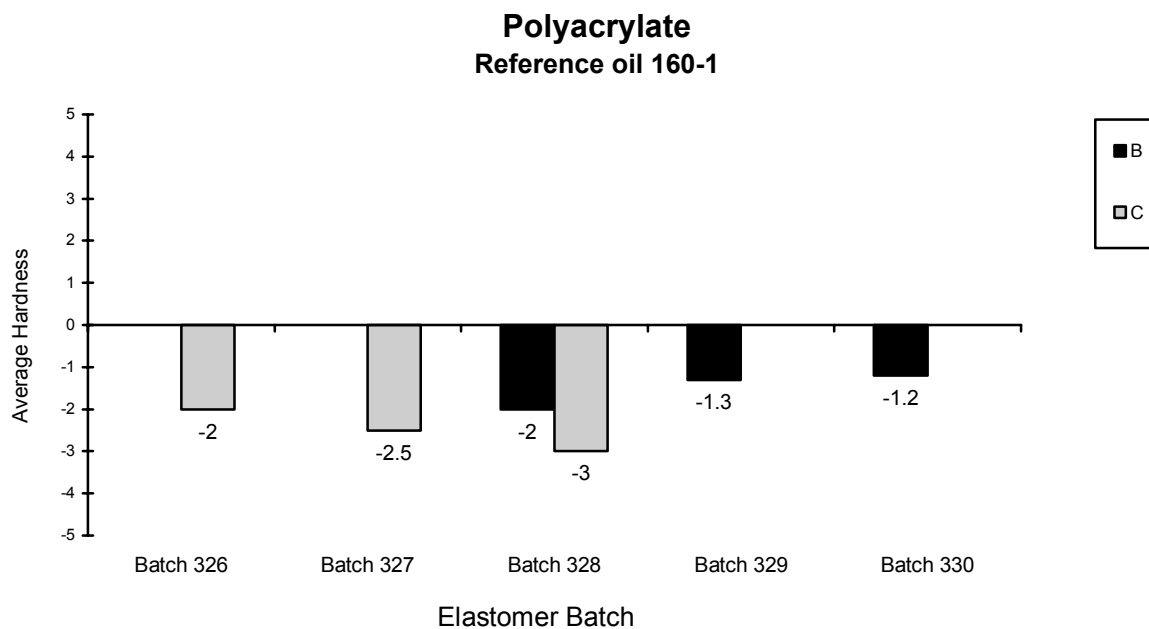


LABORATORY TEST SEVERITY

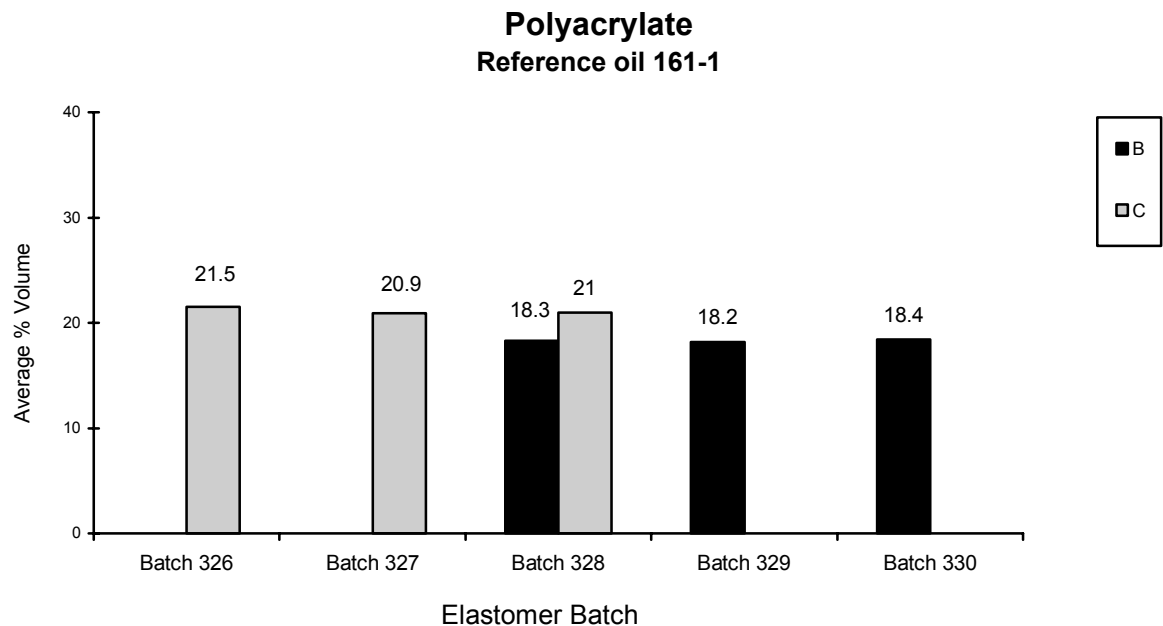
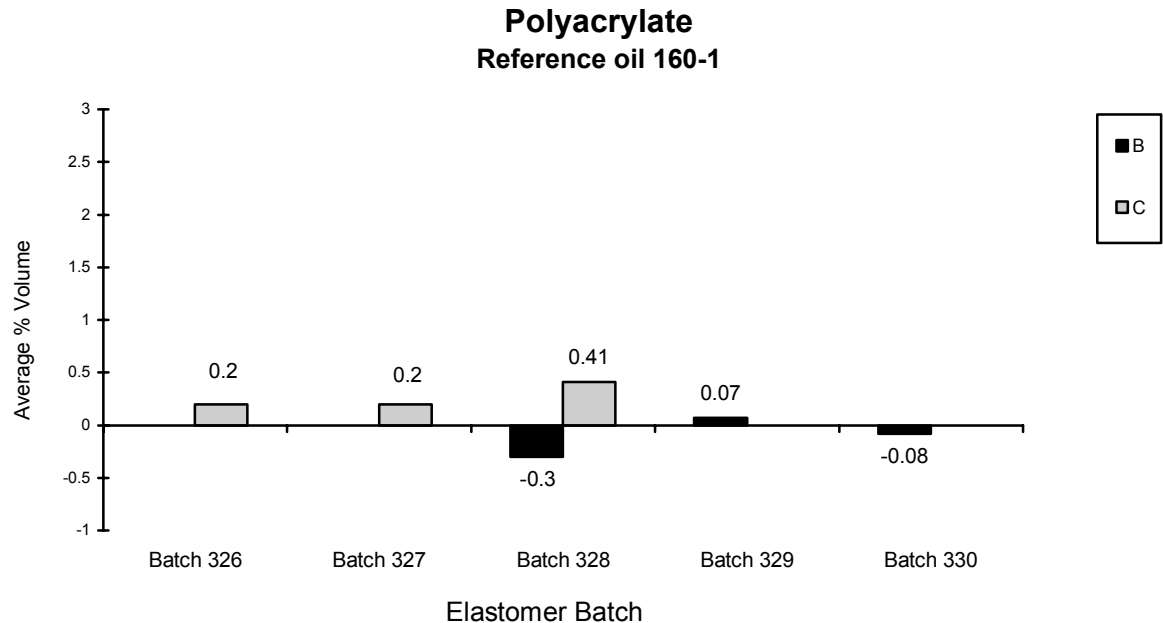
Average percent elongation bar charts for polyacrylate material are shown below by lab, elastomer batch, and reference oil. The bar charts illustrate both lab and batch variability.



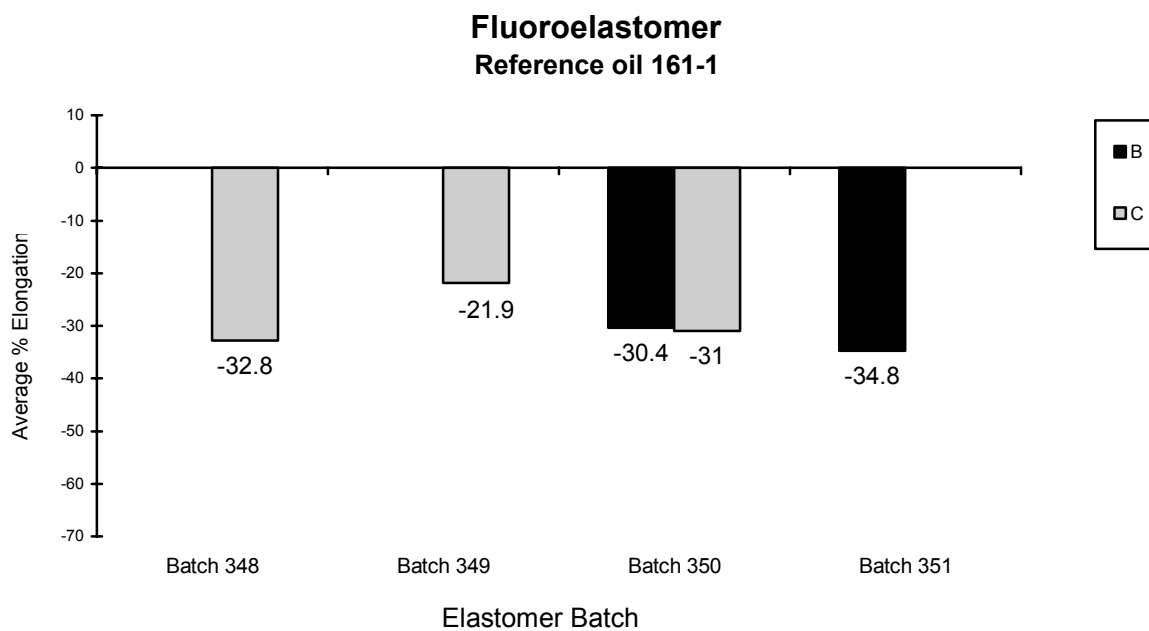
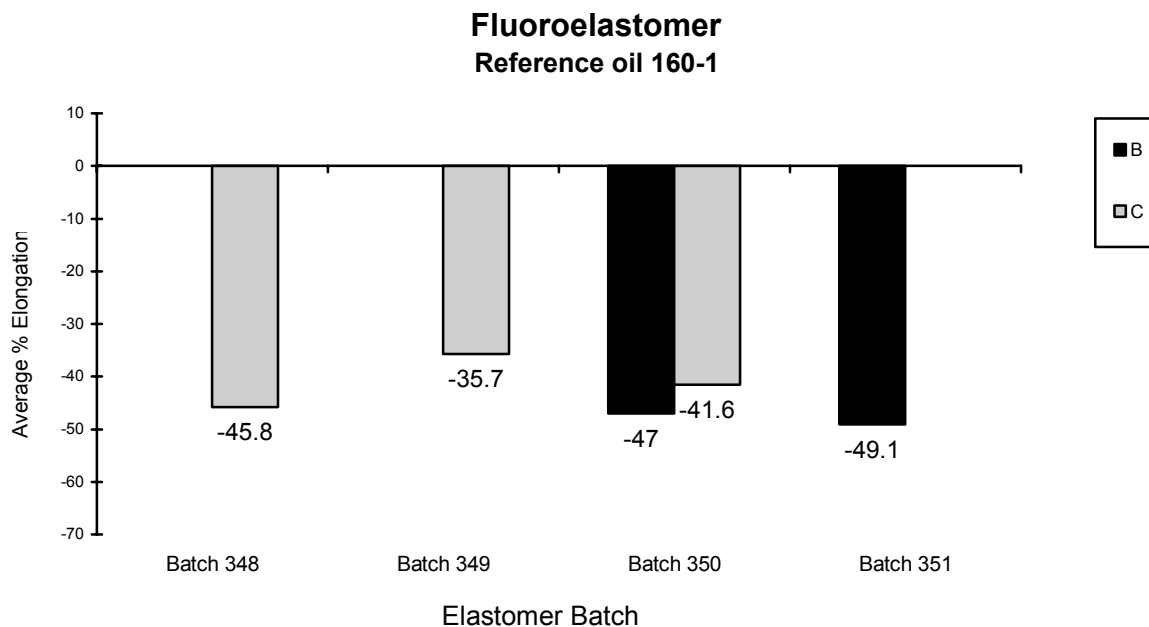
Average hardness bar charts for polyacrylate material are shown below by lab, elastomer batch, and reference oil. The bar charts illustrate some small lab to lab difference.



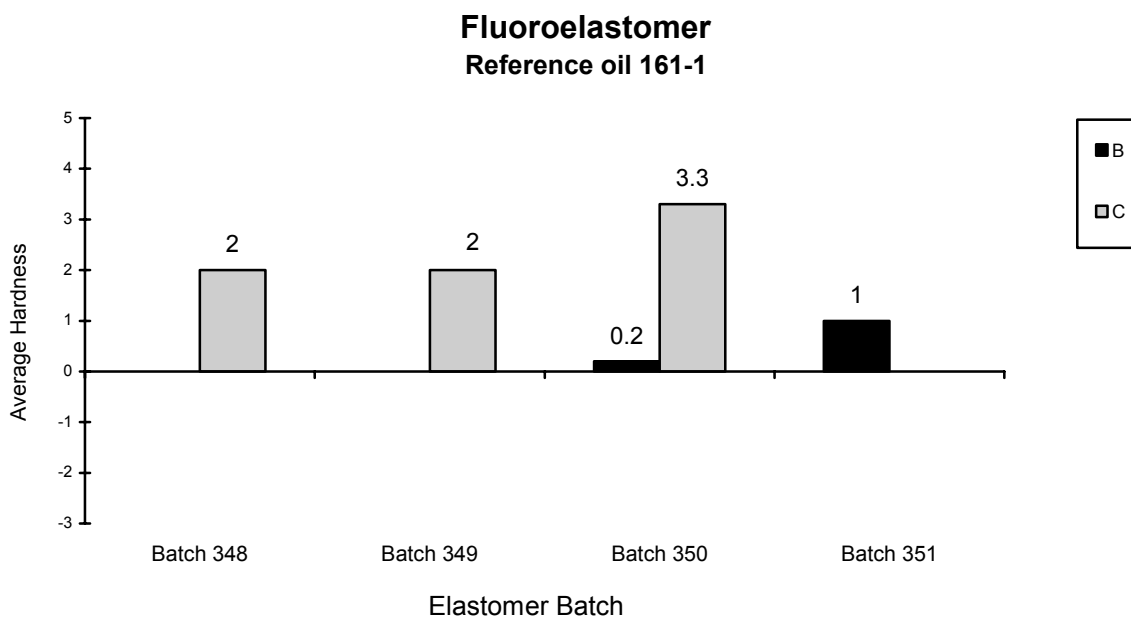
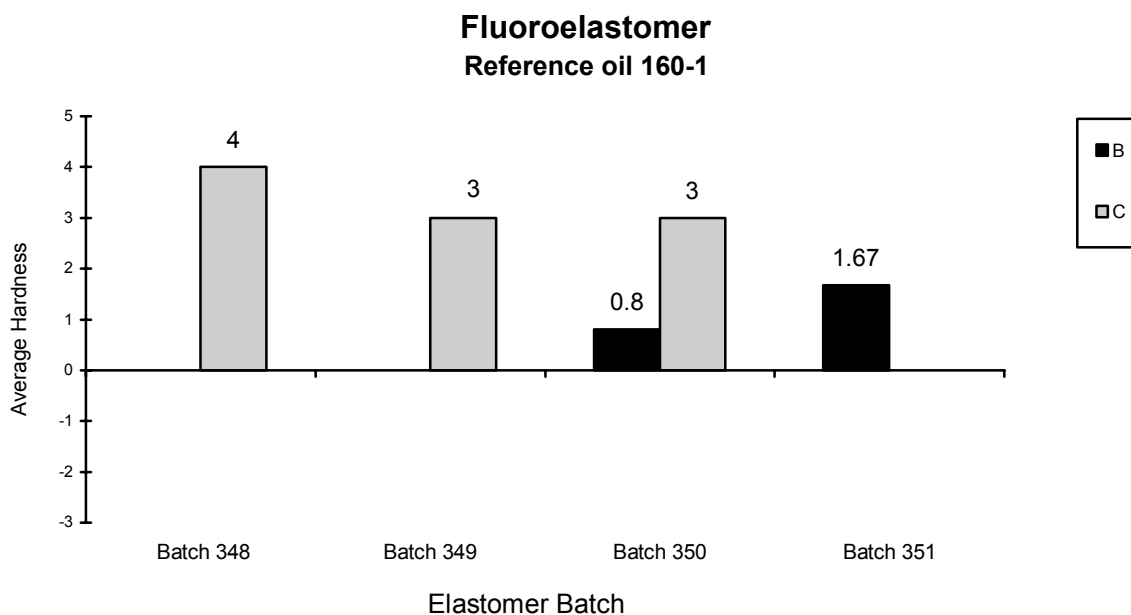
Average percent volume bar charts for polyacrylate material are shown below by lab, elastomer batch, and reference oil. There appears to be little difference between labs and batches.



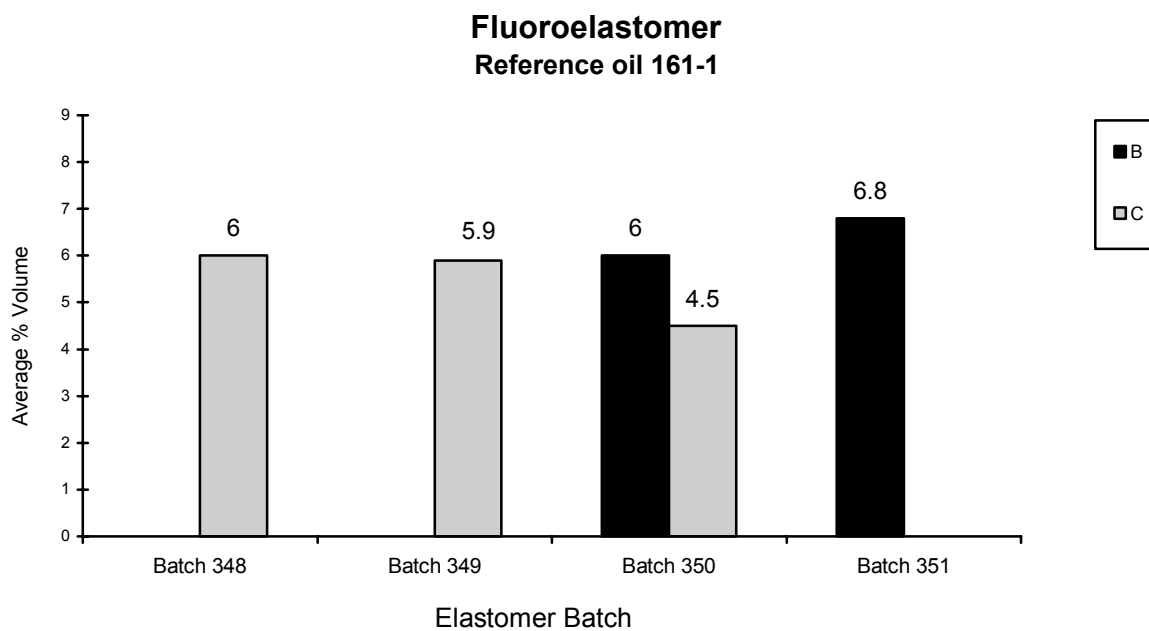
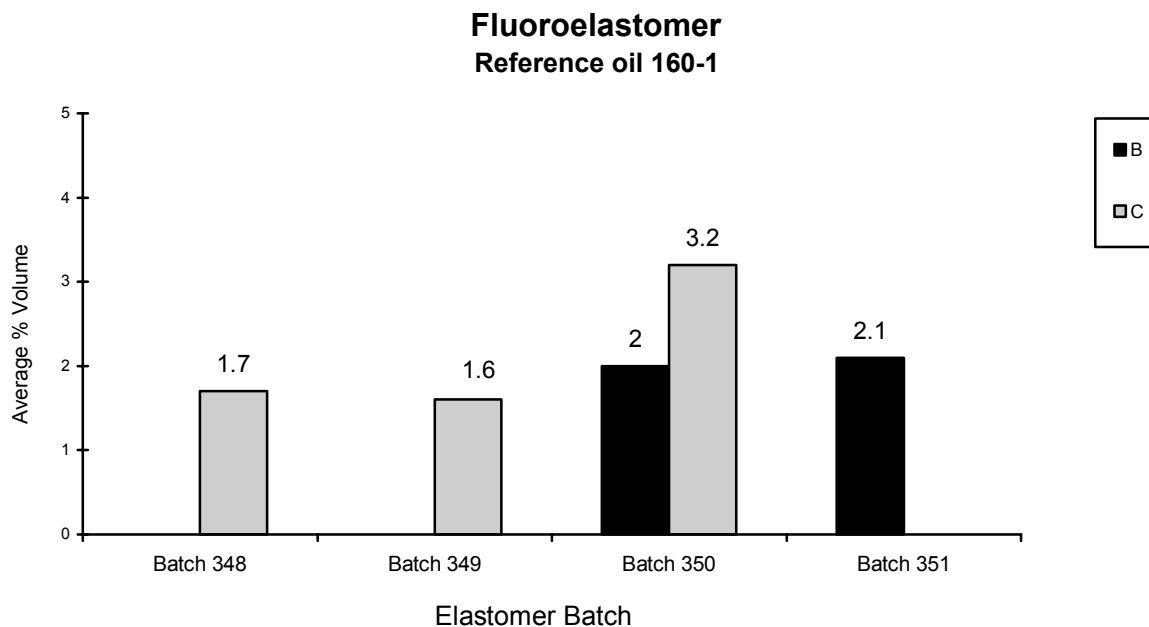
Average percent elongation bar charts for fluoroelastomer material are shown below by lab, elastomer batch, and reference oil. The bar charts illustrate small lab and elastomer batch differences.



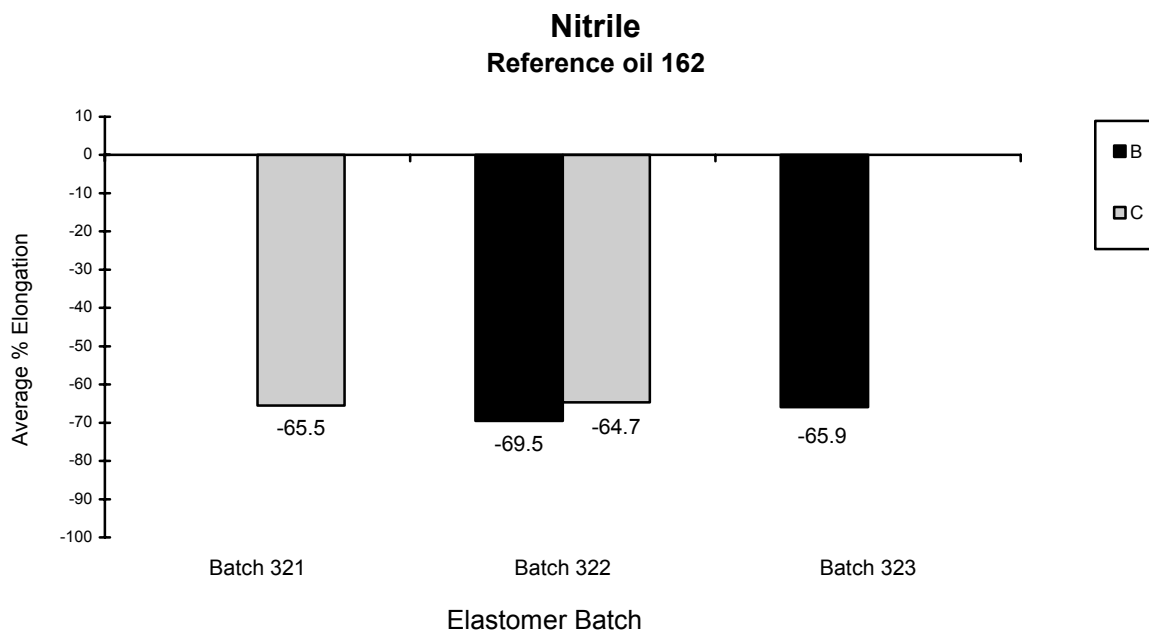
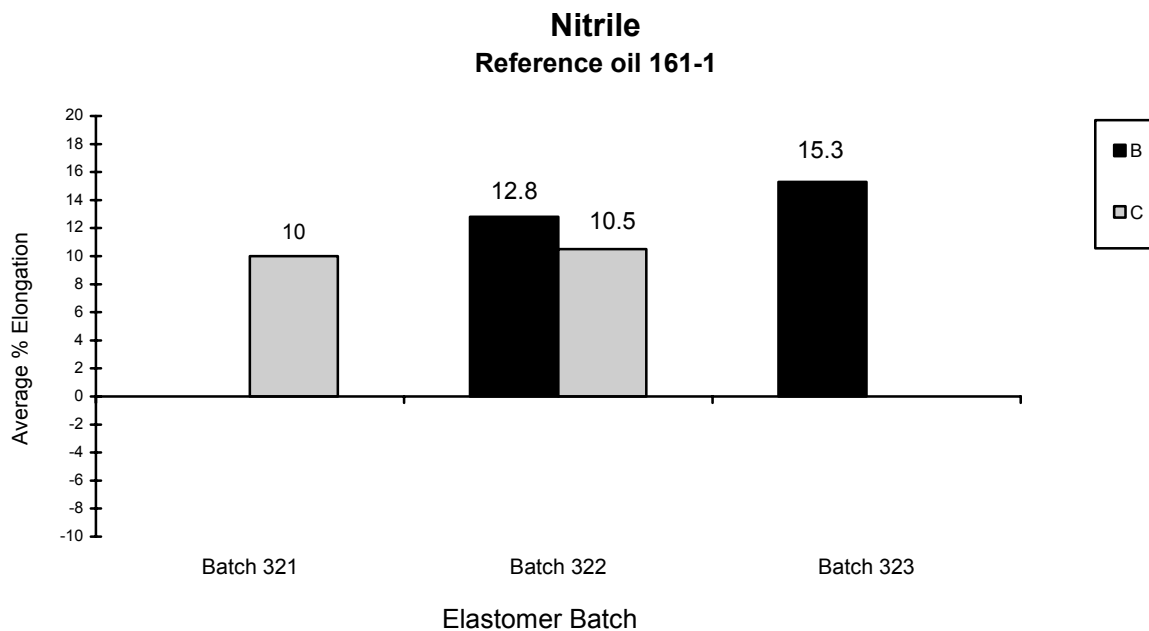
Average hardness bar charts for fluoroelastomer material are shown below by lab, elastomer batch, and reference oil. The bar charts illustrate lab differences for both reference oils 160-1 and 161-1, specifically with elastomer batch 350



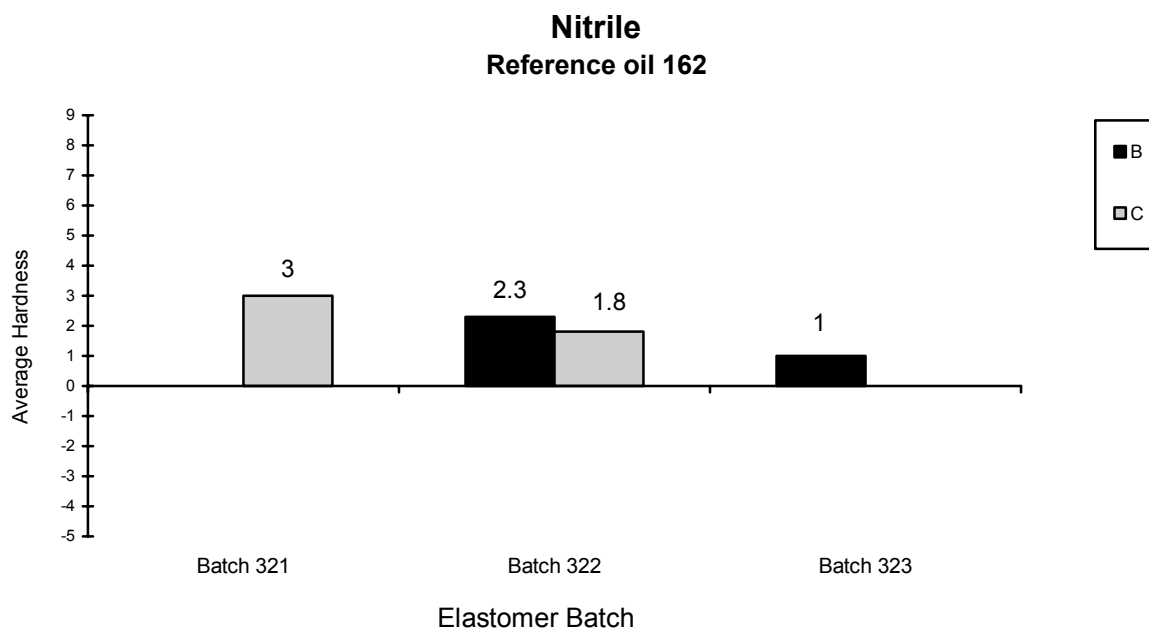
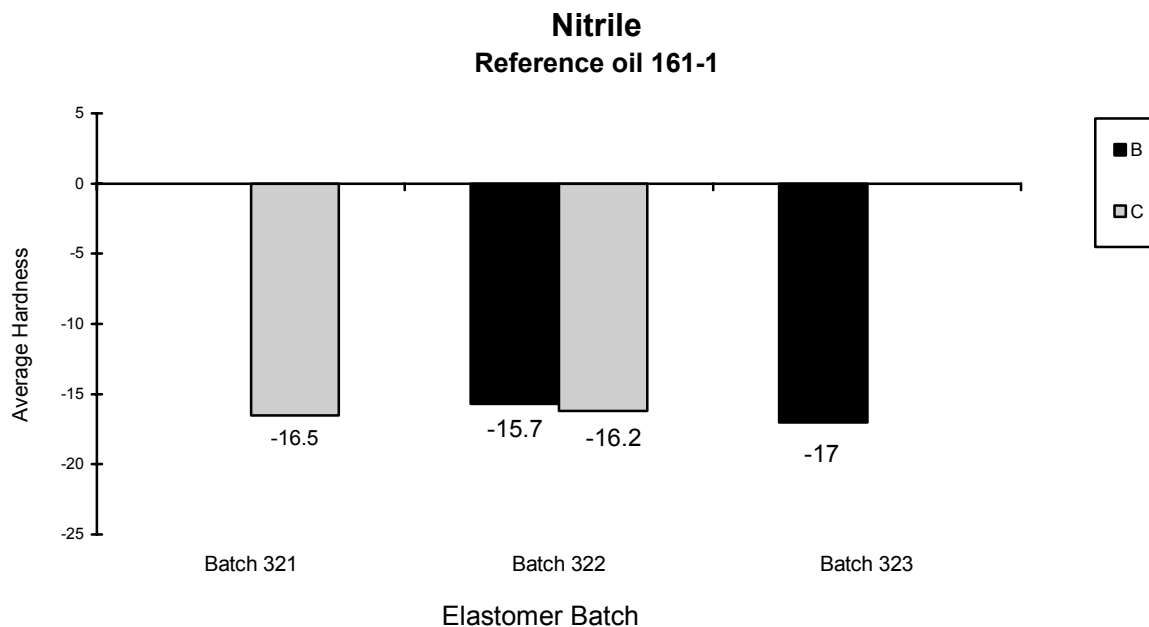
Average percent volume bar charts for fluoroelastomer material are shown below by lab, elastomer batch, and reference oil. The bar charts show a small lab difference with both reference oils on elastomer batch 350.



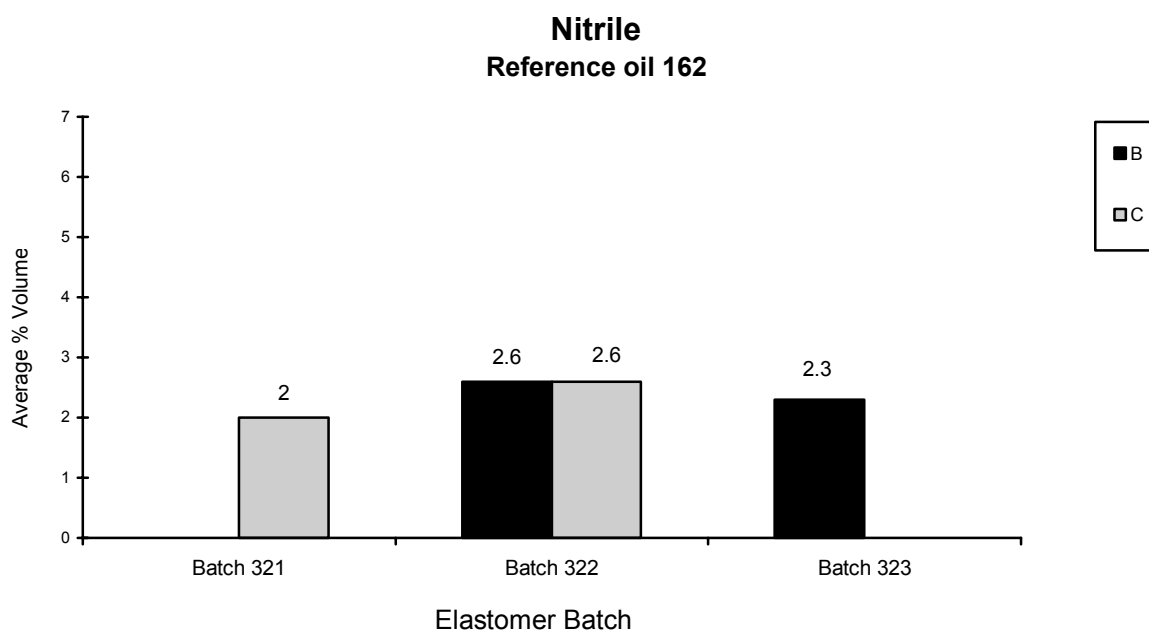
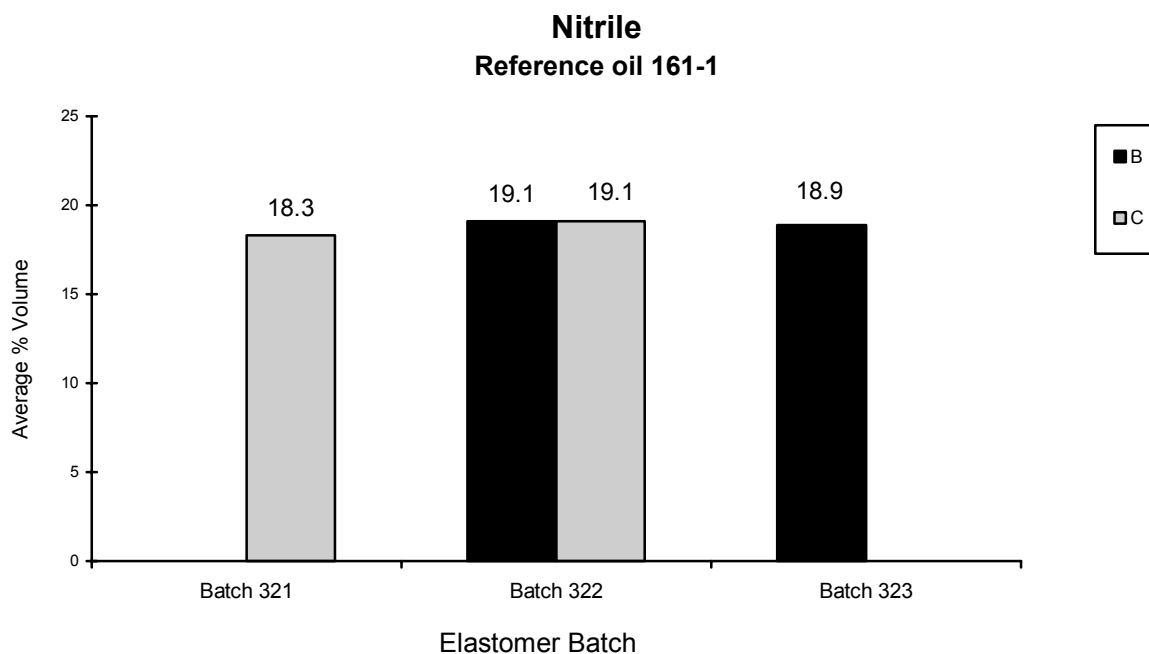
Average percent elongation bar charts for nitrile material are shown below by lab, elastomer batch, and reference oil. The bar charts show comparable results on all batches with little discernable lab difference with both reference oils.



Average hardness bar charts for nitrile material are shown below by lab, elastomer batch, and reference oil. The bar charts show comparable results on all batches with little discernable lab difference with both reference oils.



Average percent volume bar charts for nitrile material are shown below by lab, elastomer batch, and reference oil. The bar charts show comparable results on all batches with little discernable lab difference with both reference oils.



REFERENCE OILS

The following table quantifies each reference oil by the number of reference oil containers remaining at the TMC and each laboratory. Each reference oil container has 750 ml (0.2 gallons) of oil.

LAB	160	160-1	161	161-1	162	163	164	165
B	0	14	0	18	10	0	0	4
C	0	18	0	13	11	0	0	3
D	0	0	0	3	2	0	0	0
TMC	0	926	0	619	85	471	198	515

INFORMATION LETTERS

There were no information letters issued during this report period.

TMC ACTIVITIES

There was one lab visit conducted this report period, with no significant discrepancies were noted during this visit.

DML/dml

Attachments

c: OSCT Surveillance Panel

F. M. Farber, TMC

<ftp://tmc.astm.cmri.cmu.edu/docs/gears/osct/semiannualreports/osct-10-2001>