Collaborative Testing Services, Inc.

Rubber Interlaboratory Testing Program

Summary Report #181- 3rd Qtr 2014

About the Rubber Program, About CTS

Key for Web Summary Report

Analysis	Analysis Name
605	Tensile Strength: Precured Rubber Samples
606	Ultimate Elongation: Precured Rubber Samples
607	Stress at 300% Elongation: Precured Samples
608	Stress at 100% Elongation: Precured Samples
620	Hardness (Type A): Precured Rubber Samples
621	Density: Precured Rubber Samples @ 25C
630	Tensile Strength: Participant-Cured Rubber
631	Ultimate Elongation: Participant-Cured Samples
632	Tensile Stress at 300% Elongation: Lab-Cured
633	Tensile Stress at 100% Elongation: Lab-Cured
660	Mooney Viscosity (4-minute readings)
661	Mooney Viscosity (8-minute butyl readings)
662	Mooney Stress Relaxation: t80
663	Mooney Stress Relaxation: X30
664	Mooney Stress Relaxation: Area under curve
669	ODR Vulcanization Charac.: Cure Time 10%
670	ODR Vulcanization Charac.: Scorch Time, Ts1
671	ODR Vulcanization Charac.: Cure Time 50%
672	ODR Vulcanization Charac.: Cure Time 90%
673	ODR Vulcanization Charac.: Minimum Torque
674	ODR Vulcanization Charac.: Maximum Torque
684	MDR Vulcanization Charac.: Cure Time 10%
685	MDR Vulcanization Charac.: Scorch Time, Ts1
686	MDR Vulcanization Charac.: Cure Time 50%
687	MDR Vulcanization Charac.: Cure Time 90%
688	MDR Vulcanization Charac.: Minimum Torque
689	MDR Vulcanization Charac.: Maximum Torque

ABOUT THE PROGRAM

The Collaborative Reference Program for RUBBER, which was initiated in 1969, is operated and maintained by Collaborative Testing Services, Inc. (CTS), with technical guidance provided by the Rubber Division of the American Chemical Society. The program allows laboratories to compare periodically the level and uniformity of their testing with that of other participating laboratories. It also provides a realistic assessment of the state of rubber testing proficiency.

For each test there are summary statistics and a graphical representation of the data. Also shown are notes concerning specific laboratory results, as well as significant findings related to instrument types or other testing variations. Please refer to the section KEY TO TABLES AND GRAPHS for an explanation of terms and guidelines to interpreting the results.

ABOUT CTS

Founded in 1971, CTS is a privately-owned company that specializes in interlaboratory tests for a wide variety of industrial sectors, including rubber, plastics, fasteners and metals, containerboard, paper and color, as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. Labs from the U.S., as well as more than 80 countries, currently participate in CTS programs.

If there are any questions on the report or testing program, please contact:

Collaborative Testing Services, Inc.
21331 Gentry Drive
Sterling, Virginia 20166 USA

+1-571-434-1925
FAX #: +1-571-434-1937
rubber@cts-interlab.com

(Toll-free fax within the U.S.:   1-866-fax-2cts)

Office Hours: 8:00 a.m. - 4:30 p.m. ET

WebCode Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Rubber Report published on the CTS Web site. The WebCode for each analysis can be found in the Performance Analysis Report mailed to each participant.

Lab Mean Tensile & Hardness: the average of the median values obtained for each sample.
All other tests: the average of the test results obtained by the participant.

Grand Mean The average of the LAB MEANS for all included participants. Laboratories flagged with an X or an M (see DATA FLAG column) are excluded from the GRAND MEAN.

**Difference from
Grand Mean** The difference of the LAB MEAN from the GRAND MEAN.

**Between-Lab
Standard Deviation** An indication of the precision of measurement between the laboratories.
The greater the spread of the LAB MEANS about the GRAND MEAN, the larger the BETWEEN-LAB STANDARD DEVIATION (and vice versa).

**Comparative
Performance Value** An indication of how well a laboratory's results agree with the other participants. The CPV is a ratio indicating the number of standard deviations from the GRAND MEAN. The closer a laboratory's COMPARATIVE PERFORMANCE VALUE is to zero, the more consistent its results are with the other participants' data (and vice versa). The critical value for each CPV will vary depending on the number of labs participating in a test.

Inst Code If instruments are tracked in a test, a code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section).

Data Flag DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following chart for an explanation of each symbol:

DATA FLAG	STATISTICALLY INCLUDED/EXCLUDED	ACTION REQUIRED
*	INCLUDED	CAUTION - review testing procedure and monitor future results. Results fall outside 95% ellipse but within a 99% ellipse that is calculated but not drawn.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required. Results fall outside the 99% ellipse. See specific notes following each table for more information on why the data is excluded.
M	EXCLUDED	PROCEED - lab was unable to report data for at least one sample. However, a lab receiving two of more M flags for a test may need to stop and review its testing procedures.

Graph - For each laboratory, the LAB MEAN for the first sample (x-axis) is plotted against the LAB MEAN for the second sample (y-axis) with each point representing a laboratory. The horizontal and vertical cross-hairs are the GRAND MEANS for each sample. When 20 or more laboratories are in the statistics, an ellipse is also drawn so that 95% of the time a randomly selected laboratory will be included inside the ellipse. Plotted data flags are explained above.

Common Problems Highlighted in Footnotes

1. *Extreme data* - The laboratory's results for one or both samples are so inconsistent with those of the other participants that the lab mean(s) fall outside the plot. (The data usually vary by more than three standard deviations from the grand mean.) The participant is advised to immediately review his data and/or testing procedure.

2. *Systematic bias* - The laboratory's results are either consistently high or low for both samples when compared to the other participants (the plotted point falls near the top or bottom of the ellipse). This indicates that the participant is performing the test with a constant bias. Causes of systematic errors include improper calibration, the particular make/model of equipment or a modification to the testing procedure.

3. *Inconsistency in testing between samples/sample sets* - The laboratory's results indicate that there are differences in the way the two samples tested (the plotted point falls to the side of the ellipse). This type of error may be attributed to the analyst deviating from the procedure when testing one of the samples or a material interaction occurrence with the instrument or room conditions. The inconsistency is reflected in the CPVs for the two samples, such as a +1.5 CPV for sample A and a -2.2 CPV for sample B. CTS also will specify if the laboratory's data for one sample are high/low compared to the other participants. If this inconsistency is slight, the lab's plotted point will be an * that falls on the edge of the ellipse.

4. *Inconsistency in testing within a sample* - The laboratory's within-lab standard deviation for a specified sample is high when compared to the other participants, often causing the lab's plotted point to fall outside of the ellipse.

5. *Data appeared to be off by a factor of # and was corrected by CTS* - In tests that involve computations, the results reported to CTS may be off by a factor. If this factor can easily be determined, CTS may correct the data and flag the participant. Occasionally CTS will correct a laboratory's results even though the data are still high or low when compared to the other participants. This is done so that the laboratory may be alerted to other possible errors in its testing procedure.

6. *Data for two samples (or two tests) appeared to be switched by the lab, and the error was corrected by CTS.*

Labs flagged with an * are not typically included in the footnotes of a data table. These labs may locate their position in the control ellipse and use the definitions above to help identify the type of testing error. An * should serve as a caution flag, a "yellow light", to a lab. If this error is repeated in future rounds, a lab may need to stop and review its testing procedures. The initial data flag is not cause for alarm. Interlaboratory tests conducted at regular intervals permit a lab to recognize trends in testing.

Rubber Interlaboratory Testing Program

Analysis 605
Tensile Strength (psi)

WebCode	Data Flag	Sample C41-C42			Sample C43-C44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
23YJNP		3,309.5	-12.5	-0.07	3,463.5	117.3	0.67	ZZ
263E9R		3,238.5	-83.5	-0.48	3,245.5	-100.7	-0.57	ZZ
27LCLD		3,248.9	-73.1	-0.42	3,408.4	62.3	0.35	ZZ
2974VV		3,242.3	-79.7	-0.46	3,174.2	-172.0	-0.98	ZZ
2ECZGF	*	3,505.5	183.5	1.06	3,725.5	379.3	2.15	ZZ
2KZGVR		3,329.5	7.5	0.04	3,321.0	-25.2	-0.14	ZZ
3GFY6U		3,207.3	-114.7	-0.66	3,220.1	-126.1	-0.72	ZZ
3KVMPQ		3,280.1	-41.9	-0.24	3,309.1	-37.1	-0.21	ZZ
3MJ6KW		3,433.8	111.8	0.64	3,474.4	128.3	0.73	ZZ
7A3GYN		2,930.0	-392.0	-2.26	3,003.0	-343.2	-1.95	ZZ
7CREYG		3,299.0	-23.0	-0.13	3,281.0	-65.2	-0.37	ZZ
7PXGBX		3,074.5	-247.5	-1.43	3,132.5	-213.7	-1.21	ZZ
7TXPHT		3,379.4	57.4	0.33	3,422.9	76.8	0.44	ZZ
8KE7DK		3,381.5	59.5	0.34	3,329.5	-16.7	-0.09	ZZ
8TVKFP		3,292.4	-29.6	-0.17	3,219.9	-126.3	-0.72	ZZ
8V23EK		3,622.6	300.6	1.73	3,561.3	215.1	1.22	ZZ
9NT2TG		3,275.0	-47.0	-0.27	3,449.3	103.2	0.59	ZZ
9UNL6D		3,128.5	-193.5	-1.12	3,130.7	-215.5	-1.22	ZZ
9YRWQC		3,281.0	-41.0	-0.24	3,335.5	-10.7	-0.06	ZZ
A9GXT9		3,197.4	-124.6	-0.72	3,267.1	-79.1	-0.45	ZZ
AF3TUC		3,491.5	169.5	0.98	3,366.5	20.3	0.12	ZZ
BEMQM4		3,332.5	10.5	0.06	3,409.5	63.3	0.36	ZZ
BKBEFN		2,998.0	-324.0	-1.87	3,110.0	-236.2	-1.34	ZZ
BN8Z8Q		3,573.5	251.5	1.45	3,490.0	143.8	0.82	ZZ
BXVZFN		3,140.1	-181.9	-1.05	3,045.8	-300.3	-1.71	ZZ
CK6JC9		3,230.0	-92.0	-0.53	3,291.5	-54.7	-0.31	ZZ
CLFH7G		3,561.8	239.8	1.38	3,541.8	195.6	1.11	ZZ
CTE3BX		3,251.5	-70.5	-0.41	3,263.0	-83.2	-0.47	ZZ
D26XZF		3,205.5	-116.5	-0.67	3,266.0	-80.2	-0.46	ZZ
D27LML		3,522.8	200.8	1.16	3,441.4	95.2	0.54	ZZ
D8CG97		3,286.5	-35.5	-0.20	3,227.5	-118.7	-0.67	ZZ
D9NEDB		3,328.6	6.6	0.04	3,364.9	18.8	0.11	ZZ
DBVJ6E		3,275.5	-46.5	-0.27	3,292.0	-54.2	-0.31	ZZ
DBW7TJ		3,204.0	-118.0	-0.68	3,316.5	-29.7	-0.17	ZZ
DHWN7B		3,291.5	-30.5	-0.18	3,429.5	83.3	0.47	ZZ
DHWQV		3,485.0	163.0	0.94	3,505.0	158.8	0.90	ZZ
DKK8ZG		3,367.0	45.0	0.26	3,470.5	124.3	0.71	ZZ
DMN6AN	X	3,170.0	-152.0	-0.88	2,914.0	-432.2	-2.45	ZZ
ENXCAV		3,301.5	-20.5	-0.12	3,427.5	81.3	0.46	ZZ

Rubber Interlaboratory Testing Program

Analysis 605
Tensile Strength (psi)

		Sample C41-C42			Sample C43-C44			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
EPQFPN		3,504.5	182.5	1.05	3,427.5	81.3	0.46	ZZ
ETTBBC		3,390.0	68.0	0.39	3,495.0	148.8	0.85	ZZ
EZPXHC		2,893.5	-428.5	-2.47	2,967.5	-378.7	-2.15	ZZ
F7FKWH		3,391.8	69.8	0.40	3,353.4	7.2	0.04	ZZ
FL6Q6B		3,050.5	-271.5	-1.57	3,111.5	-234.7	-1.33	ZZ
FUGU6H		3,269.0	-53.0	-0.31	3,163.5	-182.7	-1.04	ZZ
FVVCBA		3,207.5	-114.5	-0.66	3,301.1	-45.1	-0.26	ZZ
GANK8E		3,564.5	242.5	1.40	3,427.5	81.3	0.46	ZZ
GTYFYK		3,279.0	-43.0	-0.25	3,319.5	-26.7	-0.15	ZZ
GW2DCY		3,211.9	-110.1	-0.64	3,258.3	-87.9	-0.50	ZZ
H9RCR3		3,422.2	100.2	0.58	3,556.4	210.2	1.19	ZZ
H9TCQH		3,096.6	-225.4	-1.30	3,100.2	-245.9	-1.40	ZZ
HEFYKM		3,427.7	105.7	0.61	3,436.0	89.8	0.51	ZZ
HFUE2A		3,365.0	43.0	0.25	3,500.0	153.8	0.87	ZZ
HQEQE8		3,140.0	-182.0	-1.05	3,239.0	-107.2	-0.61	ZZ
HTCDKG		3,226.5	-95.5	-0.55	3,365.4	19.3	0.11	ZZ
HZF9RV		3,618.1	296.1	1.71	3,749.5	403.3	2.29	ZZ
JECMP4		3,425.1	103.1	0.59	3,491.1	144.9	0.82	ZZ
JFL4BG		3,671.7	349.7	2.02	3,647.0	300.9	1.71	ZZ
JKK9D2	*	3,619.0	297.0	1.71	3,782.0	435.8	2.48	ZZ
K63RXH		3,329.4	7.4	0.04	3,361.1	15.0	0.09	ZZ
K6NBQW		3,254.2	-67.8	-0.39	3,347.7	1.6	0.01	ZZ
KC4WZZ		3,587.0	265.0	1.53	3,720.5	374.3	2.13	ZZ
KGV9MJ		3,289.5	-32.5	-0.19	3,413.5	67.3	0.38	ZZ
KKED8Z		3,420.0	98.0	0.57	3,425.0	78.8	0.45	ZZ
KNDRUQ		3,370.5	48.5	0.28	3,452.5	106.3	0.60	ZZ
KPTU2Y		3,304.0	-18.0	-0.10	3,372.2	26.0	0.15	ZZ
KT9NFB		3,141.5	-180.5	-1.04	3,156.0	-190.2	-1.08	ZZ
KVC7RK		3,445.5	123.5	0.71	3,381.5	35.3	0.20	ZZ
L9FYMU		3,254.0	-68.0	-0.39	3,220.0	-126.2	-0.72	ZZ
LCY497	X	1,778.5	-1,543.5	-8.90	1,988.0	-1,358.2	-7.72	ZZ
LGCWA		3,251.0	-71.0	-0.41	3,330.0	-16.2	-0.09	ZZ
LGQDGJ		3,253.4	-68.6	-0.40	3,160.3	-185.8	-1.06	ZZ
LPNW7T		3,605.7	283.7	1.64	3,650.5	304.3	1.73	ZZ
M9Y9A4		3,171.0	-151.0	-0.87	3,206.0	-140.2	-0.80	ZZ
MGRHG		3,292.5	-29.5	-0.17	3,493.5	147.3	0.84	ZZ
MZK72G		3,432.0	110.0	0.63	3,362.5	16.3	0.09	ZZ
NKLUR4	*	3,016.8	-305.2	-1.76	3,248.9	-97.3	-0.55	ZZ
NR38V9		3,341.0	19.0	0.11	3,394.0	47.8	0.27	ZZ

Rubber Interlaboratory Testing Program

Analysis 605
Tensile Strength (psi)

WebCode	Data Flag	Sample C41-C42			Sample C43-C44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
P4U7CD		3,444.5	122.5	0.71	3,534.7	188.5	1.07	ZZ
PVH3B7		3,244.0	-78.0	-0.45	3,195.0	-151.2	-0.86	ZZ
PWWNM		3,386.0	64.0	0.37	3,385.5	39.3	0.22	ZZ
QGYWE		3,350.5	28.5	0.16	3,379.5	33.3	0.19	ZZ
QKHQF4		3,282.0	-40.0	-0.23	3,109.0	-237.2	-1.35	ZZ
QNVU3Z	*	3,694.9	372.9	2.15	3,537.5	191.3	1.09	ZZ
RJ2WDA		3,302.5	-19.5	-0.11	3,363.5	17.3	0.10	ZZ
T4HQGZ		3,364.0	42.0	0.24	3,331.0	-15.2	-0.09	ZZ
T83JT3		3,532.5	210.5	1.21	3,478.0	131.8	0.75	ZZ
TJTGBT		3,552.0	230.0	1.33	3,656.0	309.8	1.76	ZZ
TP3QNF		3,206.5	-115.5	-0.67	3,233.0	-113.2	-0.64	ZZ
U34TE3		3,441.1	119.1	0.69	3,480.2	134.1	0.76	ZZ
UCANKE		3,145.0	-177.0	-1.02	3,247.5	-98.7	-0.56	ZZ
UGMDX		3,547.5	225.5	1.30	3,465.0	118.8	0.68	ZZ
UM9BP6		3,350.0	28.0	0.16	3,290.0	-56.2	-0.32	ZZ
VMBEZU		3,660.0	338.0	1.95	3,555.0	208.8	1.19	ZZ
VR2N98		3,202.5	-119.5	-0.69	3,175.5	-170.7	-0.97	ZZ
VR3LH3		3,175.6	-146.4	-0.84	3,144.4	-201.7	-1.15	ZZ
W8926V		3,375.0	53.0	0.31	3,285.0	-61.2	-0.35	ZZ
WPMMF		3,205.4	-116.6	-0.67	3,065.4	-280.8	-1.59	ZZ
WVGMU	*	2,864.5	-457.5	-2.64	2,821.0	-525.1	-2.98	ZZ
WWRHM		3,308.0	-14.0	-0.08	3,309.5	-36.7	-0.21	ZZ
XEP77U		3,492.0	170.0	0.98	3,465.0	118.8	0.68	ZZ
XGWEG		3,382.5	60.5	0.35	3,350.0	3.8	0.02	ZZ
XRD3TM		3,184.5	-137.5	-0.79	3,245.0	-101.2	-0.57	ZZ
XVTW7Y		3,675.3	353.3	2.04	3,684.0	337.8	1.92	ZZ
Y3U7FC	*	2,887.7	-434.3	-2.51	2,861.1	-485.1	-2.76	ZZ
YVQ9JT		3,200.0	-122.0	-0.70	3,376.0	29.8	0.17	ZZ
YWGMU		3,241.6	-80.4	-0.46	3,343.1	-3.0	-0.02	ZZ
YY67NU		3,150.2	-171.8	-0.99	3,257.9	-88.3	-0.50	ZZ
YZZHUV		3,296.2	-25.8	-0.15	3,372.3	26.1	0.15	ZZ
Z294X3		3,615.8	293.8	1.69	3,542.6	196.4	1.12	ZZ
Z3NB9B		3,430.1	108.1	0.62	3,475.1	129.0	0.73	ZZ
ZEVBU3		3,141.5	-180.5	-1.04	3,100.0	-246.2	-1.40	ZZ
ZXNCLY		3,280.4	-41.6	-0.24	3,265.2	-81.0	-0.46	ZZ
ZYPZBQ		3,415.7	93.7	0.54	3,270.6	-75.5	-0.43	ZZ

Analysis 605

Tensile Strength (psi)

Summary Statistics

Grand Means

     3,322.00 psi   3,346.15 psi

Stnd Dev Btwn Labs

       173.37 psi   176.03 psi

Statistics based on 112 of 114 reporting participants

Summary Statistics in SI Units

Grand Means

     22.904 MPa   23.07 MPa

Stnd Dev Btwn Labs

      1.195 MPa   1.21 MPa

Statistics based on 112 of 114 reporting participants

Samples C41-C42: Polyisoprene compound, batch #1 & C43-C44: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #605

DMN6AN (X) - Inconsistency in testing between Sample groups.

LCY497 (X) - Data for all Samples are low. Possible systematic error.

Rubber Interlaboratory Testing Program
Analysis 605
Tensile Strength (psi)

Grand Mean Sample **C41-C42** = 3,322.00 psi   Grand Mean Sample **C43-C44** = 3,346.15 psi
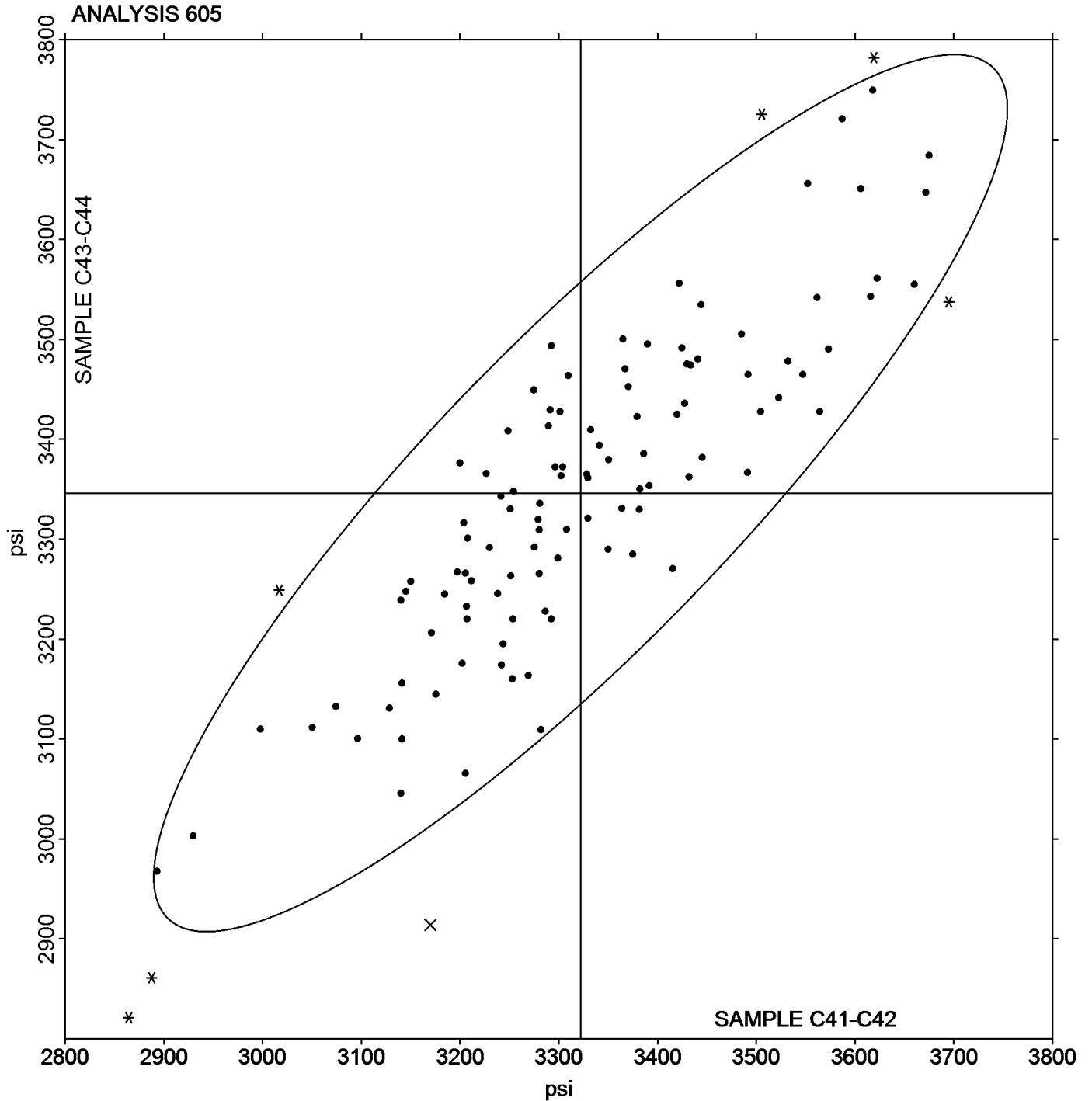
Rubber Interlaboratory Testing Program
Analysis 606
Ultimate Elongation (percent)

WebCode	Data Flag	Sample C41-C42			Sample C43-C44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
23YJNP		690.0	68.0	2.13	670.0	53.5	1.71	ZZ
263E9R		605.0	-17.0	-0.53	593.5	-23.0	-0.74	ZZ
27LCLD		626.5	4.5	0.14	620.0	3.5	0.11	ZZ
2974VV		643.5	21.5	0.68	630.5	14.0	0.45	ZZ
2ECZGF		636.5	14.5	0.46	636.0	19.5	0.62	ZZ
2KZGVR	X	436.0	-186.0	-5.83	316.5	-300.0	-9.60	ZZ
3GFY6U		562.5	-59.5	-1.86	547.0	-69.5	-2.22	ZZ
3KVMPQ		652.2	30.2	0.95	622.4	5.8	0.19	ZZ
3MJ6KW		641.5	19.5	0.61	625.5	9.0	0.29	ZZ
7A3GYN		579.5	-42.5	-1.33	563.0	-53.5	-1.71	ZZ
7CREYG		601.0	-21.0	-0.66	607.0	-9.5	-0.30	ZZ
7PXGBX		571.0	-51.0	-1.60	586.5	-30.0	-0.96	ZZ
7TXPHT		656.0	34.0	1.07	642.5	26.0	0.83	ZZ
8KE7DK		622.0	0.0	0.00	598.0	-18.5	-0.59	ZZ
8TVKFP		662.0	40.0	1.26	660.5	44.0	1.41	ZZ
8V23EK		613.8	-8.2	-0.26	637.5	21.0	0.67	ZZ
9NT2TG		581.5	-40.5	-1.27	603.5	-13.0	-0.42	ZZ
9UNL6D		603.3	-18.7	-0.59	611.5	-5.0	-0.16	ZZ
9YRWQC		652.0	30.0	0.94	640.0	23.5	0.75	ZZ
A9GXT9		576.1	-45.8	-1.44	570.8	-45.8	-1.46	ZZ
AF3TUC		646.0	24.0	0.75	638.5	22.0	0.70	ZZ
BEMQM4		611.0	-11.0	-0.34	621.0	4.5	0.14	ZZ
BKBEFN		568.0	-54.0	-1.69	549.5	-67.0	-2.14	ZZ
BN8Z8Q		658.5	36.5	1.15	633.0	16.5	0.53	ZZ
BXVZFN		621.0	-1.0	-0.03	619.0	2.5	0.08	ZZ
CK6JC9		625.0	3.0	0.09	624.5	8.0	0.26	ZZ
CLFH7G		629.8	7.8	0.25	631.2	14.7	0.47	ZZ
CTE3BX		605.5	-16.5	-0.52	591.5	-25.0	-0.80	ZZ
D26XZF	X	697.0	75.0	2.35	883.0	266.5	8.52	ZZ
D27LML	X	842.3	220.4	6.91	838.7	222.2	7.11	ZZ
D8CG97		622.5	0.5	0.02	609.5	-7.0	-0.22	ZZ
D9NEDB		608.0	-14.0	-0.44	595.0	-21.5	-0.69	ZZ
DBVJ6E		626.0	4.0	0.13	624.5	8.0	0.26	ZZ
DBW7TJ		606.5	-15.5	-0.49	614.0	-2.5	-0.08	ZZ
DHWN7B		607.0	-15.0	-0.47	603.0	-13.5	-0.43	ZZ
DHWQV		622.0	0.0	0.00	633.5	17.0	0.54	ZZ
DKK8ZG		655.5	33.5	1.05	644.0	27.5	0.88	ZZ
DMN6AN		601.0	-21.0	-0.66	601.5	-15.0	-0.48	ZZ
ENXCAV		650.0	28.0	0.88	655.5	39.0	1.25	ZZ

Rubber Interlaboratory Testing Program

Analysis 606
Ultimate Elongation (percent)

WebCode	Data Flag	Sample C41-C42			Sample C43-C44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
EPQFPN		632.0	10.0	0.31	611.5	-5.0	-0.16	ZZ
ETTBBC	X	708.5	86.5	2.71	721.0	104.5	3.34	ZZ
EZPXHC		600.0	-22.0	-0.69	590.0	-26.5	-0.85	ZZ
F7FKWH		653.0	31.0	0.97	647.5	31.0	0.99	ZZ
FL6Q6B		547.0	-75.0	-2.35	540.0	-76.5	-2.45	ZZ
FUGU6H		630.0	8.0	0.25	635.0	18.5	0.59	ZZ
FVVCBA		628.0	6.0	0.19	613.5	-3.0	-0.10	ZZ
GANK8E		661.5	39.5	1.24	649.5	33.0	1.05	ZZ
GTYFYK		612.5	-9.5	-0.30	600.0	-16.5	-0.53	ZZ
GW2DCY		638.0	16.0	0.50	641.5	25.0	0.80	ZZ
H9RCR3		693.5	71.5	2.24	681.0	64.5	2.06	ZZ
H9TCQH	X	901.0	279.0	8.75	886.0	269.5	8.62	ZZ
HEFYKM		639.6	17.6	0.55	631.4	14.9	0.48	ZZ
HFUE2A		593.5	-28.5	-0.89	577.5	-39.0	-1.25	ZZ
HQEQE8		564.5	-57.5	-1.80	558.5	-58.0	-1.86	ZZ
HTCDKG	*	645.5	23.5	0.74	598.5	-18.0	-0.58	ZZ
HZF9RV		626.4	4.4	0.14	640.8	24.3	0.78	ZZ
JECMP4		660.0	38.0	1.19	651.0	34.5	1.10	ZZ
JKK9D2		645.5	23.5	0.74	649.5	33.0	1.05	ZZ
K63RXH		629.0	7.1	0.22	620.9	4.4	0.14	ZZ
K6NBQW		630.6	8.6	0.27	627.9	11.4	0.36	ZZ
KC4WZZ		625.0	3.0	0.09	624.5	8.0	0.26	ZZ
KGV9MJ		606.5	-15.5	-0.49	636.0	19.5	0.62	ZZ
KKED8Z		655.0	33.0	1.04	645.0	28.5	0.91	ZZ
KNDRUQ		623.5	1.5	0.05	596.5	-20.0	-0.64	ZZ
KPTU2Y		584.5	-37.5	-1.18	571.0	-45.5	-1.46	ZZ
KT9NFB		605.5	-16.5	-0.52	598.0	-18.5	-0.59	ZZ
KVC7RK		572.5	-49.5	-1.55	568.5	-48.0	-1.54	ZZ
L9FYMU	X	811.5	189.5	5.94	811.5	195.0	6.24	ZZ
LCY497	X	861.5	239.5	7.51	864.0	247.5	7.92	ZZ
LGCWA		670.0	48.0	1.51	684.5	68.0	2.17	ZZ
LGQDGJ		599.8	-22.2	-0.70	599.2	-17.4	-0.56	ZZ
LPNW7T		635.5	13.5	0.42	637.5	21.0	0.67	ZZ
M9Y9A4	*	582.0	-40.0	-1.25	611.5	-5.0	-0.16	ZZ
MGRHG		554.5	-67.5	-2.12	564.5	-52.0	-1.66	ZZ
MZK72G		583.5	-38.5	-1.21	563.0	-53.5	-1.71	ZZ
NKLUR4		645.0	23.0	0.72	627.5	11.0	0.35	ZZ
NR38V9		621.5	-0.5	-0.01	614.0	-2.5	-0.08	ZZ
P4U7CD		620.7	-1.3	-0.04	615.7	-0.8	-0.02	ZZ

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample C41-C42			Sample C43-C44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
PVH3B7		625.0	3.0	0.09	585.0	-31.5	-1.01	ZZ
PWWNM		627.5	5.5	0.17	621.0	4.5	0.14	ZZ
QGYWE		621.0	-1.0	-0.03	616.5	0.0	0.00	ZZ
QKHQF4		611.5	-10.5	-0.33	613.5	-3.0	-0.10	ZZ
QNVU3Z		650.0	28.0	0.88	650.0	33.5	1.07	ZZ
RJ2WDA		602.0	-20.0	-0.63	613.5	-3.0	-0.10	ZZ
T4HQGZ		573.5	-48.5	-1.52	563.0	-53.5	-1.71	ZZ
T83JT3		634.0	12.0	0.38	623.0	6.5	0.21	ZZ
TJTGBT		694.5	72.5	2.27	688.5	72.0	2.30	ZZ
TP3QNF		642.0	20.0	0.63	606.5	-10.0	-0.32	ZZ
U34TE3		625.0	3.0	0.09	611.5	-5.0	-0.16	ZZ
UCANKE	X	507.8	-114.2	-3.58	550.0	-66.5	-2.13	ZZ
UGMDX		659.5	37.5	1.18	670.5	54.0	1.73	ZZ
UM9BP6		609.5	-12.5	-0.39	612.5	-4.0	-0.13	ZZ
VMBEZU		657.0	35.0	1.10	664.5	48.0	1.53	ZZ
VR2N98		590.5	-31.5	-0.99	585.0	-31.5	-1.01	ZZ
VR3LH3		630.0	8.0	0.25	595.0	-21.5	-0.69	ZZ
W8926V		585.5	-36.5	-1.14	587.0	-29.5	-0.94	ZZ
WPMMF	X	668.0	46.0	1.44	609.5	-7.0	-0.22	ZZ
WVGMU		593.3	-28.7	-0.90	608.3	-8.3	-0.26	ZZ
WWRHM		667.0	45.0	1.41	644.5	28.0	0.89	ZZ
XEP77U		664.5	42.5	1.33	658.0	41.5	1.33	ZZ
XGWEG		626.5	4.5	0.14	640.5	24.0	0.77	ZZ
XRD3TM		609.0	-13.0	-0.41	603.5	-13.0	-0.42	ZZ
XVTW7Y		624.0	2.0	0.06	620.0	3.5	0.11	ZZ
YVQ9JT		661.5	39.5	1.24	645.5	29.0	0.93	ZZ
YWGMU	*	578.0	-44.0	-1.38	610.7	-5.8	-0.19	ZZ
YY67NU		638.9	16.9	0.53	622.3	5.8	0.18	ZZ
YZZHUV		670.7	48.7	1.53	658.7	42.1	1.35	ZZ
Z294X3		648.0	26.0	0.82	641.5	25.0	0.80	ZZ
Z3NB9B		656.0	34.0	1.07	639.0	22.5	0.72	ZZ
ZEVBU3		600.0	-22.0	-0.69	592.0	-24.5	-0.78	ZZ
ZXNCLY	*	557.0	-65.0	-2.04	582.5	-34.0	-1.09	ZZ
ZYPZBQ		576.6	-45.4	-1.42	551.8	-64.8	-2.07	ZZ

Analysis 606

Ultimate Elongation (percent)

	Summary Statistics	
Grand Means		
621.97 percent		616.52 percent
Stnd Dev Btwn Labs		
31.89 percent		31.27 percent
		Statistics based on 103 of 112 reporting participants

Samples C41-C42: Polyisoprene compound, batch #1 & C43-C44: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #606

2KZGVR (X) - Extreme data.

D26XZF (X) - Inconsistency in testing between Sample groups. Data for Sample group C43-C44 are high. Inconsistency in testing within Sample group C41-C42.

D27LML (X) - Data for all Samples are high. Possible systematic error. Inconsistency in testing within Sample group C41-C42.

ETTBBC (X) - Inconsistency in testing between Sample groups. Data for Sample group C43-C44 are high.

H9TCQH (X) - Data for all Samples are high. Possible systematic error. Inconsistency in testing within Sample group C43-C44.

L9FYMU (X) - Data for all Samples are high. Possible systematic error.

LCY497 (X) - Data for all Samples are high. Possible systematic error.

UCANKE (X) - Inconsistency in testing between Sample groups. Data for Sample group C41-C42 are low.
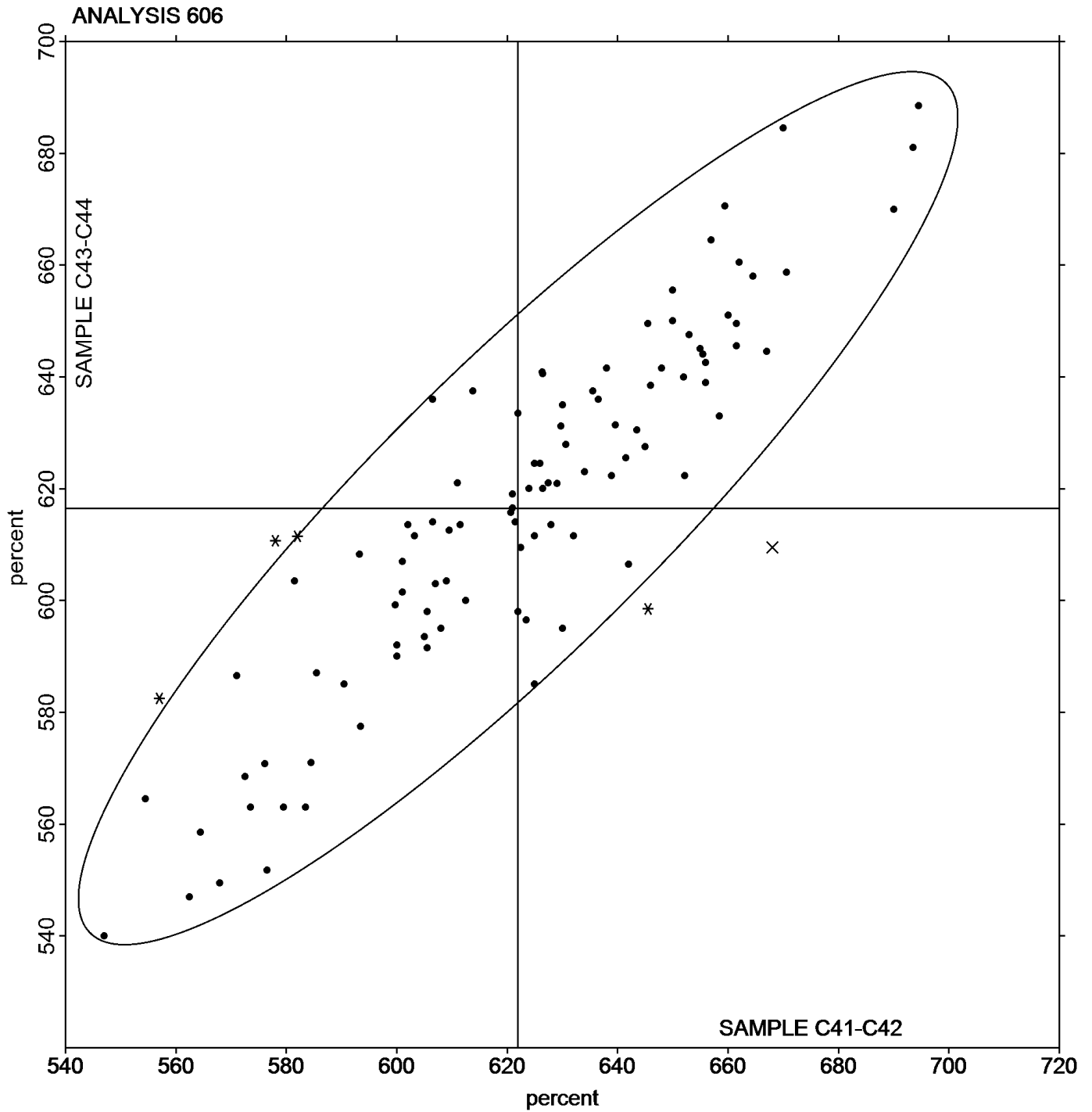
WPMMF6 (X) - Inconsistency in testing between Sample groups.

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

Grand Mean Sample **C41-C42** = 621.97 percent   Grand Mean Sample **C43-C44** = 616.52 percent

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample C41-C42			Sample C43-C44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
23YJNP	X	13.2	-946.5	-11.43	15.1	-972.6	-11.16	ZZ
263E9R		949.5	-10.2	-0.12	989.0	1.4	0.02	ZZ
27LCLD		877.5	-82.2	-0.99	979.0	-8.6	-0.10	ZZ
2974VV		888.4	-71.3	-0.86	895.6	-92.0	-1.06	ZZ
2ECZGF		945.0	-14.7	-0.18	1,030.0	42.4	0.49	ZZ
2KZGVR	X	1,927.0	967.3	11.68	1,896.5	908.9	10.43	ZZ
3GFY6U		1,053.9	94.2	1.14	1,123.1	135.5	1.55	ZZ
3KVMPQ		953.7	-6.0	-0.07	958.1	-29.6	-0.34	ZZ
3MJ6KW		877.5	-82.2	-0.99	951.5	-36.2	-0.41	ZZ
7A3GYN		904.8	-54.9	-0.66	1,052.0	64.4	0.74	ZZ
7CREYG		976.0	16.3	0.20	966.0	-21.6	-0.25	ZZ
7PXGBX		1,024.5	64.8	0.78	999.5	11.9	0.14	ZZ
7TXPHT		877.5	-82.2	-0.99	935.5	-52.1	-0.60	ZZ
8KE7DK		909.0	-50.7	-0.61	1,032.5	44.9	0.52	ZZ
8TVKFP		979.0	19.3	0.23	969.0	-18.6	-0.21	ZZ
8V23EK		1,082.5	122.8	1.48	980.6	-7.0	-0.08	ZZ
9NT2TG		1,019.8	60.1	0.73	1,018.6	31.0	0.36	ZZ
9UNL6D		961.8	2.1	0.02	907.5	-80.1	-0.92	ZZ
9YRWQC		877.5	-82.2	-0.99	960.5	-27.1	-0.31	ZZ
A9GXT9		1,036.6	76.9	0.93	1,071.3	83.7	0.96	ZZ
AF3TUC		901.0	-58.7	-0.71	945.5	-42.1	-0.48	ZZ
BEMQM4		962.0	2.3	0.03	965.0	-22.6	-0.26	ZZ
BKBEFN		948.0	-11.7	-0.14	1,093.0	105.4	1.21	ZZ
BN8Z8Q		972.5	12.8	0.15	1,022.0	34.4	0.39	ZZ
BXVZFN		898.5	-61.2	-0.74	888.4	-99.2	-1.14	ZZ
CK6JC9		954.0	-5.7	-0.07	965.5	-22.1	-0.25	ZZ
CLFH7G		1,018.5	58.9	0.71	1,045.0	57.4	0.66	ZZ
CTE3BX		1,001.5	41.8	0.50	1,083.0	95.4	1.09	ZZ
D26XZF	*	868.0	-91.7	-1.11	773.0	-214.6	-2.46	ZZ
D27LML		939.8	-19.9	-0.24	903.1	-84.5	-0.97	ZZ
D8CG97		1,014.0	54.3	0.66	999.5	11.9	0.14	ZZ
D9NEDB		1,003.7	44.0	0.53	1,070.4	82.8	0.95	ZZ
DBVJ6E		959.0	-0.7	-0.01	951.5	-36.1	-0.41	ZZ
DBW7TJ		972.0	12.3	0.15	1,030.0	42.4	0.49	ZZ
DHWQV		986.5	26.8	0.32	973.0	-14.6	-0.17	ZZ
DKK8ZG		906.0	-53.7	-0.65	907.0	-80.6	-0.92	ZZ
DMN6AN	*	957.5	-2.2	-0.03	830.0	-157.6	-1.81	ZZ
ENXCAV		824.0	-135.7	-1.64	879.0	-108.6	-1.25	ZZ
EPQFPN		964.0	4.3	0.05	1,017.5	29.9	0.34	ZZ

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

| WebCode | Data Flag | Sample C41-C42 | | | Sample C43-C44 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ETTBBC	*	765.0	-194.7	-2.35	780.0	-207.6	-2.38	ZZ
EZPXHC		854.5	-105.2	-1.27	938.0	-49.6	-0.57	ZZ
F7FKWH		890.4	-69.3	-0.84	891.0	-96.6	-1.11	ZZ
FL6Q6B		1,097.5	137.8	1.66	1,183.5	195.9	2.25	ZZ
FUGU6H		899.0	-60.7	-0.73	876.0	-111.6	-1.28	ZZ
FVVCBA		955.8	-3.9	-0.05	1,023.3	35.6	0.41	ZZ
GANK8E		904.0	-55.7	-0.67	913.5	-74.1	-0.85	ZZ
GW2DCY		883.3	-76.4	-0.92	873.9	-113.8	-1.31	ZZ
H9RCR3		812.9	-146.8	-1.77	874.7	-113.0	-1.30	ZZ
H9TCQH	X	535.9	-423.8	-5.12	564.2	-423.4	-4.86	ZZ
HEFYKM		993.9	34.2	0.41	990.4	2.8	0.03	ZZ
HFUE2A	*	1,095.0	135.3	1.63	1,240.0	252.4	2.90	ZZ
HQEQE8		1,084.5	124.8	1.51	1,166.0	178.4	2.05	ZZ
HTCDKG		982.6	22.9	0.28	1,057.0	69.4	0.80	ZZ
HZF9RV		1,124.1	164.4	1.99	1,050.6	63.0	0.72	ZZ
JECMP4		854.3	-105.4	-1.27	929.7	-57.9	-0.66	ZZ
JKK9D2		935.0	-24.7	-0.30	977.5	-10.1	-0.12	ZZ
K63RXH		933.6	-26.1	-0.31	1,010.1	22.4	0.26	ZZ
K6NBQW		921.5	-38.2	-0.46	954.6	-33.1	-0.38	ZZ
KC4WZZ		964.5	4.8	0.06	1,036.5	48.9	0.56	ZZ
KGV9MJ		1,030.5	70.8	0.86	936.5	-51.1	-0.59	ZZ
KKED8Z		909.0	-50.7	-0.61	971.0	-16.6	-0.19	ZZ
KNDRUQ		986.5	26.8	0.32	1,126.5	138.9	1.59	ZZ
KPTU2Y		992.8	33.1	0.40	1,117.5	129.9	1.49	ZZ
KT9NFB		937.5	-22.2	-0.27	934.0	-53.6	-0.62	ZZ
KVC7RK		1,132.0	172.3	2.08	1,167.5	179.9	2.06	ZZ
L9FYMU	X	597.0	-362.7	-4.38	584.0	-403.6	-4.63	ZZ
LCY497	X	339.0	-620.7	-7.50	393.0	-594.6	-6.82	ZZ
LGCWA		815.0	-144.7	-1.75	813.0	-174.6	-2.00	ZZ
LGQDGJ		1,046.5	86.8	1.05	1,005.1	17.5	0.20	ZZ
LPNW7T		973.1	13.4	0.16	947.4	-40.2	-0.46	ZZ
M9Y9A4		1,029.0	69.3	0.84	947.5	-40.1	-0.46	ZZ
MGRHG		1,142.5	182.8	2.21	1,177.0	189.4	2.17	ZZ
MZK72G		1,082.5	122.8	1.48	1,151.0	163.4	1.87	ZZ
NR38V9		985.5	25.8	0.31	1,048.5	60.9	0.70	ZZ
P4U7CD		982.7	23.0	0.28	1,046.1	58.5	0.67	ZZ
PVH3B7		892.5	-67.2	-0.81	1,004.0	16.4	0.19	ZZ
PWWNM		1,018.0	58.3	0.70	1,063.5	75.9	0.87	ZZ
QGYWE		994.5	34.8	0.42	1,008.5	20.9	0.24	ZZ

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

| WebCode | Data Flag | Sample C41-C42 | | | Sample C43-C44 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
QKHQF4		978.5	18.8	0.23	947.0	-40.6	-0.47	ZZ
RJ2WDA		969.5	9.8	0.12	1,001.5	13.9	0.16	ZZ
T4HQGZ		1,080.0	120.3	1.45	1,072.0	84.4	0.97	ZZ
T83JT3		1,020.0	60.3	0.73	1,018.5	30.9	0.35	ZZ
TJTGBT		787.5	-172.2	-2.08	881.0	-106.6	-1.22	ZZ
TP3QNF		856.0	-103.7	-1.25	996.0	8.4	0.10	ZZ
U34TE3		1,018.9	59.2	0.72	1,059.5	71.9	0.82	ZZ
UCANKE	X	1,363.0	403.3	4.87	1,142.5	154.9	1.78	ZZ
UGMDX		1,017.5	57.8	0.70	954.5	-33.1	-0.38	ZZ
UM9BP6		983.5	23.8	0.29	935.0	-52.6	-0.60	ZZ
VMBEZU		951.0	-8.7	-0.10	916.5	-71.1	-0.82	ZZ
VR2N98	X	1,024.0	64.3	0.78	1,051.5	63.9	0.73	ZZ
VR3LH3		868.8	-90.9	-1.10	990.6	3.0	0.03	ZZ
W8926V		1,130.0	170.3	2.06	1,105.0	117.4	1.35	ZZ
WPMMF		839.8	-119.9	-1.45	950.0	-37.6	-0.43	ZZ
WVGMU		915.9	-43.8	-0.53	875.3	-112.3	-1.29	ZZ
WWRHM		860.0	-99.7	-1.20	914.0	-73.6	-0.84	ZZ
XEP77U		894.5	-65.2	-0.79	919.5	-68.1	-0.78	ZZ
XGWEG		942.5	-17.2	-0.21	895.5	-92.1	-1.06	ZZ
XRD3TM		943.0	-16.7	-0.20	943.5	-44.1	-0.51	ZZ
XVTW7Y		1,034.9	75.2	0.91	1,047.2	59.6	0.68	ZZ
YVQ9JT		817.5	-142.2	-1.72	905.0	-82.6	-0.95	ZZ
YWGMU		1,105.2	145.5	1.76	1,005.8	18.2	0.21	ZZ
YY67NU		908.0	-51.7	-0.62	991.7	4.1	0.05	ZZ
YZZHUV		860.4	-99.3	-1.20	916.3	-71.4	-0.82	ZZ
Z294X3		1,036.3	76.6	0.93	1,041.4	53.8	0.62	ZZ
Z3NB9B		881.0	-78.7	-0.95	970.5	-17.1	-0.20	ZZ
ZEVBU3		990.5	30.8	0.37	1,049.0	61.4	0.70	ZZ
ZXNCLY		939.2	-20.5	-0.25	941.5	-46.1	-0.53	ZZ
ZYPZBQ		1,153.1	193.4	2.34	1,113.9	126.3	1.45	ZZ

Summary Statistics

Grand Means		
959.69 psi		987.61 psi
Stnd Dev Btwn Labs		
82.79 psi		87.16 psi
		Statistics based on 101 of 108 reporting participants

Analysis 607

Stress at 300% Elongation (psi)

<table>
<tr><td colspan="2"></td><td colspan="2">Summary Statistics in SI Units</td></tr>
<tr><td colspan="2">Grand Means</td><td colspan="2"></td></tr>
<tr><td>6.6168</td><td>MPa</td><td>6.81</td><td>MPa</td></tr>
<tr><td colspan="2">Stnd Dev Btwn Labs</td><td colspan="2"></td></tr>
<tr><td>0.5708</td><td>MPa</td><td>0.60</td><td>MPa</td></tr>
<tr><td colspan="4">Statistics based on 101 of 108 reporting participants</td></tr>
</table>

Samples C41-C42: Polyisoprene compound, batch #1 & C43-C44: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #607

23YJNP (X) - Extreme data.

2KZGVR (X) - Extreme data.

H9TCQH (X) - Data for all Samples are low. Possible systematic error.

L9FYMU (X) - Data for all Samples are low. Possible systematic error.

LCY497 (X) - Data for all Samples are low. Possible systematic error.

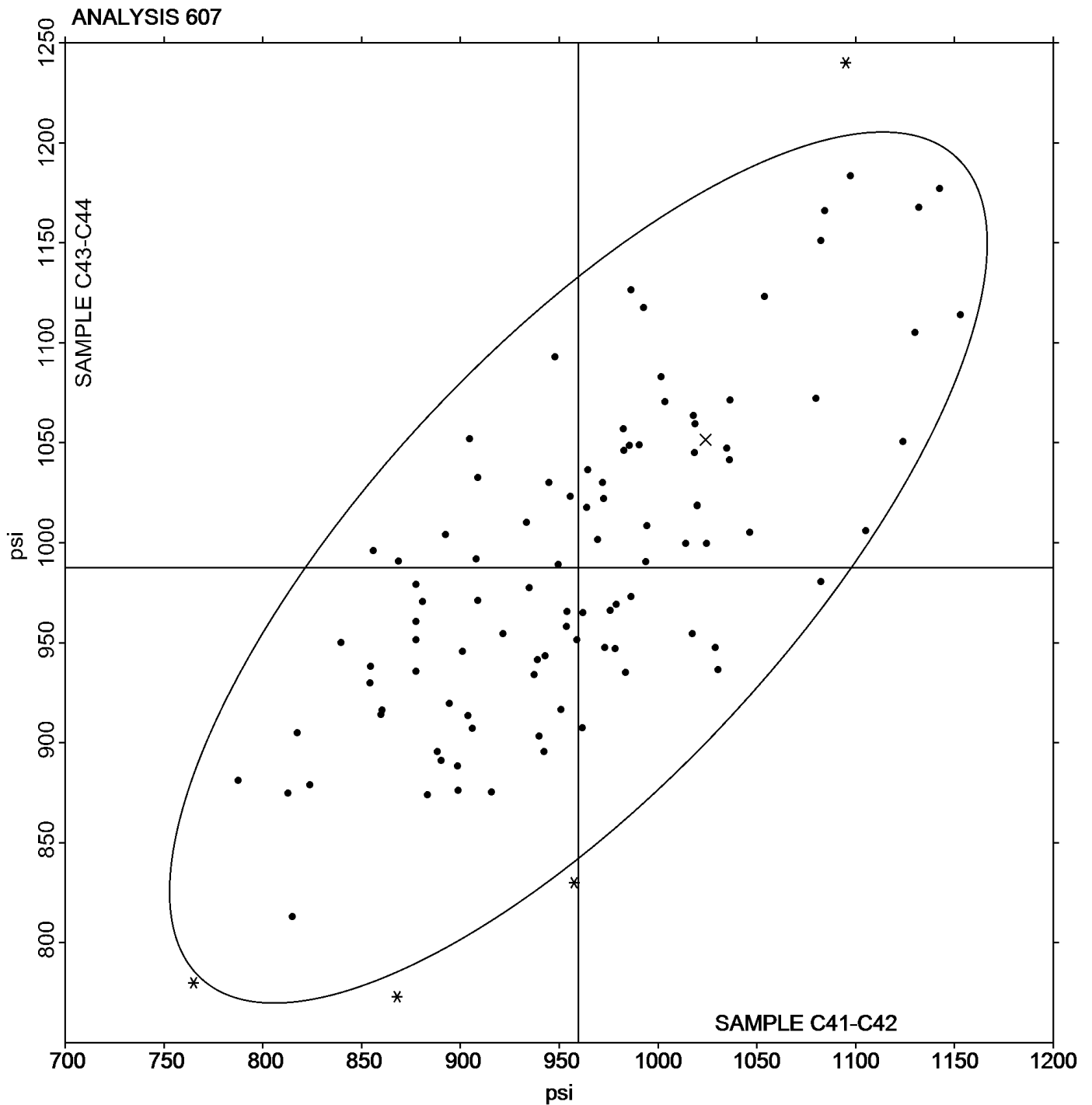UCANKE (X) - Inconsistency in testing between Sample groups. Data for Sample group C41-C42 are high.

VR2N98 (X) - Data appear to be transposed between Analysis #607 and Analysis #608. Data switched by CTS.

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

Grand Mean Sample **C41-C42** = 959.69 psi   Grand Mean Sample **C43-C44** = 987.61 psi

Rubber Interlaboratory Testing Program
Analysis 608
Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample C41-C42 Lab Mean	Diff from Grand Mean	CPV	Sample C43-C44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
23YJNP	X	2.6	-196.6	-12.80	3.4	-201.1	-13.95	ZZ
263E9R		189.5	-9.7	-0.63	198.0	-6.5	-0.45	ZZ
27LCLD		181.3	-17.9	-1.17	203.1	-1.4	-0.10	ZZ
2974VV		181.3	-17.9	-1.17	184.2	-20.3	-1.40	ZZ
2ECZGF		189.0	-10.2	-0.66	210.0	5.5	0.38	ZZ
2KZGVR	X	368.0	168.8	10.99	363.0	158.5	11.00	ZZ
3GFY6U		208.1	8.9	0.58	221.0	16.5	1.15	ZZ
3KVMPQ		208.8	9.6	0.62	202.6	-1.9	-0.13	ZZ
3MJ6KW		170.4	-28.8	-1.87	176.9	-27.5	-1.91	ZZ
7A3GYN		180.5	-18.7	-1.22	214.0	9.5	0.66	ZZ
7CREYG		204.0	4.8	0.31	208.0	3.5	0.25	ZZ
7PXGBX		217.0	17.8	1.16	211.0	6.5	0.45	ZZ
7TXPHT		181.3	-17.9	-1.17	188.6	-15.9	-1.10	ZZ
8KE7DK		185.0	-14.2	-0.93	210.0	5.5	0.38	ZZ
8TVKFP	X	255.0	55.8	3.63	252.5	48.0	3.33	ZZ
8V23EK		224.9	25.7	1.67	211.2	6.7	0.47	ZZ
9NT2TG		216.8	17.6	1.15	224.0	19.6	1.36	ZZ
9UNL6D		195.4	-3.8	-0.25	184.9	-19.5	-1.35	ZZ
9YRWQC		199.0	-0.2	-0.01	213.5	9.0	0.63	ZZ
A9GXT9		209.5	10.3	0.67	216.3	11.8	0.82	ZZ
AF3TUC		184.0	-15.2	-0.99	194.5	-10.0	-0.69	ZZ
BEMQM4		206.0	6.8	0.44	203.5	-1.0	-0.07	ZZ
BKBEFN		189.0	-10.2	-0.66	217.5	13.0	0.90	ZZ
BN8Z8Q		187.0	-12.2	-0.79	197.5	-7.0	-0.48	ZZ
BXVZFN		198.0	-1.2	-0.08	192.9	-11.6	-0.80	ZZ
CK6JC9		204.5	5.3	0.34	207.5	3.0	0.21	ZZ
CLFH7G		215.4	16.2	1.05	214.5	10.0	0.70	ZZ
CTE3BX		217.5	18.3	1.19	212.5	8.0	0.56	ZZ
D26XZF		195.0	-4.2	-0.27	189.0	-15.5	-1.07	ZZ
D27LML		196.0	-3.2	-0.21	185.8	-18.7	-1.29	ZZ
D8CG97		205.0	5.8	0.38	205.0	0.5	0.04	ZZ
D9NEDB		206.7	7.5	0.49	221.2	16.7	1.16	ZZ
DBVJ6E		198.0	-1.2	-0.08	196.5	-8.0	-0.55	ZZ
DBW7TJ		200.5	1.3	0.08	212.5	8.0	0.56	ZZ
DHWN7B		198.0	-1.2	-0.08	209.0	4.5	0.32	ZZ
DHWQV		197.5	-1.7	-0.11	200.0	-4.5	-0.31	ZZ
DKK8ZG		194.0	-5.2	-0.34	191.0	-13.5	-0.93	ZZ
DMN6AN	*	195.0	-4.2	-0.27	169.5	-35.0	-2.42	ZZ
ENXCAV		177.0	-22.2	-1.45	186.0	-18.5	-1.28	ZZ

Rubber Interlaboratory Testing Program
Analysis 608
Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample C41-C42			Sample C43-C44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
EPQFPN		206.5	7.3	0.47	217.5	13.0	0.90	ZZ
ETTBBC		185.5	-13.7	-0.89	190.5	-14.0	-0.97	ZZ
EZPXHC		181.0	-18.2	-1.19	190.5	-14.0	-0.97	ZZ
F7FKWH		189.4	-9.8	-0.64	192.5	-12.0	-0.83	ZZ
FL6Q6B		217.5	18.3	1.19	233.0	28.5	1.98	ZZ
FUGU6H	*	191.0	-8.2	-0.53	168.0	-36.5	-2.53	ZZ
FVVCBA		203.1	3.8	0.25	215.4	10.9	0.76	ZZ
GANK8E		188.5	-10.7	-0.70	191.5	-13.0	-0.90	ZZ
GW2DCY		189.3	-9.9	-0.65	184.9	-19.5	-1.35	ZZ
H9RCR3		176.9	-22.3	-1.45	189.6	-14.9	-1.03	ZZ
H9TCQH	X	138.5	-60.7	-3.95	140.0	-64.5	-4.47	ZZ
HEFYKM		230.7	31.4	2.05	229.1	24.6	1.71	ZZ
HFUE2A	X	274.5	75.3	4.90	311.5	107.0	7.43	ZZ
HQEQE8		208.0	8.8	0.57	224.0	19.5	1.36	ZZ
HTCDKG	*	173.8	-25.4	-1.65	211.8	7.4	0.51	ZZ
HZF9RV		234.0	34.7	2.26	219.7	15.2	1.06	ZZ
JECMP4		188.6	-10.7	-0.69	197.3	-7.2	-0.50	ZZ
JKK9D2		197.0	-2.2	-0.14	205.0	0.5	0.04	ZZ
K63RXH		189.3	-9.9	-0.64	209.7	5.3	0.37	ZZ
K6NBQW		193.9	-5.3	-0.35	202.3	-2.2	-0.15	ZZ
KC4WZZ		202.5	3.3	0.21	218.0	13.5	0.94	ZZ
KGV9MJ		222.5	23.3	1.52	211.5	7.0	0.49	ZZ
KKED8Z		195.0	-4.2	-0.27	208.0	3.5	0.25	ZZ
KNDRUQ		198.0	-1.2	-0.08	228.0	23.5	1.63	ZZ
KPTU2Y		193.6	-5.6	-0.36	215.4	10.9	0.76	ZZ
KT9NFB		195.0	-4.2	-0.27	193.0	-11.5	-0.79	ZZ
KVC7RK		232.0	32.8	2.14	234.0	29.5	2.05	ZZ
L9FYMU	X	154.0	-45.2	-2.94	150.0	-54.5	-3.78	ZZ
LCY497	X	123.0	-76.2	-4.96	138.0	-66.5	-4.61	ZZ
LGCWA		181.5	-17.7	-1.15	181.0	-23.5	-1.63	ZZ
LGQDGJ		219.8	20.6	1.34	209.7	5.3	0.37	ZZ
LPNW7T		209.1	9.9	0.64	203.8	-0.7	-0.05	ZZ
M9Y9A4		206.0	6.8	0.44	193.5	-11.0	-0.76	ZZ
MGRHG		230.5	31.3	2.04	232.0	27.5	1.91	ZZ
MZK72G		216.0	16.8	1.09	228.5	24.0	1.67	ZZ
NR38V9		188.5	-10.7	-0.70	211.5	7.0	0.49	ZZ
P4U7CD		201.1	1.9	0.12	212.5	8.1	0.56	ZZ
PVH3B7		194.5	-4.7	-0.31	219.0	14.5	1.01	ZZ
PWWNM		203.0	3.8	0.25	209.0	4.5	0.32	ZZ

Rubber Interlaboratory Testing Program

Analysis 608
Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample C41-C42			Sample C43-C44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
QGYWE		203.5	4.3	0.28	208.5	4.0	0.28	ZZ
QKHQF4		202.5	3.3	0.21	196.5	-8.0	-0.55	ZZ
RJ2WDA		188.0	-11.2	-0.73	205.0	0.5	0.04	ZZ
T4HQGZ		202.5	3.3	0.21	202.5	-2.0	-0.14	ZZ
T83JT3		206.5	7.3	0.47	205.5	1.0	0.07	ZZ
TJTGBT		187.0	-12.2	-0.79	204.5	0.0	0.00	ZZ
TP3QNF		169.5	-29.7	-1.93	200.0	-4.5	-0.31	ZZ
U34TE3		207.4	8.2	0.53	224.1	19.6	1.36	ZZ
UCANKE		235.3	36.0	2.35	220.0	15.5	1.08	ZZ
UGMDX		237.0	37.8	2.46	223.0	18.5	1.29	ZZ
UM9BP6		196.5	-2.7	-0.18	186.5	-18.0	-1.25	ZZ
VMBEZU		212.0	12.8	0.83	209.0	4.5	0.32	ZZ
VR2N98	X	208.0	8.8	0.57	211.5	7.0	0.49	ZZ
VR3LH3		195.1	-4.1	-0.27	211.8	7.3	0.51	ZZ
W8926V	X	263.5	64.3	4.19	256.0	51.5	3.58	ZZ
WPMMF		180.6	-18.6	-1.21	206.0	1.5	0.10	ZZ
WVGMU		186.4	-12.8	-0.84	177.7	-26.8	-1.86	ZZ
WWRHM		178.5	-20.7	-1.35	190.5	-14.0	-0.97	ZZ
XEP77U		186.0	-13.2	-0.86	188.0	-16.5	-1.14	ZZ
XGWEG	*	197.0	-2.2	-0.14	172.5	-32.0	-2.22	ZZ
XRD3TM		196.0	-3.2	-0.21	196.0	-8.5	-0.59	ZZ
XVTW7Y		204.5	5.3	0.34	208.9	4.4	0.31	ZZ
YVQ9JT		182.5	-16.7	-1.09	202.5	-2.0	-0.14	ZZ
YWGMU		225.5	26.3	1.71	203.1	-1.4	-0.10	ZZ
YY67NU		193.7	-5.5	-0.36	207.8	3.4	0.23	ZZ
YZZHUV		180.9	-18.4	-1.20	189.2	-15.3	-1.06	ZZ
Z294X3		222.6	23.4	1.53	224.1	19.6	1.36	ZZ
Z3NB9B		187.0	-12.2	-0.79	203.5	-1.0	-0.07	ZZ
ZEVBU3	X	239.0	39.8	2.59	252.5	48.0	3.33	ZZ
ZXNCLY		192.9	-6.3	-0.41	196.1	-8.4	-0.58	ZZ
ZYPZBQ		226.3	27.1	1.76	214.7	10.2	0.71	ZZ

Summary Statistics	
Grand Means	
199.21 psi	204.45 psi
Stnd Dev Btwn Labs	
15.36 psi	14.42 psi
	Statistics based on 99 of 109 reporting participants

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

	Summary Statistics in SI Units	
Grand Means		
1.3735 MPa		1.41 MPa
Stnd Dev Btwn Labs		
0.1059 MPa		0.10 MPa
		Statistics based on 99 of 109 reporting participants

Samples C41-C42: Polyisoprene compound, batch #1 & C43-C44: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #608

23YJNP (X) - Extreme data.

2KZGVR (X) - Extreme data.

8TVKFP (X) - Data for all Samples are high.

H9TCQH (X) - Data for all Samples are low.

HFUE2A (X) - Data for all Samples are high.

L9FYMU (X) - Data for all Samples are low.

LCY497 (X) - Data for all Samples are low.

VR2N98 (X) - Data appear to be transposed between Analysis #608 and Analysis #607. Data switched by CTS.

W8926V (X) - Data for all Samples are high.

ZEVBU3 (X) - Data for Sample group C43-C44 are high.

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

Grand Mean Sample **C41-C42** = 199.21 psi   Grand Mean Sample **C43-C44** = 204.45 psi
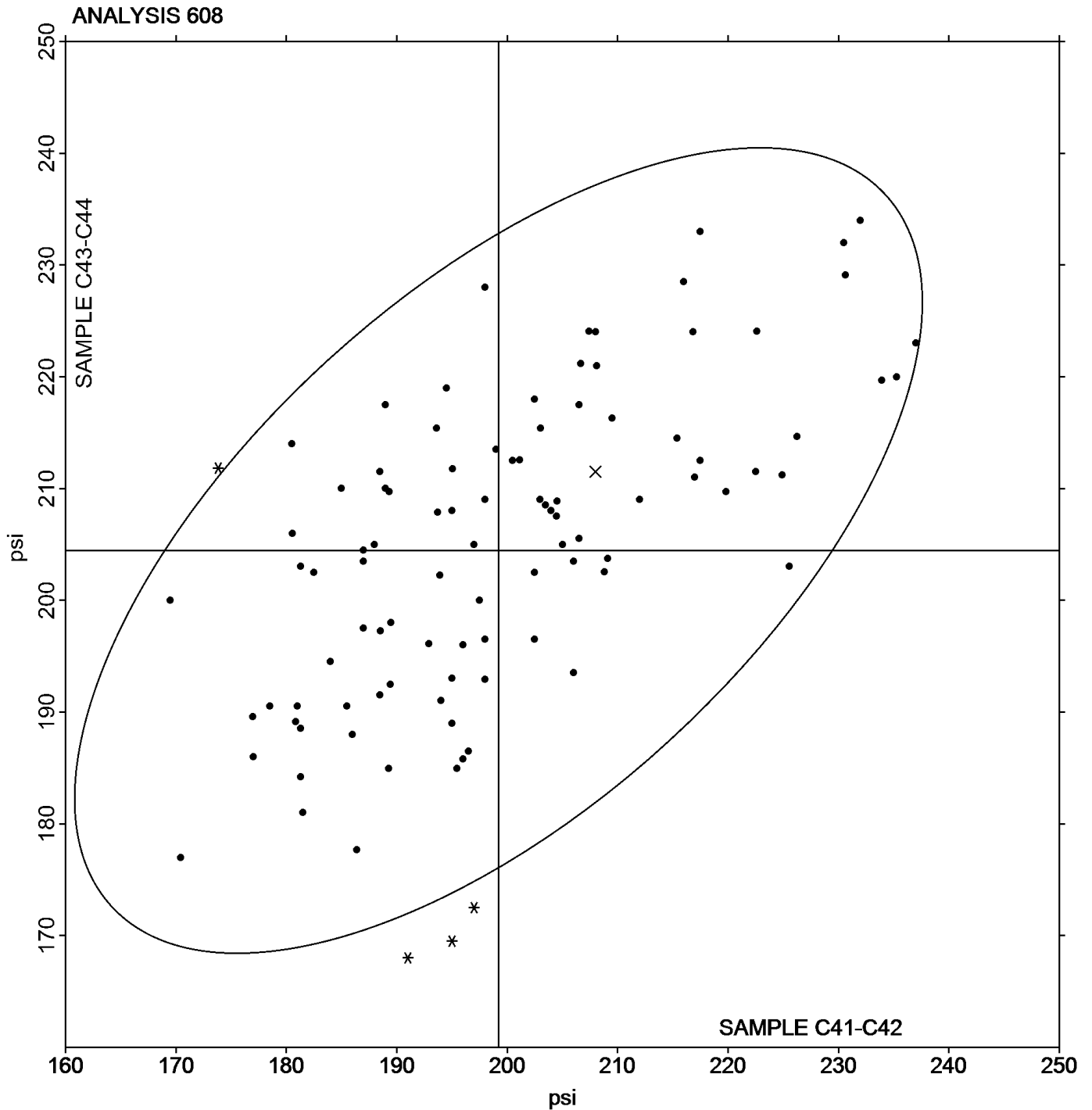
ANALYSIS 608

SAMPLE C43-C44 — psi (y-axis)

SAMPLE C41-C42 — psi (x-axis)

Rubber Interlaboratory Testing Program

Analysis 620
Hardness (Shore A/Type A)

		Sample C41-C42			Sample C43-C44			
WebCode	**Data Flag**	**Lab Mean**	**Diff from Grand Mean**	**CPV**	**Lab Mean**	**Diff from Grand Mean**	**CPV**	**Instr Code**
23YJNP		47.50	-1.42	-0.84	50.50	1.05	0.65	XX
263E9R		48.00	-0.92	-0.54	48.00	-1.45	-0.89	XX
27LCLD		53.00	4.08	2.41	53.00	3.55	2.18	XX
2974VV		48.05	-0.87	-0.51	47.80	-1.65	-1.01	BT
2ECZGF		49.00	0.08	0.05	50.00	0.55	0.34	XX
2KZGVR		49.50	0.58	0.34	49.50	0.05	0.03	XX
3GFY6U		50.50	1.58	0.94	50.85	1.40	0.86	XX
3KVMPQ		49.00	0.08	0.05	50.50	1.05	0.65	BT
3MJ6KW		47.50	-1.42	-0.84	48.50	-0.95	-0.58	BT
7A3GYN		45.50	-3.42	-2.02	47.50	-1.95	-1.20	HH
7CREYG		49.50	0.58	0.34	50.00	0.55	0.34	XX
7PXGBX		49.35	0.43	0.26	50.55	1.10	0.68	BT
7TXPHT		49.75	0.83	0.49	49.10	-0.35	-0.21	XX
8KE7DK		46.50	-2.42	-1.43	49.50	0.05	0.03	XX
8TVKFP		52.65	3.73	2.21	51.75	2.30	1.42	BT
8V23EK		45.50	-3.42	-2.02	45.50	-3.95	-2.43	BT
9NT2TG		50.00	1.08	0.64	50.00	0.55	0.34	HH
9UNL6D		48.45	-0.47	-0.28	48.25	-1.20	-0.74	XX
9YRWQC		46.00	-2.92	-1.72	47.50	-1.95	-1.20	BT
A9GXT9		49.15	0.23	0.14	49.40	-0.05	-0.03	BT
AF3TUC		49.15	0.23	0.14	49.40	-0.05	-0.03	BT
BKBEFN		47.00	-1.92	-1.13	48.50	-0.95	-0.58	XX
BN8Z8Q		48.50	-0.42	-0.25	50.00	0.55	0.34	XX
BXVZFN		48.25	-0.67	-0.39	48.05	-1.40	-0.86	BT
CK6JC9		50.00	1.08	0.64	49.45	0.00	0.00	BT
CLFH7G		48.00	-0.92	-0.54	48.90	-0.55	-0.34	BT
CTE3BX		48.50	-0.42	-0.25	48.00	-1.45	-0.89	XX
D26XZF		49.50	0.58	0.34	50.00	0.55	0.34	XX
D27LML		51.00	2.08	1.23	50.50	1.05	0.65	XX
D8CG97		50.45	1.53	0.91	50.90	1.45	0.89	BT
D9NEDB		48.50	-0.42	-0.25	50.00	0.55	0.34	BT
DBVJ6E		50.00	1.08	0.64	51.00	1.55	0.95	XX
DBW7TJ		47.50	-1.42	-0.84	48.00	-1.45	-0.89	HH
DHWN7B		47.50	-1.42	-0.84	48.50	-0.95	-0.58	XX
DHWQV		49.50	0.58	0.34	49.50	0.05	0.03	XX
DKK8ZG		48.80	-0.12	-0.07	48.35	-1.10	-0.67	BT
DMN6AN		48.50	-0.42	-0.25	48.00	-1.45	-0.89	HH
DMQMH		52.00	3.08	1.82	53.00	3.55	2.18	XX
ENXCAV		47.50	-1.42	-0.84	48.50	-0.95	-0.58	HH

Rubber Interlaboratory Testing Program
Analysis 620
Hardness (Shore A/Type A)

WebCode	Data Flag	Sample C41-C42			Sample C43-C44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
EPQFPN		48.60	-0.32	-0.19	49.00	-0.45	-0.28	XX
ETTBBC		49.50	0.58	0.34	50.00	0.55	0.34	XX
EZPXHC		50.00	1.08	0.64	51.00	1.55	0.95	BT
F7FKWH		50.50	1.58	0.94	51.00	1.55	0.95	XX
FL6Q6B		48.60	-0.32	-0.19	48.55	-0.90	-0.55	BT
FUGU6H	X	58.50	9.58	5.66	58.75	9.30	5.72	HH
FVVCBA		51.65	2.73	1.61	53.15	3.70	2.28	BT
GANK8E		50.00	1.08	0.64	49.00	-0.45	-0.28	BT
GTYFYK		47.00	-1.92	-1.13	47.50	-1.95	-1.20	HH
GUCWA		50.50	1.58	0.94	52.50	3.05	1.88	HH
GW2DCY		47.95	-0.97	-0.57	47.20	-2.25	-1.38	BT
H9RCR3		46.25	-2.67	-1.57	47.70	-1.75	-1.07	HH
HEFYKM		49.50	0.58	0.34	49.50	0.05	0.03	BT
HFUE2A		49.00	0.08	0.05	50.50	1.05	0.65	XX
HQEQE8		47.50	-1.42	-0.84	49.00	-0.45	-0.28	BT
HTCDKG	*	48.00	-0.92	-0.54	51.50	2.05	1.26	BT
HZF9RV		48.00	-0.92	-0.54	47.50	-1.95	-1.20	XX
JECMP4		48.00	-0.92	-0.54	48.00	-1.45	-0.89	XX
JFL4BG		50.05	1.13	0.67	49.80	0.35	0.22	XX
JKK9D2		49.50	0.58	0.34	50.00	0.55	0.34	BT
JX9F9G		47.70	-1.22	-0.72	47.20	-2.25	-1.38	BT
K63RXH		49.50	0.58	0.34	51.00	1.55	0.95	XX
K6NBQW		49.95	1.03	0.61	49.85	0.40	0.25	XX
K7JWH3		49.50	0.58	0.34	49.50	0.05	0.03	BT
KC4WZZ		45.45	-3.47	-2.05	47.70	-1.75	-1.07	BT
KGV9MJ		50.00	1.08	0.64	50.00	0.55	0.34	HH
KKED8Z		49.95	1.03	0.61	51.20	1.75	1.08	XX
KNDRUQ		47.50	-1.42	-0.84	50.00	0.55	0.34	BT
KPTU2Y		49.00	0.08	0.05	51.00	1.55	0.95	HH
KT9NFB		50.95	2.03	1.20	51.30	1.85	1.14	XX
KVC7RK		52.00	3.08	1.82	52.00	2.55	1.57	HH
L83GFH		50.00	1.08	0.64	50.50	1.05	0.65	BT
L9FYMU		47.50	-1.42	-0.84	48.00	-1.45	-0.89	BT
LCY497		46.50	-2.42	-1.43	48.00	-1.45	-0.89	XX
LGCWA		47.05	-1.87	-1.10	46.15	-3.30	-2.03	BT
LGQDGJ		50.10	1.18	0.70	49.60	0.15	0.09	BT
LPNW7T	*	43.85	-5.07	-2.99	45.50	-3.95	-2.43	XX
M9Y9A4		49.00	0.08	0.05	48.00	-1.45	-0.89	XX
MGRHG		50.50	1.58	0.94	50.50	1.05	0.65	XX

Rubber Interlaboratory Testing Program
Analysis 620
Hardness (Shore A/Type A)

WebCode	Data Flag	Sample C41-C42 Lab Mean	Diff from Grand Mean	CPV	Sample C43-C44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
MZK72G		48.50	-0.42	-0.25	49.00	-0.45	-0.28	BT
NKLUR4		47.50	-1.42	-0.84	49.50	0.05	0.03	HH
NR38V9		48.50	-0.42	-0.25	49.00	-0.45	-0.28	BT
P4U7CD		49.10	0.18	0.11	49.50	0.05	0.03	BT
PKJBJ8		49.00	0.08	0.05	49.50	0.05	0.03	HH
PVH3B7	*	48.00	-0.92	-0.54	51.50	2.05	1.26	BT
PWWNM		48.65	-0.27	-0.16	49.40	-0.05	-0.03	BT
QGYWE		49.00	0.08	0.05	48.00	-1.45	-0.89	BT
QKHQF4		51.50	2.58	1.53	51.50	2.05	1.26	HH
QNVU3Z		49.00	0.08	0.05	48.00	-1.45	-0.89	XX
RJ2WDA	*	44.50	-4.42	-2.61	45.50	-3.95	-2.43	BT
T4HQGZ		50.00	1.08	0.64	50.00	0.55	0.34	XX
T83JT3		48.50	-0.42	-0.25	50.00	0.55	0.34	HH
TJTGBT	X	50.00	1.08	0.64	55.70	6.25	3.84	XX
TP3QNF		48.75	-0.17	-0.10	51.50	2.05	1.26	BT
U34TE3		49.00	0.08	0.05	49.05	-0.40	-0.24	BT
UCANKE	*	52.25	3.33	1.97	50.50	1.05	0.65	BT
UGMDX		47.95	-0.97	-0.57	46.35	-3.10	-1.90	XX
UM9BP6		46.50	-2.42	-1.43	47.00	-2.45	-1.50	BT
VMBEZU		50.00	1.08	0.64	50.00	0.55	0.34	XX
VNGWY		52.50	3.58	2.12	52.00	2.55	1.57	XX
VR2N98		50.50	1.58	0.94	50.50	1.05	0.65	XX
VR3LH3		48.50	-0.42	-0.25	50.50	1.05	0.65	XX
W8926V		49.50	0.58	0.34	49.00	-0.45	-0.28	XX
WPMMF		49.83	0.91	0.54	51.94	2.49	1.53	HH
WVGMU		48.15	-0.77	-0.45	48.90	-0.55	-0.34	XX
WWRHM		48.80	-0.12	-0.07	49.80	0.35	0.22	XX
XEP77U		45.50	-3.42	-2.02	46.50	-2.95	-1.81	XX
XGWEG		50.40	1.48	0.88	50.00	0.55	0.34	XX
XRD3TM		47.00	-1.92	-1.13	47.50	-1.95	-1.20	BT
XVTW7Y		49.25	0.33	0.20	50.20	0.75	0.46	BT
Y3U7FC	X	46.50	-2.42	-1.43	44.50	-4.95	-3.04	BT
YVQ9JT		49.50	0.58	0.34	50.50	1.05	0.65	XX
YWGMU	*	52.35	3.43	2.03	50.30	0.85	0.52	BT
YY67NU	*	46.60	-2.32	-1.37	45.50	-3.95	-2.43	XX
YZZHUV		48.70	-0.22	-0.13	49.85	0.40	0.25	BT
Z294X3		49.10	0.18	0.11	49.90	0.45	0.28	BT
Z3NB9B		50.50	1.58	0.94	51.00	1.55	0.95	HH
ZEVBU3		50.50	1.58	0.94	50.75	1.30	0.80	XX

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample C41-C42			Sample C43-C44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ZXNCLY		50.25	1.33	0.79	50.35	0.90	0.55	XX
ZYPZBQ		50.00	1.08	0.64	50.50	1.05	0.65	XX

Summary Statistics

Grand Means		
48.916 Type A		49.448 Type A
Stnd Dev Btwn Labs		
1.693 Type A		1.627 Type A

Statistics based on 116 of 119 reporting participants

Samples C41-C42: Polyisoprene compound, batch #1 & C43-C44: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #620

FUGU6H (X) - Data for all Samples are high. Possible systematic error.

TJTGBT (X) - Inconsistency in testing between Sample groups. Data for Sample group C43-C44 are high.

Y3U7FC (X) - Inconsistency in testing between Sample groups. Data for Sample group C43-C44 are high. Inconsistency in testing within Sample group C41-C42.

Results by Reading Time (as reported by laboratory)

Reading Time	Sample C41 *Polyisoprene compound, batch #1*			Sample C42 *Polyisoprene compound, batch #1*			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Select from list below	49.17	1.04	0.25	49.67	1.53	0.22	3	4
Readings taken within 0 - 5 second	49.06	1.39	0.15	49.59	1.38	0.15	80	86
Readings taken at 5 seconds	48.52	2.20	-0.39	48.93	2.28	-0.52	13	14
Readings taken after 5+ seconds	48.42	1.10	-0.50	48.42	0.81	-1.03	5	6
Maximum hardness indicator used	49.14	2.09	0.23	50.12	1.35	0.67	8	9

Rubber Interlaboratory Testing Program

Analysis 620
Hardness (Shore A/Type A)

Grand Mean Sample **C41-C42** = 48.916 Type A   Grand Mean Sample **C43-C44** = 49.448 Type A
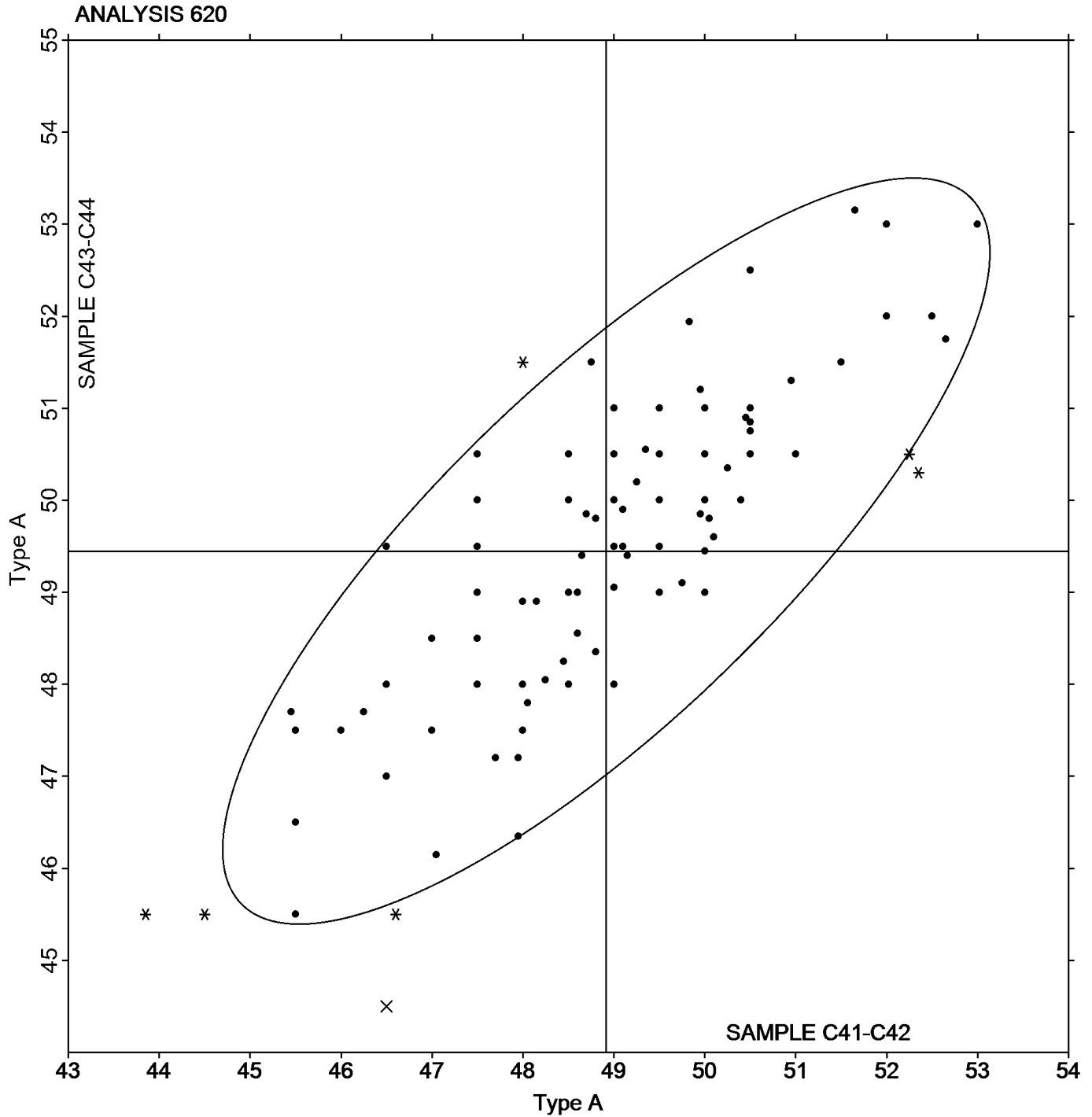
Rubber Interlaboratory Testing Program

Analysis 621
Density

		Sample C41-C42			Sample C43-C44			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
263E9R		1.134	-0.001	-0.46	1.136	0.000	0.16	ZZ
2KZGVR		1.137	0.001	0.50	1.136	0.000	0.13	ZZ
3GFY6U		1.139	0.003	1.10	1.137	0.001	0.49	ZZ
3KVMPQ		1.134	-0.001	-0.48	1.136	0.000	-0.07	ZZ
3MJ6KW		1.137	0.001	0.41	1.138	0.002	0.83	ZZ
7CREYG		1.138	0.002	0.68	1.138	0.002	0.83	ZZ
7TXPHT		1.135	-0.001	-0.21	1.135	-0.001	-0.28	ZZ
8KE7DK	*	1.137	0.001	0.46	1.133	-0.003	-0.97	ZZ
8V23EK	X	1.126	-0.010	-3.42	1.121	-0.015	-5.41	ZZ
9YRWQC		1.140	0.004	1.57	1.140	0.004	1.56	ZZ
A9GXT9		1.136	0.000	0.14	1.138	0.002	0.64	ZZ
BXVZFN		1.134	-0.002	-0.57	1.133	-0.003	-1.01	ZZ
CK6JC9	*	1.140	0.004	1.39	1.136	0.000	0.09	ZZ
D26XZF		1.136	0.000	0.07	1.136	0.000	0.05	ZZ
D8CG97		1.137	0.002	0.64	1.137	0.002	0.60	ZZ
D9NEDB	X	1.135	-0.001	-0.21	1.140	0.004	1.56	ZZ
DBVJ6E		1.135	-0.001	-0.34	1.135	0.000	-0.11	ZZ
DBW7TJ		1.139	0.003	1.21	1.138	0.002	0.86	ZZ
DHWN7B		1.137	0.001	0.32	1.138	0.002	0.64	ZZ
DKK8ZG		1.132	-0.004	-1.46	1.134	-0.002	-0.64	ZZ
DMN6AN		1.132	-0.004	-1.28	1.133	-0.003	-1.01	ZZ
DMQMH		1.140	0.004	1.39	1.140	0.004	1.38	ZZ
ENXCAV		1.136	0.000	-0.04	1.134	-0.002	-0.83	ZZ
F7FKWH	X	1.111	-0.025	-8.82	1.105	-0.031	-11.24	ZZ
FUGU6H		1.136	0.000	-0.04	1.135	-0.001	-0.28	ZZ
FVVCBA		1.133	-0.003	-0.93	1.137	0.001	0.27	ZZ
GANK8E	X	1.139	0.004	1.27	1.142	0.006	2.24	ZZ
GTYFYK		1.137	0.001	0.50	1.137	0.001	0.29	ZZ
H9RCR3		1.136	0.000	-0.04	1.135	-0.001	-0.46	ZZ
HEFYKM		1.136	0.000	0.07	1.135	-0.001	-0.35	ZZ
HTCDKG		1.134	-0.002	-0.62	1.136	0.000	0.05	ZZ
HZF9RV	X	1.138	0.003	1.00	1.144	0.008	2.90	ZZ
JECMP4	X	1.124	-0.012	-4.31	1.123	-0.013	-4.86	ZZ
JFL4BG		1.139	0.003	1.25	1.139	0.003	1.21	ZZ
JKK9D2		1.135	0.000	-0.12	1.135	0.000	-0.14	ZZ
K63RXH		1.135	-0.001	-0.18	1.134	-0.002	-0.61	ZZ
K7JWH3		1.133	-0.003	-1.08	1.135	-0.001	-0.33	ZZ
KC4WZZ		1.136	0.001	0.21	1.137	0.001	0.45	ZZ
KGV9MJ		1.133	-0.002	-0.86	1.132	-0.004	-1.56	ZZ

Rubber Interlaboratory Testing Program

Analysis 621
Density

		Sample C41-C42			Sample C43-C44			
WebCode	**Data Flag**	**Lab Mean**	**Diff from Grand Mean**	**CPV**	**Lab Mean**	**Diff from Grand Mean**	**CPV**	**Instr Code**
KNDRUQ		1.136	0.000	0.14	1.137	0.001	0.46	ZZ
KVC7RK	*	1.128	-0.007	-2.55	1.128	-0.008	-2.78	ZZ
LGCWA		1.137	0.001	0.32	1.138	0.002	0.64	ZZ
LGQDGJ		1.138	0.003	0.98	1.140	0.004	1.50	ZZ
LPNW7T		1.137	0.001	0.32	1.135	-0.001	-0.28	ZZ
MGRHG		1.137	0.002	0.55	1.137	0.001	0.55	ZZ
MZK72G		1.135	-0.001	-0.21	1.136	0.000	-0.09	ZZ
P4U7CD		1.130	-0.006	-2.00	1.130	-0.006	-2.13	ZZ
PKJBJ8	X	1.143	0.007	2.46	1.148	0.012	4.31	ZZ
PVH3B7		1.136	0.000	0.04	1.137	0.001	0.33	ZZ
QGYWE		1.141	0.005	1.92	1.141	0.005	1.93	ZZ
RJ2WDA		1.137	0.002	0.55	1.139	0.003	1.05	ZZ
T4HQGZ		1.140	0.004	1.57	1.141	0.005	1.93	ZZ
T83JT3	X	1.123	-0.013	-4.67	1.125	-0.011	-3.94	ZZ
TP3QNF		1.136	0.000	0.12	1.136	0.000	0.04	ZZ
U34TE3		1.138	0.002	0.68	1.138	0.002	0.83	ZZ
UCANKE		1.135	-0.001	-0.21	1.135	-0.001	-0.46	ZZ
VR2N98		1.134	-0.002	-0.59	1.135	-0.001	-0.29	ZZ
WVGMU		1.135	-0.001	-0.36	1.134	-0.002	-0.57	ZZ
WWRHM		1.133	-0.003	-1.02	1.132	-0.003	-1.21	ZZ
XEP77U	*	1.128	-0.008	-2.89	1.129	-0.007	-2.48	ZZ
XGWEG		1.138	0.002	0.68	1.137	0.001	0.27	ZZ
XVTW7Y		1.139	0.004	1.37	1.139	0.003	1.28	ZZ
YVQ9JT		1.134	-0.002	-0.70	1.134	-0.001	-0.53	ZZ
YY67NU	X	1.120	-0.016	-5.56	1.124	-0.012	-4.31	ZZ
YZZHUV		1.140	0.004	1.41	1.139	0.003	1.14	ZZ
Z294X3		1.132	-0.004	-1.41	1.131	-0.005	-1.72	ZZ
ZEVBU3		1.133	-0.002	-0.84	1.135	0.000	-0.13	ZZ
ZXNCLY		1.133	-0.003	-1.11	1.133	-0.003	-1.19	ZZ

Summary Statistics

Grand Means

1.1356 Mg/M^3   1.1358 Mg/M^3

Stnd Dev Btwn Labs

0.0028 Mg/M^3   0.0027 Mg/M^3

Statistics based on 59 of 68 reporting participants

Samples C41-C42: Polyisoprene compound, batch #1 & C43-C44: Polyisoprene compound, batch #2

Rubber Interlaboratory Testing Program
Analysis 621
Density

Comments on assigned Data Flags for Test #621

8V23EK (X) - Data for all Samples are low. Possible systematic error.

D9NEDB (X) - Inconsistency in testing between Sample groups. Inconsistent in testing within Sample group C41-C42.

F7FKWH (X) - Extreme data.

GANK8E (X) - Data appear to be off by a factor of 1000. Data corrected by CTS (x.001)

HZF9RV (X) - Inconsistency in testing between Sample groups. Data for Sample group C43-C44 are high. Inconsistency in testing within Sample group C43-C44.

JECMP4 (X) - Data for all Samples are low. Possible systematic error.

PKJBJ8 (X) - Inconsistency in testing between Sample groups. Data for Sample group C43-C44 are high. Inconsistency in testing within Sample group C43-C44.

T83JT3 (X) - Data for all Samples are low. Possible systematic error. Inconsistency in testing within Sample group C43-C44.

YY67NU (X) - Data for all Samples are low. Possible systematic error. Inconsistency in testing within Sample group C41-C42.
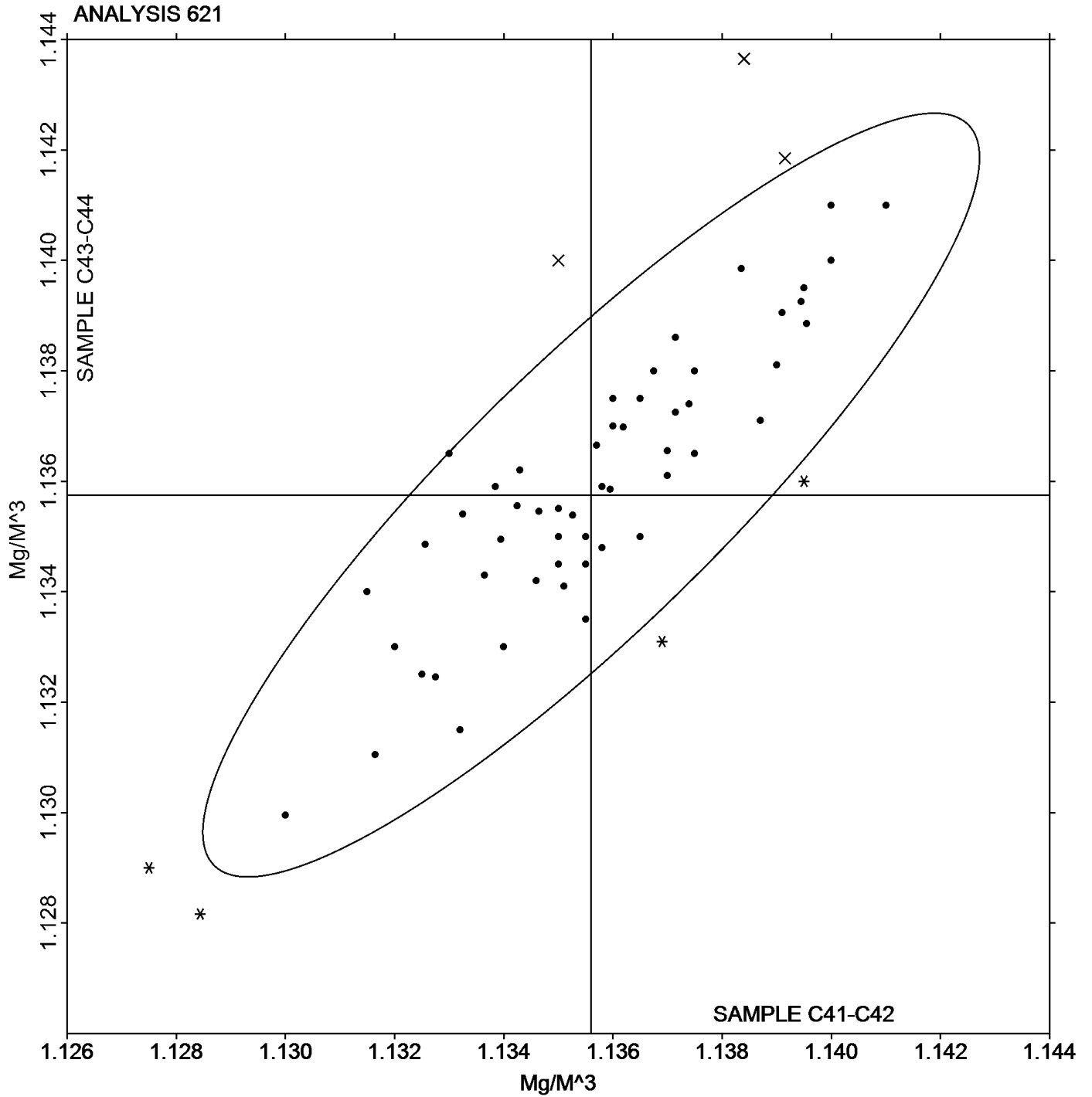
Rubber Interlaboratory Testing Program

Analysis 621

Density

Grand Mean Sample **C41-C42** = 1.1356 Mg/M^3   Grand Mean Sample **C43-C44** = 1.1358 Mg/M^3

Rubber Interlaboratory Testing Program

Analysis 630

Tensile Strength: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample C41-C42			Sample L41-L42			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27LCLD		3,248.9	-112.2	-0.64	3,154.6	-11.4	-0.05	ZZ
3GFY6U		3,207.3	-153.8	-0.88	3,131.7	-34.3	-0.16	ZZ
8V23EK		3,622.6	261.5	1.50	3,403.2	237.2	1.10	ZZ
9YRWQC		3,281.0	-80.1	-0.46	2,947.5	-218.5	-1.02	ZZ
A9GXT9		3,197.4	-163.7	-0.94	3,339.4	173.4	0.81	ZZ
AF3TUC		3,491.5	130.4	0.75	3,261.0	95.0	0.44	ZZ
BEMQM4		3,332.5	-28.6	-0.16	3,366.0	200.0	0.93	ZZ
BXVZFN		3,140.1	-221.0	-1.27	3,016.8	-149.2	-0.69	ZZ
CK6JC9		3,230.0	-131.1	-0.75	3,091.0	-75.0	-0.35	ZZ
CLFH7G		3,561.8	200.7	1.15	3,234.1	68.1	0.32	ZZ
CTE3BX		3,251.5	-109.6	-0.63	3,000.5	-165.5	-0.77	ZZ
D27LML		3,522.8	161.7	0.93	3,262.1	96.1	0.45	ZZ
D9NEDB		3,328.6	-32.4	-0.19	3,154.6	-11.4	-0.05	ZZ
ENXCAV		3,301.5	-59.6	-0.34	3,218.0	52.0	0.24	ZZ
F7FKWH		3,391.8	30.7	0.18	3,199.3	33.4	0.16	ZZ
GANK8E		3,564.5	203.4	1.17	3,553.5	387.5	1.80	ZZ
HEFYKM	*	3,427.7	66.6	0.38	2,698.4	-467.6	-2.17	ZZ
HZF9RV		3,618.1	257.0	1.47	3,383.5	217.5	1.01	ZZ
KKED8Z		3,420.0	58.9	0.34	2,956.0	-210.0	-0.98	ZZ
KNDRUQ		3,370.5	9.4	0.05	3,422.0	256.0	1.19	ZZ
LPNW7T		3,605.7	244.6	1.40	3,300.2	134.2	0.62	ZZ
QKHQF4		3,282.0	-79.1	-0.45	3,055.5	-110.5	-0.51	ZZ
UGMDX		3,547.5	186.4	1.07	3,281.5	115.5	0.54	ZZ
UM9BP6		3,350.0	-11.1	-0.06	3,134.5	-31.5	-0.15	ZZ
WVGMU	*	2,864.5	-496.6	-2.85	2,806.5	-359.5	-1.67	ZZ
WWRHM		3,308.0	-53.1	-0.30	3,036.5	-129.5	-0.60	ZZ
XEP77U		3,492.0	130.9	0.75	3,225.0	59.0	0.27	ZZ
XGWEG		3,382.5	21.4	0.12	2,992.5	-173.5	-0.81	ZZ
XVTW7Y		3,675.3	314.2	1.80	3,606.4	440.4	2.05	ZZ
YWGMU		3,241.6	-119.5	-0.69	2,929.8	-236.2	-1.10	ZZ
YY67NU		3,150.2	-210.8	-1.21	3,169.5	3.5	0.02	ZZ
YZZHUV		3,296.2	-64.9	-0.37	3,409.7	243.7	1.13	ZZ
Z3NB9B		3,430.1	69.0	0.40	3,194.0	28.0	0.13	ZZ
ZEVBU3		3,141.5	-219.6	-1.26	2,709.0	-457.0	-2.13	ZZ

Analysis 630

Tensile Strength: Precured vs. Lab-Cured Samples (psi)

Summary Statistics	
Grand Means	
3,361.09 psi	3,165.99 psi
Stnd Dev Btwn Labs	
174.40 psi	215.05 psi
	Statistics based on 34 of 34 reporting participants

Summary Statistics in SI Units	
Grand Means	
23.174 MPa	21.83 MPa
Stnd Dev Btwn Labs	
1.202 MPa	1.48 MPa
	Statistics based on 34 of 34 reporting participants

All samples : Polyisoprene compound, batch #1

Rubber Interlaboratory Testing Program

Analysis 630
Tensile Strength: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample **C41-C42** = 3,361.09 psi   Grand Mean Sample **L41-L42** = 3,165.99 psi

ANALYSIS 630

SAMPLE L41-L42

psi

SAMPLE C41-C42

psi

Rubber Interlaboratory Testing Program
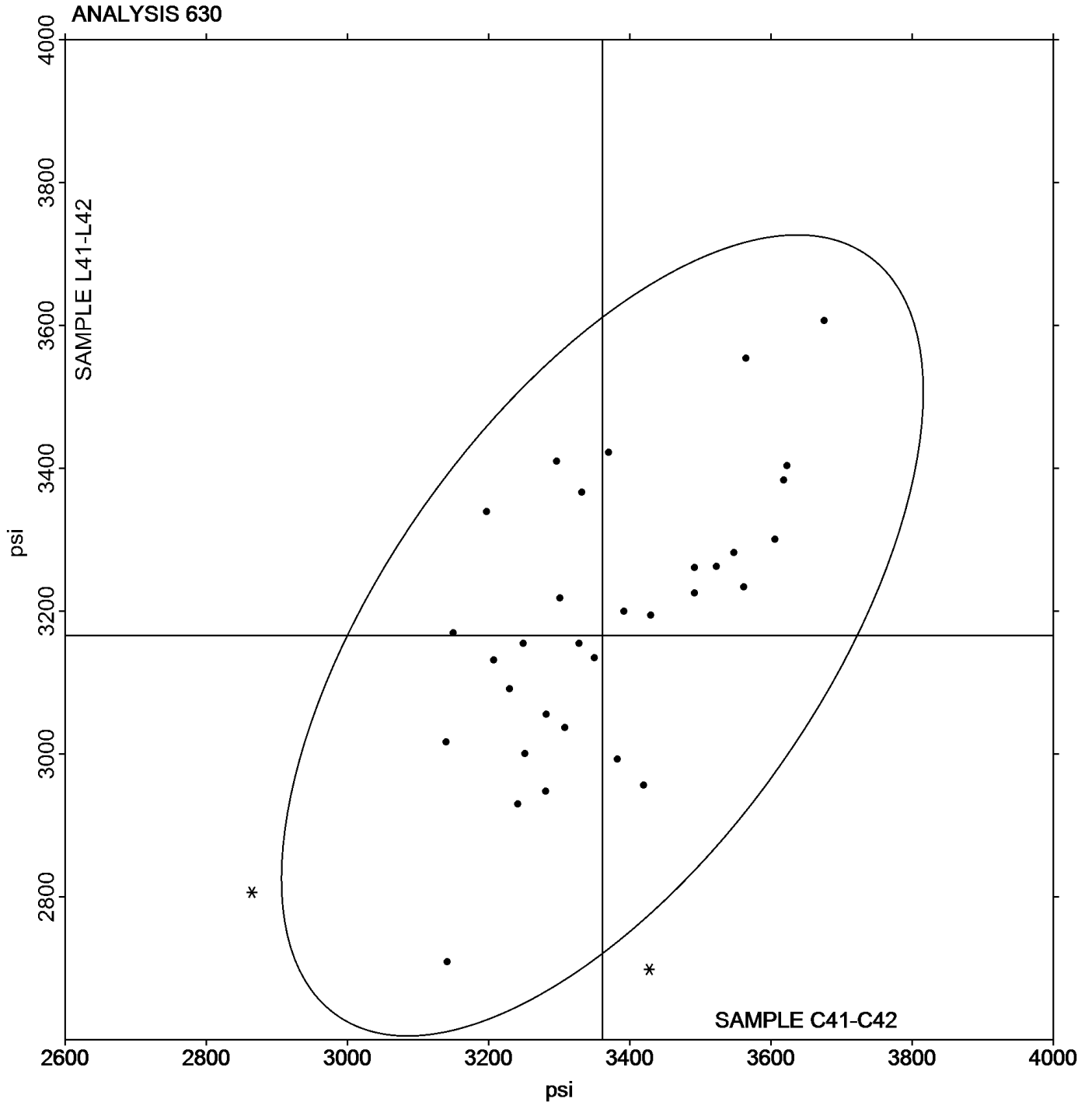
Analysis 631

Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

WebCode	Data Flag	Sample C41-C42			Sample L41-L42			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27LCLD		626.5	-1.4	-0.05	590.0	8.1	0.29	ZZ
3GFY6U		562.5	-65.4	-2.38	515.5	-66.4	-2.41	ZZ
8V23EK		613.8	-14.1	-0.51	537.5	-44.5	-1.61	ZZ
9YRWQC		652.0	24.1	0.88	597.5	15.6	0.56	ZZ
A9GXT9		576.1	-51.8	-1.88	553.7	-28.2	-1.02	ZZ
AF3TUC		646.0	18.1	0.66	603.5	21.6	0.78	ZZ
BEMQM4		611.0	-16.9	-0.61	575.0	-6.9	-0.25	ZZ
BXVZFN		621.0	-6.9	-0.25	567.0	-14.9	-0.54	ZZ
CK6JC9		625.0	-2.9	-0.11	577.5	-4.4	-0.16	ZZ
CLFH7G		629.8	1.9	0.07	557.3	-24.6	-0.89	ZZ
CTE3BX		605.5	-22.4	-0.81	568.0	-13.9	-0.50	ZZ
D27LML	X	842.3	214.4	7.80	606.4	24.5	0.89	ZZ
D9NEDB		608.0	-19.9	-0.72	554.5	-27.4	-0.99	ZZ
ENXCAV		650.0	22.1	0.80	589.0	7.1	0.26	ZZ
F7FKWH		653.0	25.1	0.91	614.0	32.1	1.16	ZZ
GANK8E		661.5	33.6	1.22	611.5	29.6	1.07	ZZ
HEFYKM		639.6	11.7	0.43	564.9	-17.1	-0.62	ZZ
HZF9RV		626.4	-1.6	-0.06	584.7	2.8	0.10	ZZ
KKED8Z	*	655.0	27.1	0.99	653.0	71.1	2.58	ZZ
KNDRUQ		623.5	-4.4	-0.16	597.0	15.1	0.55	ZZ
LPNW7T		635.5	7.6	0.28	579.5	-2.4	-0.09	ZZ
QKHQF4		611.5	-16.4	-0.60	566.5	-15.4	-0.56	ZZ
UGMDX		659.5	31.6	1.15	613.5	31.6	1.14	ZZ
UM9BP6		609.5	-18.4	-0.67	549.5	-32.4	-1.17	ZZ
WVGMU		593.3	-34.7	-1.26	552.2	-29.7	-1.08	ZZ
WWRHM		667.0	39.1	1.42	610.5	28.6	1.04	ZZ
XEP77U		664.5	36.6	1.33	613.0	31.1	1.13	ZZ
XGWEG		626.5	-1.4	-0.05	580.0	-1.9	-0.07	ZZ
XVTW7Y		624.0	-3.9	-0.14	578.5	-3.4	-0.12	ZZ
YWGMU	*	578.0	-49.9	-1.81	570.4	-11.5	-0.42	ZZ
YY67NU		638.9	11.0	0.40	586.6	4.7	0.17	ZZ
YZZHUV		670.7	42.7	1.55	616.8	34.9	1.26	ZZ
Z3NB9B		656.0	28.1	1.02	605.5	23.6	0.85	ZZ
ZEVBU3		600.0	-27.9	-1.01	569.5	-12.4	-0.45	ZZ

Rubber Interlaboratory Testing Program

Analysis 631

Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

Summary Statistics	
Grand Means	
627.91 percent	581.91 percent
Stnd Dev Btwn Labs	
27.50 percent	27.61 percent
	Statistics based on 33 of 34 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #631
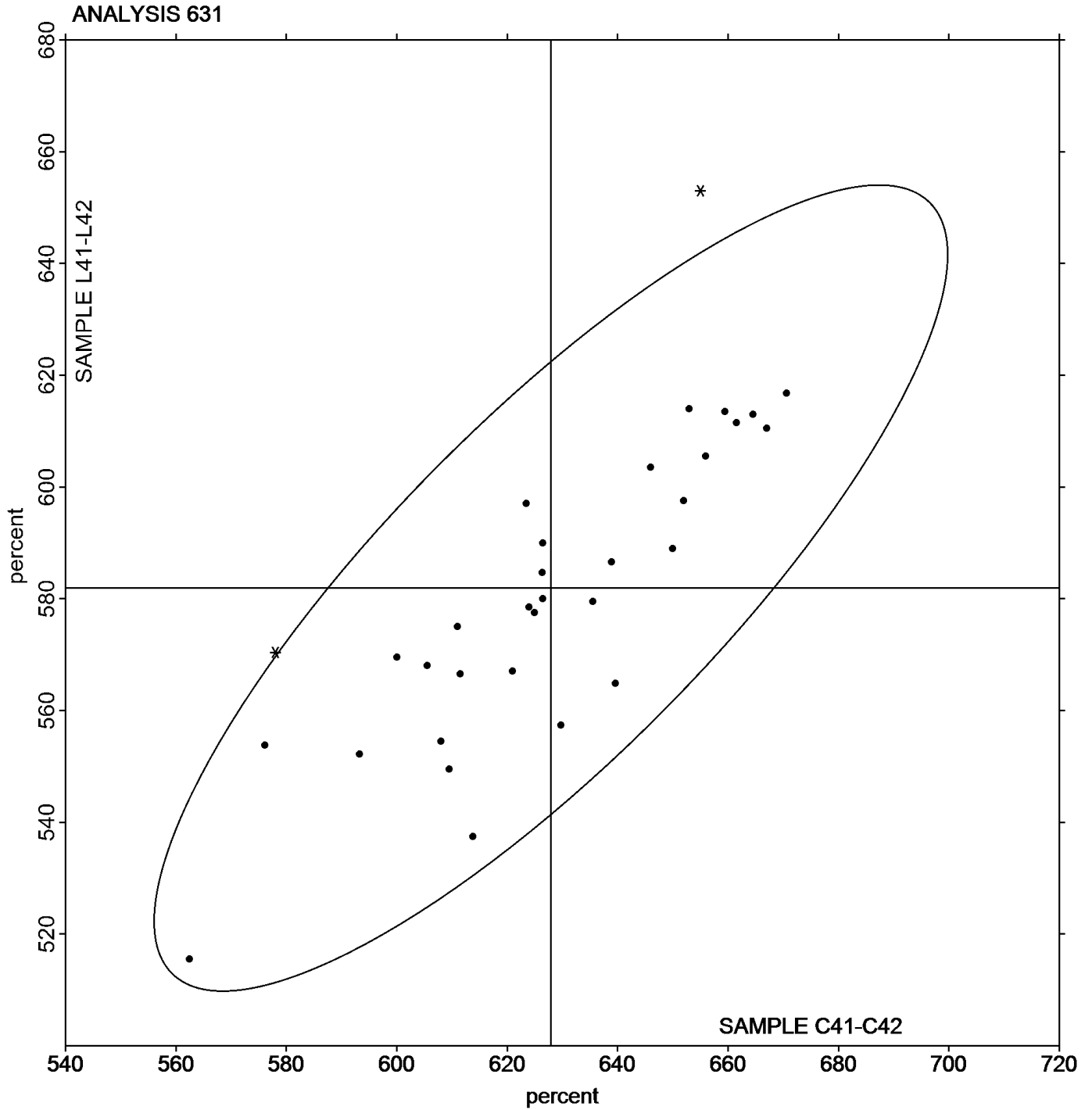
D27LML (X) - Inconsistency in testing between Sample groups. Data for Sample group C41-C42 are high.
Inconsistency in testing within Sample group C41-C42.

Rubber Interlaboratory Testing Program

Analysis 631

Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

Grand Mean Sample **C41-C42** = 627.91 percent   Grand Mean Sample **L41-L42** = 581.91 percent

Rubber Interlaboratory Testing Program
Analysis 632
Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample C41-C42			Sample L41-L42			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27LCLD		877.5	-80.9	-1.09	964.5	-116.1	-1.04	ZZ
3GFY6U		1,053.9	95.5	1.28	1,277.1	196.5	1.76	ZZ
8V23EK		1,082.5	124.1	1.67	1,217.9	137.2	1.23	ZZ
9YRWQC		877.5	-80.9	-1.09	963.5	-117.1	-1.05	ZZ
A9GXT9		1,036.6	78.3	1.05	1,284.0	203.3	1.82	ZZ
AF3TUC		901.0	-57.4	-0.77	1,042.5	-38.1	-0.34	ZZ
BEMQM4		962.0	3.6	0.05	1,221.0	140.4	1.26	ZZ
BXVZFN		898.5	-59.8	-0.80	1,082.7	2.1	0.02	ZZ
CK6JC9		954.0	-4.4	-0.06	1,140.0	59.4	0.53	ZZ
CLFH7G		1,018.5	60.2	0.81	1,118.0	37.3	0.33	ZZ
CTE3BX		1,001.5	43.1	0.58	1,105.5	24.9	0.22	ZZ
D27LML		939.8	-18.6	-0.25	1,083.3	2.7	0.02	ZZ
D9NEDB		1,003.7	45.3	0.61	1,144.4	63.7	0.57	ZZ
ENXCAV		824.0	-134.4	-1.80	1,094.5	13.9	0.12	ZZ
F7FKWH		890.4	-68.0	-0.91	958.4	-122.2	-1.09	ZZ
GANK8E		904.0	-54.4	-0.73	1,131.5	50.9	0.45	ZZ
HEFYKM		993.9	35.5	0.48	946.3	-134.3	-1.20	ZZ
HZF9RV		1,124.1	165.7	2.22	1,077.0	-3.7	-0.03	ZZ
KKED8Z	*	909.0	-49.4	-0.66	759.0	-321.6	-2.88	ZZ
KNDRUQ		986.5	28.1	0.38	1,140.5	59.9	0.54	ZZ
LPNW7T		973.1	14.7	0.20	1,221.6	141.0	1.26	ZZ
QKHQF4		978.5	20.1	0.27	1,084.0	3.4	0.03	ZZ
UGMDX		1,017.5	59.1	0.79	1,124.5	43.9	0.39	ZZ
UM9BP6		983.5	25.1	0.34	1,114.0	33.4	0.30	ZZ
WVGMU		915.9	-42.4	-0.57	1,071.8	-8.8	-0.08	ZZ
WWRHM		860.0	-98.4	-1.32	917.5	-163.1	-1.46	ZZ
XEP77U		894.5	-63.9	-0.86	1,037.0	-43.6	-0.39	ZZ
XGWEG		942.5	-15.9	-0.21	1,002.0	-78.6	-0.70	ZZ
XVTW7Y		1,034.9	76.5	1.03	1,227.8	147.1	1.32	ZZ
YWGMU		1,105.2	146.8	1.97	1,014.5	-66.1	-0.59	ZZ
YY67NU		908.0	-50.3	-0.68	1,132.9	52.3	0.47	ZZ
YZZHUV		860.4	-98.0	-1.32	1,109.1	28.5	0.25	ZZ
Z3NB9B		881.0	-77.4	-1.04	968.0	-112.6	-1.01	ZZ
ZEVBU3		990.5	32.1	0.43	965.0	-115.6	-1.03	ZZ

Analysis 632

Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

Summary Statistics	
Grand Means	
958.36 psi	1,080.62 psi
Stnd Dev Btwn Labs	
74.51 psi	111.85 psi
	Statistics based on 34 of 34 reporting participants

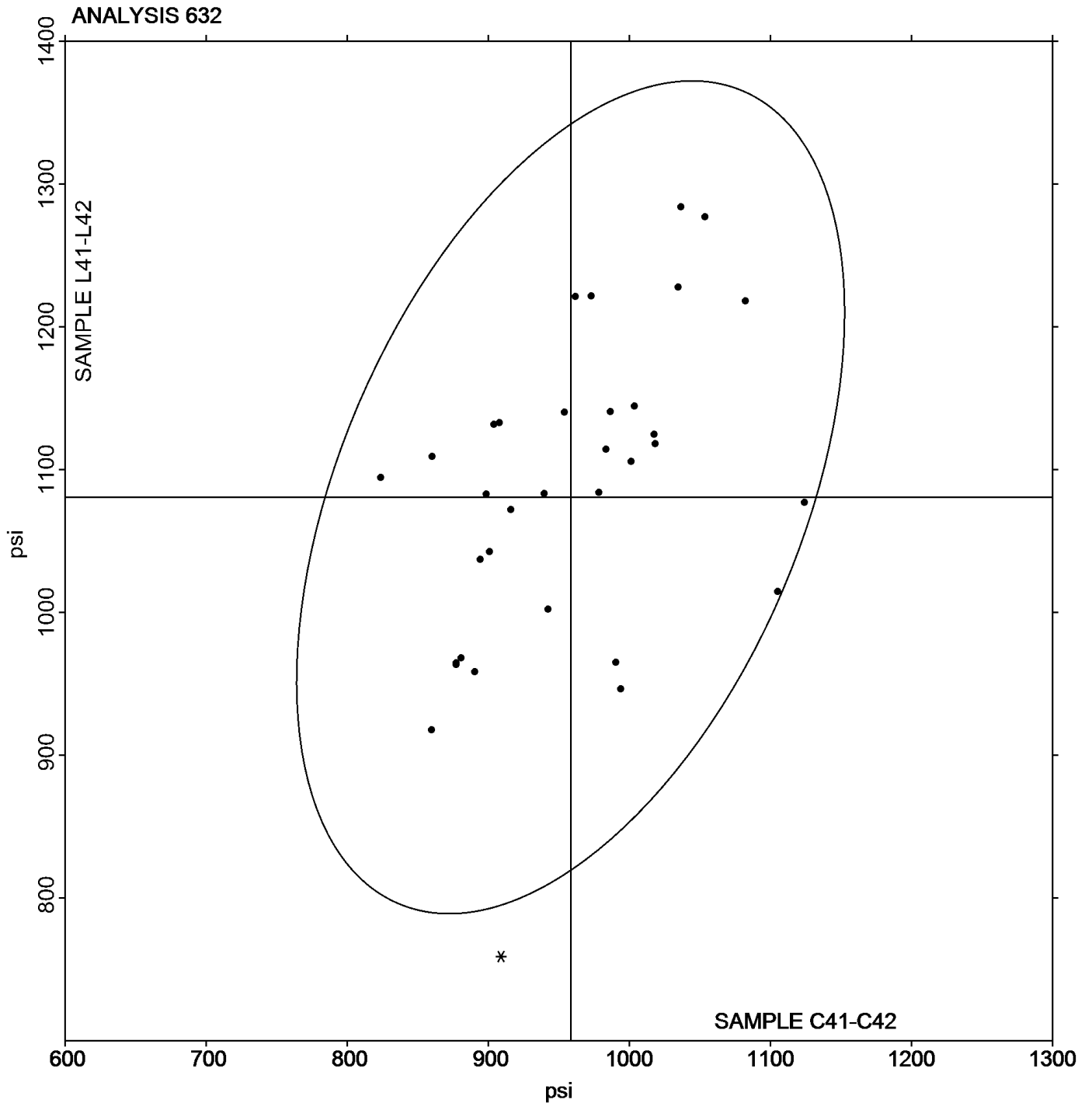| Summary Statistics in SI Units	
Grand Means	
6.6076 MPa	7.45 MPa
Stnd Dev Btwn Labs	
0.5137 MPa	0.77 MPa
	Statistics based on 34 of 34 reporting participants

All samples : Polyisoprene compound, batch #1

Analysis 632

Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample **C41-C42** = 958.36 psi   Grand Mean Sample **L41-L42** = 1,080.62 psi

Rubber Interlaboratory Testing Program
Analysis 633
Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

| WebCode | Data Flag | Sample C41-C42 | | | Sample L41-L42 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27LCLD		181.3	-20.9	-1.20	210.3	-21.8	-0.99	ZZ
3GFY6U		208.1	5.9	0.34	252.5	20.4	0.92	ZZ
8V23EK		224.9	22.7	1.31	265.1	33.0	1.50	ZZ
9YRWQC		199.0	-3.2	-0.18	217.5	-14.6	-0.66	ZZ
A9GXT9		209.5	7.4	0.42	276.8	44.7	2.03	ZZ
AF3TUC		184.0	-18.2	-1.05	220.5	-11.6	-0.52	ZZ
BEMQM4		206.0	3.8	0.22	264.5	32.4	1.47	ZZ
BXVZFN		198.0	-4.2	-0.24	239.3	7.3	0.33	ZZ
CK6JC9		204.5	2.3	0.13	253.0	20.9	0.95	ZZ
CLFH7G	X	215.4	13.2	0.76	613.4	381.3	17.28	ZZ
CTE3BX		217.5	15.3	0.88	220.5	-11.6	-0.52	ZZ
D27LML		196.0	-6.2	-0.36	222.5	-9.6	-0.43	ZZ
D9NEDB		206.7	4.5	0.26	237.1	5.1	0.23	ZZ
ENXCAV		177.0	-25.2	-1.45	233.0	0.9	0.04	ZZ
F7FKWH		189.4	-12.7	-0.73	210.7	-21.4	-0.97	ZZ
GANK8E		188.5	-13.7	-0.79	241.0	8.9	0.41	ZZ
HEFYKM		230.7	28.5	1.64	220.0	-12.1	-0.55	ZZ
HZF9RV		234.0	31.8	1.83	233.3	1.2	0.05	ZZ
KKED8Z	*	195.0	-7.2	-0.41	169.5	-62.6	-2.83	ZZ
KNDRUQ		198.0	-4.2	-0.24	242.0	9.9	0.45	ZZ
LPNW7T		209.1	6.9	0.40	264.6	32.5	1.47	ZZ
QKHQF4		202.5	0.3	0.02	230.0	-2.1	-0.09	ZZ
UGMDX		237.0	34.8	2.01	256.0	23.9	1.08	ZZ
UM9BP6		196.5	-5.7	-0.33	229.5	-2.6	-0.12	ZZ
WVGMU		186.4	-15.8	-0.91	218.3	-13.8	-0.62	ZZ
WWRHM		178.5	-23.7	-1.36	197.0	-35.1	-1.59	ZZ
XEP77U		186.0	-16.2	-0.93	220.5	-11.6	-0.52	ZZ
XGWEG		197.0	-5.2	-0.30	217.0	-15.1	-0.68	ZZ
XVTW7Y		204.5	2.3	0.13	255.3	23.2	1.05	ZZ
YWGMU		225.5	23.4	1.35	211.8	-20.3	-0.92	ZZ
YY67NU		193.7	-8.5	-0.49	243.2	11.2	0.51	ZZ
YZZHUV		180.9	-21.3	-1.23	234.9	2.8	0.13	ZZ
Z3NB9B		187.0	-15.2	-0.87	216.0	-16.1	-0.73	ZZ
ZEVBU3		239.0	36.8	2.12	235.0	2.9	0.13	ZZ

Rubber Interlaboratory Testing Program

Analysis 633

Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

Summary Statistics

Grand Means

202.17 psi   232.06 psi

Stnd Dev Btwn Labs

17.36 psi   22.07 psi

Statistics based on 33 of 34 reporting participants

Summary Statistics in SI Units

Grand Means

1.3939 MPa   1.60 MPa

Stnd Dev Btwn Labs

0.1197 MPa   0.15 MPa

Statistics based on 33 of 34 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #633

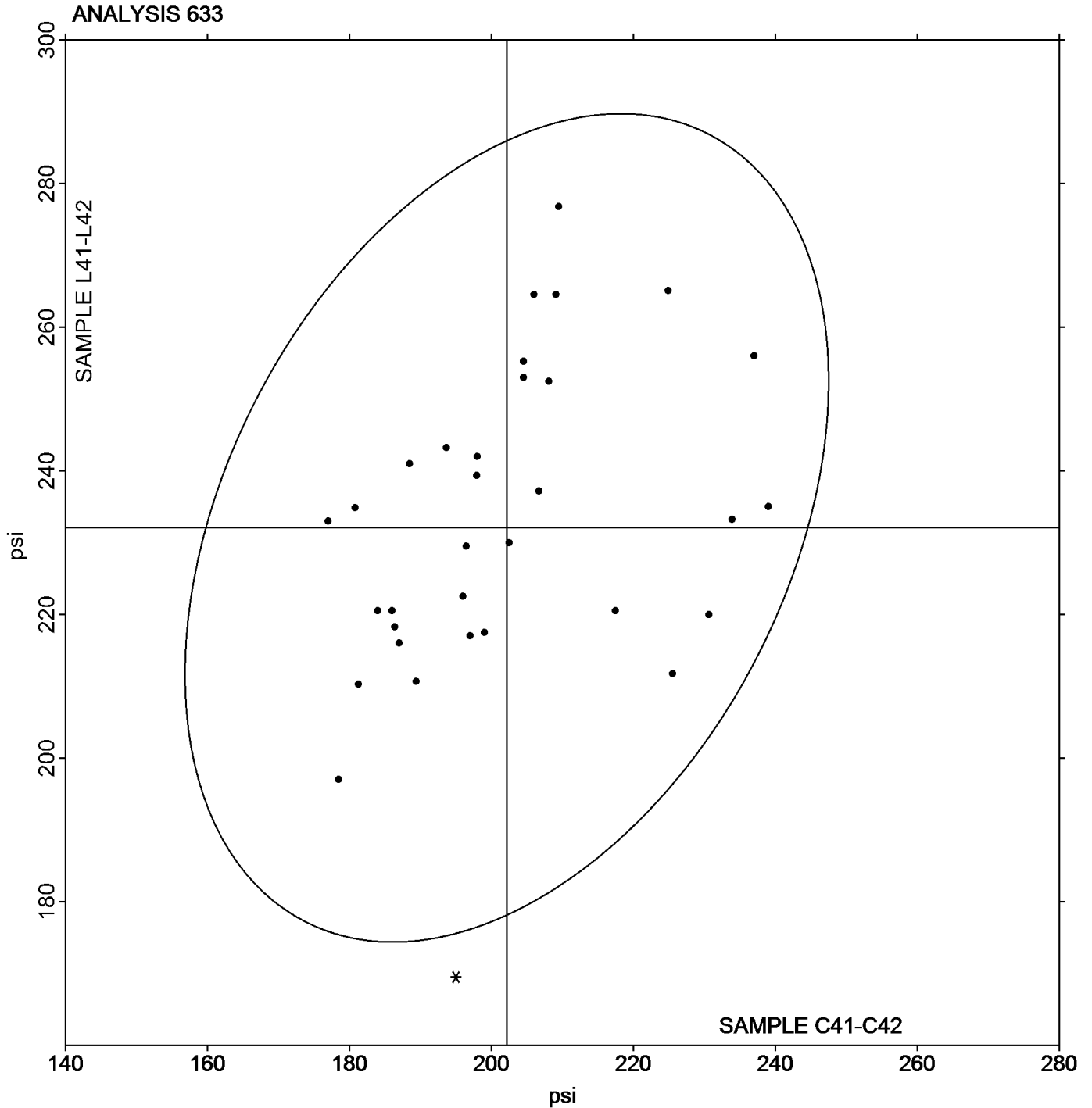CLFH7G (X) - Extreme data for Sample group L41-L42.

Rubber Interlaboratory Testing Program

Analysis 633

Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample **C41-C42** = 202.17 psi

Grand Mean Sample **L41-L42** = 232.06 psi

Rubber Interlaboratory Testing Program
Analysis 660
Mooney Viscosity: 4-minute readings (ML 1 + 4)

		Sample U41-U42			Sample U43-U44			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
27LCLD		46.33	0.04	0.03	54.40	-0.11	-0.09	MR
3GFY6U		46.73	0.44	0.32	54.10	-0.41	-0.34	MR
7GPZNX		46.57	0.27	0.20	54.78	0.27	0.22	MR
7TXPHT		45.50	-0.80	-0.59	53.25	-1.26	-1.05	MR
8V23EK		47.28	0.99	0.73	54.38	-0.13	-0.11	XX
A9GXT9		47.18	0.89	0.66	55.07	0.55	0.46	MR
C9U9HQ		45.42	-0.88	-0.65	54.43	-0.08	-0.07	MR
CK6JC9		46.15	-0.15	-0.11	53.53	-0.98	-0.81	MR
CLFH7G		47.30	1.00	0.74	54.75	0.23	0.19	MR
CZDG9T		46.43	0.14	0.10	56.40	1.89	1.56	MR
D9NEDB		47.37	1.07	0.79	55.72	1.20	1.00	MR
DKK8ZG		48.41	2.12	1.57	55.45	0.93	0.77	MR
ENXCAV		47.93	1.64	1.21	55.38	0.87	0.72	MR
EPQFPN		45.38	-0.91	-0.68	53.33	-1.18	-0.98	MR
F7FKWH		47.97	1.67	1.24	56.30	1.79	1.48	MR
FXVQBK		45.32	-0.98	-0.73	54.35	-0.16	-0.13	MR
GANK8E		46.81	0.52	0.38	54.50	-0.01	-0.01	MR
HEFYKM		47.99	1.69	1.25	56.50	1.99	1.65	TV
HPYN8Y		46.28	-0.02	-0.01	53.58	-0.93	-0.77	MR
HZF9RV		45.87	-0.43	-0.31	53.63	-0.88	-0.73	TV
JKK9D2		47.50	1.20	0.89	55.15	0.64	0.53	MR
KPTU2Y	*	42.27	-4.03	-2.99	52.10	-2.41	-2.00	MR
LPNW7T		43.70	-2.60	-1.93	52.86	-1.66	-1.37	TV
MTMR6		44.37	-1.93	-1.43	53.23	-1.28	-1.06	MR
P4U7CD		46.71	0.41	0.30	53.84	-0.67	-0.55	MR
PDKQGB		46.35	0.05	0.04	54.70	0.19	0.16	MR
QGYWE		46.58	0.29	0.21	55.45	0.94	0.78	MR
QKHQF4		44.52	-1.78	-1.32	53.15	-1.36	-1.13	MR
T83JT3		49.13	2.83	2.10	57.08	2.56	2.13	MR
TTFF2X		45.97	-0.33	-0.24	54.09	-0.42	-0.35	TV
UM9BP6		45.75	-0.55	-0.41	54.40	-0.11	-0.09	MR
VMBEZU		46.73	0.44	0.32	56.38	1.87	1.55	MR
WVGMU		47.72	1.42	1.05	56.20	1.69	1.40	MR
XEP77U		44.98	-1.31	-0.97	52.97	-1.55	-1.28	XX
XVTW7Y		45.24	-1.06	-0.78	55.58	1.07	0.88	TV
YWGMU		45.88	-0.41	-0.31	53.32	-1.20	-0.99	MR
YY67NU		46.55	0.25	0.19	53.83	-0.68	-0.56	MR
Z3NB9B		45.11	-1.18	-0.88	53.31	-1.20	-1.00	MR

Rubber Interlaboratory Testing Program

Analysis 660

Mooney Viscosity: 4-minute readings (ML 1 + 4)

Summary Statistics		
Grand Means		
46.297 ML 1 + 4		54.513 ML 1 + 4
Stnd Dev Btwn Labs		
1.349 ML 1 + 4		1.206 ML 1 + 4
		Statistics based on 38 of 38 reporting participants

Samples U41-U42: NBR & U43-U44: Butyl

Instrument Code Listing

660	Mooney Viscosity: 4-minute readings (ML 1 + 4)

Instruments:

(ML)   Alpha Technologies/Monsanto model not specified

(MM)   Alpha Technologies Model 1xxx or OSM

(MP)   Monsanto Compact Mooney Viscometer

(MR)   Alpha Technologies Model MV2000/MV2000E

(MZ)   Rebuilt Monsanto Mooney Viscometer

(SF)   Scott STI (any model)

(TV)   Tech Pro Visc Tech   (any model)

(XA)   Special In-House Instrument

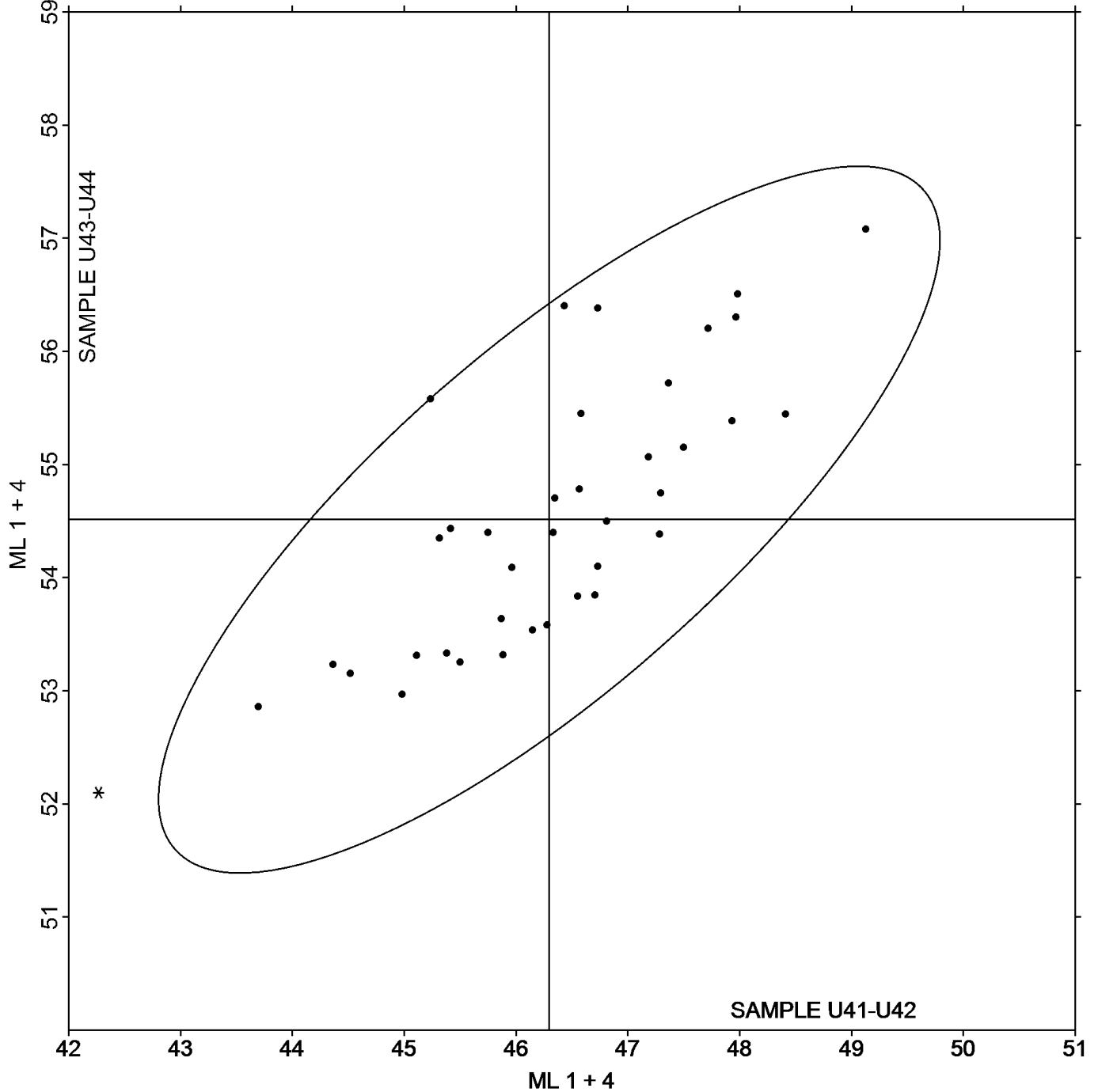(XX)   Instrument make/model not specified by lab

Analysis 660

Mooney Viscosity: 4-minute readings (ML 1 + 4)

Grand Mean Sample **U41-U42** = 46.297 ML 1 + 4   Grand Mean Sample **U43-U44** = 54.513 ML 1 + 4

ANALYSIS 660

Rubber Interlaboratory Testing Program

Analysis 661

Mooney Viscosity: 4-min NBR/SBR & 8-min butyl readings (ML)

WebCode	Data Flag	Sample U41-U42			Sample U43-U44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27LCLD		46.33	0.00	0.00	52.40	0.53	0.41	MR
3GFY6U		46.73	0.40	0.29	51.12	-0.75	-0.58	XX
7GPZNX		46.57	0.24	0.17	52.08	0.21	0.17	MR
7TXPHT		45.50	-0.83	-0.59	50.83	-1.04	-0.81	MR
8V23EK		47.28	0.95	0.68	52.92	1.05	0.81	XX
A9GXT9		47.18	0.85	0.61	52.60	0.73	0.57	MR
C9U9HQ		45.42	-0.91	-0.65	51.30	-0.57	-0.44	MR
CK6JC9		46.15	-0.18	-0.13	51.43	-0.44	-0.34	MR
CLFH7G		47.30	0.97	0.69	52.31	0.44	0.34	MR
D9NEDB		47.37	1.04	0.74	52.52	0.65	0.50	MR
DKK8ZG		48.41	2.08	1.49	52.55	0.68	0.53	XX
ENXCAV		47.93	1.60	1.15	53.82	1.95	1.51	MR
EPQFPN		45.38	-0.95	-0.68	51.23	-0.64	-0.49	MR
F7FKWH		47.97	1.64	1.17	53.30	1.43	1.11	MR
GANK8E		46.81	0.48	0.35	51.41	-0.46	-0.36	MR
HEFYKM		47.99	1.65	1.19	53.49	1.62	1.26	TV
HPYN8Y		46.28	-0.05	-0.04	50.41	-1.46	-1.13	MR
HZF9RV		45.87	-0.46	-0.33	51.82	-0.05	-0.04	XX
JKK9D2		47.50	1.17	0.84	52.78	0.91	0.71	MR
KPTU2Y	*	42.27	-4.06	-2.91	49.60	-2.27	-1.76	XX
LPNW7T		43.70	-2.63	-1.89	49.52	-2.35	-1.82	TV
MTMR6		44.37	-1.96	-1.41	50.45	-1.42	-1.10	MR
P4U7CD		46.71	0.37	0.27	51.55	-0.32	-0.25	MR
PDKQGB		46.35	0.02	0.01	52.45	0.58	0.45	MR
QGYWE		46.58	0.25	0.18	53.17	1.30	1.01	MR
QKHQF4		44.52	-1.81	-1.30	50.69	-1.18	-0.92	MP
T83JT3		49.13	2.80	2.01	54.73	2.86	2.22	MR
TTFF2X	X	45.97	-0.36	-0.26	54.83	2.96	2.30	TV
UM9BP6		45.75	-0.58	-0.42	51.80	-0.07	-0.05	MR
VMBEZU		46.73	0.40	0.29	52.30	0.43	0.34	MR
WVGMU		47.72	1.39	0.99	53.68	1.81	1.41	MR
XEP77U		44.98	-1.35	-0.96	49.38	-2.49	-1.93	XX
XVTW7Y	*	45.24	-1.09	-0.78	53.19	1.32	1.03	TV
YWGMU		45.88	-0.45	-0.32	51.02	-0.85	-0.66	MR
YY67NU		46.55	0.22	0.16	51.02	-0.85	-0.66	MR
Z3NB9B		45.11	-1.22	-0.87	50.54	-1.33	-1.03	MR

Rubber Interlaboratory Testing Program
Analysis 661
Mooney Viscosity: 4-min NBR/SBR & 8-min butyl readings (ML)

	Summary Statistics	
Grand Means		
46.330 ML 1 + 8		51.869 ML 1 + 8
Stnd Dev Btwn Labs		
1.396 ML 1 + 8		1.286 ML 1 + 8
		Statistics based on 35 of 36 reporting participants

Please refer to the sample information provided for Analysis 660.

Comments on assigned Data Flags for Test #661

TTFF2X (X) - Inconsistency in testing between Sample groups.

Rubber Interlaboratory Testing Program
Analysis 661
Mooney Viscosity: 4-min NBR/SBR & 8-min butyl readings (ML)

Grand Mean Sample **U41-U42** = 46.330 ML 1 + 8   Grand Mean Sample **U43-U44** = 51.869 ML 1 + 8
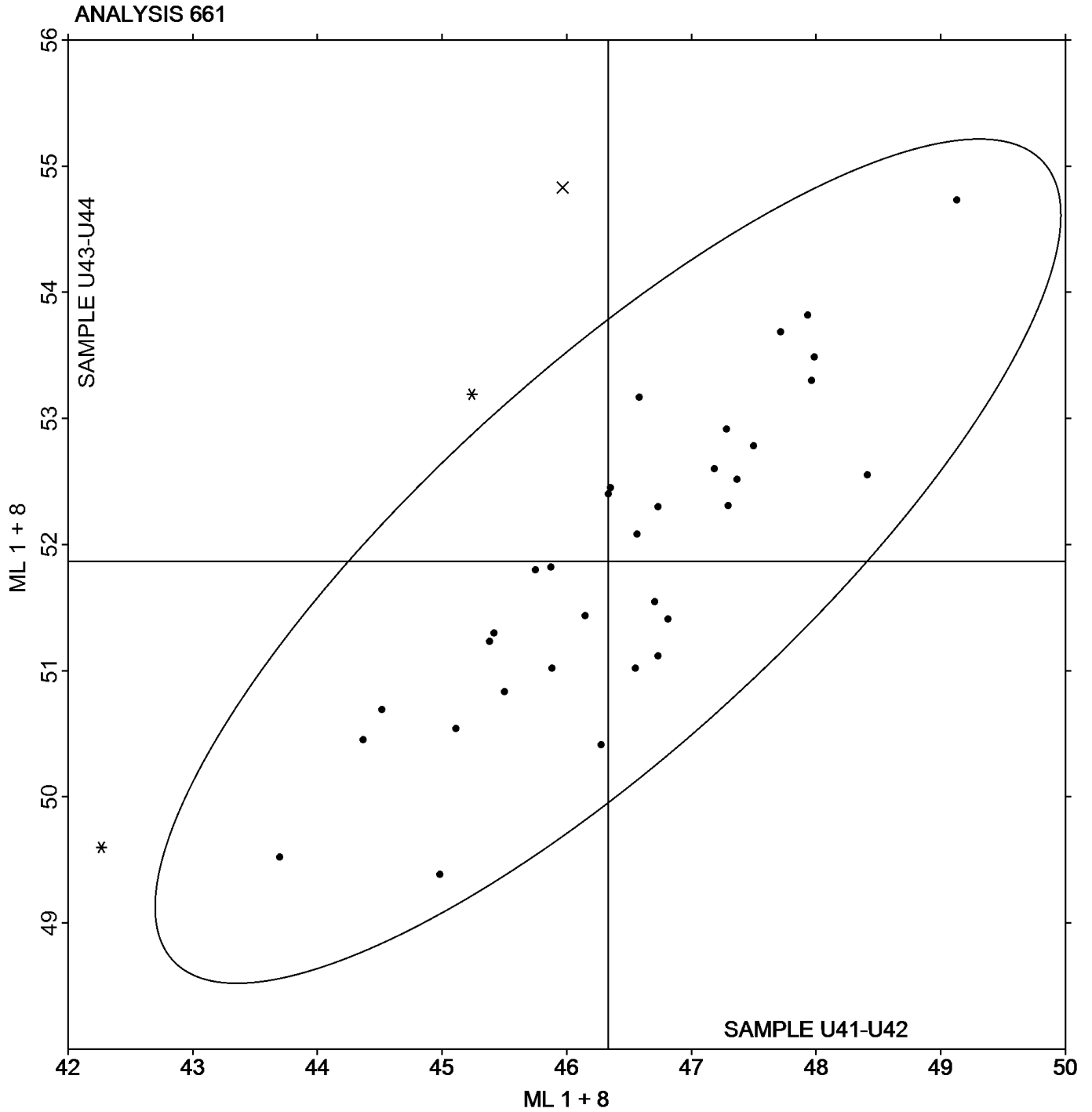
ANALYSIS 661

SAMPLE U43-U44

ML 1 + 8

SAMPLE U41-U42

ML 1 + 8

Rubber Interlaboratory Testing Program
Analysis 662
Mooney Stress Relaxation: t80 (seconds)

		Sample U41-U42			Sample U43-U44			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
27LCLD	*	7.233	1.686	1.38	13.733	5.979	3.02	XX
3GFY6U		4.893	-0.654	-0.53	6.823	-0.931	-0.47	MR
7GPZNX		5.767	0.219	0.18	8.567	0.813	0.41	MR
7TXPHT		4.637	-0.911	-0.74	6.617	-1.137	-0.57	MR
A9GXT9		4.987	-0.561	-0.46	7.080	-0.674	-0.34	XX
D9NEDB		4.630	-0.917	-0.75	6.485	-1.269	-0.64	MR
FXVQBK		5.400	-0.147	-0.12	8.400	0.646	0.33	MR
GANK8E		5.347	-0.201	-0.16	6.370	-1.384	-0.70	MR
HEFYKM	X	16.007	10.459	8.54	9.950	2.196	1.11	TV
PDKQGB		4.963	-0.584	-0.48	7.050	-0.704	-0.36	MR
TTFF2X	*	8.957	3.409	2.78	8.917	1.163	0.59	TV
UM9BP6		5.163	-0.384	-0.31	6.987	-0.767	-0.39	MR
YWGMU		5.267	-0.281	-0.23	7.100	-0.654	-0.33	MR
Z3NB9B		4.873	-0.674	-0.55	6.673	-1.081	-0.55	MR

Summary Statistics

Grand Means

    5.5474   seconds   7.7540   seconds

Stnd Dev Btwn Labs

    1.2251   seconds   1.9791   seconds

Statistics based on 13 of 14 reporting participants

Samples U41-U42: NBR & U43-U44: Butyl

Comments on assigned Data Flags for Test #662

HEFYKM (X) - Data for Sample group U41-U42 are high. Data appear to be reported as seconds and not minutes as indicated on datasheet.

Rubber Interlaboratory Testing Program

Analysis 662

Mooney Stress Relaxation: t80 (seconds)

Grand Mean Sample **U41-U42** = 5.5474 seconds

Grand Mean Sample **U43-U44** = 7.7540 seconds
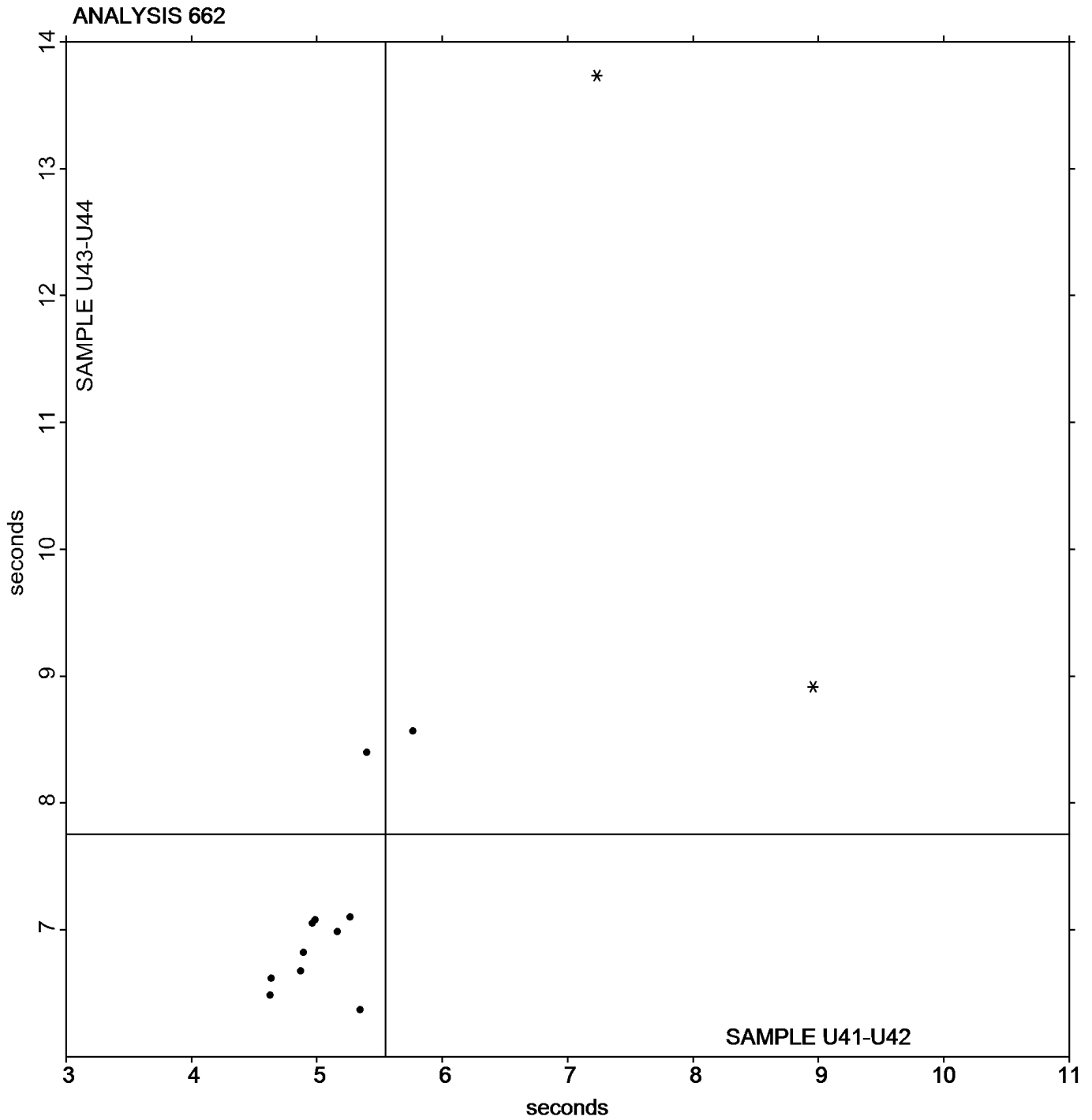
Rubber Interlaboratory Testing Program

Analysis 663

Mooney Stress Relaxation: X30 (percent)

		Sample U41-U42			Sample U43-U44			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
27LCLD	*	86.90	-3.03	-1.34	84.65	-7.16	-3.09	XX
3GFY6U		91.44	1.50	0.67	93.03	1.22	0.53	MR
7GPZNX		90.25	0.32	0.14	91.05	-0.76	-0.33	MR
7TXPHT		91.18	1.24	0.55	92.61	0.80	0.34	MR
A9GXT9		90.85	0.92	0.41	92.30	0.49	0.21	XX
D9NEDB		91.76	1.83	0.81	93.36	1.55	0.67	MR
GANK8E		90.92	0.98	0.44	93.28	1.47	0.64	MR
HEFYKM		86.11	-3.82	-1.69	90.79	-1.02	-0.44	TV
PDKQGB		91.08	1.15	0.51	92.57	0.76	0.33	MR
TTFF2X		85.23	-4.71	-2.08	91.20	-0.61	-0.26	TV
UM9BP6		90.57	0.63	0.28	92.41	0.60	0.26	MR
YWGMU		91.45	1.52	0.67	93.18	1.38	0.59	MR
Z3NB9B		91.39	1.45	0.64	93.07	1.26	0.54	MR

Summary Statistics

Grand Means

89.932 percent   91.807 percent

Stnd Dev Btwn Labs

2.257 percent   2.320 percent

Statistics based on 13 of 13 reporting participants

Samples U41-U42: NBR & U43-U44: Butyl

Rubber Interlaboratory Testing Program

Analysis 663

Mooney Stress Relaxation: X30 (percent)

Grand Mean Sample **U41-U42** = 89.932 percent   Grand Mean Sample **U43-U44** = 91.807 percent
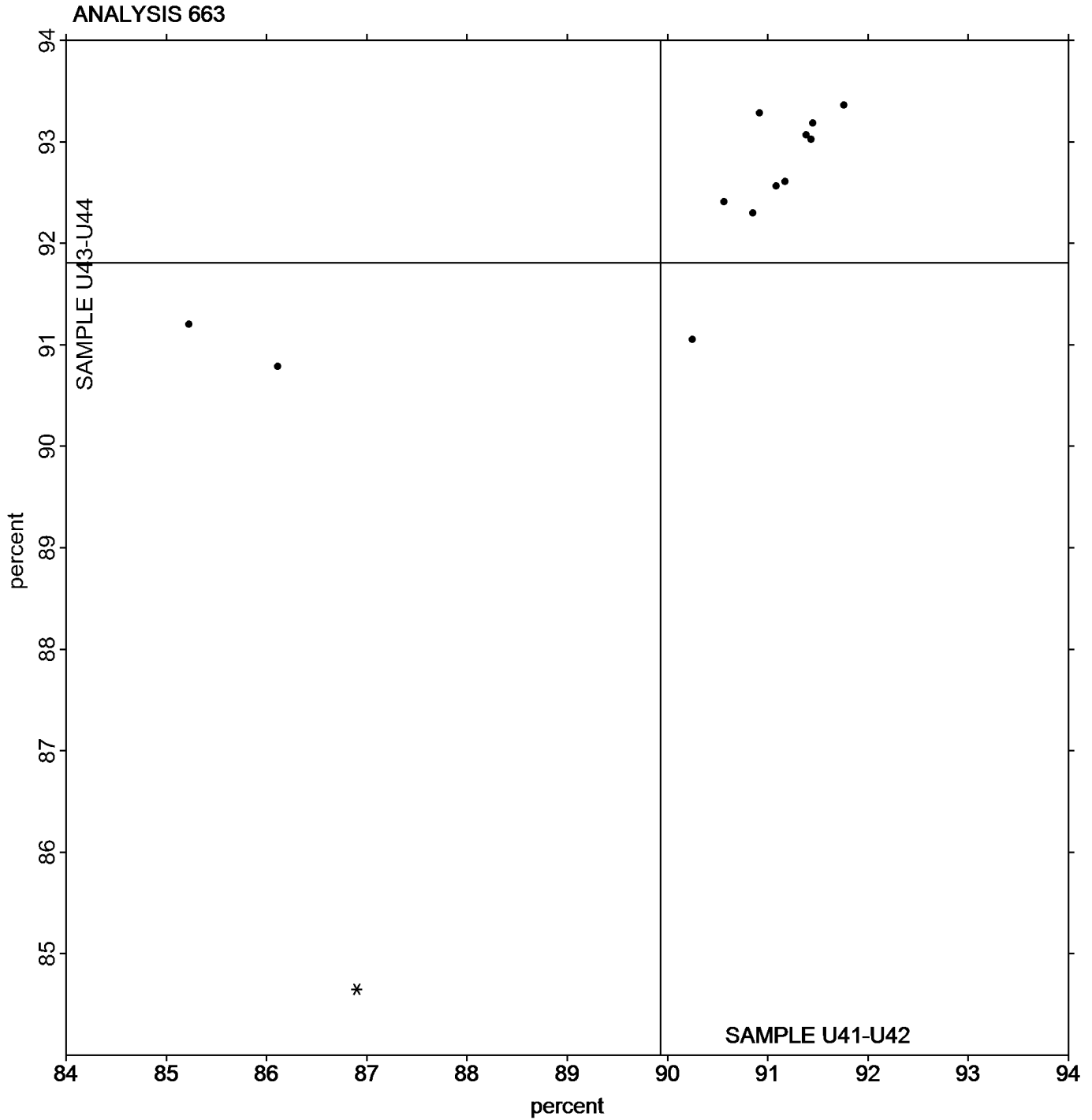
Rubber Interlaboratory Testing Program
Analysis 664
Mooney Stress Relaxation: Area under curve (M-s)

		Sample U41-U42			Sample U43-U44			
WebCode	**Data Flag**	**Lab Mean**	**Diff from Grand Mean**	**CPV**	**Lab Mean**	**Diff from Grand Mean**	**CPV**	**Instr Code**
27LCLD	X	0.3	-482.2	-5.67	0.4	-452.8	-7.69	XX
3GFY6U		431.5	-51.0	-0.60	407.8	-45.4	-0.77	MR
7GPZNX		504.9	22.4	0.26	558.1	104.8	1.78	MR
7TXPHT		432.4	-50.1	-0.59	430.0	-23.3	-0.40	MR
A9GXT9		466.2	-16.3	-0.19	456.2	3.0	0.05	XX
D9NEDB		422.0	-60.5	-0.71	403.5	-49.7	-0.84	MR
GANK8E		461.8	-20.7	-0.24	400.0	-53.3	-0.90	MR
HEFYKM		434.1	-48.4	-0.57	544.5	91.3	1.55	TV
PDKQGB		447.8	-34.7	-0.41	443.7	-9.5	-0.16	MR
TTFF2X		606.3	123.8	1.45	533.2	79.9	1.36	TV
UM9BP6		466.5	-16.0	-0.19	447.3	-5.9	-0.10	MR
YWGMU		698.0	215.5	2.53	415.8	-37.4	-0.64	XX
Z3NB9B		418.5	-64.0	-0.75	398.7	-54.5	-0.93	MR

Summary Statistics	
Grand Means	
482.49 M-s	453.24 M-s
Stnd Dev Btwn Labs	
85.08 M-s	58.88 M-s
	Statistics based on 12 of 13 reporting participants

Samples U41-U42: NBR & U43-U44: Butyl

Comments on assigned Data Flags for Test #664

27LCLD (X) - Extreme data.

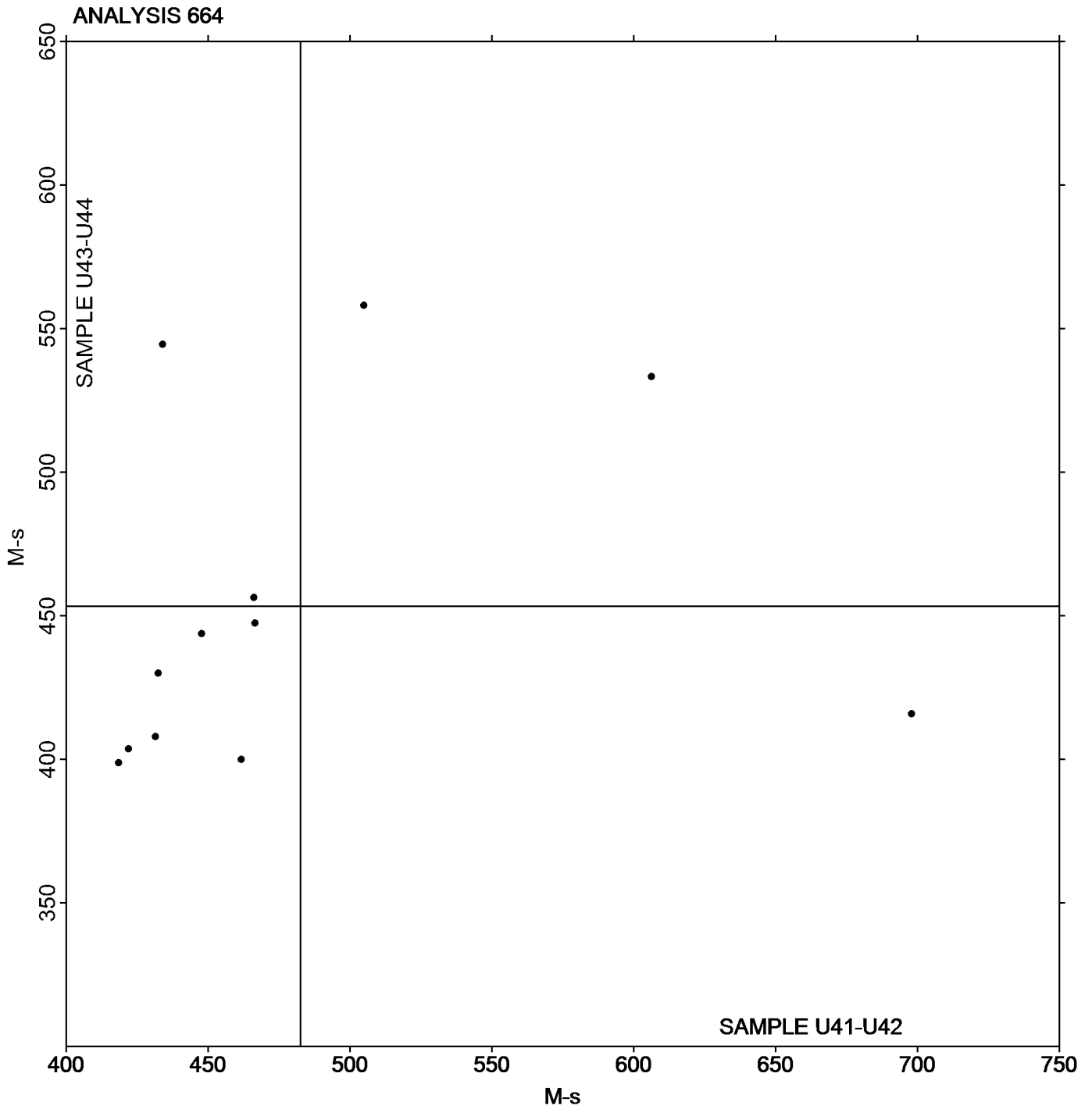# Rubber Interlaboratory Testing Program
Analysis 664
Mooney Stress Relaxation: Area under curve (M-s)

Grand Mean Sample **U41-U42** = 482.49 M-s   Grand Mean Sample **U43-U44** = 453.24 M-s

ANALYSIS 664

SAMPLE U43-U44 (y-axis: M-s)

SAMPLE U41-U42 (x-axis: M-s)

Rubber Interlaboratory Testing Program

Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

		Sample Y41-Y42			**Sample Y43-Y44**			
WebCode	**Data Flag**	**Lab Mean**	**Diff from Grand Mean**	**CPV**	**Lab Mean**	**Diff from Grand Mean**	**CPV**	**Instr Code**
27LCLD		2.083	0.058	0.52	1.933	0.244	0.86	ZZ
CK6JC9		1.892	-0.134	-1.20	1.700	0.011	0.04	ZZ
D27LML		1.943	-0.082	-0.74	1.615	-0.074	-0.26	ZZ
DKK8ZG		1.925	-0.100	-0.90	1.595	-0.094	-0.33	ZZ
EPQFPN		2.200	0.175	1.56	1.988	0.299	1.05	ZZ
F7FKWH		2.060	0.035	0.31	1.640	-0.049	-0.17	ZZ
GANK8E	**X**	3.075	1.050	9.40	3.622	1.933	6.76	ZZ
HEFYKM		2.095	0.070	0.62	1.982	0.293	1.02	ZZ
HPYN8Y		1.920	-0.105	-0.94	1.688	-0.001	0.00	ZZ
MTMR6		2.197	0.171	1.53	1.062	-0.627	-2.20	ZZ
P4U7CD		1.928	-0.097	-0.87	1.395	-0.294	-1.03	ZZ
QGYWE	**X**	2.003	-0.022	-0.20	0.085	-1.604	-5.61	ZZ
QKHQF4		2.037	0.011	0.10	1.980	0.291	1.02	ZZ

Summary Statistics

Grand Means		
2.0255 minutes		1.6889 minutes
Stnd Dev Btwn Labs		
0.1116 minutes		0.2857 minutes
		Statistics based on 11 of 13 reporting participants

Samples Y41-Y42: EPDM compound #1 & Y43-Y44: EPDM compound #2

Comments on assigned Data Flags for Test #669

GANK8E (X) - Extreme data.

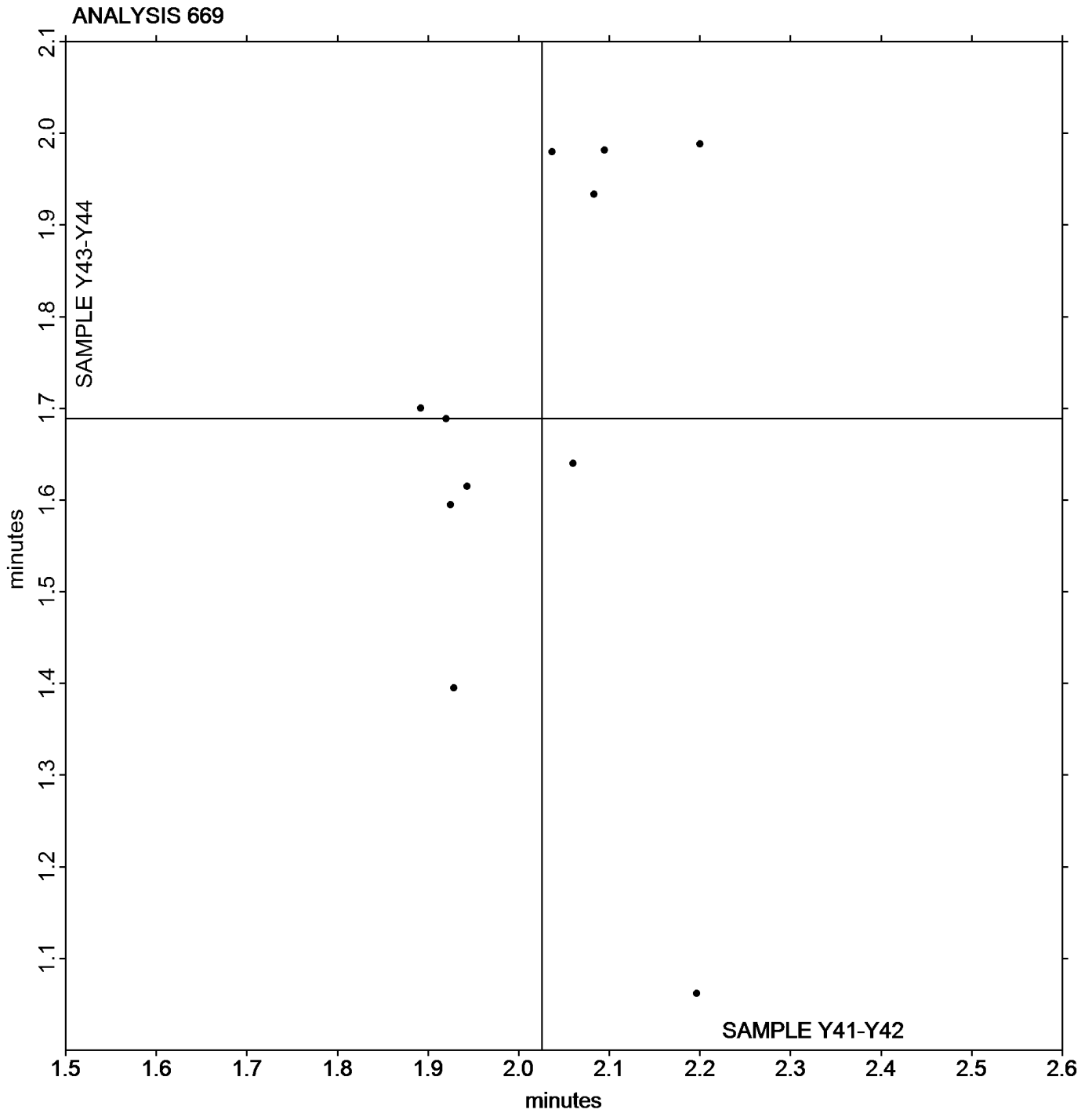QGYWEX (X) - Data for Sample group Y43-Y44 are low.

Rubber Interlaboratory Testing Program

Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample **Y41-Y42** = 2.0255 minutes   Grand Mean Sample **Y43-Y44** = 1.6889 minutes

Rubber Interlaboratory Testing Program

Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

| WebCode | Data Flag | Sample Y41-Y42 | | | Sample Y43-Y44 | | | Instr Code |
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27LCLD		1.417	-0.009	-0.10	2.000	0.406	1.90	ZZ
CK6JC9		1.373	-0.052	-0.58	1.500	-0.094	-0.44	ZZ
D27LML		1.427	0.001	0.01	1.460	-0.134	-0.63	ZZ
DKK8ZG		1.380	-0.045	-0.51	1.445	-0.149	-0.70	ZZ
EPQFPN		1.612	0.186	2.09	1.787	0.192	0.90	ZZ
F7FKWH		1.415	-0.010	-0.12	1.398	-0.196	-0.92	ZZ
GANK8E		1.490	0.065	0.73	1.568	-0.026	-0.12	ZZ
HEFYKM		1.527	0.101	1.14	1.830	0.236	1.10	ZZ
HPYN8Y		1.348	-0.077	-0.87	1.502	-0.093	-0.43	ZZ
MTMR6		1.465	0.040	0.44	1.638	0.044	0.21	ZZ
P4U7CD		1.380	-0.045	-0.51	1.247	-0.348	-1.63	ZZ
QGYWE	X	1.417	-0.009	-0.10	0.073	-1.521	-7.11	ZZ
QKHQF4		1.272	-0.154	-1.73	1.758	0.164	0.77	ZZ

Summary Statistics

Grand Means		
1.4254 minutes		1.5944 minutes
Stnd Dev Btwn Labs		
0.0891 minutes		0.2140 minutes
		Statistics based on 12 of 13 reporting participants

Samples Y41-Y42: EPDM compound #1 & Y43-Y44: EPDM compound #2

Comments on assigned Data Flags for Test #670

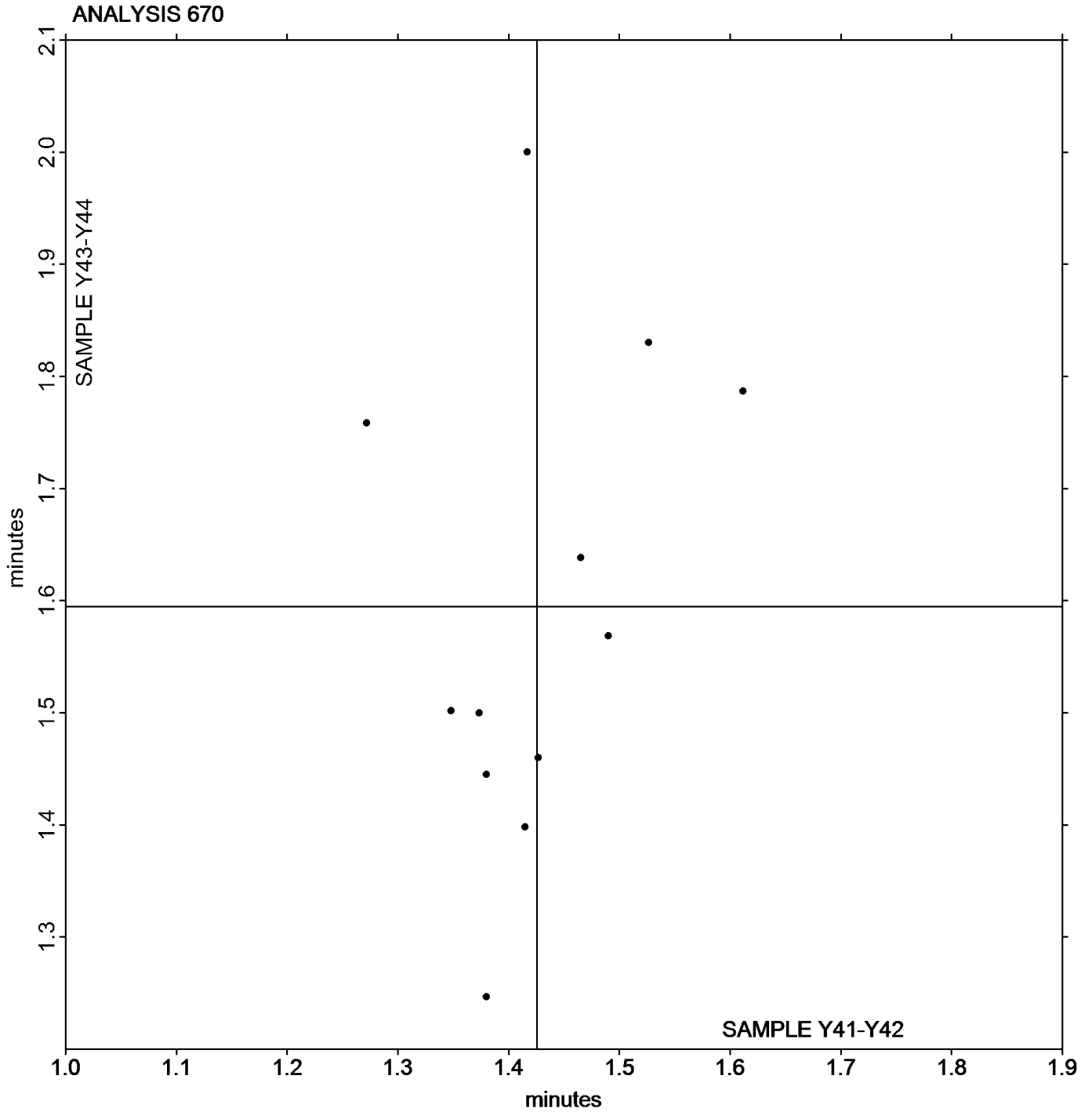QGYWEX (X) - Data for Sample group Y43-Y44 are low.

Rubber Interlaboratory Testing Program

Analysis 670
ODR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample **Y41-Y42** = 1.4254 minutes   Grand Mean Sample **Y43-Y44** = 1.5944 minutes

Rubber Interlaboratory Testing Program

Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample Y41-Y42			Sample Y43-Y44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27LCLD		4.200	0.127	0.70	3.433	0.326	1.17	ZZ
CK6JC9		3.858	-0.215	-1.18	3.075	-0.032	-0.12	ZZ
D27LML		3.830	-0.243	-1.33	2.842	-0.266	-0.95	ZZ
DKK8ZG		3.867	-0.206	-1.13	2.695	-0.412	-1.47	ZZ
EPQFPN		4.308	0.235	1.29	3.372	0.264	0.95	ZZ
F7FKWH		4.337	0.264	1.45	2.887	-0.221	-0.79	ZZ
GANK8E		4.037	-0.036	-0.20	3.070	-0.037	-0.13	ZZ
HEFYKM		4.213	0.140	0.77	3.517	0.409	1.46	ZZ
HPYN8Y		3.978	-0.095	-0.52	3.015	-0.092	-0.33	ZZ
MTMR6		4.160	0.087	0.48	3.232	0.124	0.45	ZZ
P4U7CD		3.860	-0.213	-1.17	2.923	-0.184	-0.66	ZZ
QGYWE		4.065	-0.008	-0.04	2.822	-0.286	-1.02	ZZ
QKHQF4		4.235	0.162	0.89	3.512	0.404	1.45	ZZ

Summary Statistics

Grand Means

4.0729   minutes   3.1072   minutes

Stnd Dev Btwn Labs

0.1821   minutes   0.2796   minutes

Statistics based on 13 of 13 reporting participants

Samples Y41-Y42: EPDM compound #1 & Y43-Y44: EPDM compound #2

Rubber Interlaboratory Testing Program

Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample **Y41-Y42** = 4.0729 minutes   Grand Mean Sample **Y43-Y44** = 3.1072 minutes
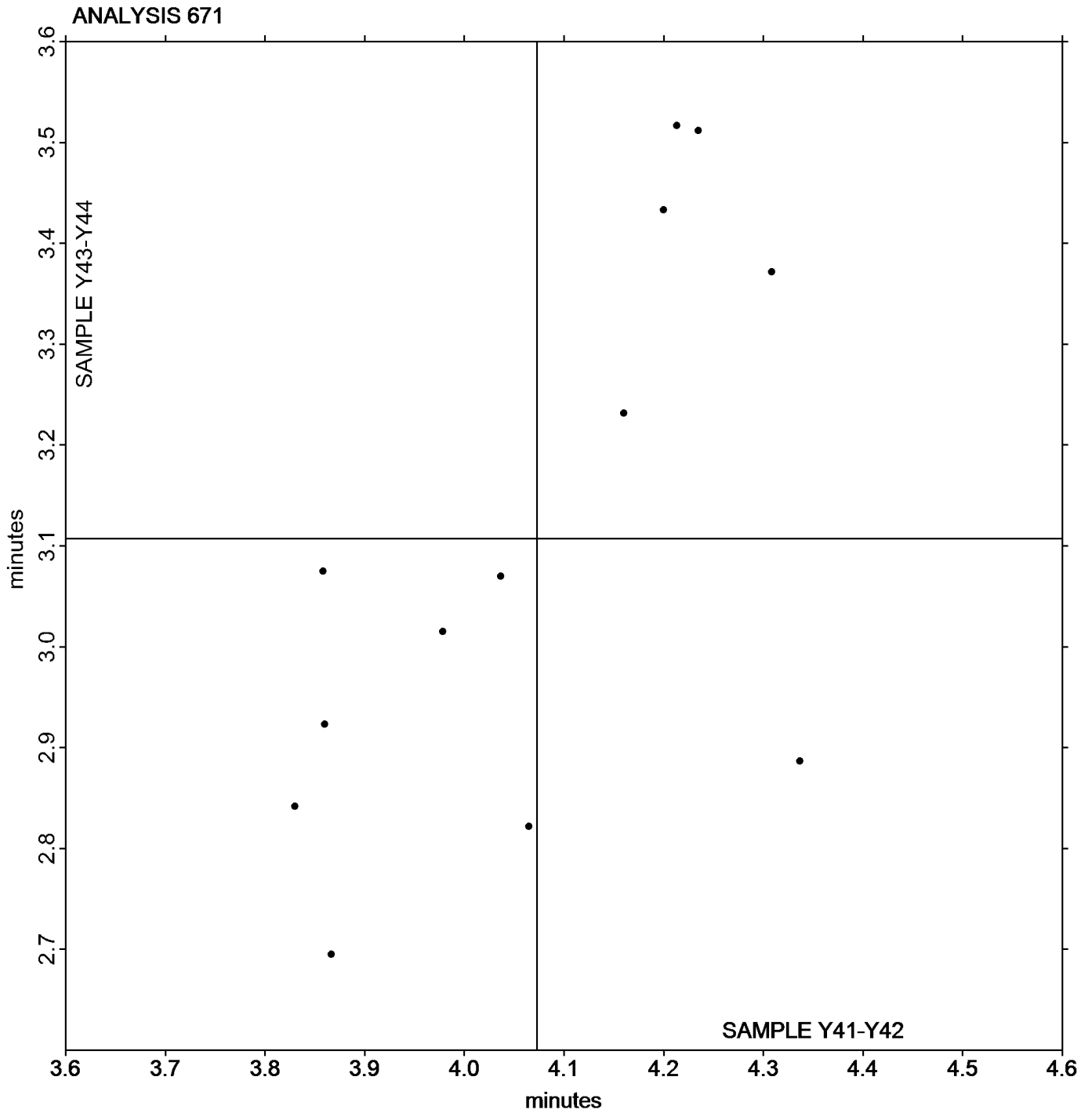
Rubber Interlaboratory Testing Program

Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample Y41-Y42			Sample Y43-Y44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27LCLD		14.42	0.18	0.27	12.53	2.14	1.23	ZZ
CK6JC9		13.91	-0.32	-0.47	12.77	2.38	1.37	ZZ
D27LML		12.84	-1.39	-2.02	9.12	-1.27	-0.73	ZZ
DKK8ZG		13.62	-0.61	-0.89	7.71	-2.68	-1.54	ZZ
EPQFPN		14.04	-0.19	-0.28	8.82	-1.57	-0.90	ZZ
F7FKWH		15.01	0.77	1.13	8.22	-2.17	-1.24	ZZ
GANK8E		13.64	-0.59	-0.86	11.34	0.95	0.55	ZZ
HEFYKM		15.32	1.09	1.58	12.27	1.88	1.08	ZZ
HPYN8Y		14.99	0.76	1.10	11.20	0.81	0.46	ZZ
MTMR6		14.09	-0.14	-0.21	9.93	-0.46	-0.26	ZZ
P4U7CD		14.21	-0.02	-0.03	10.76	0.37	0.21	ZZ
QGYWE		14.04	-0.19	-0.28	8.67	-1.72	-0.99	ZZ
QKHQF4		14.89	0.66	0.96	11.72	1.33	0.77	ZZ

Summary Statistics

Grand Means

14.232   minutes   10.389   minutes

Stnd Dev Btwn Labs

0.689   minutes   1.743   minutes

Statistics based on 13 of 13 reporting participants

Samples Y41-Y42: EPDM compound #1 & Y43-Y44: EPDM compound #2

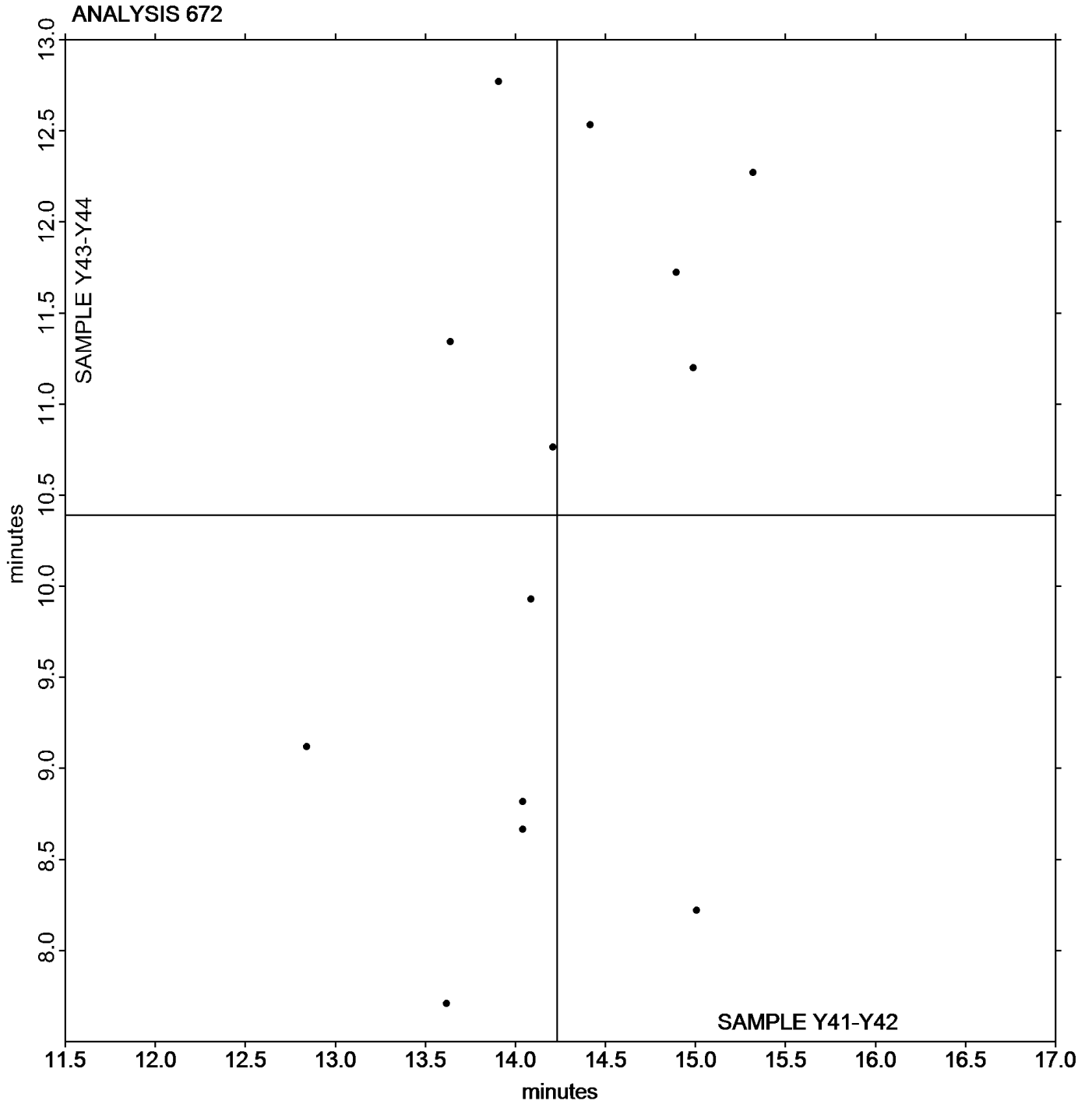# Rubber Interlaboratory Testing Program

Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample **Y41-Y42** = 14.232 minutes   Grand Mean Sample **Y43-Y44** = 10.389 minutes

ANALYSIS 672

Rubber Interlaboratory Testing Program

Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample Y41-Y42			Sample Y43-Y44			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27LCLD		5.650	0.077	0.09	33.10	6.85	1.11	ZZ
CK6JC9		5.153	-0.419	-0.52	22.59	-3.66	-0.59	ZZ
D27LML		5.158	-0.414	-0.51	21.80	-4.45	-0.72	ZZ
DKK8ZG		5.277	-0.296	-0.36	26.03	-0.23	-0.04	ZZ
EPQFPN		5.353	-0.219	-0.27	23.77	-2.49	-0.40	ZZ
F7FKWH		5.330	-0.243	-0.30	24.93	-1.32	-0.21	ZZ
GANK8E		5.480	-0.093	-0.11	22.02	-4.24	-0.69	ZZ
HEFYKM		6.013	0.441	0.54	29.89	3.64	0.59	ZZ
HPYN8Y		5.372	-0.201	-0.25	27.50	1.24	0.20	ZZ
MTMR6		5.692	0.119	0.15	25.33	-0.93	-0.15	ZZ
P4U7CD		4.830	-0.743	-0.91	21.10	-5.16	-0.83	ZZ
QGYWE		5.055	-0.518	-0.64	20.38	-5.87	-0.95	ZZ
QKHQF4	*	8.083	2.511	3.09	42.88	16.62	2.69	ZZ

Summary Statistics

Grand Means

5.5728 lbf.in   26.254 lbf.in

Stnd Dev Btwn Labs

0.8128 lbf.in   6.186 lbf.in

Statistics based on 13 of 13 reporting participants

Summary Statistics in SI Units

Grand Means

6.2964 dN.m   29.663 dN.m

Stnd Dev Btwn Labs

0.9184 dN.m   6.989 dN.m

Statistics based on 13 of 13 reporting participants

Samples Y41-Y42: EPDM compound #1 & Y43-Y44: EPDM compound #2
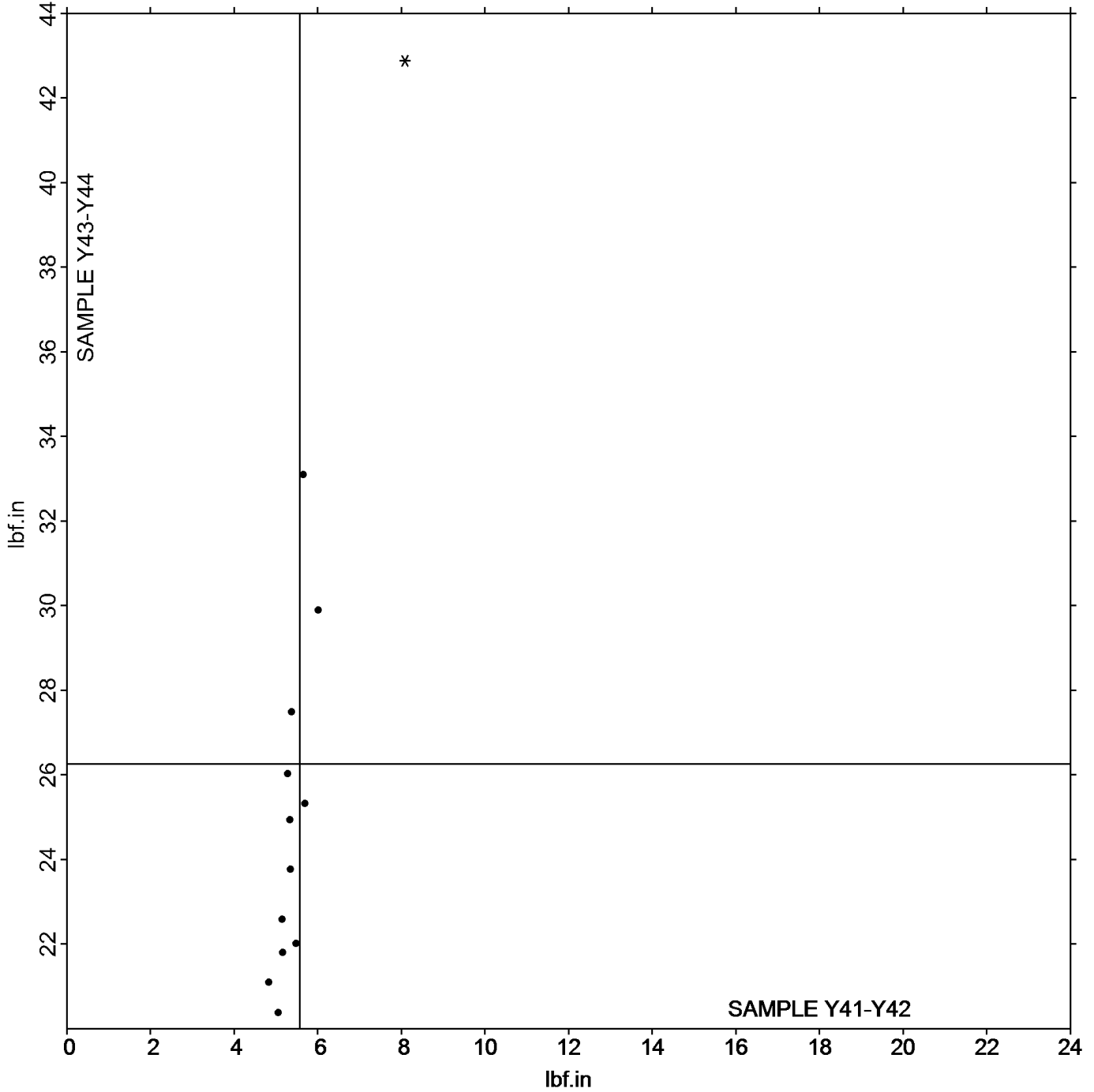
Rubber Interlaboratory Testing Program
Analysis 673
ODR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample **Y41-Y42** = 5.5728 lbf.in   Grand Mean Sample **Y43-Y44** = 26.254 lbf.in

ANALYSIS 673

Rubber Interlaboratory Testing Program

Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

		Sample Y41-Y42			Sample Y43-Y44			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
27LCLD		42.03	-0.10	-0.02	49.70	5.43	0.82	ZZ
CK6JC9		39.60	-2.53	-0.48	41.50	-2.77	-0.42	ZZ
D27LML		36.94	-5.19	-0.99	37.40	-6.87	-1.03	ZZ
DKK8ZG		40.30	-1.83	-0.35	42.77	-1.50	-0.23	ZZ
EPQFPN		39.20	-2.93	-0.56	39.98	-4.29	-0.65	ZZ
F7FKWH		47.54	5.41	1.04	46.66	2.39	0.36	ZZ
GANK8E		37.58	-4.55	-0.87	38.37	-5.90	-0.89	ZZ
HEFYKM		40.35	-1.78	-0.34	45.08	0.81	0.12	ZZ
HPYN8Y		44.98	2.85	0.54	46.98	2.71	0.41	ZZ
MTMR6		40.29	-1.84	-0.35	41.12	-3.15	-0.47	ZZ
P4U7CD		39.00	-3.13	-0.60	41.88	-2.39	-0.36	ZZ
QGYWE		43.37	1.24	0.24	41.08	-3.19	-0.48	ZZ
QKHQF4		56.50	14.37	2.75	62.98	18.71	2.82	ZZ

Summary Statistics

Grand Means		
42.130 lbf.in		44.269 lbf.in

Stnd Dev Btwn Labs		
5.226 lbf.in		6.642 lbf.in

Statistics based on 13 of 13 reporting participants

Summary Statistics in SI Units

Grand Means		
47.600 dN.m		50.017 dN.m

Stnd Dev Btwn Labs		
5.904 dN.m		7.504 dN.m

Statistics based on 13 of 13 reporting participants

Samples Y41-Y42: EPDM compound #1 & Y43-Y44: EPDM compound #2

Rubber Interlaboratory Testing Program

Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample **Y41-Y42** = 42.130 lbf.in   Grand Mean Sample **Y43-Y44** = 44.269 lbf.in

ANALYSIS 674

Rubber Interlaboratory Testing Program
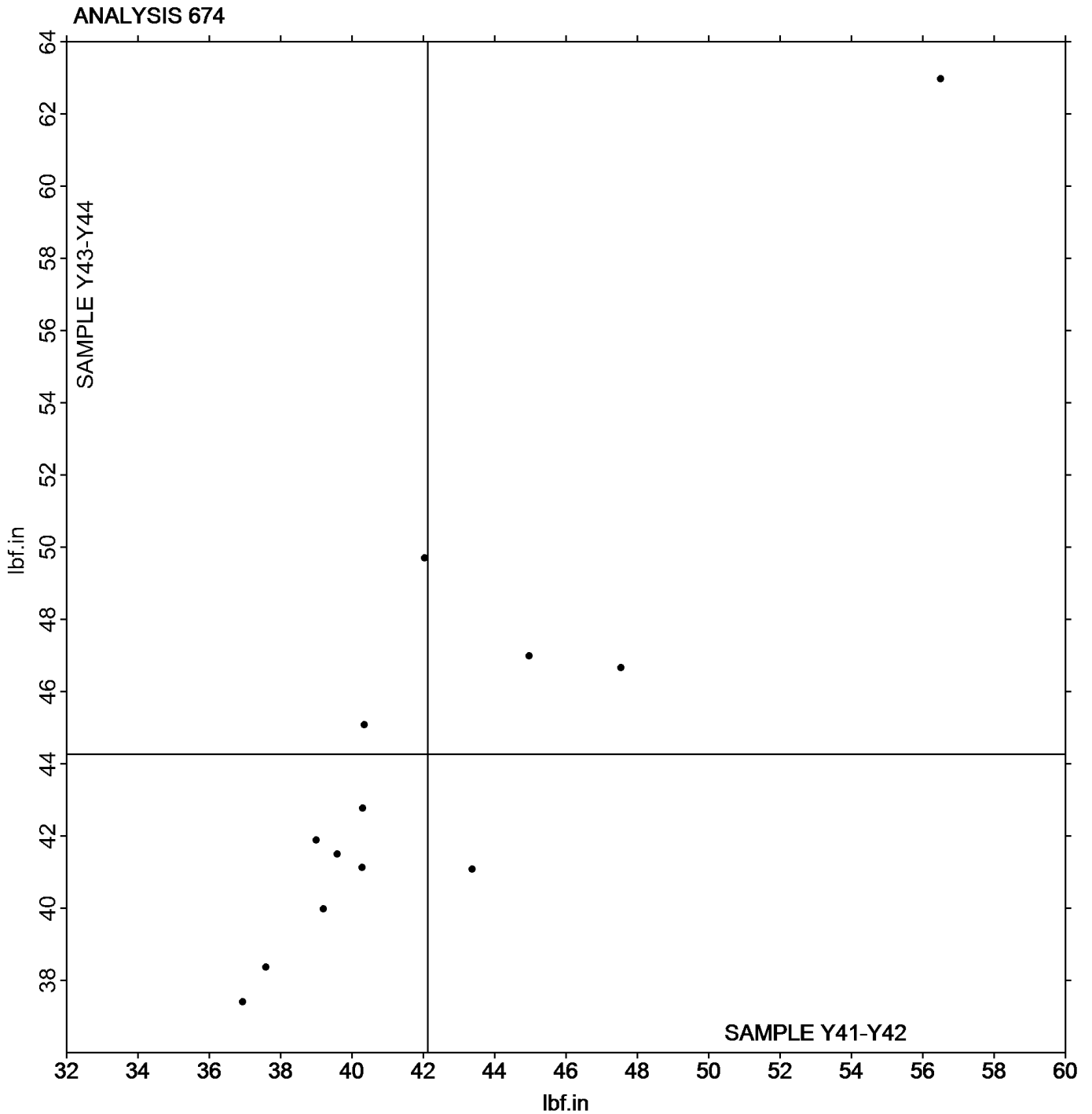
Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample Y45-Y46			Sample Y47-Y48			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3GFY6U		0.8583	-0.0831	-0.55	1.562	0.043	0.53	MC
7TXPHT		1.1417	0.2002	1.33	1.488	-0.030	-0.37	MC
8V23EK		0.7850	-0.1564	-1.04	1.500	-0.019	-0.23	XX
94P77K		1.0250	0.0836	0.56	1.563	0.045	0.55	MC
A9GXT9		1.0083	0.0669	0.45	1.578	0.060	0.73	MD
AHMK4T		1.0600	0.1186	0.79	1.555	0.036	0.45	MC
BXVZFN		1.0972	0.1558	1.04	1.533	0.015	0.18	MC
CLFH7G		1.0317	0.0902	0.60	1.563	0.045	0.55	MD
CZDG9T	X	0.9083	-0.0331	-0.22	0.783	-0.735	-9.05	XX
D8CG97		1.0017	0.0602	0.40	1.592	0.073	0.90	MC
D9NEDB		0.9967	0.0552	0.37	1.530	0.011	0.14	MC
DKK8ZG		0.9900	0.0486	0.32	1.467	-0.052	-0.64	MC
ENXCAV		0.9650	0.0236	0.16	1.530	0.011	0.14	TP
EPQFPN		0.7083	-0.2331	-1.55	1.590	0.071	0.88	MC
HPYN8Y		0.7150	-0.2264	-1.51	1.508	-0.010	-0.13	MC
JKK9D2		1.0633	0.1219	0.81	1.510	-0.009	-0.11	MC
KNDRUQ		1.0639	0.1225	0.82	1.614	0.095	1.17	MC
LPNW7T		1.0000	0.0586	0.39	1.462	-0.057	-0.70	MC
P4U7CD		1.0217	0.0802	0.53	1.583	0.065	0.79	MC
QGYWE		0.9750	0.0336	0.22	1.685	0.166	2.04	MC
T83JT3		0.8333	-0.1081	-0.72	1.537	0.018	0.22	MC
UGMDX		0.9883	0.0469	0.31	1.430	-0.089	-1.09	MC
UM9BP6		1.0200	0.0786	0.52	1.330	-0.189	-2.32	MC
WVGMU		0.5850	-0.3564	-2.37	1.463	-0.055	-0.68	MC
WWRHM		1.0350	0.0936	0.62	1.430	-0.089	-1.09	TP
XEP77U		0.9717	0.0302	0.20	1.547	0.028	0.34	MC
XVTW7Y	*	0.8133	-0.1281	-0.85	1.275	-0.244	-3.00	MD
YY67NU	*	0.5100	-0.4314	-2.87	1.512	-0.007	-0.09	MC
YZZHUV		1.0317	0.0902	0.60	1.520	0.001	0.01	MC
Z294X3		0.9700	0.0286	0.19	1.600	0.081	1.00	MC
Z3NB9B		0.9767	0.0352	0.23	1.507	-0.012	-0.15	MC

Summary Statistics

Grand Means

0.94143   minutes   1.5188   minutes

Stnd Dev Btwn Labs

0.15028   minutes   0.0813   minutes

Statistics based on 30 of 31 reporting participants

Samples Y45-Y46: EPDM compound, batch #1 & Y47-Y48: EPDM compound, batch #2

Rubber Interlaboratory Testing Program

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

Comments on assigned Data Flags for Test #684

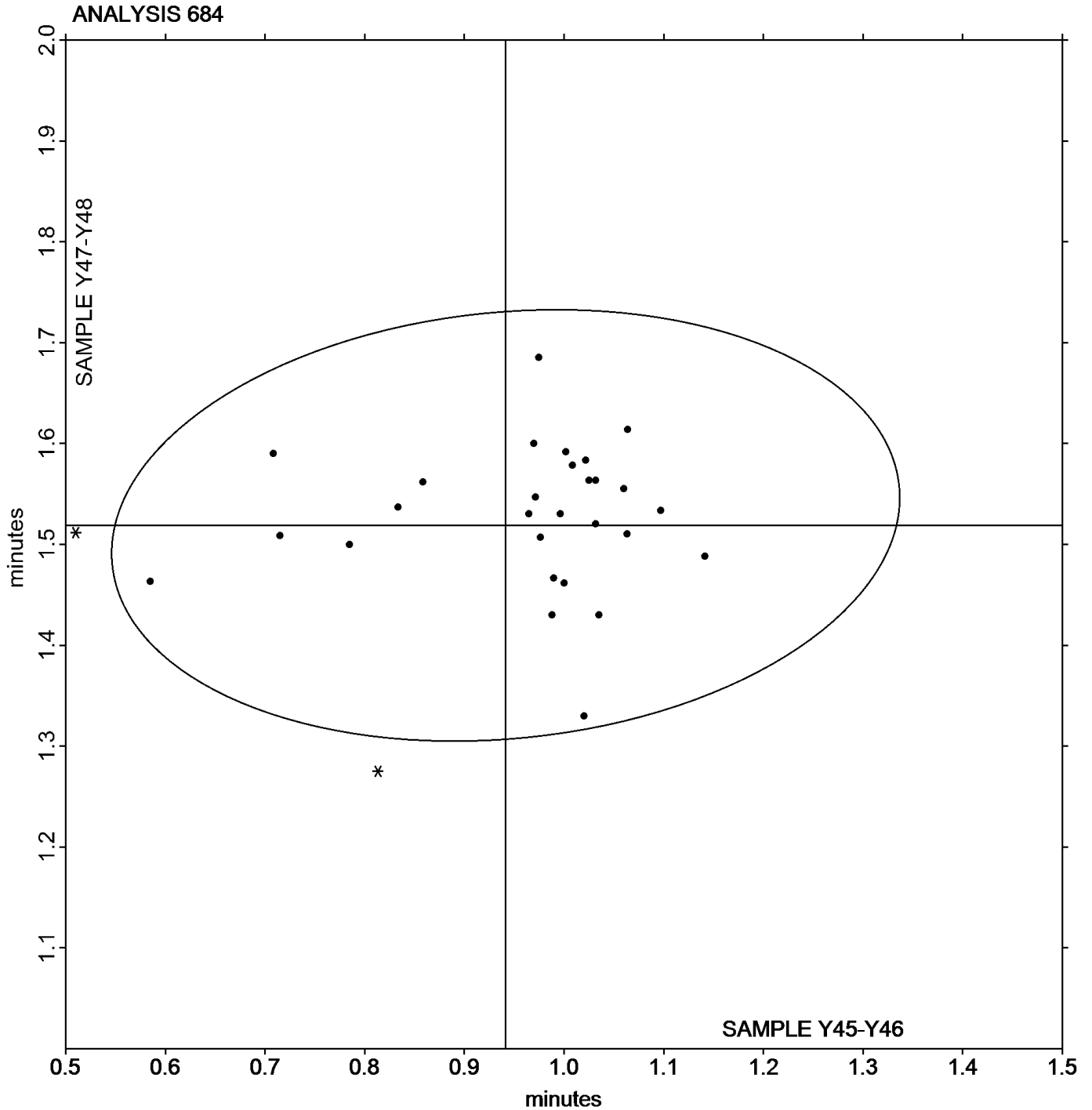CZDG9T (X) - Extreme data.

Rubber Interlaboratory Testing Program

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample **Y45-Y46** = 0.94143 minutes   Grand Mean Sample **Y47-Y48** = 1.5188 minutes

ANALYSIS 684

SAMPLE Y47-Y48

minutes

SAMPLE Y45-Y46

minutes

Rubber Interlaboratory Testing Program

Analysis 685
MDR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample Y45-Y46			Sample Y47-Y48			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3GFY6U		0.8383	-0.1111	-0.67	1.318	0.014	0.19	MC
7TXPHT		1.2233	0.2739	1.64	1.322	0.018	0.24	MC
8V23EK		0.8067	-0.1427	-0.85	1.317	0.013	0.17	XX
94P77K		1.0567	0.1073	0.64	1.370	0.066	0.88	MC
A9GXT9		0.9967	0.0473	0.28	1.348	0.044	0.59	MD
AHMK4T		1.1117	0.1623	0.97	1.375	0.071	0.94	MC
BXVZFN		1.1445	0.1951	1.17	1.308	0.004	0.06	MC
CLFH7G		1.0717	0.1223	0.73	1.373	0.069	0.92	MD
CZDG9T	X	0.9133	-0.0361	-0.22	0.685	-0.619	-8.19	XX
D8CG97		0.9900	0.0406	0.24	1.322	0.018	0.24	MC
D9NEDB		0.9583	0.0089	0.05	1.248	-0.056	-0.74	MC
DKK8ZG		0.9933	0.0439	0.26	1.260	-0.044	-0.58	MC
ENXCAV		0.9900	0.0406	0.24	1.297	-0.007	-0.10	TP
EPQFPN		0.7183	-0.2311	-1.38	1.352	0.048	0.63	MC
FXVQBK		1.0817	0.1323	0.79	1.310	0.006	0.08	MC
HPYN8Y		0.6333	-0.3161	-1.89	1.235	-0.069	-0.91	MC
JKK9D2		1.1133	0.1639	0.98	1.305	0.001	0.01	MC
K63RXH		0.8500	-0.0994	-0.60	1.358	0.054	0.72	MC
KNDRUQ		1.1139	0.1645	0.98	1.456	0.152	2.01	MC
LPNW7T		1.0433	0.0939	0.56	1.263	-0.041	-0.54	MC
P4U7CD		1.0467	0.0973	0.58	1.370	0.066	0.88	MC
PDKQGB		0.8000	-0.1494	-0.89	1.245	-0.059	-0.78	MC
QGYWE		0.9433	-0.0061	-0.04	1.437	0.133	1.76	MC
T83JT3		0.8033	-0.1461	-0.87	1.297	-0.007	-0.10	MC
UGMDX		0.9874	0.0380	0.23	1.130	-0.174	-2.30	MC
UM9BP6		1.0533	0.1039	0.62	1.348	0.044	0.59	MC
WVGMU		0.5983	-0.3511	-2.10	1.177	-0.127	-1.68	MC
WWRHM		1.1350	0.1856	1.11	1.275	-0.029	-0.38	TP
XEP77U		0.9883	0.0389	0.23	1.355	0.051	0.68	MC
XVTW7Y	*	0.7733	-0.1761	-1.05	1.085	-0.219	-2.90	MD
YWGMU		0.8777	-0.0717	-0.43	1.263	-0.041	-0.54	MC
YY67NU	*	0.5067	-0.4427	-2.65	1.287	-0.017	-0.23	XX
YZZHUV		1.0550	0.1056	0.63	1.283	-0.021	-0.27	MC
Z294X3		0.9950	0.0456	0.27	1.360	0.056	0.74	MC
Z3NB9B		0.9817	0.0323	0.19	1.283	-0.021	-0.27	MC

Rubber Interlaboratory Testing Program

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

Summary Statistics	
Grand Means	
0.94942 minutes	1.3039 minutes
Stnd Dev Btwn Labs	
0.16702 minutes	0.0755 minutes
	Statistics based on 34 of 35 reporting participants

Samples Y45-Y46: EPDM compound, batch #1 & Y47-Y48: EPDM compound, batch #2

Comments on assigned Data Flags for Test #685

CZDG9T (X) - Data for Sample group Y47-Y48 are low.

Instrument Code Listing

| **685**	MDR Vulcanization-Scorch Time, Ts1 (minutes)

Instruments:

(MC)   Alpha Technologies [Monsanto] MDR 2000 or 2000E   (MD)   Alpha Tech. Rubber Process Analyzer (RPA 2000)

(MP)   Alpha Technologies [Monsanto] MDR 2000P   (TP)   Tech Pro MDR model MDPT

(XX)   Instrument model not specified by lab

Rubber Interlaboratory Testing Program

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample **Y45-Y46** = 0.94942 minutes   Grand Mean Sample **Y47-Y48** = 1.3039 minutes
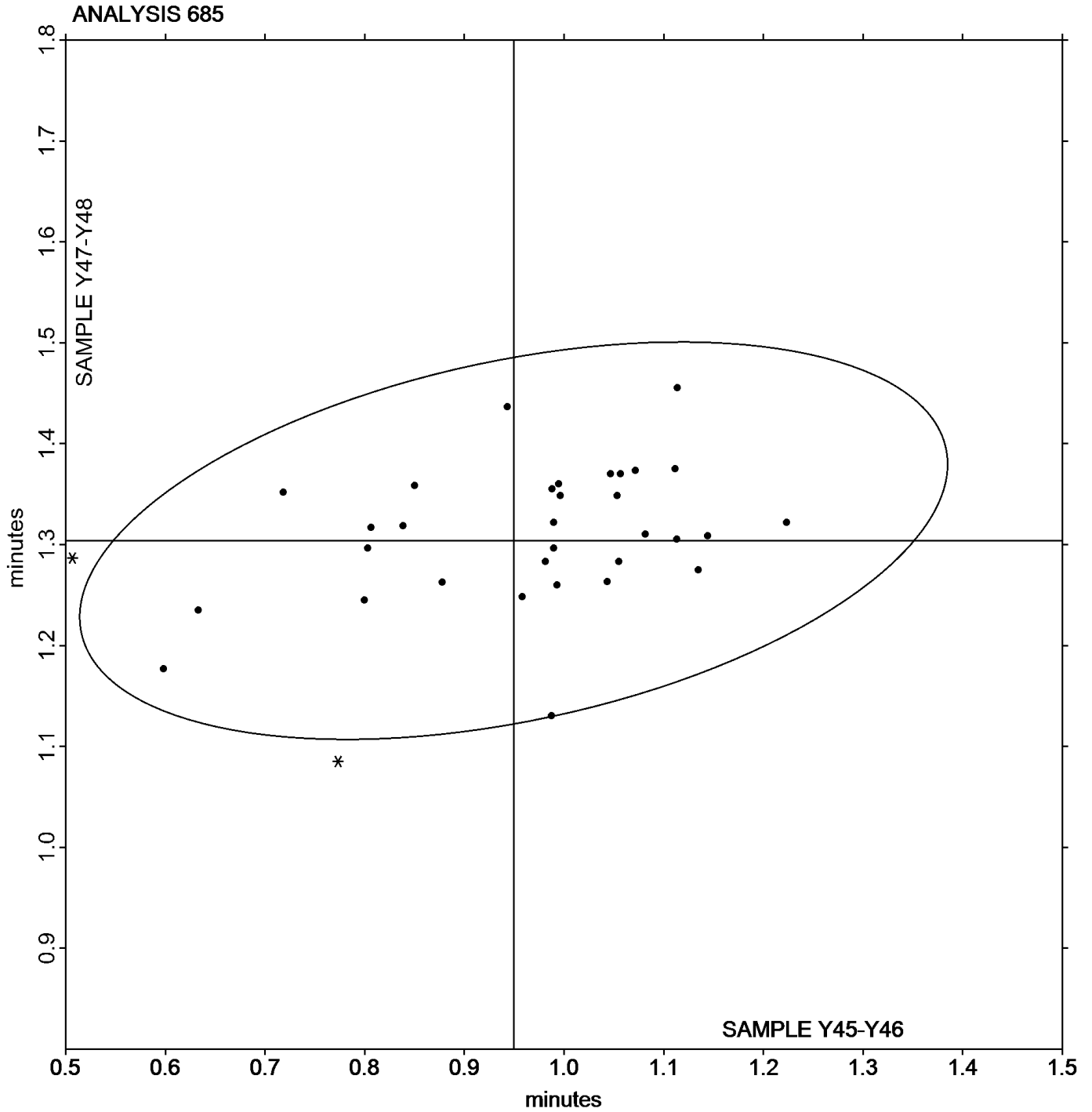
Rubber Interlaboratory Testing Program

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

		Sample Y45-Y46			Sample Y47-Y48			
WebCode	Data Flag	Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	Instr Code
3GFY6U		2.190	0.036	0.48	3.377	0.139	1.28	MC
7TXPHT		2.192	0.038	0.50	3.115	-0.123	-1.13	MC
8V23EK		2.050	-0.104	-1.38	3.150	-0.088	-0.81	XX
94P77K	X	2.122	-0.032	-0.43	2.457	-0.781	-7.19	MC
A9GXT9		2.137	-0.017	-0.23	3.303	0.066	0.61	MD
AHMK4T		2.130	-0.024	-0.32	3.207	-0.031	-0.28	MC
BXVZFN		2.192	0.038	0.50	3.183	-0.054	-0.50	MC
CLFH7G		2.235	0.081	1.08	3.380	0.142	1.31	MD
CZDG9T	X	2.042	-0.112	-1.49	1.427	-1.811	-16.67	MC
D8CG97		2.248	0.094	1.26	3.360	0.122	1.13	MC
D9NEDB		2.145	-0.009	-0.12	3.188	-0.049	-0.45	MC
DKK8ZG		2.125	-0.029	-0.39	3.103	-0.134	-1.24	MC
ENXCAV		2.145	-0.009	-0.12	3.202	-0.036	-0.33	TP
EPQFPN		2.227	0.073	0.97	3.338	0.101	0.93	MC
FXVQBK		2.242	0.088	1.17	3.257	0.019	0.18	MC
HPYN8Y		2.088	-0.066	-0.87	3.178	-0.059	-0.55	MC
JKK9D2		2.187	0.033	0.44	3.232	-0.006	-0.05	MC
K63RXH	*	2.002	-0.152	-2.03	3.238	0.001	0.01	MC
KNDRUQ		2.211	0.057	0.76	3.383	0.146	1.34	MC
LPNW7T		2.158	0.004	0.06	3.172	-0.066	-0.61	MC
P4U7CD		2.223	0.069	0.92	3.337	0.099	0.91	MC
PDKQGB		2.100	-0.054	-0.72	3.213	-0.024	-0.22	MC
QGYWE		2.317	0.163	2.17	3.507	0.269	2.48	MC
T83JT3		2.087	-0.067	-0.90	3.217	-0.021	-0.19	MC
UGMDX		2.095	-0.059	-0.78	3.108	-0.129	-1.19	MC
UM9BP6		2.277	0.123	1.63	3.300	0.062	0.58	MC
WVGMU		2.073	-0.081	-1.07	3.107	-0.131	-1.21	MC
WWRHM		2.007	-0.147	-1.96	2.985	-0.253	-2.33	TP
XEP77U		2.090	-0.064	-0.85	3.225	-0.013	-0.12	MC
XVTW7Y	X	1.787	-0.367	-4.89	2.663	-0.574	-5.29	MD
YWGMU		2.155	0.001	0.01	3.310	0.073	0.67	MC
YY67NU	X	1.807	-0.347	-4.62	3.157	-0.081	-0.74	XX
YZZHUV		2.173	0.019	0.26	3.205	-0.033	-0.30	MC
Z294X3		2.165	0.011	0.15	3.330	0.092	0.85	MC
Z3NB9B		2.108	-0.046	-0.61	3.153	-0.084	-0.78	MC

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

Summary Statistics	
Grand Means	
2.1540 minutes	3.2375 minutes
Stnd Dev Btwn Labs	
0.0751 minutes	0.1086 minutes
	Statistics based on 31 of 35 reporting participants

Samples Y45-Y46: EPDM compound, batch #1 & Y47-Y48: EPDM compound, batch #2

Comments on assigned Data Flags for Test #686

94P77K (X) - Data for Sample group Y47-Y48 are low.

CZDG9T (X) - Extreme data.

XVTW7Y (X) - Data for all Samples are low.

YY67NU (X) - Data for Sample group Y45-Y46 are low. Inconsistency in testing within Sample group Y45-Y46.

Rubber Interlaboratory Testing Program

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample **Y45-Y46** = 2.1540 minutes   Grand Mean Sample **Y47-Y48** = 3.2375 minutes
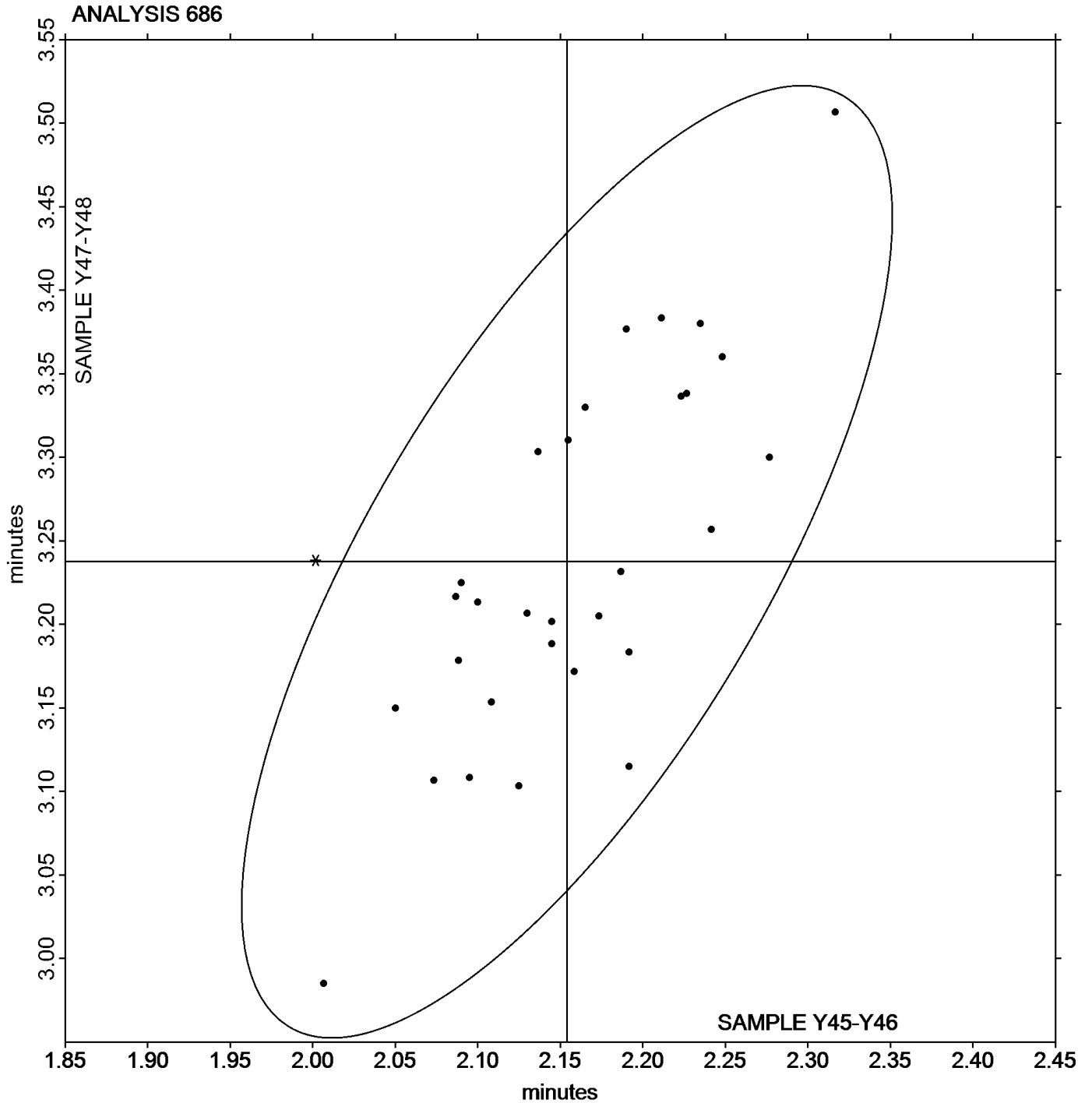
Rubber Interlaboratory Testing Program
Analysis 687
MDR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample Y45-Y46			Sample Y47-Y48			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3GFY6U		5.288	0.394	1.28	7.558	0.454	1.49	MC
7TXPHT		5.240	0.346	1.12	7.057	-0.047	-0.16	MC
8V23EK		5.067	0.172	0.56	7.047	-0.057	-0.19	XX
94P77K		5.272	0.377	1.23	7.298	0.194	0.64	MC
A9GXT9		4.618	-0.276	-0.90	7.105	0.001	0.00	MD
AHMK4T		4.853	-0.041	-0.13	7.097	-0.007	-0.02	MC
BXVZFN		4.995	0.100	0.33	7.011	-0.093	-0.31	MC
CLFH7G		5.455	0.561	1.82	7.365	0.261	0.86	MD
CZDG9T	X	4.822	-0.073	-0.24	3.187	-3.917	-12.87	XX
D8CG97		5.010	0.116	0.38	7.517	0.413	1.36	MC
D9NEDB		4.725	-0.169	-0.55	7.023	-0.081	-0.27	MC
DKK8ZG		4.843	-0.051	-0.17	6.912	-0.192	-0.63	MC
ENXCAV		4.770	-0.124	-0.40	7.038	-0.066	-0.22	TP
EPQFPN		4.838	-0.056	-0.18	7.232	0.128	0.42	MC
FXVQBK		4.967	0.072	0.23	7.228	0.124	0.41	MC
HPYN8Y		4.712	-0.183	-0.59	6.928	-0.176	-0.58	MC
JKK9D2		5.185	0.291	0.94	7.083	-0.021	-0.07	MC
K63RXH		4.873	-0.021	-0.07	7.125	0.021	0.07	MC
KNDRUQ		4.839	-0.055	-0.18	7.197	0.093	0.31	MC
LPNW7T		5.142	0.247	0.80	7.243	0.139	0.46	MC
P4U7CD		4.822	-0.073	-0.24	7.327	0.223	0.73	MC
PDKQGB		4.755	-0.139	-0.45	7.003	-0.101	-0.33	MP
QGYWE		5.452	0.557	1.81	7.863	0.759	2.49	MC
T83JT3		4.630	-0.264	-0.86	6.862	-0.242	-0.80	MC
UGMDX		5.049	0.154	0.50	7.169	0.065	0.21	MC
UM9BP6		5.192	0.297	0.97	7.250	0.146	0.48	MC
WVGMU		5.057	0.162	0.53	7.087	-0.017	-0.06	MC
WWRHM		4.242	-0.653	-2.12	6.382	-0.722	-2.37	TP
XEP77U		4.598	-0.296	-0.96	6.932	-0.172	-0.57	MC
XVTW7Y	*	4.163	-0.731	-2.37	6.113	-0.991	-3.26	MD
YWGMU		5.019	0.125	0.41	7.221	0.117	0.38	MC
YY67NU	*	4.368	-0.526	-1.71	7.207	0.103	0.34	XX
YZZHUV		4.610	-0.284	-0.92	6.960	-0.144	-0.47	MC
Z294X3		5.055	0.161	0.52	7.290	0.186	0.61	MC
Z3NB9B		4.705	-0.189	-0.62	6.810	-0.294	-0.97	MC

Rubber Interlaboratory Testing Program

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

Summary Statistics	
Grand Means	
4.8944 minutes	7.1041 minutes
Stnd Dev Btwn Labs	
0.3078 minutes	0.3043 minutes
	Statistics based on 34 of 35 reporting participants

Samples Y45-Y46: EPDM compound, batch #1 & Y47-Y48: EPDM compound, batch #2

Comments on assigned Data Flags for Test #687
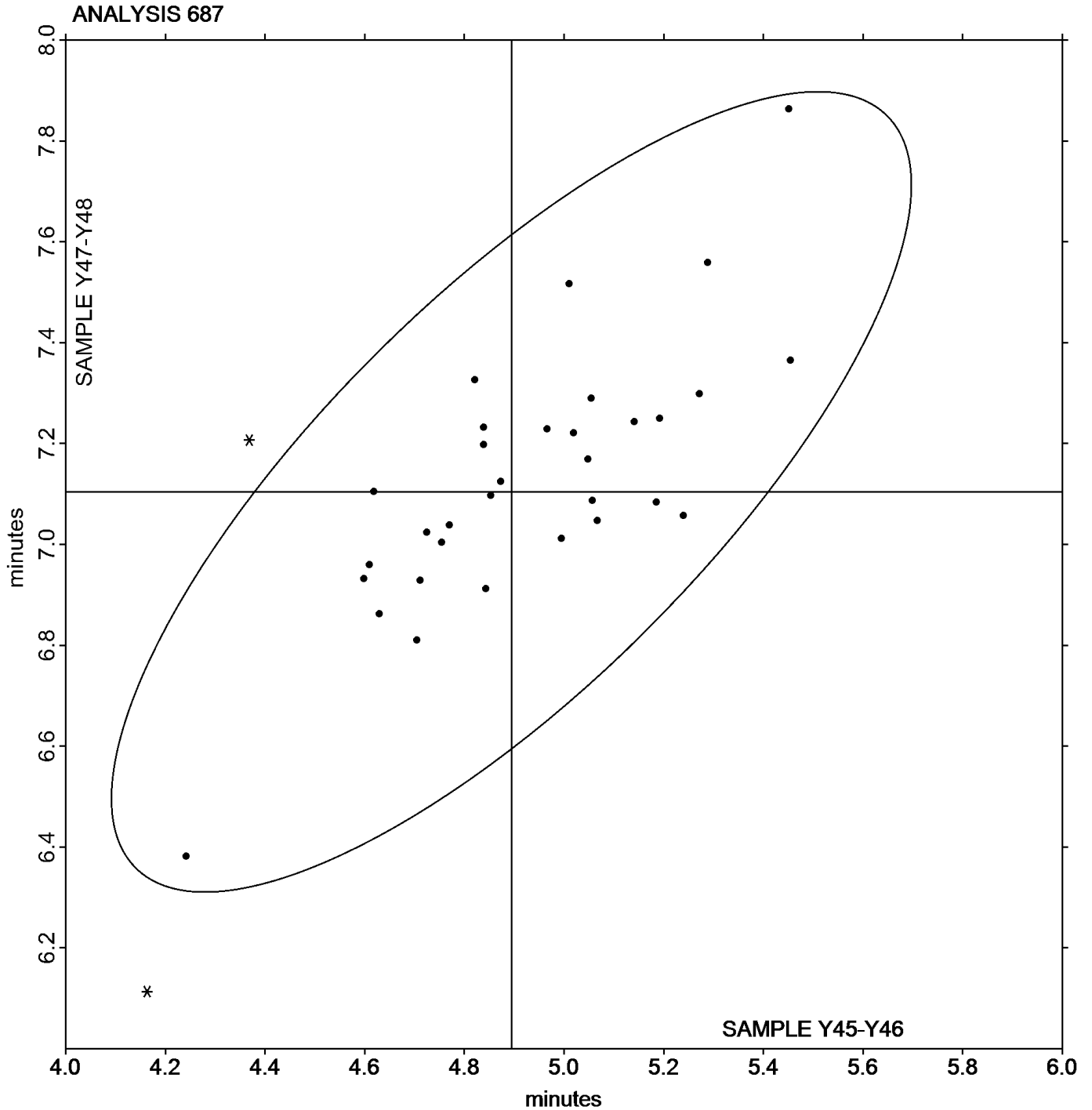
CZDG9T (X) - Extreme data.

Rubber Interlaboratory Testing Program

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample **Y45-Y46** = 4.8944 minutes   Grand Mean Sample **Y47-Y48** = 7.1041 minutes

Rubber Interlaboratory Testing Program

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample Y45-Y46			Sample Y47-Y48			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3GFY6U		5.757	-0.891	-1.19	1.633	-0.056	-0.39	MC
7TXPHT	*	8.668	2.021	2.70	2.023	0.334	2.32	MC
8V23EK		6.092	-0.556	-0.74	1.857	0.168	1.16	XX
94P77K		7.250	0.602	0.80	1.617	-0.072	-0.50	MC
A9GXT9		6.688	0.040	0.05	1.639	-0.050	-0.35	MD
AHMK4T		6.150	-0.498	-0.66	1.650	-0.039	-0.27	MC
BXVZFN		7.338	0.691	0.92	1.700	0.011	0.08	MC
CLFH7G		6.704	0.056	0.08	1.560	-0.129	-0.90	MD
CZDG9T		6.386	-0.262	-0.35	1.496	-0.193	-1.34	XX
D8CG97		6.438	-0.209	-0.28	1.597	-0.092	-0.64	MC
D9NEDB		6.029	-0.619	-0.83	1.605	-0.084	-0.59	MC
DKK8ZG		6.548	-0.099	-0.13	1.713	0.024	0.17	XX
ENXCAV		7.793	1.146	1.53	1.668	-0.021	-0.14	TP
EPQFPN		5.940	-0.708	-0.95	1.590	-0.099	-0.69	MC
FXVQBK		7.287	0.639	0.85	1.717	0.028	0.19	MC
HPYN8Y		6.227	-0.421	-0.56	1.762	0.073	0.50	MC
JKK9D2		7.490	0.842	1.13	1.862	0.173	1.20	MC
K63RXH		8.182	1.534	2.05	1.890	0.201	1.40	MC
KNDRUQ		6.432	-0.216	-0.29	1.537	-0.152	-1.06	MC
LPNW7T		7.038	0.391	0.52	2.018	0.329	2.29	XX
P4U7CD		6.187	-0.461	-0.62	1.527	-0.162	-1.13	MC
PDKQGB		5.993	-0.654	-0.87	1.608	-0.081	-0.56	MP
QGYWE		4.890	-1.758	-2.35	1.530	-0.159	-1.11	MC
T83JT3		5.958	-0.689	-0.92	1.612	-0.077	-0.54	MC
UGMDX		6.824	0.176	0.24	1.890	0.200	1.39	MC
UM9BP6		6.878	0.231	0.31	1.562	-0.127	-0.89	MC
WVGMU	X	8.623	1.976	2.64	2.337	0.648	4.50	XX
WWRHM		7.003	0.356	0.48	1.805	0.116	0.80	TP
XEP77U		6.253	-0.394	-0.53	1.590	-0.099	-0.69	XX
XVTW7Y		6.599	-0.048	-0.06	1.652	-0.037	-0.26	MD
YWGMU		6.100	-0.548	-0.73	1.629	-0.061	-0.42	MC
YY67NU		7.458	0.811	1.08	1.975	0.286	1.99	XX
YZZHUV		6.795	0.147	0.20	1.672	-0.017	-0.12	MC
Z294X3		5.952	-0.695	-0.93	1.584	-0.105	-0.73	MC
Z3NB9B		6.690	0.042	0.06	1.665	-0.024	-0.17	MC

Rubber Interlaboratory Testing Program
Analysis 688
MDR Vulcanization: Minimum Torque (lbf.in)

Summary Statistics

Grand Means

6.6476 lbf.in   1.6892 lbf.in

Stnd Dev Btwn Labs

0.7484 lbf.in   0.1439 lbf.in

Statistics based on 34 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

7.5108 dN.m   1.9085 dN.m

Stnd Dev Btwn Labs

0.8456 dN.m   0.1626 dN.m

Statistics based on 34 of 35 reporting participants

Samples Y45-Y46: EPDM compound, batch #1 & Y47-Y48: EPDM compound, batch #2
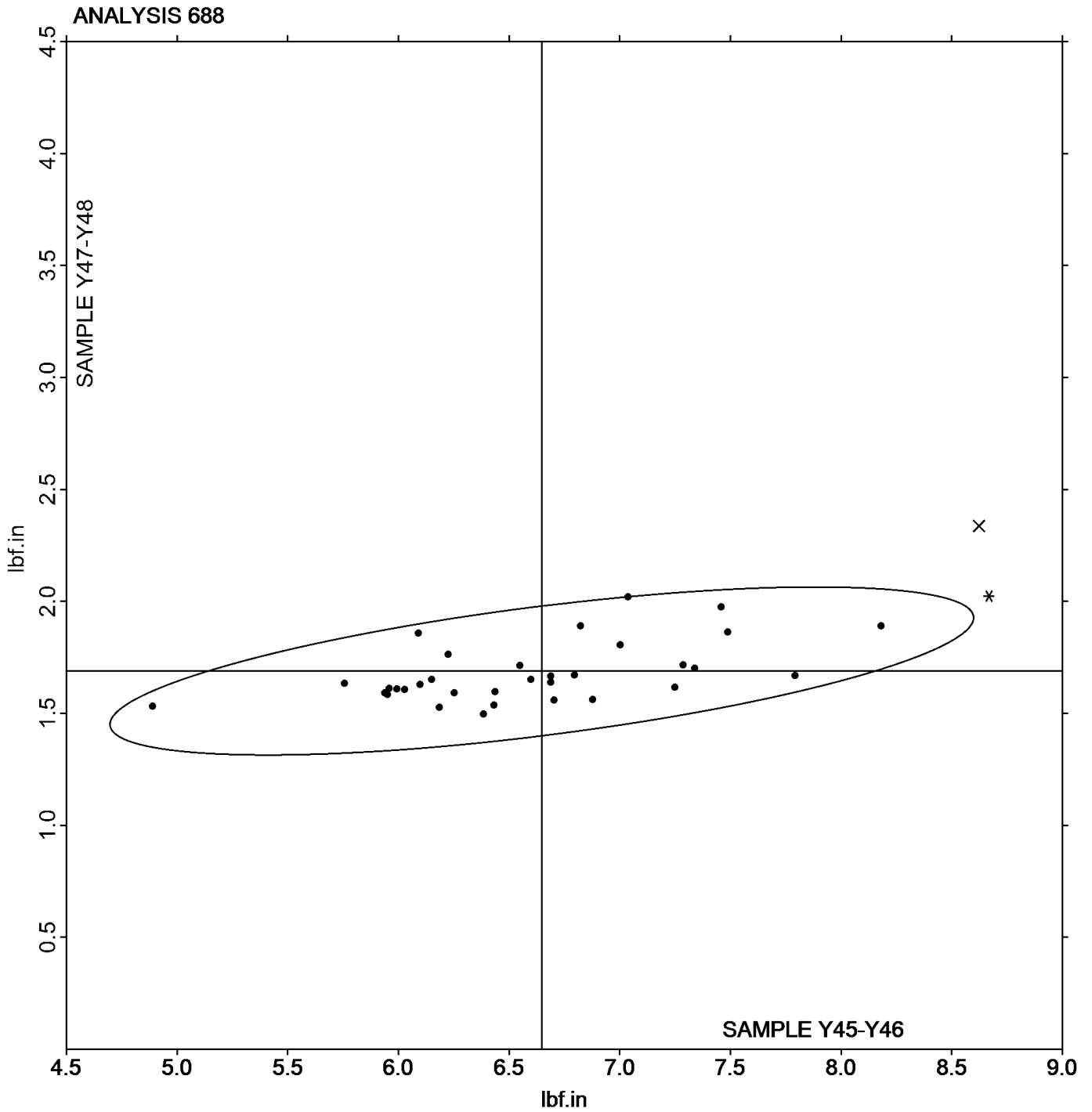
Comments on assigned Data Flags for Test #688

WVGMU2 (X) - Data for Sample group Y47-Y48 are high.

Rubber Interlaboratory Testing Program

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample **Y45-Y46** = 6.6476 lbf.in   Grand Mean Sample **Y47-Y48** = 1.6892 lbf.in

Rubber Interlaboratory Testing Program

Analysis 689
MDR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample Y45-Y46			Sample Y47-Y48			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3GFY6U		16.21	0.05	0.06	16.17	0.28	0.46	MC
7TXPHT		16.41	0.25	0.33	15.42	-0.47	-0.79	MC
8V23EK		15.72	-0.44	-0.58	15.81	-0.08	-0.14	XX
94P77K		16.28	0.13	0.17	15.17	-0.73	-1.21	MC
A9GXT9		16.52	0.36	0.48	16.16	0.27	0.45	MD
AHMK4T		14.59	-1.57	-2.08	15.17	-0.72	-1.20	MC
BXVZFN		16.13	-0.03	-0.03	16.12	0.23	0.38	MC
CLFH7G		15.69	-0.47	-0.62	15.07	-0.82	-1.38	MD
CZDG9T		15.09	-1.06	-1.41	15.21	-0.68	-1.13	XX
D8CG97		16.72	0.56	0.74	16.89	1.00	1.67	MC
D9NEDB		15.86	-0.30	-0.40	15.94	0.05	0.09	MC
DKK8ZG		16.43	0.28	0.37	15.92	0.03	0.05	MC
ENXCAV		17.16	1.01	1.33	15.83	-0.06	-0.10	TP
EPQFPN		15.82	-0.34	-0.45	16.01	0.12	0.20	MC
FXVQBK		16.55	0.39	0.52	16.20	0.31	0.51	MC
HPYN8Y		17.25	1.10	1.45	17.13	1.24	2.07	MC
JKK9D2		16.33	0.17	0.23	16.03	0.14	0.24	MC
K63RXH		16.72	0.56	0.74	15.01	-0.88	-1.48	MC
KNDRUQ	*	15.20	-0.96	-1.27	14.30	-1.59	-2.65	MC
LPNW7T		15.87	-0.28	-0.38	16.06	0.17	0.28	MC
P4U7CD		15.62	-0.53	-0.71	15.55	-0.34	-0.57	MC
PDKQGB		16.56	0.40	0.53	16.05	0.16	0.27	MP
QGYWE		15.56	-0.60	-0.79	16.22	0.32	0.54	MC
T83JT3		16.59	0.43	0.57	16.21	0.32	0.53	MC
UGMDX		15.68	-0.48	-0.64	16.74	0.84	1.41	MC
UM9BP6		16.50	0.34	0.45	16.01	0.12	0.19	MC
WVGMU	X	18.09	1.93	2.56	19.27	3.38	5.63	MC
WWRHM		14.51	-1.65	-2.18	15.13	-0.76	-1.28	TP
XEP77U		15.74	-0.41	-0.55	15.40	-0.49	-0.82	MC
XVTW7Y		17.25	1.09	1.45	16.29	0.40	0.66	MD
YWGMU		16.14	-0.02	-0.02	16.18	0.29	0.48	MC
YY67NU	*	18.31	2.16	2.85	16.76	0.87	1.44	XX
YZZHUV		16.10	-0.05	-0.07	16.28	0.38	0.64	MC
Z294X3		15.78	-0.37	-0.50	15.64	-0.25	-0.42	MC
Z3NB9B		16.46	0.30	0.39	16.26	0.37	0.61	MC

Rubber Interlaboratory Testing Program
Analysis 689
MDR Vulcanization: Maximum Torque (lbf.in)

Summary Statistics

Grand Means

    16.157 lbf.in   15.892 lbf.in

Stnd Dev Btwn Labs

    0.755 lbf.in   0.600 lbf.in

Statistics based on 34 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

    18.255 dN.m   17.955 dN.m

Stnd Dev Btwn Labs

    0.853   dN.m   0.677 dN.m

Statistics based on 34 of 35 reporting participants

Samples Y45-Y46: EPDM compound, batch #1 & Y47-Y48: EPDM compound, batch #2

Comments on assigned Data Flags for Test #689

WVGMU2 (X) - Data for Sample group Y47-Y48 are high. Inconsistency in testing within Sample group Y47-Y48.

Rubber Interlaboratory Testing Program
Analysis 689
MDR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample **Y45-Y46** = 16.157 lbf.in   Grand Mean Sample **Y47-Y48** = 15.892 lbf.in

ANALYSIS 689