

Rubber Interlaboratory Testing Program

Summary Report #152- 2nd Qtr 07

[About the Rubber Program](#), [About CTS](#)

[Key for Web Summary Report](#)

<u>Analysis</u>	<u>Analysis Name</u>
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
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)
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. More than 2400 labs from the U.S., as well as more than 55 countries, currently participate in the 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

Key for Web Summary Report (Page 1 of 2)

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:

<u>DATA FLAG</u>	<u>STATISTICALLY INCLUDED/EXCLUDED</u>	<u>ACTION REQUIRED</u>
*	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 B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1P71M2		2,960.0	-298.2	-1.59	3,127.5	-110.1	-0.69	ZZ
1VTUY2		3,480.0	221.8	1.18	3,490.0	252.4	1.58	ZZ
236DKY		3,125.5	-132.7	-0.71	3,253.5	15.9	0.10	ZZ
2LKWCV		3,294.0	35.8	0.19	3,252.0	14.4	0.09	ZZ
3GU2LU		2,999.0	-259.2	-1.38	3,072.5	-165.1	-1.04	ZZ
3Y2175		3,405.0	146.8	0.78	3,217.5	-20.1	-0.13	ZZ
4649LC		3,326.0	67.8	0.36	3,284.5	46.9	0.29	ZZ
4HAKES		2,957.0	-301.2	-1.61	3,063.5	-174.1	-1.09	ZZ
52FB57		3,472.0	213.8	1.14	3,456.0	218.4	1.37	ZZ
5L6FUL		3,103.8	-154.4	-0.82	3,212.6	-25.0	-0.16	ZZ
5MSF3N		3,333.0	74.8	0.40	3,262.5	24.9	0.16	ZZ
5QFQU2		3,278.0	19.8	0.11	3,235.0	-2.6	-0.02	ZZ
5U414T	*	3,705.2	447.0	2.38	3,712.3	474.7	2.98	ZZ
73WJYR		3,239.5	-18.7	-0.10	3,264.5	26.9	0.17	ZZ
7VDRJF		3,455.0	196.8	1.05	3,405.0	167.4	1.05	ZZ
A6NRYC		3,190.0	-68.2	-0.36	3,131.3	-106.4	-0.67	ZZ
A8DG9P		3,521.5	263.3	1.40	3,375.0	137.4	0.86	ZZ
ARFMW		3,170.6	-87.6	-0.47	3,139.4	-98.3	-0.62	ZZ
ASDUFQ		3,295.5	37.3	0.20	3,327.5	89.9	0.56	ZZ
AU1VHK		3,141.5	-116.7	-0.62	3,127.0	-110.6	-0.69	ZZ
B4JC7R		3,594.5	336.3	1.79	3,521.5	283.9	1.78	ZZ
B67UF4		3,368.5	110.3	0.59	3,355.0	117.4	0.74	ZZ
B7B2DS		3,039.3	-218.9	-1.17	3,085.0	-152.6	-0.96	ZZ
BBZVP5		3,160.5	-97.7	-0.52	3,050.0	-187.6	-1.18	ZZ
BEF93D		3,440.6	182.4	0.97	3,316.2	78.5	0.49	ZZ
BK3NL8		3,024.0	-234.2	-1.25	3,085.0	-152.6	-0.96	ZZ
BQMVZ6		3,246.0	-12.2	-0.07	3,230.0	-7.6	-0.05	ZZ
C36YL3		2,896.0	-362.2	-1.93	2,935.5	-302.1	-1.90	ZZ
CAE42J		3,370.5	112.3	0.60	3,370.7	133.0	0.84	ZZ
CS4C4Q		2,980.0	-278.2	-1.48	3,017.0	-220.6	-1.39	ZZ
CVR74H	X	2,607.0	-651.2	-3.47	2,493.0	-744.6	-4.67	ZZ
DDM47X	*	2,767.0	-491.2	-2.62	2,871.0	-366.6	-2.30	ZZ
DGL431		3,247.0	-11.2	-0.06	3,249.0	11.4	0.07	ZZ
DRFUFM	X	2,897.5	-360.7	-1.92	2,752.0	-485.6	-3.05	ZZ
EPLMCB		3,018.0	-240.2	-1.28	3,108.0	-129.6	-0.81	ZZ

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ERFQHA		3,132.0	-126.2	-0.67	3,112.4	-125.2	-0.79	ZZ
F8FEEM	*	2,719.5	-538.7	-2.87	2,813.8	-423.9	-2.66	ZZ
FDJ4K3		3,227.0	-31.2	-0.17	3,221.5	-16.1	-0.10	ZZ
FX8X8P		3,512.0	253.8	1.35	3,493.5	255.9	1.61	ZZ
GDDNM8		3,241.5	-16.7	-0.09	3,211.5	-26.1	-0.16	ZZ
GY3FSK		3,292.4	34.2	0.18	3,256.1	18.5	0.12	ZZ
H9UMS8		3,321.4	63.2	0.34	3,256.1	18.5	0.12	ZZ
J36SG9		3,166.0	-92.2	-0.49	3,221.0	-16.6	-0.10	ZZ
JFNPDW		3,239.3	-18.9	-0.10	3,198.2	-39.4	-0.25	ZZ
JJEJJD		3,517.0	258.8	1.38	3,485.5	247.9	1.56	ZZ
JWNPQT		3,444.0	185.8	0.99	3,427.0	189.4	1.19	ZZ
JYP22K		3,060.3	-197.9	-1.06	3,082.1	-155.5	-0.98	ZZ
K1Y5P9		3,483.0	224.8	1.20	3,276.5	38.9	0.24	ZZ
K2J4GK		3,572.5	314.3	1.68	3,560.5	322.9	2.03	ZZ
KK9NPY		3,087.0	-171.2	-0.91	3,049.5	-188.1	-1.18	ZZ
KZEXBS		3,280.0	21.8	0.12	3,295.0	57.4	0.36	ZZ
LD16TY		3,364.0	105.8	0.56	3,320.5	82.9	0.52	ZZ
LPDANM		3,384.5	126.3	0.67	3,358.4	120.8	0.76	ZZ
M9X3A3		3,176.4	-81.8	-0.44	3,205.4	-32.3	-0.20	ZZ
N13TNY		3,186.5	-71.7	-0.38	3,196.5	-41.1	-0.26	ZZ
N16JMT		3,466.0	207.8	1.11	3,366.0	128.4	0.81	ZZ
N69MHT		3,023.0	-235.2	-1.25	3,045.5	-192.1	-1.21	ZZ
N6CJZX		3,362.0	103.8	0.55	3,209.0	-28.6	-0.18	ZZ
NE5CBG		3,031.3	-226.9	-1.21	3,009.6	-228.1	-1.43	ZZ
NUJL9Z		3,291.5	33.3	0.18	3,180.0	-57.6	-0.36	ZZ
NXW5TL		3,547.0	288.8	1.54	3,433.5	195.9	1.23	ZZ
PDUQEN		3,332.0	73.8	0.39	3,398.5	160.9	1.01	ZZ
PDXU8K		3,329.0	70.8	0.38	3,324.0	86.4	0.54	ZZ
PGQH8T		3,605.5	347.3	1.85	3,531.0	293.4	1.84	ZZ
PNDQYJ		3,390.0	131.8	0.70	3,364.0	126.4	0.79	ZZ
Q4JT4Q		3,323.5	65.3	0.35	3,434.0	196.4	1.23	ZZ
Q6C3BR		3,416.5	158.3	0.84	3,383.5	145.9	0.92	ZZ
QJVF3L		3,319.9	61.8	0.33	3,137.9	-99.7	-0.63	ZZ
QUF9PL		3,374.0	115.8	0.62	3,303.5	65.8	0.41	ZZ
QWRWG		3,149.7	-108.5	-0.58	3,107.0	-130.7	-0.82	ZZ

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
RKSHW2		3,524.4	266.3	1.42	3,475.9	238.2	1.50	ZZ
SB5PRA		3,118.5	-139.7	-0.75	3,150.5	-87.1	-0.55	ZZ
SHC69B		3,328.5	70.3	0.38	3,307.0	69.4	0.44	ZZ
SPAEDV		3,132.8	-125.3	-0.67	3,103.8	-133.8	-0.84	ZZ
S5LM7X		2,968.2	-290.0	-1.55	3,005.9	-231.7	-1.45	ZZ
SZSZXS		3,546.2	288.0	1.54	3,488.2	250.6	1.57	ZZ
TQCA47		3,362.5	104.3	0.56	3,222.5	-15.1	-0.09	ZZ
TYXR98		3,386.8	128.6	0.69	3,385.2	147.6	0.93	ZZ
U7HEGG		3,418.0	159.8	0.85	3,358.0	120.4	0.76	ZZ
U8NGZZ		3,085.7	-172.5	-0.92	3,024.1	-213.6	-1.34	ZZ
U9P5M5		3,200.0	-58.2	-0.31	3,109.5	-128.1	-0.80	ZZ
UMZ9XC		3,295.5	37.3	0.20	3,184.0	-53.6	-0.34	ZZ
UX7QCB		3,317.0	58.9	0.31	3,223.5	-14.1	-0.09	ZZ
V54VUJ		3,217.5	-40.7	-0.22	3,127.0	-110.6	-0.69	ZZ
V6EPH6		2,901.5	-356.7	-1.90	2,925.0	-312.6	-1.96	ZZ
VKJU25		3,001.6	-256.6	-1.37	3,005.2	-232.4	-1.46	ZZ
VPT42M		3,464.0	205.8	1.10	3,419.0	181.4	1.14	ZZ
VQZ3N9		3,167.0	-91.2	-0.49	3,141.0	-96.6	-0.61	ZZ
W9TLN8		3,005.0	-253.2	-1.35	3,160.0	-77.6	-0.49	ZZ
WBFVA9		3,342.0	83.8	0.45	3,201.0	-36.6	-0.23	ZZ
X2KSMJ		3,208.8	-49.4	-0.26	3,098.1	-139.6	-0.88	ZZ
X4P41T		3,272.0	13.8	0.07	3,199.5	-38.1	-0.24	ZZ
X7ZDKW		3,144.5	-113.7	-0.61	3,073.0	-164.6	-1.03	ZZ
XCWLG		3,411.0	152.8	0.82	3,225.5	-12.1	-0.08	ZZ
XE53MP		3,331.3	73.1	0.39	3,340.0	102.4	0.64	ZZ
XG1D2Q		3,447.0	188.8	1.01	3,399.5	161.9	1.02	ZZ
XG21QV		3,448.3	190.1	1.01	3,340.2	102.6	0.64	ZZ
XQGA83		3,259.5	1.3	0.01	3,259.5	21.9	0.14	ZZ
XS6GRE		3,031.0	-227.2	-1.21	3,015.5	-222.1	-1.39	ZZ
Y5972L		3,228.3	-29.9	-0.16	3,186.0	-51.7	-0.32	ZZ
YHEXUZ		3,195.9	-62.3	-0.33	3,285.9	48.2	0.30	ZZ
YJZJSA		3,174.5	-83.7	-0.45	3,231.5	-6.1	-0.04	ZZ
YNY9GF		3,358.0	99.8	0.53	3,424.0	186.4	1.17	ZZ
YPBUBB		3,152.0	-106.2	-0.57	3,233.0	-4.6	-0.03	ZZ
YYFY9T		3,197.0	-61.2	-0.33	3,155.5	-82.1	-0.52	ZZ

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ZRXY8M		3,139.0	-119.2	-0.64	3,277.0	39.4	0.25	ZZ
ZXL6YD		3,357.5	99.3	0.53	3,320.0	82.4	0.52	ZZ

Summary Statistics	
Grand Means	
3,258.18 psi	3,237.62 psi
Std Dev Btwn Labs	
187.44 psi	159.28 psi
Statistics based on 105 of 107 reporting participants	

Summary Statistics in SI Units	
Grand Means	
22.464 MPa	22.32 MPa
Std Dev Btwn Labs	
1.292 MPa	1.10 MPa
Statistics based on 105 of 107 reporting participants	

Samples B71-B72: Polyisoprene compound, batch #1 & B73-B74: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #605

CVR74H (X) - Data for all Samples are low.

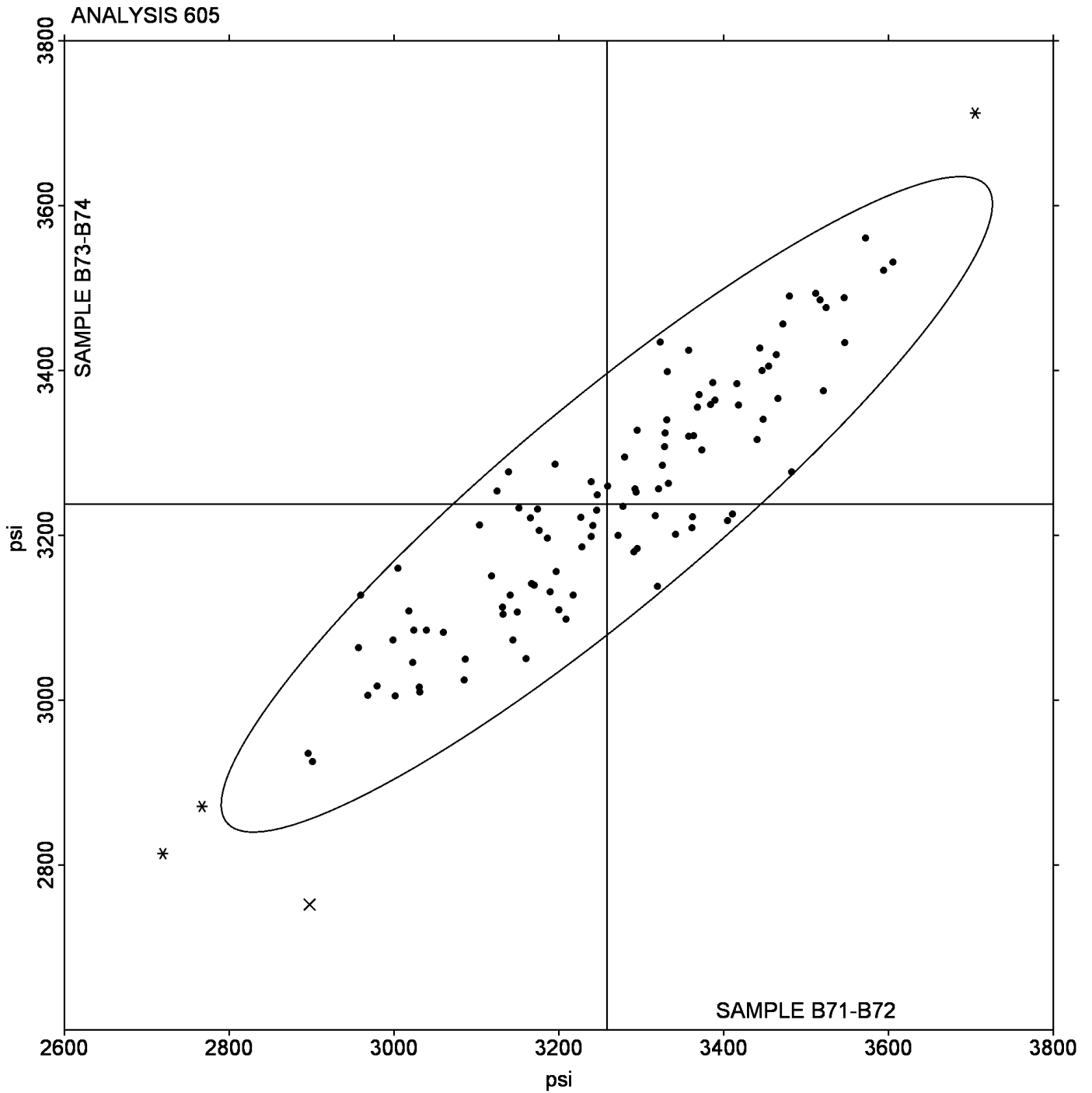
DRFUFM (X) - Inconsistency in testing between Sample sets. Data for Sample set B73-B74 are low.

Analysis 605

Tensile Strength (psi)

Grand Mean Sample B71-B72 = 3,258.18 psi

Grand Mean Sample B73-B74 = 3,237.62 psi



Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1DTZ8G		613.5	34.3	1.30	614.0	35.0	1.35	ZZ
1N833T	X	457.3	-122.0	-4.62	478.0	-101.0	-3.88	ZZ
1SC15T		585.0	5.8	0.22	582.5	3.5	0.13	ZZ
25UA43		641.5	62.3	2.36	632.0	53.0	2.04	ZZ
2DMRF1		569.5	-9.7	-0.37	562.0	-17.0	-0.65	ZZ
2Q8MD6		595.5	16.3	0.62	593.0	14.0	0.54	ZZ
2XUW49		600.0	20.8	0.79	600.0	21.0	0.81	ZZ
3VDF82		560.0	-19.2	-0.73	559.0	-20.0	-0.77	ZZ
3X4TPZ		627.5	48.3	1.83	611.0	32.0	1.23	ZZ
4DVHLM		590.5	11.3	0.43	594.5	15.5	0.60	ZZ
59H1WH		525.0	-54.2	-2.05	531.5	-47.5	-1.83	ZZ
5SHFAA	X	862.5	283.3	10.73	740.5	161.5	6.21	ZZ
6NXXJC		586.5	7.3	0.28	589.5	10.5	0.40	ZZ
6ZDFMH		639.0	59.8	2.26	633.5	54.5	2.10	ZZ
7BXQ5E		568.5	-10.7	-0.41	565.0	-14.0	-0.54	ZZ
7EHH8V	X	527.5	-51.7	-1.96	566.5	-12.5	-0.48	ZZ
7ETLLT		549.5	-29.7	-1.13	548.5	-30.5	-1.17	ZZ
7GPH98		537.0	-42.2	-1.60	525.0	-54.0	-2.08	ZZ
7HLXV6		577.5	-1.7	-0.07	582.5	3.5	0.13	ZZ
7SAGHR		578.5	-0.7	-0.03	583.5	4.5	0.17	ZZ
8EF686		588.5	9.3	0.35	576.0	-3.0	-0.11	ZZ
8G65PP		576.3	-3.0	-0.11	586.0	7.0	0.27	ZZ
8SRZZ3		545.0	-34.2	-1.30	565.0	-14.0	-0.54	ZZ
8YSPPH	X	603.0	23.8	0.90	568.0	-11.0	-0.42	ZZ
9BBQGT		575.5	-3.7	-0.14	583.0	4.0	0.15	ZZ
9RSPPF	X	567.5	-11.7	-0.44	533.5	-45.5	-1.75	ZZ
A6DKB3		534.0	-45.2	-1.71	536.5	-42.5	-1.63	ZZ
ANBKZ9		604.0	24.8	0.94	591.5	12.5	0.48	ZZ
BBQEX		548.3	-31.0	-1.17	532.8	-46.2	-1.78	ZZ
BJ8LVP		594.5	15.3	0.58	584.5	5.5	0.21	ZZ
BUKNM9		577.5	-1.7	-0.07	580.5	1.5	0.06	ZZ
C18VCZ		580.0	0.7	0.03	587.7	8.7	0.33	ZZ
CX8QNM		534.5	-44.7	-1.69	536.5	-42.5	-1.63	ZZ
CZKWDE		597.0	17.8	0.67	596.0	17.0	0.65	ZZ
D7GELJ		607.5	28.3	1.07	610.5	31.5	1.21	ZZ

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
DVLA8C		598.5	19.3	0.73	594.5	15.5	0.60	ZZ
EY17DE	X	800.0	220.8	8.36	861.0	282.0	10.84	ZZ
EYKVS3		615.0	35.8	1.35	609.0	30.0	1.15	ZZ
FB99LH		527.0	-52.2	-1.98	532.5	-46.5	-1.79	ZZ
FBRPV5		598.0	18.8	0.71	602.0	23.0	0.88	ZZ
FPHWSU		559.5	-19.7	-0.75	565.5	-13.5	-0.52	ZZ
FTCRSF	*	612.5	33.3	1.26	630.5	51.5	1.98	ZZ
G7M41Z		574.5	-4.7	-0.18	574.5	-4.5	-0.17	ZZ
GCVSUN		570.0	-9.2	-0.35	582.0	3.0	0.12	ZZ
GWP3PV		590.0	10.8	0.41	581.5	2.5	0.10	ZZ
GXTD6L		582.0	2.8	0.10	586.0	7.0	0.27	ZZ
H2WUJD		537.5	-41.7	-1.58	535.5	-43.5	-1.67	ZZ
H3PR6M		566.0	-13.2	-0.50	584.5	5.5	0.21	ZZ
H82YXY		621.5	42.3	1.60	619.0	40.0	1.54	ZZ
HKPDGY		593.4	14.2	0.54	592.7	13.7	0.53	ZZ
HX12UQ		569.5	-9.7	-0.37	567.5	-11.5	-0.44	ZZ
J2CE2G		546.5	-32.7	-1.24	545.5	-33.5	-1.29	ZZ
J5DCKW		596.5	17.3	0.65	611.0	32.0	1.23	ZZ
J94GXC		576.5	-2.7	-0.10	575.0	-4.0	-0.15	ZZ
JEK5ZH		594.5	15.3	0.58	596.0	17.0	0.65	ZZ
JHGYNL		578.5	-0.7	-0.03	590.0	11.0	0.42	ZZ
KGEL6H		573.0	-6.2	-0.24	562.0	-17.0	-0.65	ZZ
KGRB3F	X	655.0	75.8	2.87	620.0	41.0	1.58	ZZ
KPP4A9		550.0	-29.2	-1.11	550.0	-29.0	-1.11	ZZ
L4YLTR	*	570.0	-9.2	-0.35	600.0	21.0	0.81	ZZ
L88KMP		586.5	7.3	0.28	584.5	5.5	0.21	ZZ
L8XLYK		628.2	49.0	1.85	613.3	34.3	1.32	ZZ
LBM9TE		560.5	-18.7	-0.71	565.5	-13.5	-0.52	ZZ
LEX4Y5		570.0	-9.2	-0.35	574.5	-4.5	-0.17	ZZ
LMPKA2		584.5	5.3	0.20	591.5	12.5	0.48	ZZ
LZXT77		552.0	-27.2	-1.03	557.5	-21.5	-0.83	ZZ
M7LXLZ		562.5	-16.7	-0.63	565.0	-14.0	-0.54	ZZ
ME2RL3		581.5	2.3	0.09	566.5	-12.5	-0.48	ZZ
MSNZ7H		581.5	2.3	0.09	603.5	24.5	0.94	ZZ
NB52FG		577.5	-1.7	-0.07	571.5	-7.5	-0.29	ZZ

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
NFDNQ7		599.0	19.8	0.75	598.0	19.0	0.73	ZZ
PKED3J		613.0	33.8	1.28	607.5	28.5	1.10	ZZ
PM4KLV		563.5	-15.7	-0.60	542.9	-36.1	-1.39	ZZ
PSVG1T		609.5	30.3	1.15	597.0	18.0	0.69	ZZ
Q1JG8Q		553.5	-25.7	-0.97	559.0	-20.0	-0.77	ZZ
QG1XND	*	646.0	66.8	2.53	645.5	66.5	2.56	ZZ
QH5J5Y		609.1	29.8	1.13	589.8	10.8	0.41	ZZ
QQA87Q		546.5	-32.7	-1.24	548.0	-31.0	-1.19	ZZ
QQU5JQ		600.5	21.3	0.81	594.0	15.0	0.58	ZZ
RAUN5B		565.0	-14.2	-0.54	580.0	1.0	0.04	ZZ
RMCVC		603.5	24.3	0.92	611.5	32.5	1.25	ZZ
S4Z1PJ		618.8	39.6	1.50	610.6	31.6	1.21	ZZ
S9MD5S		581.5	2.3	0.09	588.8	9.8	0.38	ZZ
TAMVA		564.0	-15.2	-0.58	566.0	-13.0	-0.50	ZZ
U3ZU4U		554.4	-24.8	-0.94	572.5	-6.5	-0.25	ZZ
UAFDL8		562.0	-17.2	-0.65	549.5	-29.5	-1.13	ZZ
UCSYPG		577.0	-2.2	-0.08	562.0	-17.0	-0.65	ZZ
UKU3WT		620.0	40.8	1.54	622.5	43.5	1.67	ZZ
V1P5M4		564.5	-14.7	-0.56	558.5	-20.5	-0.79	ZZ
V63UDS		564.0	-15.2	-0.58	570.5	-8.5	-0.33	ZZ
VCP8BB		593.5	14.3	0.54	585.5	6.5	0.25	ZZ
VLYNV7		558.5	-20.7	-0.79	562.5	-16.5	-0.63	ZZ
VNM3GU	X	396.0	-183.2	-6.94	401.5	-177.5	-6.82	ZZ
VST6XQ		562.5	-16.7	-0.63	577.0	-2.0	-0.08	ZZ
W6LGRL		564.1	-15.2	-0.57	548.1	-30.9	-1.19	ZZ
W87XPE		581.0	1.8	0.07	566.0	-13.0	-0.50	ZZ
WD97H1	*	522.5	-56.7	-2.15	510.5	-68.5	-2.63	ZZ
WP68M4		567.0	-12.2	-0.46	570.5	-8.5	-0.33	ZZ
X3Z2NX		565.0	-14.2	-0.54	566.5	-12.5	-0.48	ZZ
X5VK1K		604.0	24.8	0.94	604.5	25.5	0.98	ZZ
XKBYKN		532.5	-46.7	-1.77	543.5	-35.5	-1.36	ZZ
XUNYDZ		590.6	11.4	0.43	581.8	2.8	0.11	ZZ
Y8SZ4U		571.0	-8.2	-0.31	557.8	-21.2	-0.82	ZZ
YHUCT9		586.5	7.3	0.28	576.5	-2.5	-0.10	ZZ
YJQWP9		579.5	0.3	0.01	584.0	5.0	0.19	ZZ

Analysis 606

Ultimate Elongation (percent)

		Summary Statistics	
Grand Means	579.23 percent	578.99 percent	
Std Dev Btwn Labs	26.40 percent	26.02 percent	
Statistics based on 97 of 105 reporting participants			

Samples B71-B72: Polyisoprene compound, batch #1 & B73-B74: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #606

1N833T (X) - Data for all Samples are low.

5SHFAA (X) - Data for all Samples are high. Also inconsistent in testing within both sample sets.

7EHH8V (X) - Inconsistency in testing between Sample sets.

8YSPPH (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Sample set B73-B74.

9RSPPF (X) - Inconsistency in testing between Sample sets.

EY17DE (X) - Data for all Samples are high. Also inconsistent in testing within Sample set B71-B72.

KGRB3F (X) - Inconsistency in testing between Sample sets. Data for Sample set B71-B72 are high. Also inconsistent in testing within Sample set B73-B74.

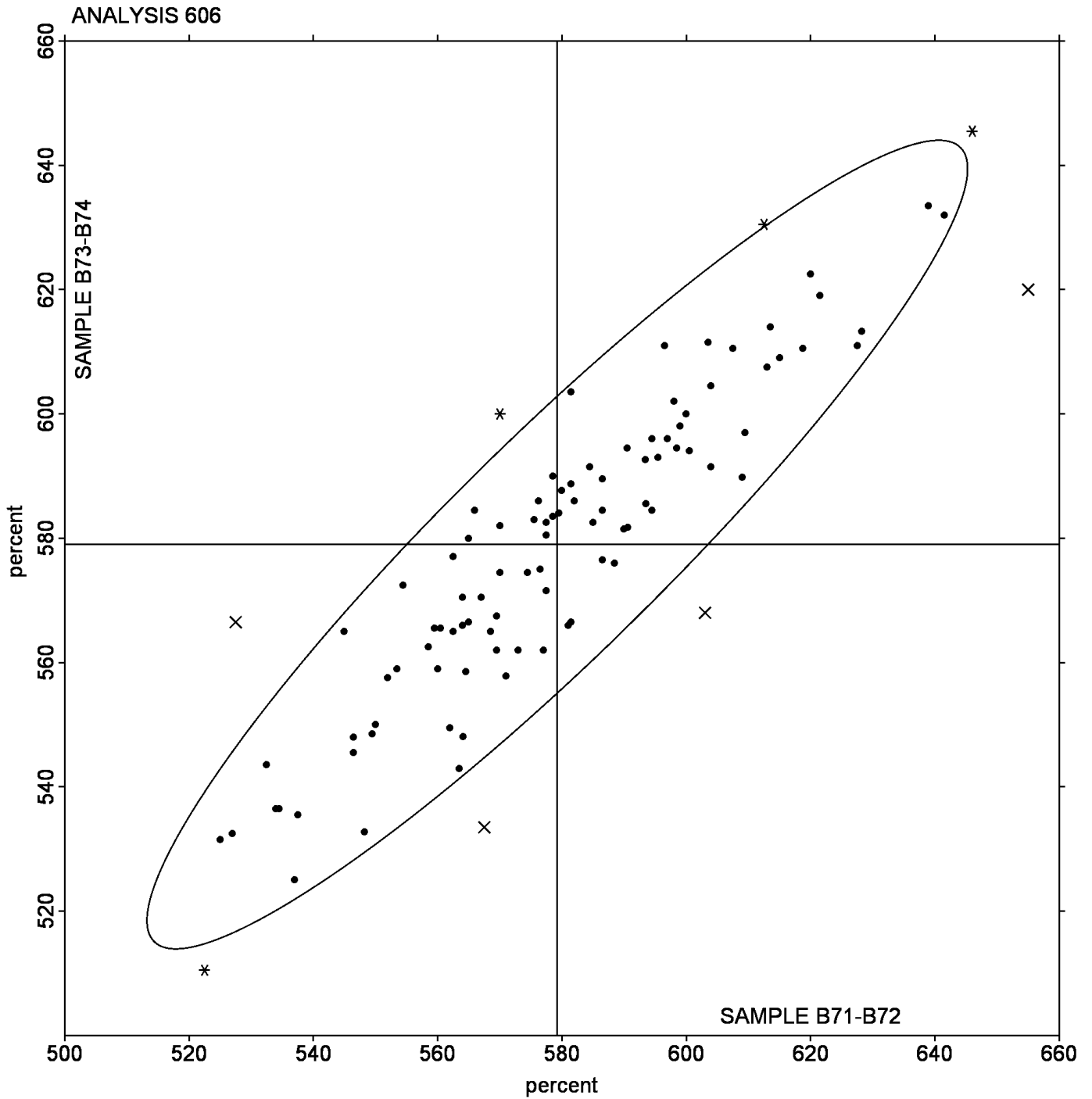
VNM3GU (X) - Data for all Samples are low.

Analysis 606

Ultimate Elongation (percent)

Grand Mean Sample B71-B72 = 579.23 percent

Grand Mean Sample B73-B74 = 578.99 percent



Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1DQ94K		1,121.0	-8.1	-0.11	1,100.5	-25.5	-0.30	ZZ
1FB5HB		1,150.9	21.8	0.29	1,093.6	-32.4	-0.38	ZZ
1HMFJ3		1,185.5	56.4	0.74	1,216.0	90.0	1.05	ZZ
22PUBD		1,131.3	2.2	0.03	1,167.6	41.6	0.48	ZZ
2E1JP4		1,060.5	-68.6	-0.90	1,024.0	-102.0	-1.19	ZZ
2JE5N3		1,057.3	-71.7	-0.94	1,057.3	-68.7	-0.80	ZZ
33NMBD		1,076.5	-52.6	-0.69	1,066.5	-59.5	-0.69	ZZ
368S78		1,086.0	-43.1	-0.57	1,030.0	-96.0	-1.12	ZZ
3CUWUH		1,105.5	-23.6	-0.31	1,018.5	-107.5	-1.25	ZZ
3PTR3Y		1,049.0	-80.1	-1.05	1,086.5	-39.5	-0.46	ZZ
3QSHNL		1,109.0	-20.1	-0.26	1,160.5	34.5	0.40	ZZ
45HKKW		1,221.5	92.4	1.22	1,210.0	84.0	0.98	ZZ
4BMU35		1,141.5	12.4	0.16	1,147.3	21.3	0.25	ZZ
4CEQQD		1,172.0	42.9	0.56	1,098.5	-27.5	-0.32	ZZ
4EGQ8X		1,168.0	38.9	0.51	1,189.5	63.5	0.74	ZZ
4FV43M		1,234.3	105.2	1.38	1,184.1	58.1	0.68	ZZ
4MJQ7S		1,032.0	-97.1	-1.28	1,004.4	-121.6	-1.41	ZZ
4U6PSY		1,172.0	42.9	0.56	1,159.5	33.5	0.39	ZZ
53V626		1,065.0	-64.1	-0.84	1,044.5	-81.5	-0.95	ZZ
54LSMB		1,126.0	-3.1	-0.04	1,117.5	-8.5	-0.10	ZZ
5SXCP8		1,195.0	65.9	0.87	1,170.0	44.0	0.51	ZZ
6MTQRR	*	1,230.0	100.9	1.33	1,316.0	190.0	2.21	ZZ
6YM196	*	1,213.8	84.7	1.11	1,100.0	-26.0	-0.30	ZZ
727GMQ		1,207.8	78.7	1.04	1,250.1	124.1	1.44	ZZ
7H871U		1,161.0	31.9	0.42	1,174.5	48.5	0.56	ZZ
7SPFA9		1,102.0	-27.1	-0.36	1,137.0	11.0	0.13	ZZ
82Q99T		1,135.0	5.9	0.08	1,057.5	-68.5	-0.80	ZZ
8CCR1K		1,171.2	42.1	0.55	1,140.0	14.0	0.16	ZZ
8GXGVP		1,147.5	18.4	0.24	1,200.5	74.5	0.87	ZZ
8VSCSH		1,150.0	20.9	0.28	1,215.5	89.5	1.04	ZZ
953JP4		1,183.5	54.4	0.72	1,188.0	62.0	0.72	ZZ
9EGP2E	X	1,367.5	238.4	3.14	1,300.5	174.5	2.03	ZZ
AD2S2T		1,307.0	177.9	2.34	1,335.5	209.5	2.44	ZZ
ALF5YL		1,084.5	-44.6	-0.59	1,054.0	-72.0	-0.84	ZZ
AN8AZR		1,116.5	-12.6	-0.17	1,053.0	-73.0	-0.85	ZZ

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ATUVKC		1,019.0	-110.1	-1.45	968.5	-157.5	-1.83	ZZ
B8NXJW		1,154.0	24.9	0.33	1,181.5	55.5	0.65	ZZ
BV1PYB		990.5	-138.6	-1.82	1,016.0	-110.0	-1.28	ZZ
CC437P		1,117.5	-11.6	-0.15	1,150.2	24.2	0.28	ZZ
DHBT79		1,166.0	36.9	0.49	1,165.4	39.4	0.46	ZZ
DYUBL		1,129.5	0.4	0.01	1,147.0	21.0	0.24	ZZ
E25A83		1,076.3	-52.8	-0.69	1,047.4	-78.6	-0.92	ZZ
EF9XQK		1,284.3	155.2	2.04	1,303.2	177.2	2.06	ZZ
EKH116		1,199.7	70.7	0.93	1,193.3	67.3	0.78	ZZ
EMEUB5		1,164.7	35.6	0.47	1,220.5	94.5	1.10	ZZ
FR17EC		1,189.0	59.9	0.79	1,152.5	26.5	0.31	ZZ
FZZXP8		1,020.5	-108.6	-1.43	1,036.6	-89.4	-1.04	ZZ
GBPVVJ	*	1,176.5	47.4	0.62	1,277.0	151.0	1.76	ZZ
GCULH1		1,128.5	-0.6	-0.01	1,134.0	8.0	0.09	ZZ
GUZ83T		1,224.5	95.4	1.26	1,190.0	64.0	0.74	ZZ
H7RWBZ		1,037.5	-91.6	-1.21	1,025.5	-100.5	-1.17	ZZ
HF1G5V		1,168.6	39.5	0.52	1,182.0	56.0	0.65	ZZ
HJLRCU		1,024.0	-105.1	-1.38	1,051.5	-74.5	-0.87	ZZ
HKHS9R		1,014.0	-115.1	-1.51	1,068.0	-58.0	-0.67	ZZ
HUKAH8		1,059.0	-70.1	-0.92	1,028.5	-97.5	-1.13	ZZ
J1W6QG	*	1,330.0	200.9	2.64	1,339.0	213.0	2.48	ZZ
JKSN4C	X	1,298.0	168.9	2.22	1,107.8	-18.2	-0.21	ZZ
JMJ82E		1,070.2	-58.9	-0.78	1,039.1	-86.9	-1.01	ZZ
L1ASDU	*	1,328.5	199.4	2.62	1,326.5	200.5	2.33	ZZ
LJ2FP5		1,176.4	47.3	0.62	1,248.3	122.3	1.42	ZZ
M3US4G		1,079.0	-50.1	-0.66	1,063.5	-62.5	-0.73	ZZ
M84EM6		1,039.5	-89.6	-1.18	1,073.0	-53.0	-0.62	ZZ
MA3BZ8		1,090.8	-38.2	-0.50	1,063.1	-62.9	-0.73	ZZ
MA4ZM		1,282.5	153.4	2.02	1,234.5	108.5	1.26	ZZ
MF3SY3		1,095.0	-34.0	-0.45	1,080.5	-45.5	-0.53	ZZ
MUZKA		1,143.5	14.4	0.19	1,157.0	31.0	0.36	ZZ
NJ2FZA		1,215.0	85.9	1.13	1,202.5	76.5	0.89	ZZ
NM4VSE		1,138.6	9.5	0.12	1,095.0	-30.9	-0.36	ZZ
NTRQNR		1,114.0	-15.1	-0.20	1,087.0	-39.0	-0.45	ZZ
NYBYHG		1,098.7	-30.4	-0.40	1,051.5	-74.5	-0.87	ZZ

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Q4MWTE		988.5	-140.6	-1.85	1,027.5	-98.5	-1.15	ZZ
Q6XPYF		956.0	-173.1	-2.28	970.5	-155.5	-1.81	ZZ
Q7GVSH		1,078.0	-51.1	-0.67	1,094.0	-32.0	-0.37	ZZ
QS4YPR		1,236.0	106.9	1.41	1,256.5	130.5	1.52	ZZ
R1DABT		1,125.8	-3.3	-0.04	1,218.6	92.6	1.08	ZZ
R66RVT		1,183.0	53.9	0.71	1,134.0	8.0	0.09	ZZ
RKZZCK		1,116.5	-12.6	-0.17	1,117.0	-9.0	-0.10	ZZ
RTUGU		1,148.0	18.9	0.25	1,127.5	1.5	0.02	ZZ
S3JMK1		1,204.5	75.5	0.99	1,228.5	102.5	1.19	ZZ
S7R3SB		1,221.5	92.4	1.22	1,251.0	125.0	1.45	ZZ
SK2CRN		1,084.0	-45.1	-0.59	1,067.0	-59.0	-0.69	ZZ
SNX882	X	768.1	-361.0	-4.75	1,045.4	-80.6	-0.94	ZZ
T1PQQS		1,067.0	-62.1	-0.82	1,006.5	-119.5	-1.39	ZZ
T1UF2Q		1,071.5	-57.6	-0.76	1,084.5	-41.5	-0.48	ZZ
TQSQ52		1,097.0	-32.1	-0.42	1,085.5	-40.5	-0.47	ZZ
TSMRLW		986.3	-142.8	-1.88	942.8	-183.2	-2.13	ZZ
TXKK3E		1,218.5	89.4	1.18	1,227.5	101.5	1.18	ZZ
U4GX3F		1,113.0	-16.1	-0.21	1,092.5	-33.5	-0.39	ZZ
UNYRD4		1,159.0	29.9	0.39	1,078.5	-47.5	-0.55	ZZ
UQ48NS		1,050.5	-78.6	-1.03	1,091.5	-34.5	-0.40	ZZ
UQYCY9		1,117.0	-12.1	-0.16	1,128.5	2.5	0.03	ZZ
V19VNA		1,115.0	-14.1	-0.19	1,124.0	-2.0	-0.02	ZZ
VHVELH		1,120.5	-8.6	-0.11	1,074.5	-51.5	-0.60	ZZ
WRPB9B		1,180.5	51.4	0.68	1,181.0	55.0	0.64	ZZ
X11PK6	X	543.9	-585.2	-7.70	514.9	-611.1	-7.11	ZZ
Y165S5		1,135.0	5.9	0.08	1,129.0	3.0	0.03	ZZ
Y36DH8		986.8	-142.2	-1.87	1,042.7	-83.3	-0.97	ZZ
Y6XWSS		1,070.0	-59.1	-0.78	1,038.0	-88.0	-1.02	ZZ
YB2UB6		1,158.0	28.9	0.38	1,107.0	-19.0	-0.22	ZZ
Z63LX3		1,073.0	-56.1	-0.74	1,082.0	-44.0	-0.51	ZZ
Z7QMMS		1,058.8	-70.3	-0.92	1,068.9	-57.1	-0.66	ZZ
Z9ZNSZ		1,116.0	-13.1	-0.17	1,103.5	-22.5	-0.26	ZZ

Analysis 607

Stress at 300% Elongation (psi)

Summary Statistics

Grand Means

1,129.08 psi

1,125.99 psi

Std Dev Btwn Labs

76.00 psi

85.94 psi

Statistics based on 98 of 102 reporting participants

Summary Statistics in SI Units

Grand Means

7.7847 MPa

7.76 MPa

Std Dev Btwn Labs

0.5240 MPa

0.59 MPa

Statistics based on 98 of 102 reporting participants

Samples B71-B72: Polyisoprene compound, batch #1 & B73-B74: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #607

9EGP2E (X) - Inconsistency in testing between Sample sets. Data for Sample set B72 are high.

JKSN4C (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Samples set B73-B74

SNX882 (X) - Inconsistency in testing between Sample sets. Data for Sample set B71-B72 are low and inconsistent in testing within Sample set B73- B74.

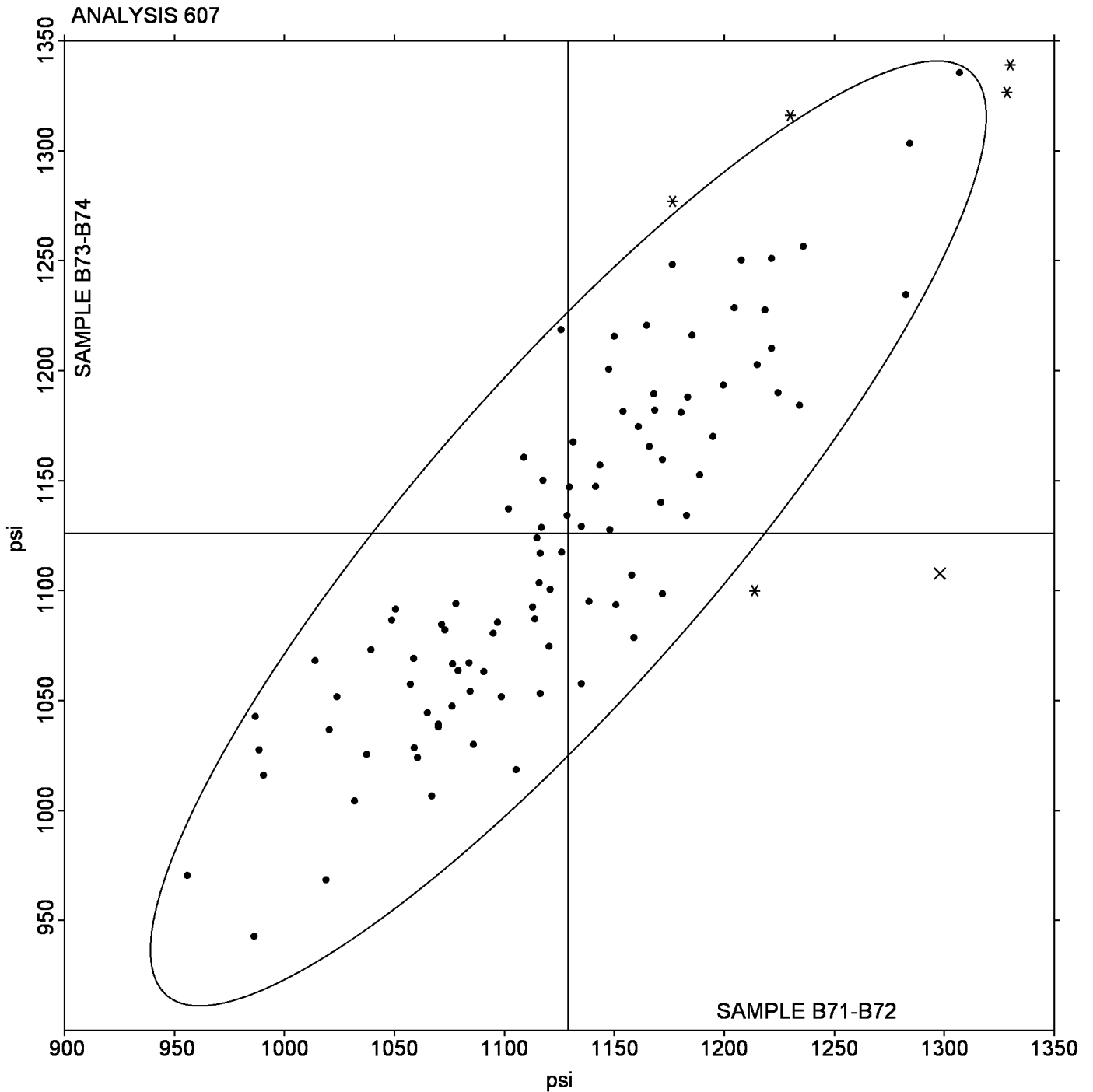
X11PK6 (X) - Data for all Samples are low.

Analysis 607

Stress at 300% Elongation (psi)

Grand Mean Sample B71-B72 = 1,129.08 psi

Grand Mean Sample B73-B74 = 1,125.99 psi



Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
174E51		230.5	-3.4	-0.21	221.5	-12.3	-0.73	ZZ
1EP15D		255.0	21.1	1.32	252.5	18.7	1.12	ZZ
1QX9L5		227.0	-6.9	-0.43	217.6	-16.2	-0.97	ZZ
1VVSYP		244.5	10.6	0.66	250.5	16.7	1.00	ZZ
25Z25E		230.5	-3.4	-0.21	225.5	-8.3	-0.49	ZZ
2QV7M5		240.0	6.1	0.38	240.0	6.2	0.37	ZZ
364KG8		245.0	11.1	0.70	245.0	11.2	0.67	ZZ
39BL7Y		264.0	30.1	1.89	268.5	34.7	2.07	ZZ
39H9PY	*	187.0	-46.9	-2.94	182.5	-51.3	-3.05	ZZ
3EN59J		246.4	12.5	0.78	248.6	14.8	0.88	ZZ
41GV44		250.0	16.1	1.01	255.8	22.1	1.31	ZZ
46DN8K		237.0	3.1	0.19	247.0	13.2	0.79	ZZ
4CC8ZU		229.0	-4.9	-0.31	225.5	-8.3	-0.49	ZZ
4E9UFK		224.8	-9.1	-0.57	224.8	-9.0	-0.53	ZZ
4QJZ22	X	177.5	-56.4	-3.53	179.5	-54.3	-3.23	ZZ
5D9NLR		221.2	-12.7	-0.80	219.0	-14.8	-0.88	ZZ
5KZKFE		245.5	11.6	0.73	257.6	23.8	1.42	ZZ
5LXARH		220.5	-13.4	-0.84	210.0	-23.8	-1.42	ZZ
5PUCEB		252.0	18.1	1.13	263.5	29.7	1.77	ZZ
68GC56		240.5	6.6	0.41	243.2	9.4	0.56	ZZ
6C9NVW		242.0	8.1	0.51	241.0	7.2	0.43	ZZ
6KC17F		215.0	-18.9	-1.18	224.5	-9.3	-0.55	ZZ
6MP7UN		241.5	7.6	0.48	228.4	-5.3	-0.32	ZZ
6R17X7	X	250.5	16.6	1.04	224.8	-9.0	-0.53	ZZ
7XRQ4V		215.0	-18.9	-1.18	221.0	-12.8	-0.76	ZZ
8E82D1		230.6	-3.3	-0.21	235.7	1.9	0.11	ZZ
8PK382		226.0	-7.9	-0.49	228.0	-5.8	-0.34	ZZ
8SZCX6		232.1	-1.8	-0.11	232.1	-1.7	-0.10	ZZ
8V4APL	*	199.1	-34.8	-2.18	213.3	-20.4	-1.22	ZZ
9KLZ31		230.5	-3.4	-0.21	230.0	-3.8	-0.22	ZZ
9S6FUW		211.0	-22.9	-1.43	215.0	-18.8	-1.12	ZZ
9UR1BE		231.5	-2.4	-0.15	226.5	-7.3	-0.43	ZZ
A3BPJM		244.0	10.1	0.63	251.5	17.7	1.06	ZZ
A67LPE		247.1	13.2	0.82	244.3	10.5	0.63	ZZ
BBJAYL		241.0	7.1	0.44	238.0	4.2	0.25	ZZ

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
C94SBP		223.4	-10.5	-0.66	228.4	-5.3	-0.32	ZZ
CAP6JZ		209.0	-24.9	-1.56	217.5	-16.3	-0.97	ZZ
CFACPL		229.5	-4.4	-0.28	230.5	-3.3	-0.20	ZZ
CYFHNC		245.0	11.1	0.70	258.0	24.2	1.44	ZZ
CZFZQS		252.5	18.6	1.17	253.0	19.2	1.14	ZZ
D1JH48		226.0	-7.9	-0.49	223.5	-10.3	-0.61	ZZ
D1XRRU		225.0	-8.9	-0.56	231.5	-2.3	-0.14	ZZ
D99A8S		220.0	-13.9	-0.87	215.0	-18.8	-1.12	ZZ
DLNPPD		206.5	-27.4	-1.72	205.5	-28.3	-1.68	ZZ
DRWJD3		255.5	21.6	1.35	260.5	26.7	1.59	ZZ
E1V3JG		219.5	-14.4	-0.90	225.5	-8.3	-0.49	ZZ
E4FL9Z		236.0	2.1	0.13	233.0	-0.8	-0.05	ZZ
E77YRQ		245.0	11.1	0.70	253.0	19.2	1.14	ZZ
E8TUSA		247.5	13.6	0.85	244.5	10.7	0.64	ZZ
EM77JH	X	313.9	80.0	5.01	317.5	83.7	4.98	ZZ
FJVHKB		229.0	-4.9	-0.31	216.5	-17.3	-1.03	ZZ
FYD966		241.4	7.5	0.47	238.3	4.5	0.27	ZZ
GTAB11		218.0	-15.9	-1.00	221.0	-12.8	-0.76	ZZ
GV1HJC		237.1	3.2	0.20	241.5	7.7	0.46	ZZ
GVD1BW		240.0	6.1	0.38	241.0	7.2	0.43	ZZ
H1HCF8		226.2	-7.7	-0.48	241.1	7.3	0.44	ZZ
HCWBL3		239.0	5.1	0.32	232.8	-1.0	-0.06	ZZ
HE9ME6		231.5	-2.4	-0.15	232.7	-1.1	-0.06	ZZ
HMMD1		228.0	-5.9	-0.37	215.5	-18.3	-1.09	ZZ
HS8YKY		237.5	3.6	0.23	236.5	2.7	0.16	ZZ
HV97P8		223.4	-10.5	-0.66	223.4	-10.4	-0.62	ZZ
J8EXAU		225.1	-8.8	-0.55	220.2	-13.6	-0.81	ZZ
JEHPCJ		235.5	1.6	0.10	226.0	-7.8	-0.46	ZZ
K143YR		221.1	-12.8	-0.80	209.6	-24.2	-1.44	ZZ
KNCTCZ		245.8	11.9	0.75	236.4	2.6	0.16	ZZ
LBW62D		264.0	30.1	1.88	264.0	30.2	1.80	ZZ
MQ19DR		232.5	-1.4	-0.09	239.0	5.2	0.31	ZZ
NKDW99		238.0	4.1	0.26	228.5	-5.3	-0.31	ZZ
NVMJ2U		241.5	7.6	0.48	224.0	-9.8	-0.58	ZZ
PKVQM		221.5	-12.4	-0.77	217.8	-16.0	-0.95	ZZ

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
PVJD2B	*	279.0	45.1	2.83	278.0	44.2	2.63	ZZ
PX3DXS		225.5	-8.4	-0.53	224.5	-9.3	-0.55	ZZ
PX8KKM		228.0	-5.9	-0.37	219.0	-14.8	-0.88	ZZ
QBWZM		217.6	-16.3	-1.02	217.6	-16.2	-0.97	ZZ
R7BTKQ		229.5	-4.4	-0.28	217.5	-16.3	-0.97	ZZ
R8PQPU		224.5	-9.4	-0.59	217.0	-16.8	-1.00	ZZ
R94E68	*	278.5	44.6	2.79	278.5	44.7	2.66	ZZ
REYL7A		246.5	12.6	0.79	250.5	16.7	1.00	ZZ
S24E67		238.0	4.1	0.26	239.5	5.7	0.34	ZZ
SEUZZG	X	286.0	52.1	3.26	289.5	55.7	3.32	ZZ
T1FG97		259.5	25.6	1.60	251.0	17.2	1.03	ZZ
TFU855		245.5	11.6	0.73	242.0	8.2	0.49	ZZ
TN3R55	X	261.1	27.2	1.70	239.3	5.5	0.33	ZZ
V2U832	*	279.5	45.6	2.86	276.5	42.7	2.54	ZZ
V8EKPG		225.5	-8.4	-0.52	216.8	-16.9	-1.01	ZZ
VAC4D9	X	166.8	-67.1	-4.20	174.0	-59.7	-3.56	ZZ
VDV3QH		227.0	-6.9	-0.43	218.0	-15.8	-0.94	ZZ
VE1EN1		254.5	20.6	1.29	246.0	12.2	0.73	ZZ
VR2AAG		210.5	-23.4	-1.47	222.0	-11.8	-0.70	ZZ
VS56JY		219.5	-14.4	-0.90	230.5	-3.3	-0.20	ZZ
VSHEAS		231.5	-2.4	-0.15	229.5	-4.3	-0.25	ZZ
VWFVM		243.0	9.1	0.57	242.5	8.7	0.52	ZZ
W443CC	*	209.5	-24.4	-1.53	227.0	-6.8	-0.40	ZZ
WEAN8K		233.5	-0.4	-0.02	233.5	-0.3	-0.02	ZZ
WLC959		228.5	-5.4	-0.34	229.0	-4.8	-0.28	ZZ
WLN3C9		230.5	-3.4	-0.21	232.5	-1.3	-0.08	ZZ
X17SEA		244.5	10.6	0.66	246.5	12.7	0.76	ZZ
X1T9MR		213.0	-20.9	-1.31	216.5	-17.3	-1.03	ZZ
YL83Y4		229.5	-4.4	-0.28	239.0	5.2	0.31	ZZ
ZLLKA4		230.0	-3.9	-0.24	237.5	3.7	0.22	ZZ
ZN9ZXQ		224.8	-9.1	-0.57	217.6	-16.2	-0.97	ZZ

Analysis 608

Stress at 100% Elongation (psi)

		Summary Statistics	
Grand Means	233.90 psi	233.78 psi	
Std Dev Btwn Labs	15.96 psi	16.79 psi	
Statistics based on 95 of 101 reporting participants			

		Summary Statistics in SI Units	
Grand Means	1.6127 MPa	1.61 MPa	
Std Dev Btwn Labs	0.1100 MPa	0.12 MPa	
Statistics based on 95 of 101 reporting participants			

Samples B71-B72: Polyisoprene compound, batch #1 & B73-B74: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #608

4QJZ22 (X) - Data for all Samples are low.

6R17X7 (X) - Inconsistency in testing between Sample sets.

EM77JH (X) - Data for all Samples are high.

SEUZZG (X) - Data for all Samples are high. Possible Systematic Error.

TN3R55 (X) - Inconsistency in testing between Sample sets.

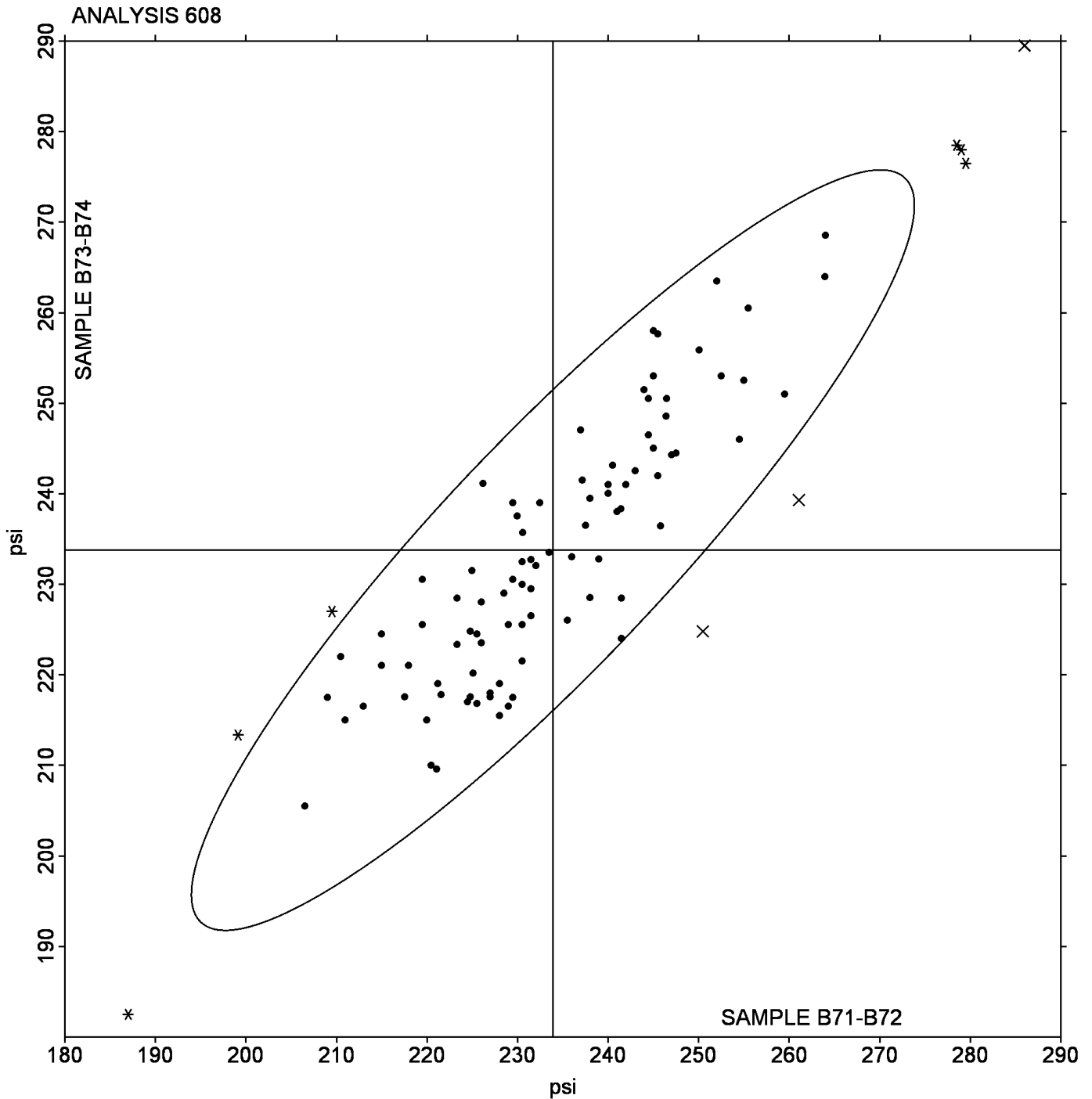
VAC4D9 (X) - Data for all Samples are low.

Analysis 608

Stress at 100% Elongation (psi)

Grand Mean Sample B71-B72 = 233.90 psi

Grand Mean Sample B73-B74 = 233.78 psi



Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
15LTF5		51.80	-0.76	-0.52	51.80	-0.87	-0.60	ZZ
29FUBS		50.85	-1.71	-1.17	51.00	-1.67	-1.16	ZZ
2P9AN5		53.00	0.44	0.30	53.00	0.33	0.23	ZZ
3A9HKL		53.40	0.84	0.58	53.65	0.98	0.68	ZZ
3J5VTF		54.00	1.44	0.99	54.50	1.83	1.27	ZZ
3Y16KS	*	52.50	-0.06	-0.04	54.00	1.33	0.92	ZZ
46AY4M		52.20	-0.36	-0.24	52.70	0.03	0.02	ZZ
4GJ89T		51.50	-1.06	-0.72	52.00	-0.67	-0.46	ZZ
4WVVA	X	50.50	-2.06	-1.41	52.50	-0.17	-0.12	ZZ
4XHK84		52.00	-0.56	-0.38	52.00	-0.67	-0.46	ZZ
5ANMC3	*	51.50	-1.06	-0.72	53.00	0.33	0.23	ZZ
5MJMZF		52.00	-0.56	-0.38	52.25	-0.42	-0.29	ZZ
5QL621		53.00	0.44	0.30	54.00	1.33	0.92	ZZ
6976GW		52.70	0.14	0.10	52.90	0.23	0.16	ZZ
698K49		52.50	-0.06	-0.04	52.50	-0.17	-0.12	ZZ
6D95BM		51.00	-1.56	-1.07	51.15	-1.52	-1.05	ZZ
78DRVR		53.50	0.94	0.65	54.00	1.33	0.92	ZZ
7HGRMD		53.10	0.54	0.37	53.30	0.63	0.44	ZZ
7HPSQS		51.40	-1.16	-0.79	51.55	-1.12	-0.77	ZZ
855GZS		52.00	-0.56	-0.38	52.00	-0.67	-0.46	ZZ
86QD5L		55.00	2.44	1.67	54.50	1.83	1.27	ZZ
89JFS8		54.50	1.94	1.33	54.50	1.83	1.27	ZZ
8FL4BD		52.20	-0.36	-0.24	51.55	-1.12	-0.77	ZZ
8M7MM		55.75	3.19	2.18	56.00	3.33	2.31	ZZ
8MT83L		50.50	-2.06	-1.41	50.50	-2.17	-1.50	ZZ
8XCLJ4		52.40	-0.16	-0.11	52.05	-0.62	-0.43	ZZ
92J1FB		52.50	-0.06	-0.04	53.00	0.33	0.23	ZZ
9PHVGU	*	49.25	-3.31	-2.26	50.25	-2.42	-1.67	ZZ
9ZACXV		56.00	3.44	2.36	56.00	3.33	2.31	ZZ
A2XNQD		54.50	1.94	1.33	55.50	2.83	1.96	ZZ
BHNHTB		53.50	0.94	0.65	53.00	0.33	0.23	ZZ
BWP5VC		53.55	0.99	0.68	53.75	1.08	0.75	ZZ
BYK8W6		52.00	-0.56	-0.38	53.00	0.33	0.23	ZZ
C5T37Z		52.15	-0.41	-0.28	52.75	0.08	0.06	ZZ
CCKDRP		50.50	-2.06	-1.41	51.50	-1.17	-0.81	ZZ

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
CRQFJY	X	51.80	-0.76	-0.52	50.15	-2.52	-1.74	ZZ
CWJNCL		51.50	-1.06	-0.72	51.50	-1.17	-0.81	ZZ
D9E2H2		55.55	2.99	2.05	54.75	2.08	1.44	ZZ
DK7BKW		52.70	0.14	0.10	51.65	-1.02	-0.70	ZZ
DPZ91M		54.50	1.94	1.33	54.50	1.83	1.27	ZZ
DW2FZN		51.00	-1.56	-1.07	52.00	-0.67	-0.46	ZZ
E3U5SJ		51.50	-1.06	-0.72	51.50	-1.17	-0.81	ZZ
E6YWVH		52.50	-0.06	-0.04	52.50	-0.17	-0.12	ZZ
ECSVKZ	X	48.00	-4.56	-3.12	50.00	-2.67	-1.85	ZZ
EET8GS		52.00	-0.56	-0.38	52.00	-0.67	-0.46	ZZ
EMT554		54.50	1.94	1.33	54.00	1.33	0.92	ZZ
F2WB7K	*	49.00	-3.56	-2.43	49.00	-3.67	-2.54	ZZ
F75G25		55.00	2.44	1.67	55.00	2.33	1.61	ZZ
FGA33J		52.50	-0.06	-0.04	52.50	-0.17	-0.12	ZZ
FJCGHR		52.00	-0.56	-0.38	52.50	-0.17	-0.12	ZZ
FN62A8	X	54.00	1.44	0.99	52.00	-0.67	-0.46	ZZ
G3372N		52.40	-0.16	-0.11	52.00	-0.67	-0.46	ZZ
H2HG63		50.45	-2.11	-1.44	51.20	-1.47	-1.02	ZZ
HDQBCL		52.50	-0.06	-0.04	52.50	-0.17	-0.12	ZZ
J7KSUN		52.00	-0.56	-0.38	53.00	0.33	0.23	ZZ
K33Y7M		53.50	0.94	0.65	53.95	1.28	0.89	ZZ
K7HK3E		52.00	-0.56	-0.38	52.00	-0.67	-0.46	ZZ
L72ZDF		51.00	-1.56	-1.07	51.00	-1.67	-1.16	ZZ
LBVC2K		53.10	0.54	0.37	53.30	0.63	0.44	ZZ
LGJ1WQ		51.50	-1.06	-0.72	51.00	-1.67	-1.16	ZZ
LSD6ZH		52.65	0.09	0.06	53.25	0.58	0.40	ZZ
LSHJ24		51.50	-1.06	-0.72	50.50	-2.17	-1.50	ZZ
LU2LL5		51.00	-1.56	-1.07	50.70	-1.97	-1.36	ZZ
LUN5JP		53.00	0.44	0.30	53.50	0.83	0.58	ZZ
MD3K4H	X	52.00	-0.56	-0.38	55.00	2.33	1.61	ZZ
MK5QPM		51.15	-1.41	-0.96	51.45	-1.22	-0.84	ZZ
MMUW7		53.00	0.44	0.30	52.00	-0.67	-0.46	ZZ
MQTCJT		52.00	-0.56	-0.38	52.00	-0.67	-0.46	ZZ
NDXX2Q		56.00	3.44	2.36	55.50	2.83	1.96	ZZ
NF66BA		51.85	-0.71	-0.48	51.55	-1.12	-0.77	ZZ

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
NNWF74	*	49.00	-3.56	-2.43	49.00	-3.67	-2.54	ZZ
NPCWPL		53.70	1.14	0.78	54.00	1.33	0.92	ZZ
NR69EQ		54.00	1.44	0.99	53.00	0.33	0.23	ZZ
NVFE6P		52.00	-0.56	-0.38	52.50	-0.17	-0.12	ZZ
PGVERA		54.00	1.44	0.99	54.00	1.33	0.92	ZZ
PHKF6S		53.00	0.44	0.30	52.50	-0.17	-0.12	ZZ
PTNCN2		52.00	-0.56	-0.38	51.75	-0.92	-0.64	ZZ
PVDJ6C		55.00	2.44	1.67	55.00	2.33	1.61	ZZ
PVK3B9		52.75	0.19	0.13	53.00	0.33	0.23	ZZ
Q1NR6M	*	51.85	-0.71	-0.48	53.40	0.73	0.51	ZZ
QRQ6FM		54.00	1.44	0.99	54.00	1.33	0.92	ZZ
R85XLD		52.25	-0.31	-0.21	53.00	0.33	0.23	ZZ
RNLB3W		53.05	0.49	0.34	52.70	0.03	0.02	ZZ
RX4SVD		50.50	-2.06	-1.41	51.50	-1.17	-0.81	ZZ
RYPDTN		52.50	-0.06	-0.04	52.50	-0.17	-0.12	ZZ
S85GM1		52.00	-0.56	-0.38	52.40	-0.27	-0.19	ZZ
SY1RYP		53.50	0.94	0.65	53.00	0.33	0.23	ZZ
SY7EJW		53.55	0.99	0.68	53.50	0.83	0.58	ZZ
TJ29KA		52.50	-0.06	-0.04	52.50	-0.17	-0.12	ZZ
U4BGY2	*	50.85	-1.71	-1.17	49.60	-3.07	-2.12	ZZ
U73VZ4		55.00	2.44	1.67	55.00	2.33	1.61	ZZ
U9D72M		52.60	0.04	0.03	52.35	-0.32	-0.22	ZZ
UN7XAC	X	47.00	-5.56	-3.80	48.50	-4.17	-2.89	ZZ
UNCDHB		54.55	1.99	1.36	54.85	2.18	1.51	ZZ
VQ8L37		53.50	0.94	0.65	53.75	1.08	0.75	ZZ
WEF4EJ		52.50	-0.06	-0.04	53.50	0.83	0.58	ZZ
WL4SAP		51.10	-1.46	-1.00	51.10	-1.57	-1.09	ZZ
WM823Y		52.00	-0.56	-0.38	52.00	-0.67	-0.46	ZZ
WSG7W		51.80	-0.76	-0.52	51.45	-1.22	-0.84	ZZ
WYVXJS		50.00	-2.56	-1.75	50.00	-2.67	-1.85	ZZ
X2E6NB		51.00	-1.56	-1.07	51.50	-1.17	-0.81	ZZ
X472AK		55.50	2.94	2.01	55.15	2.48	1.72	ZZ
XQEMK		52.00	-0.56	-0.38	52.00	-0.67	-0.46	ZZ
XQLQYA		52.50	-0.06	-0.04	52.50	-0.17	-0.12	ZZ
XXKBNP		54.45	1.89	1.30	54.40	1.73	1.20	ZZ

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B71-B72			Sample B73-B74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
YQUW2		52.30	-0.26	-0.18	52.00	-0.67	-0.46	ZZ
YWXMN		51.50	-1.06	-0.72	51.50	-1.17	-0.81	ZZ
ZN3WL1		53.40	0.84	0.58	53.30	0.63	0.44	ZZ

Summary Statistics

Grand Means

52.557 Type A

52.668 Type A

Std Dev Btwn Labs

1.461 Type A

1.444 Type A

Statistics based on 102 of 108 reporting participants

Samples B71-B72: Polyisoprene compound, batch #1 & B73-B74: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #620

4WVVAA (X) - Inconsistency in testing between Sample sets.

CRQFJY (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Sample set B73-B74.

ECSVKZ (X) - Inconsistency in testing between Sample sets. Data for Sample set B71-B72 are low.

FN62A8 (X) - Inconsistency in testing between Sample sets.

MD3K4H (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Sample set B71-B72.

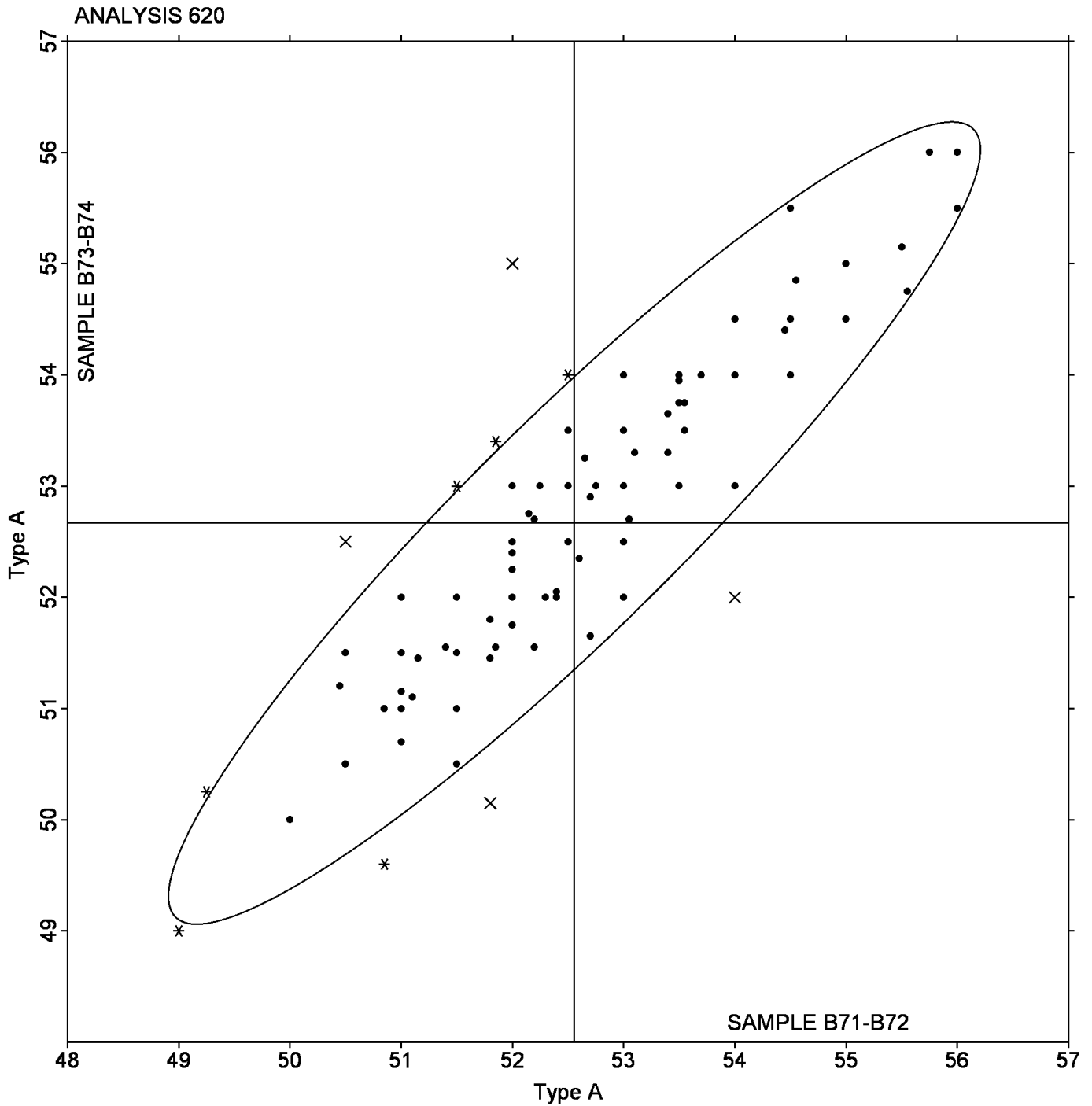
UN7XAC (X) - Data for all Samples are low. Possible Systematic Error.

Analysis 620

Hardness (Shore A/Type A)

Grand Mean Sample B71-B72 = 52.557 Type A

Grand Mean Sample B73-B74 = 52.668 Type A



Analysis 630

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

WebCode	Data Flag	Sample B71-B72			Sample K71-K72			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1GFUBU		3,149.7	-130.6	-0.98	3,120.7	-115.4	-0.76	ZZ
29K5TH		3,272.0	-8.3	-0.06	3,205.5	-30.6	-0.20	ZZ
5DCXL9		3,357.5	77.2	0.58	3,217.5	-18.6	-0.12	ZZ
5K284K	*	3,524.4	244.1	1.83	3,684.0	447.9	2.94	ZZ
5P7T6C		3,160.5	-119.8	-0.90	2,968.5	-267.6	-1.76	ZZ
62BNJS		3,517.0	236.7	1.77	3,454.5	218.4	1.43	ZZ
6PQA7H		3,166.0	-114.3	-0.86	3,109.0	-127.1	-0.83	ZZ
6QMN3B		3,416.5	136.2	1.02	3,365.5	129.4	0.85	ZZ
7RSRZ6		3,208.8	-71.5	-0.54	3,171.2	-64.9	-0.43	ZZ
7YB8V9	X	3,326.0	45.7	0.34	2,295.5	-940.6	-6.18	ZZ
8HBAUQ		3,370.5	90.2	0.68	3,316.5	80.4	0.53	ZZ
AT8ZVB		3,241.5	-38.8	-0.29	3,154.5	-81.6	-0.54	ZZ
BEP6XB		3,186.5	-93.8	-0.70	3,025.5	-210.6	-1.38	ZZ
CCTWC8		3,139.0	-141.3	-1.06	3,210.0	-26.1	-0.17	ZZ
D7DTV5		3,331.3	51.0	0.38	3,419.5	183.4	1.20	ZZ
DJPD35	*	3,605.5	325.2	2.44	3,368.5	132.4	0.87	ZZ
DK9WH		3,152.0	-128.3	-0.96	3,329.5	93.4	0.61	ZZ
DZJ2Q3	X	3,247.0	-33.3	-0.25	2,692.0	-544.1	-3.57	ZZ
EV8EPB		3,333.0	52.7	0.39	3,384.5	148.4	0.97	ZZ
EX3ZTN		3,317.0	36.7	0.28	3,135.0	-101.1	-0.66	ZZ
F4DNVP		3,329.0	48.7	0.36	3,288.5	52.4	0.34	ZZ
FTR2KT	X	3,444.0	163.7	1.23	2,918.0	-318.1	-2.09	ZZ
G5WDW		3,295.5	15.2	0.11	3,049.5	-186.6	-1.23	ZZ
J4LGXN		3,167.0	-113.3	-0.85	3,195.5	-40.6	-0.27	ZZ
MGFEFG		3,386.8	106.5	0.80	3,353.7	117.6	0.77	ZZ
P5JWDL		3,390.0	109.7	0.82	3,228.0	-8.1	-0.05	ZZ
Q7TBJK		3,384.5	104.2	0.78	3,434.5	198.4	1.30	ZZ
QSM16Y		3,197.0	-83.3	-0.62	3,121.0	-115.1	-0.76	ZZ
R1XL28		3,195.9	-84.4	-0.63	3,148.8	-87.3	-0.57	ZZ
RCFEXF		3,239.5	-40.8	-0.31	3,331.5	95.4	0.63	ZZ
U48HF8		3,342.0	61.7	0.46	3,318.0	81.9	0.54	ZZ
UE23B6		3,328.5	48.2	0.36	3,309.5	73.4	0.48	ZZ
V7ZQZL		3,362.0	81.7	0.61	3,276.0	39.9	0.26	ZZ
VZ79NP		3,190.0	-90.3	-0.68	3,107.5	-128.6	-0.84	ZZ
W5KBNR	*	2,896.0	-384.3	-2.88	3,008.8	-227.4	-1.49	ZZ

Analysis 630

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

WebCode	Data Flag	Sample B71-B72			Sample K71-K72			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
WFNHLZ		3,170.6	-109.8	-0.82	3,009.6	-226.6	-1.49	ZZ
XMEEFN		3,228.3	-52.0	-0.39	3,148.2	-88.0	-0.58	ZZ
YWY173		3,259.5	-20.8	-0.16	3,296.0	59.9	0.39	ZZ

		Summary Statistics	
Grand Means	3,280.31 psi		3,236.13 psi
Std Dev Btwn Labs	133.55 psi		152.33 psi
Statistics based on 35 of 38 reporting participants			

		Summary Statistics in SI Units	
Grand Means	22.617 MPa		22.31 MPa
Std Dev Btwn Labs	0.921 MPa		1.05 MPa
Statistics based on 35 of 38 reporting participants			

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #630

7YB8V9 (X) - Inconsistency in testing between Sample sets. Data for Sample set K71-K72 are low.

DZJ2Q3 (X) - Inconsistency in testing between Sample sets. Data for Sample set K71-K72 are low.

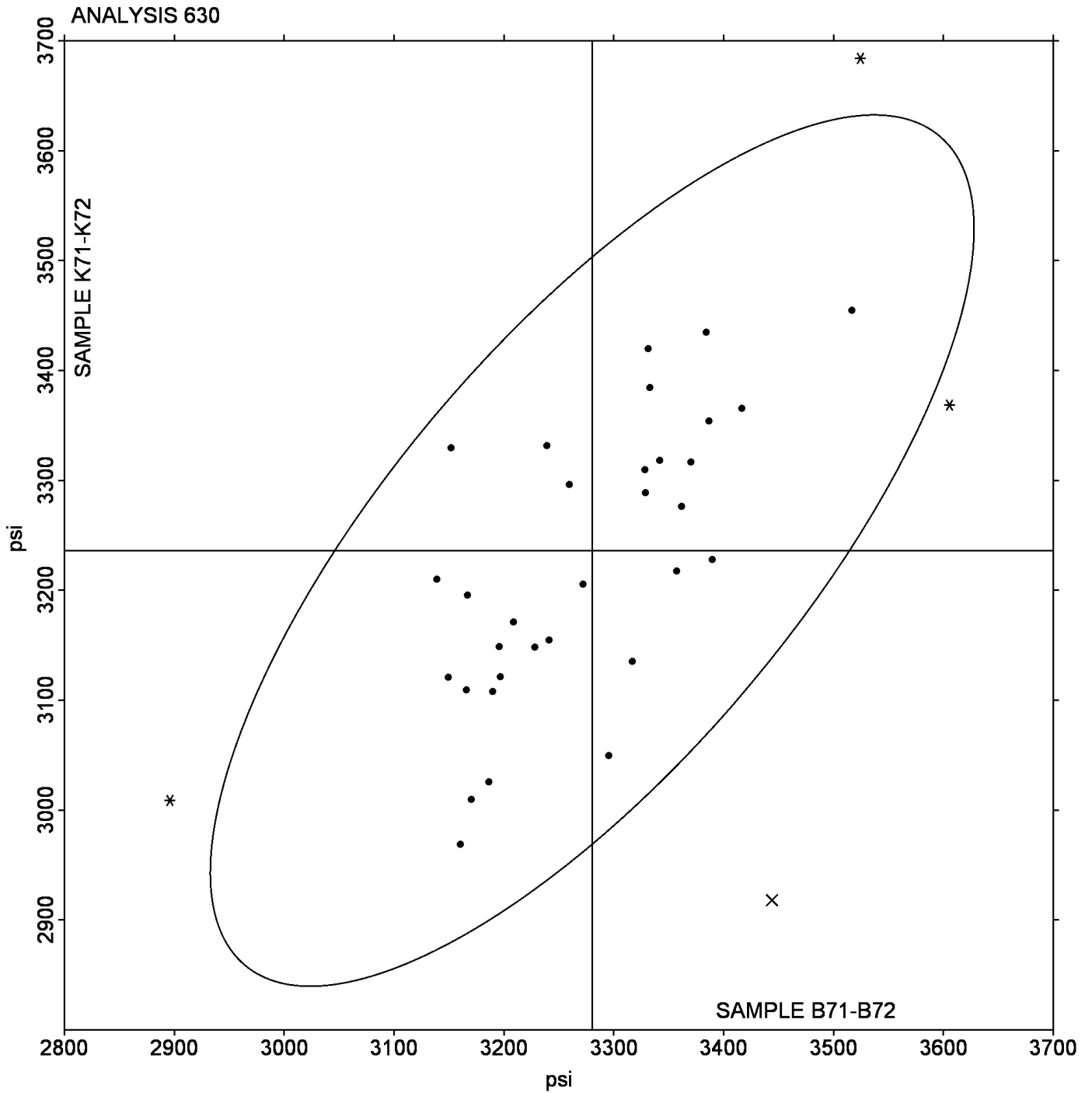
FTR2KT (X) - Inconsistency in testing between Sample sets.

Analysis 630

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

Grand Mean Sample B71-B72 = 3,280.31 psi

Grand Mean Sample K71-K72 = 3,236.13 psi



Analysis 631

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

WebCode	Data Flag	Sample B71-B72			Sample K71-K72			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3PV8SH		564.0	-14.0	-0.56	588.5	1.9	0.09	ZZ
3VVLG1		628.2	50.2	2.01	634.5	47.8	2.31	ZZ
3Z2T8X		603.5	25.5	1.02	602.5	15.9	0.77	ZZ
4BQW3F		563.5	-14.5	-0.58	568.4	-18.3	-0.88	ZZ
54PXWY		593.5	15.5	0.62	590.5	3.9	0.19	ZZ
5ABNHU		569.5	-8.5	-0.34	569.5	-17.1	-0.83	ZZ
5C2VZA		577.5	-0.5	-0.02	577.5	-9.1	-0.44	ZZ
7ZSSXD		609.1	31.1	1.25	620.5	33.9	1.63	ZZ
89TSSW		548.3	-29.7	-1.19	566.5	-20.1	-0.97	ZZ
9T5FB9		562.5	-15.5	-0.62	577.0	-9.6	-0.46	ZZ
ALA9D7		598.0	20.0	0.80	619.0	32.4	1.56	ZZ
CAWNY		595.5	17.5	0.70	600.5	13.9	0.67	ZZ
D26YW8		590.5	12.5	0.50	604.5	17.9	0.86	ZZ
DWPRW	X	862.5	284.5	11.41	567.5	-19.1	-0.92	ZZ
EQC5ES		578.5	0.5	0.02	589.5	2.9	0.14	ZZ
FFLMC9		525.0	-53.0	-2.12	553.5	-33.1	-1.60	ZZ
HLNB17		597.0	19.0	0.76	594.0	7.4	0.36	ZZ
J8Y5PB		527.0	-51.0	-2.04	548.0	-38.6	-1.86	ZZ
JHUKTP		564.5	-13.5	-0.54	569.5	-17.1	-0.83	ZZ
LY19DS		574.5	-3.5	-0.14	592.5	5.9	0.28	ZZ
M83XX3		552.0	-26.0	-1.04	556.5	-30.1	-1.45	ZZ
ME8MG		577.5	-0.5	-0.02	570.0	-16.6	-0.80	ZZ
N8KT51		585.0	7.0	0.28	608.5	21.9	1.05	ZZ
NE8FZ7		578.5	0.5	0.02	587.5	0.9	0.04	ZZ
PQXTFP		564.1	-13.9	-0.56	574.0	-12.6	-0.61	ZZ
QTZ1CM		537.0	-41.0	-1.64	553.5	-33.1	-1.60	ZZ
S2GXYR		615.0	37.0	1.48	619.0	32.4	1.56	ZZ
T156HZ		576.5	-1.5	-0.06	580.0	-6.6	-0.32	ZZ
T865PG	*	613.0	35.0	1.40	582.0	-4.6	-0.22	ZZ
THP3DF		569.5	-8.5	-0.34	580.5	-6.1	-0.29	ZZ
TUEN85		590.6	12.6	0.51	574.5	-12.1	-0.58	ZZ
U6N84Q		568.5	-9.5	-0.38	573.0	-13.6	-0.66	ZZ
UUXFU8		594.5	16.5	0.66	596.5	9.9	0.48	ZZ
VJFWAB		559.5	-18.5	-0.74	579.5	-7.1	-0.34	ZZ
W2K1SR	*	546.5	-31.5	-1.26	599.0	12.4	0.60	ZZ

Analysis 631

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

WebCode	Data Flag	Sample B71-B72			Sample K71-K72			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
W3M421		567.0	-11.0	-0.44	585.5	-1.1	-0.05	ZZ
WBP41V		599.0	21.0	0.84	597.5	10.9	0.52	ZZ
ZTDFZD		621.5	43.5	1.75	621.5	34.9	1.68	ZZ

Summary Statistics

Grand Means

577.98 percent

586.62 percent

Std Dev Btwn Labs

24.94 percent

20.75 percent

Statistics based on 37 of 38 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #631

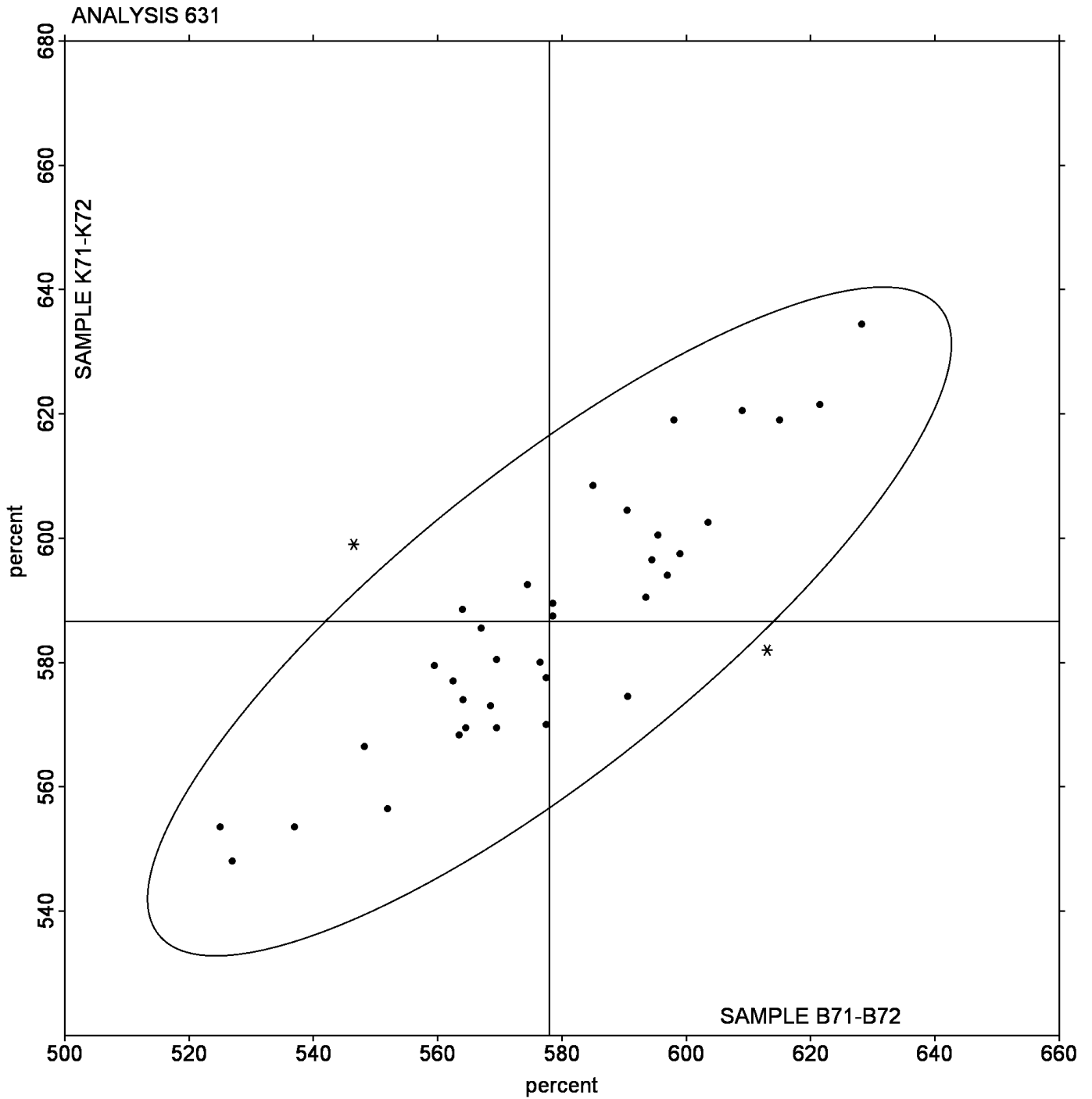
DWPRWB (X) - Inconsistency in testing between Sample sets. Data for Sample set B71-B72 are high.

Analysis 631

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

Grand Mean Sample B71-B72 = 577.98 percent

Grand Mean Sample K71-K72 = 586.62 percent



Rubber Interlaboratory Testing Program

Analysis 632

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

WebCode	Data Flag	Sample B71-B72			Sample K71-K72			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
29RDW4		1,129.5	-6.9	-0.08	1,167.5	94.3	0.90	ZZ
3KQW2H	*	1,367.5	231.1	2.60	1,211.0	137.8	1.31	ZZ
3UNTVJ		1,070.0	-66.4	-0.75	968.5	-104.7	-1.00	ZZ
4JPEAD		1,067.0	-69.4	-0.78	996.5	-76.7	-0.73	ZZ
5G3SRR		1,070.2	-66.3	-0.74	1,086.8	13.6	0.13	ZZ
5ZQL1Z		1,078.0	-58.4	-0.66	984.0	-89.2	-0.85	ZZ
6LXW82		1,115.0	-21.4	-0.24	1,162.5	89.3	0.85	ZZ
6TLVE8		1,168.6	32.2	0.36	1,120.1	46.9	0.45	ZZ
86YVKJ		1,032.0	-104.5	-1.17	913.7	-159.4	-1.52	ZZ
8EVJMG		1,189.0	52.6	0.59	1,163.0	89.8	0.85	ZZ
8KGF4C		1,148.0	11.6	0.13	1,170.0	96.8	0.92	ZZ
8QV5V1		1,218.5	82.1	0.92	937.5	-135.7	-1.29	ZZ
9CPSE7		1,125.8	-10.7	-0.12	1,066.2	-7.0	-0.07	ZZ
AC1868		1,050.5	-85.9	-0.97	1,068.0	-5.2	-0.05	ZZ
APC7ME		1,039.5	-96.9	-1.09	997.5	-75.7	-0.72	ZZ
B3CCL4		1,195.0	58.6	0.66	1,120.0	46.8	0.45	ZZ
B3E189		1,020.5	-116.0	-1.30	950.0	-123.2	-1.17	ZZ
CHY79L		1,207.8	71.4	0.80	1,263.0	189.8	1.80	ZZ
DMDPA	*	1,076.5	-59.9	-0.67	778.5	-294.7	-2.80	ZZ
FKSXVX		1,172.0	35.6	0.40	948.0	-125.2	-1.19	ZZ
GM8SRV		1,037.5	-98.9	-1.11	1,032.5	-40.7	-0.39	ZZ
HPN282		1,128.5	-7.9	-0.09	1,018.0	-55.2	-0.52	ZZ
HWB9YS		1,014.0	-122.4	-1.38	1,132.0	58.8	0.56	ZZ
JXQW8K		986.8	-149.6	-1.68	969.7	-103.5	-0.98	ZZ
KK3EJS	*	1,328.5	192.1	2.16	967.0	-106.2	-1.01	ZZ
KR3G5Y		1,166.0	29.6	0.33	1,160.9	87.7	0.83	ZZ
LB4R81		1,109.0	-27.4	-0.31	1,011.0	-62.2	-0.59	ZZ
LQLN5P		1,141.5	5.0	0.06	1,134.2	61.0	0.58	ZZ
LYQTLJ		1,307.0	170.6	1.92	1,187.0	113.8	1.08	ZZ
M9HQZC		1,185.5	49.1	0.55	1,223.5	150.3	1.43	ZZ
N7ARJ3		1,171.2	34.8	0.39	1,136.4	63.2	0.60	ZZ
PPP4AE		1,135.0	-1.4	-0.02	1,100.5	27.3	0.26	ZZ
Q2NEXY		1,126.0	-10.4	-0.12	992.7	-80.5	-0.77	ZZ
RTYWK4		1,284.3	147.9	1.66	1,163.2	90.0	0.86	ZZ
TW5VM1		1,215.0	78.6	0.88	1,214.0	140.8	1.34	ZZ

Analysis 632

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

WebCode	Data Flag	Sample B71-B72			Sample K71-K72			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
XUB2FZ		1,168.0	31.6	0.35	1,070.5	-2.7	-0.03	ZZ
Z2GGT7		1,060.5	-75.9	-0.85	1,070.0	-3.2	-0.03	ZZ
Z9D921		1,079.0	-57.4	-0.65	1,126.0	52.8	0.50	ZZ

Summary Statistics	
Grand Means	
1,136.42 psi	1,073.19 psi
Std Dev Btwn Labs	
88.98 psi	105.13 psi
Statistics based on 38 of 38 reporting participants	

Summary Statistics in SI Units	
Grand Means	
7.8353 MPa	7.40 MPa
Std Dev Btwn Labs	
0.6135 MPa	0.72 MPa
Statistics based on 38 of 38 reporting participants	

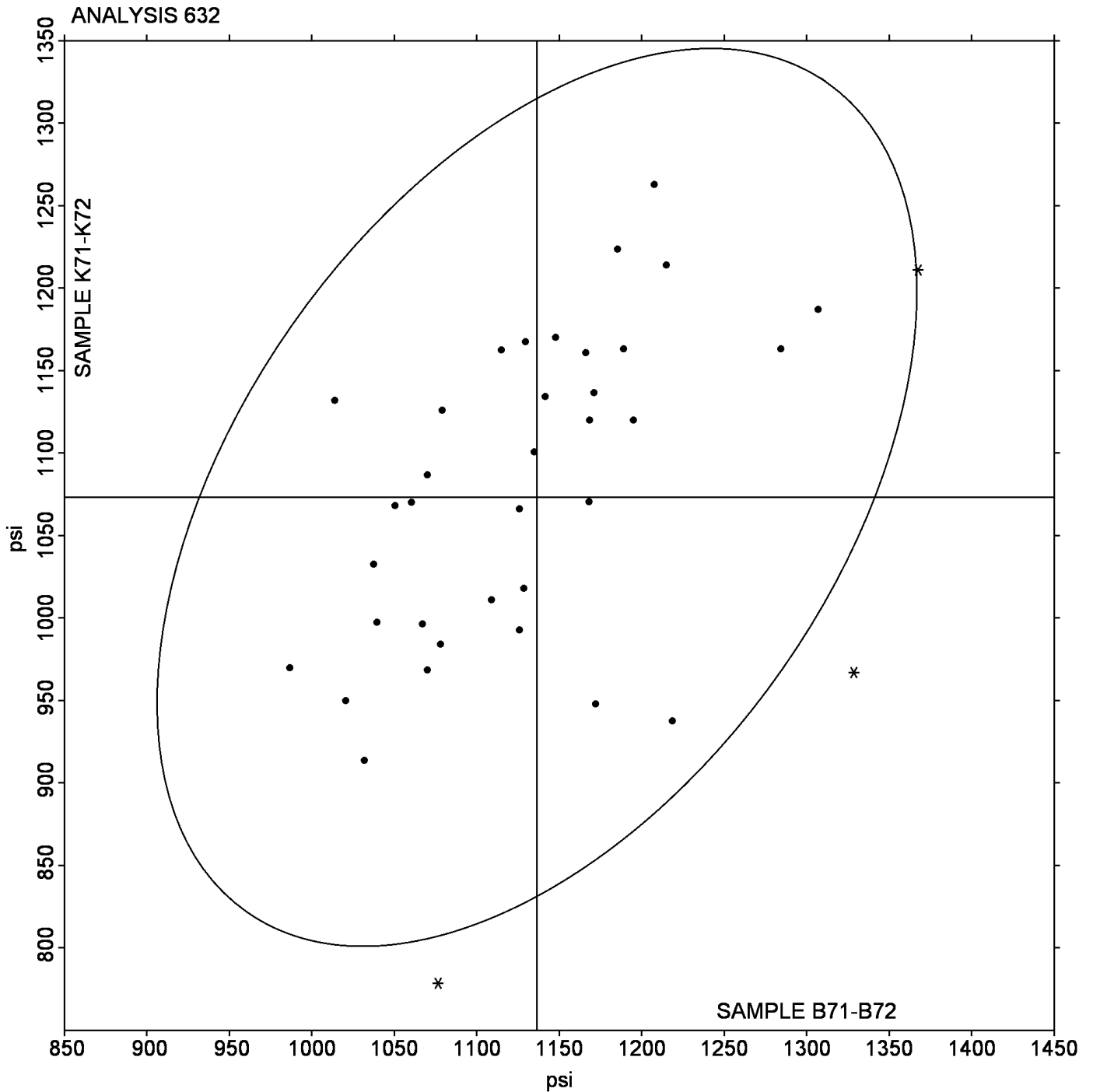
All samples : Polyisoprene compound, batch #1

Analysis 632

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

Grand Mean Sample B71-B72 = 1,136.42 psi

Grand Mean Sample K71-K72 = 1,073.19 psi



Analysis 633

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

WebCode	Data Flag	Sample B71-B72			Sample K71-K72			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
13A1GW		246.5	11.0	0.90	242.0	7.1	0.31	ZZ
1PNAGN	*	230.5	-5.0	-0.41	162.0	-72.9	-3.20	ZZ
1RK5HK		231.5	-4.0	-0.33	221.5	-13.4	-0.59	ZZ
26WV24		252.5	17.0	1.40	271.0	36.1	1.58	ZZ
2B9PHN		231.5	-4.0	-0.33	233.0	-1.9	-0.08	ZZ
2U4DM4		230.6	-4.9	-0.40	245.1	10.2	0.45	ZZ
45S7LB		245.5	10.0	0.82	245.3	10.4	0.46	ZZ
4JKJ9		241.5	6.0	0.49	199.5	-35.4	-1.55	ZZ
5VBKJG		231.5	-4.0	-0.33	247.5	12.6	0.55	ZZ
9GK391		244.5	9.0	0.74	198.0	-36.9	-1.62	ZZ
9N261F		219.5	-16.0	-1.31	222.5	-12.4	-0.54	ZZ
A4NT8Q		242.0	6.5	0.53	264.5	29.6	1.30	ZZ
AUKUG3		240.5	5.0	0.41	249.5	14.6	0.64	ZZ
CDXN4V		230.5	-5.0	-0.41	260.5	25.6	1.12	ZZ
CZF1MB		233.5	-2.0	-0.16	214.4	-20.5	-0.90	ZZ
DG6Y9Q		230.5	-5.0	-0.41	247.0	12.1	0.53	ZZ
DR8XJ4		229.5	-6.0	-0.49	224.5	-10.4	-0.46	ZZ
DTTDS5		241.4	6.0	0.49	251.6	16.7	0.73	ZZ
E49C6D		221.2	-14.3	-1.17	203.1	-31.8	-1.40	ZZ
FGNA1E		221.5	-13.9	-1.14	241.1	6.2	0.27	ZZ
FR8FVX		225.5	-10.0	-0.82	240.0	5.1	0.22	ZZ
GQKC34		237.0	1.5	0.12	230.0	-4.9	-0.21	ZZ
JQ12UN		220.0	-15.5	-1.27	233.5	-1.4	-0.06	ZZ
KR7DW3		224.5	-11.0	-0.90	218.5	-16.4	-0.72	ZZ
LH44XH		250.0	14.6	1.19	255.5	20.6	0.90	ZZ
MW89T7		241.0	5.5	0.45	258.5	23.6	1.04	ZZ
NHHQJA	X	313.9	78.4	6.42	342.6	107.7	4.72	ZZ
P3ABD7		264.0	28.5	2.34	243.7	8.8	0.39	ZZ
PA88VH		230.5	-5.0	-0.41	254.0	19.1	0.84	ZZ
REWJXS		215.0	-20.5	-1.68	228.5	-6.4	-0.28	ZZ
RHGKHK		255.0	19.5	1.60	250.0	15.1	0.66	ZZ
S7W1BT		247.5	12.0	0.99	246.0	11.1	0.49	ZZ
SUJ8GM		243.0	7.5	0.62	240.0	5.1	0.22	ZZ
T27F8C		209.5	-26.0	-2.13	251.5	16.6	0.73	ZZ
UXL85V		241.5	6.0	0.49	250.2	15.3	0.67	ZZ

Analysis 633

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

WebCode	Data Flag	Sample B71-B72			Sample K71-K72			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
VMB63G		252.0	16.5	1.35	198.0	-36.9	-1.62	ZZ
VV6WH5	X	278.5	43.0	3.53	295.0	60.1	2.64	ZZ
YZT166		225.0	-10.5	-0.86	214.5	-20.4	-0.89	ZZ

Summary Statistics

Grand Means

235.48 psi

234.89 psi

Std Dev Btwn Labs

12.20 psi

22.80 psi

Statistics based on 36 of 38 reporting participants

Summary Statistics in SI Units

Grand Means

1.6236 MPa

1.62 MPa

Std Dev Btwn Labs

0.0841 MPa

0.16 MPa

Statistics based on 36 of 38 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #633

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

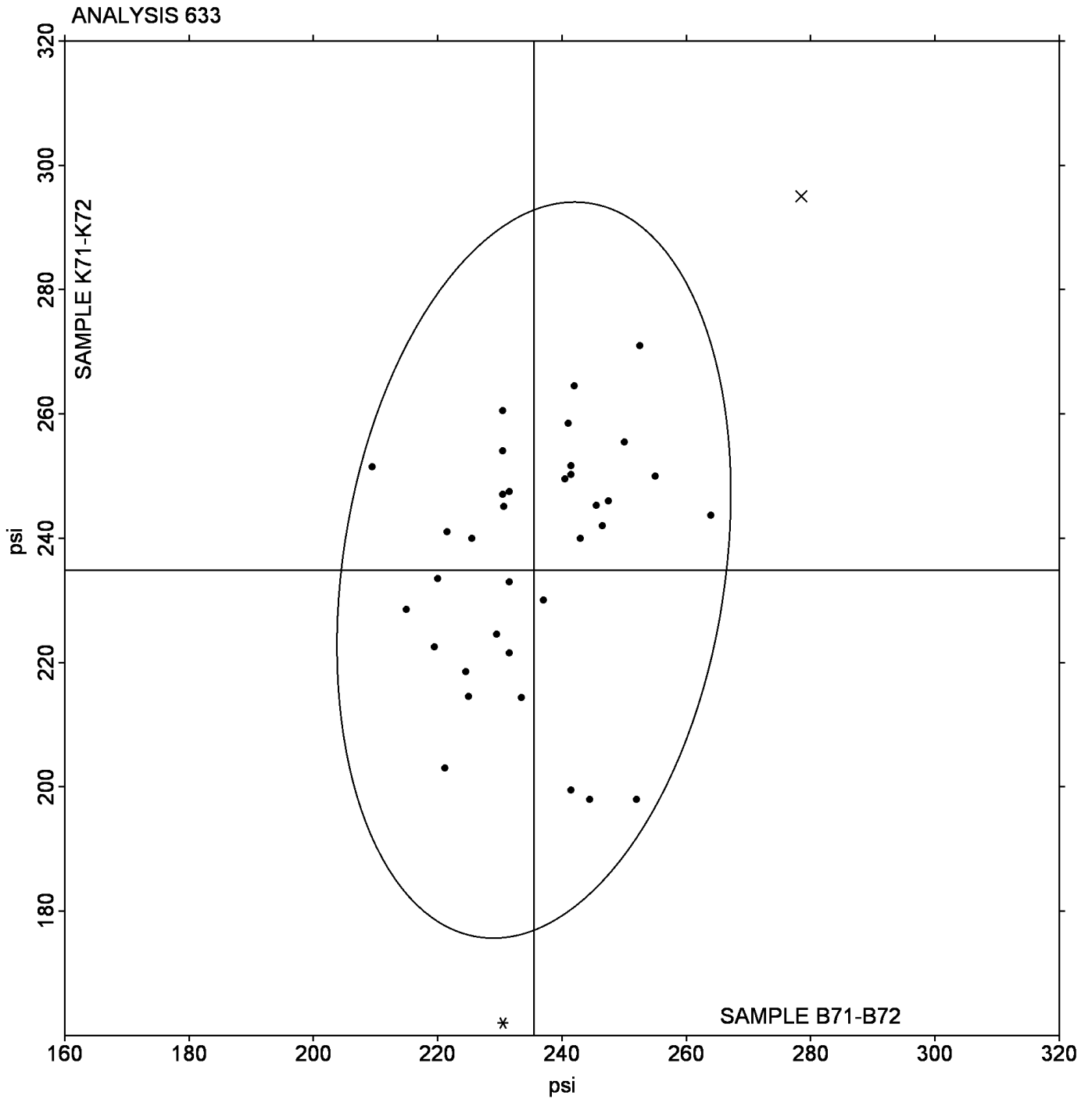
VV6WH5 (X) - Data for Sample set B71-B72 are high.

Analysis 633

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

Grand Mean Sample B71-B72 = 235.48 psi

Grand Mean Sample K71-K72 = 234.89 psi



Rubber Interlaboratory Testing Program

Analysis 660

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

WebCode	Data Flag	Sample T71-T72			Sample T73-T74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1KDF1B		72.67	-0.74	-0.65	46.48	0.07	0.08	MR
2EF26F		71.94	-1.47	-1.29	46.03	-0.39	-0.48	TV
2XKSZB		72.30	-1.11	-0.97	45.53	-0.88	-1.09	MR
3WLTG3		73.55	0.14	0.13	46.78	0.36	0.44	MM
5JG9B9	*	76.94	3.54	3.12	48.75	2.33	2.88	XX
6R5G2Z		73.18	-0.22	-0.20	46.45	0.03	0.04	MP
7EK46W		72.57	-0.84	-0.74	46.23	-0.18	-0.23	MR
8QQMYX		72.98	-0.42	-0.37	46.37	-0.05	-0.06	MR
AY8W8A		74.09	0.69	0.61	47.47	1.05	1.30	MP
BKT7SD		75.10	1.69	1.49	47.20	0.78	0.97	MZ
CH1B55		73.48	0.08	0.07	45.37	-1.05	-1.30	MR
D1A2AD	X	76.45	3.04	2.68	46.22	-0.20	-0.25	MR
DY62HU		73.98	0.58	0.51	46.68	0.27	0.33	MR
E5LTAK		72.39	-1.02	-0.90	46.30	-0.12	-0.15	MR
GB1LQV		72.80	-0.61	-0.53	46.25	-0.17	-0.21	MR
GDKSJY		73.52	0.11	0.10	45.87	-0.55	-0.68	MR
GY3449		75.21	1.80	1.59	48.12	1.70	2.10	TV
HXT283		72.22	-1.19	-1.05	45.97	-0.45	-0.56	MM
J2BM2N		72.62	-0.79	-0.70	46.45	0.03	0.04	MR
K4VB4S		73.76	0.35	0.31	47.22	0.80	0.99	MR
KCA572		74.02	0.61	0.54	46.62	0.20	0.25	MR
KKAHBB	X	68.55	-4.86	-4.28	43.83	-2.58	-3.19	MR
KQ3ZVB		72.50	-0.91	-0.80	46.04	-0.38	-0.47	MR
LAKYPQ		73.12	-0.29	-0.25	45.53	-0.88	-1.09	MR
LB8PFW		73.08	-0.32	-0.28	45.93	-0.48	-0.60	MR
LMVP7S		71.10	-2.30	-2.03	45.43	-0.99	-1.22	MR
M9PY5J		73.82	0.41	0.36	46.87	0.45	0.56	MR
MDDLFR		73.42	0.01	0.01	46.30	-0.12	-0.14	MR
MRGVAS		73.48	0.08	0.07	46.47	0.05	0.06	MR
NUY25S		75.58	2.18	1.92	47.80	1.38	1.71	MR
QH55FZ		73.80	0.39	0.35	45.67	-0.75	-0.93	MM
QRF1HQ	X	73.35	-0.06	-0.05	44.48	-1.93	-2.39	MR
R6RUUZ		71.77	-1.64	-1.44	45.63	-0.78	-0.97	MR
RKKL3Q		72.87	-0.54	-0.47	45.27	-1.15	-1.42	MR
RZHJFM		73.00	-0.41	-0.36	45.70	-0.72	-0.89	XX

Analysis 660

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

WebCode	Data Flag	Sample T71-T72			Sample T73-T74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
TWYADS		73.32	-0.09	-0.08	46.37	-0.05	-0.06	MR
U1BBDV		73.22	-0.19	-0.17	45.90	-0.52	-0.64	MR
UFL97U		74.00	0.59	0.52	46.88	0.47	0.58	MR
WACXQ		72.57	-0.84	-0.74	45.35	-1.07	-1.32	ML
WLF5FQ		73.85	0.44	0.39	47.53	1.12	1.38	MR
XGRH4J		73.42	0.01	0.01	46.03	-0.38	-0.47	MR
Y266Q9		75.60	2.19	1.93	47.43	1.02	1.26	TV

Grand Means		Summary Statistics	
73.405	ML 1 + 4	46.417	ML 1 + 4
Std Dev Btwn Labs			
1.134	ML 1 + 4	0.809	ML 1 + 4
Statistics based on 39 of 42 reporting participants			

Samples T71-T72: NBR & T73-T74: Butyl

Comments on assigned Data Flags for Test #660

- D1A2AD (X) - Inconsistency in testing between Sample sets. Data for Sample set T71-T72 are high.
- KKAHBB (X) - Data for all Samples are low.
- QRF1HQ (X) - Inconsistency in testing between Sample sets.

Instrument Code Listing

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

Instruments:

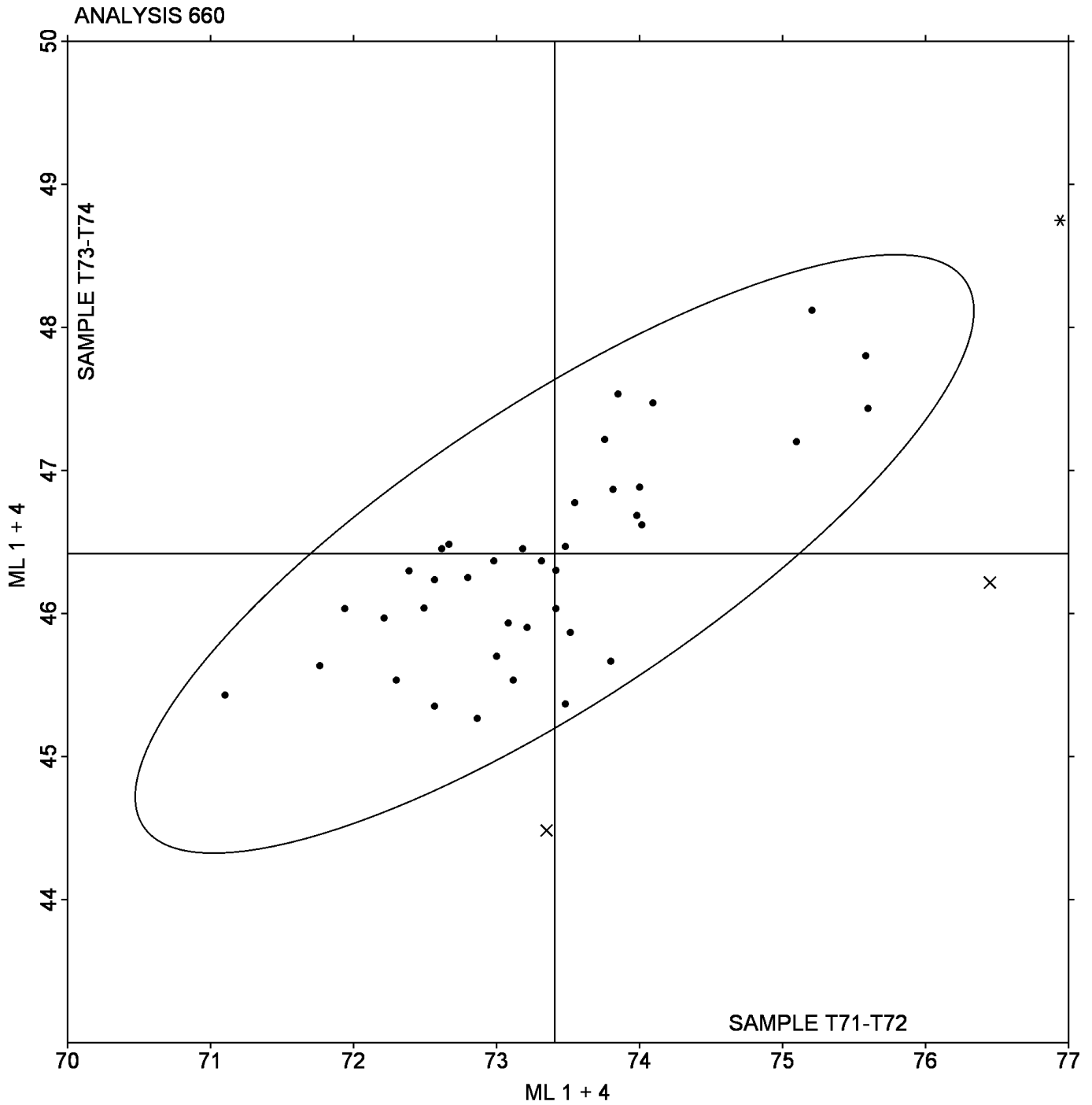
- (ML) Alpha Technologies/Monsanto model not specified
- (MP) Monsanto Compact Mooney Viscometer
- (MZ) Rebuilt Monsanto Mooney Viscometer
- (TV) Tech Pro Visc Tech (any model)
- (XX) Instrument make/model not specified by lab
- (MM) Alpha Technologies Model 1xxx or OSM
- (MR) Alpha Technologies Model MV2000/MV2000E
- (SF) Scott STI (any model)
- (XA) Special In-House Instrument

Analysis 660

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

Grand Mean Sample T71-T72 = 73.405 ML 1 + 4

Grand Mean Sample T73-T74 = 46.417 ML 1 + 4



Analysis 661

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

WebCode	Data Flag	Sample T71-T72			Sample T73-T74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2MTDME		72.87	-0.39	-0.42	44.08	-0.46	-0.66	MR
4VPVNM		71.77	-1.49	-1.61	44.25	-0.30	-0.42	MR
6F1FB9		73.48	0.23	0.24	44.98	0.44	0.62	MR
6KHM53		72.67	-0.59	-0.64	44.73	0.19	0.27	MR
6LWA8E		73.32	0.06	0.06	44.75	0.20	0.29	MR
71CFFL	X	76.45	3.19	3.45	44.62	0.07	0.10	MR
7A4QBA		73.48	0.23	0.24	43.73	-0.81	-1.16	MR
7H3AHC		71.94	-1.32	-1.43	44.30	-0.25	-0.35	TV
7NVLKN		72.50	-0.76	-0.83	44.55	0.00	0.00	MR
7WJYKZ		73.00	-0.26	-0.28	44.10	-0.45	-0.64	XX
899Y3F		73.35	0.09	0.10	44.43	-0.11	-0.16	MR
A7FMLL	X	68.55	-4.71	-5.09	42.15	-2.40	-3.43	MR
AUZ7UE		72.57	-0.69	-0.75	43.50	-1.05	-1.50	XX
BBGZ74	X	76.94	3.68	3.99	47.51	2.96	4.23	XX
BQ6HAE		75.21	1.95	2.11	46.15	1.60	2.29	TV
BTSFTY		75.60	2.34	2.53	45.68	1.14	1.62	TV
BXXYM		73.85	0.59	0.64	45.95	1.40	2.01	MR
DZ4TNU		73.76	0.50	0.54	45.50	0.95	1.36	TV
ERVHA		73.55	0.29	0.31	44.12	-0.43	-0.61	MM
FK5C5Z		71.10	-2.15	-2.33	44.21	-0.34	-0.49	MR
GY5G23	*	72.22	-1.04	-1.13	42.40	-2.15	-3.07	MM
H3QJ4V		72.80	-0.46	-0.50	44.73	0.19	0.27	MR
JEJAC6		73.80	0.54	0.59	43.88	-0.66	-0.95	MM
JPB4NN		73.82	0.56	0.60	45.20	0.65	0.93	MR
K5TXN6		75.10	1.84	1.99	45.18	0.64	0.91	MZ
L2GNR1		74.09	0.84	0.90	44.77	0.22	0.31	MP
R349UX		73.42	0.16	0.17	44.55	0.00	0.00	MR
R3JU49		72.39	-0.87	-0.94	44.68	0.13	0.19	MR
SHTCMF		73.98	0.73	0.78	44.97	0.42	0.60	MR
U4KELC		72.62	-0.64	-0.69	44.75	0.20	0.29	MR
UWH7M		72.98	-0.27	-0.30	44.78	0.24	0.34	MR
UXDBCJ		73.42	0.16	0.17	44.40	-0.15	-0.21	MR
V1ANLJ		72.30	-0.96	-1.04	44.08	-0.46	-0.66	MR
V5W6FF		73.18	-0.07	-0.08	44.12	-0.43	-0.61	MM
WCTR8F		73.12	-0.14	-0.15	43.67	-0.88	-1.26	MR

Analysis 661

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

WebCode	Data Flag	Sample T71-T72			Sample T73-T74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
WMPJ2T		73.22	-0.04	-0.04	44.10	-0.45	-0.64	MR
X2862P		74.02	0.76	0.82	45.07	0.52	0.74	MR
X716KQ		73.52	0.26	0.28	44.45	-0.10	-0.14	MR
YMMNT		72.57	-0.69	-0.75	44.75	0.20	0.29	MR
ZGJ89P		74.00	0.74	0.80	44.68	0.14	0.19	MR

Summary Statistics

Grand Means

73.258 ML

44.547 ML

Std Dev Btwn Labs

0.924 ML

0.700 ML

Statistics based on 37 of 40 reporting participants

Please refer to the sample information provided for Analysis 660.

Comments on assigned Data Flags for Test #661

71CFFL (X) - Data for Sample set T71-T72 are high.

A7FMLL (X) - Data for all Samples are low.

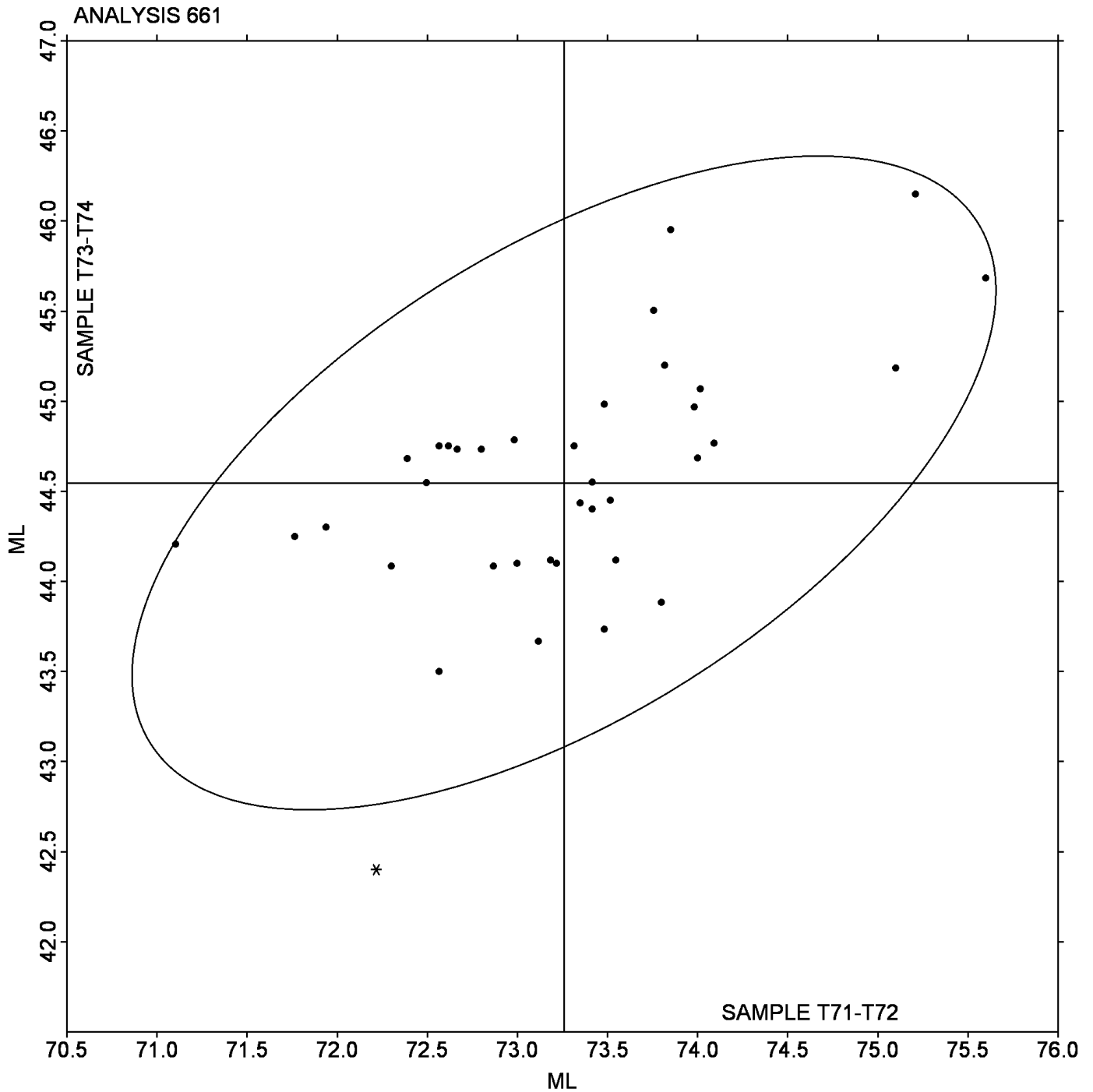
BBGZ74 (X) - Data for all Samples are high.

Analysis 661

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

Grand Mean Sample T71-T72 = 73.258 ML

Grand Mean Sample T73-T74 = 44.547 ML



Rubber Interlaboratory Testing Program

Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample X71-X72			Sample X73-X74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
353YE3		1.663	0.267	1.02	2.827	0.331	0.75	ZZ
3CUSGU		1.319	-0.078	-0.30	2.494	-0.002	0.00	ZZ
5Q6LQ4		1.568	0.172	0.66	2.838	0.342	0.77	ZZ
77MEQS		1.387	-0.010	-0.04	2.602	0.106	0.24	ZZ
7H9ZY2		1.807	0.410	1.57	3.178	0.682	1.54	ZZ
CSHB67		1.278	-0.118	-0.45	2.332	-0.164	-0.37	ZZ
D8D8H8		1.415	0.018	0.07	2.430	-0.066	-0.15	ZZ
DFEJVT		1.322	-0.075	-0.29	2.372	-0.124	-0.28	ZZ
HCCGU1		1.555	0.158	0.61	2.715	0.219	0.49	ZZ
LNJRJZQ		1.548	0.152	0.58	2.733	0.237	0.54	ZZ
PWKJ3K	*	0.822	-0.575	-2.20	1.312	-1.184	-2.67	ZZ
S7QS6M		1.492	0.095	0.36	2.685	0.189	0.43	ZZ
VY525Y		1.313	-0.083	-0.32	2.672	0.176	0.40	ZZ
W58DRM		1.588	0.192	0.73	2.600	0.104	0.24	ZZ
WGK9ZC		0.797	-0.600	-2.30	1.603	-0.893	-2.02	ZZ
WQ6XF2		1.462	0.065	0.25	2.565	0.069	0.16	ZZ
Z3D6GE		1.410	0.013	0.05	2.473	-0.023	-0.05	ZZ

Summary Statistics	
Grand Means	
1.3968 minutes	2.4959 minutes
Std Dev Btwn Labs	
0.2611 minutes	0.4428 minutes
Statistics based on 17 of 17 reporting participants	

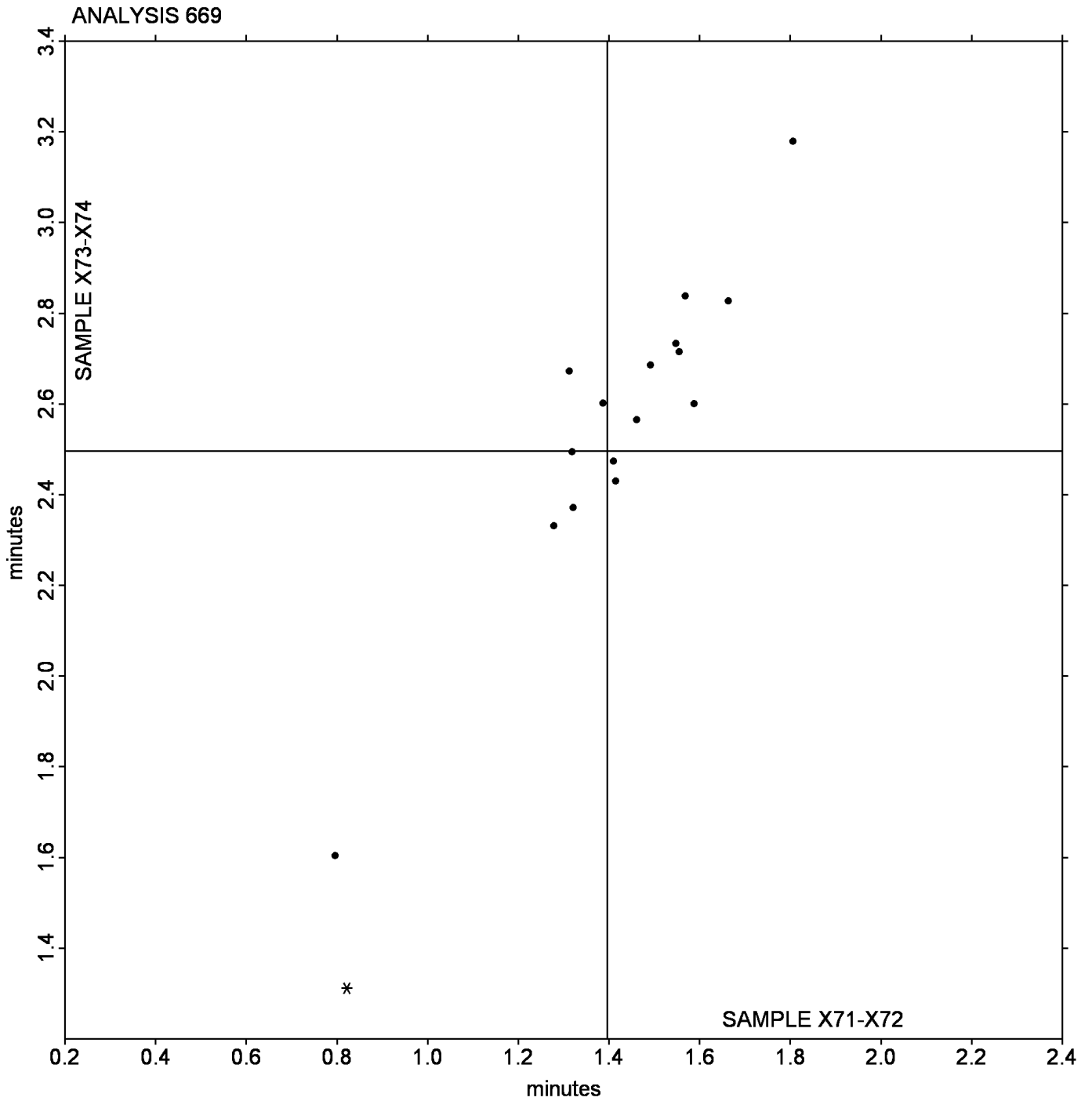
Samples X71-X72: EPDM compound #1 & X73-X74: EPDM compound #2

Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample X71-X72 = 1.3968 minutes

Grand Mean Sample X73-X74 = 2.4959 minutes



Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample X71-X72			Sample X73-X74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1PB3MC		1.217	0.134	0.87	2.022	0.140	0.53	ZZ
2JFMFC		1.050	-0.033	-0.22	1.798	-0.084	-0.32	ZZ
2ZCNMK		1.302	0.219	1.43	2.272	0.390	1.48	ZZ
4GYUJV		1.017	-0.066	-0.43	1.847	-0.035	-0.13	ZZ
4TYP5B		1.308	0.225	1.47	2.223	0.341	1.29	ZZ
51DVEN		1.117	0.034	0.22	1.943	0.061	0.23	ZZ
7FWV3J		1.092	0.009	0.06	2.123	0.241	0.91	ZZ
B11CWH		0.963	-0.120	-0.78	2.017	0.135	0.51	ZZ
EYR4YV		1.152	0.069	0.45	2.012	0.130	0.49	ZZ
EZ36W8		1.037	-0.046	-0.30	1.708	-0.174	-0.66	ZZ
F2STAG		0.954	-0.129	-0.84	1.912	0.030	0.11	ZZ
GR684Q		0.948	-0.135	-0.88	1.597	-0.285	-1.08	ZZ
HQG3XQ		1.083	0.000	0.00	1.833	-0.049	-0.18	ZZ
KHTTSZ		0.940	-0.143	-0.93	1.742	-0.140	-0.53	ZZ
N219QM		1.103	0.020	0.13	1.970	0.088	0.33	ZZ
NUGENR		1.092	0.009	0.06	1.780	-0.102	-0.39	ZZ
RXBTXS		1.163	0.080	0.52	1.905	0.023	0.09	ZZ
URWPTE	*	0.603	-0.480	-3.13	0.962	-0.920	-3.49	ZZ
W7SU29		1.302	0.219	1.43	2.102	0.220	0.83	ZZ
X1V9WJ		1.102	0.019	0.12	1.853	-0.029	-0.11	ZZ
Z68TMH		1.172	0.089	0.58	1.993	0.111	0.42	ZZ
ZNN5V9		1.113	0.030	0.20	1.792	-0.090	-0.34	ZZ

Summary Statistics	
Grand Means	
1.0831 minutes	1.8821 minutes
Std Dev Btwn Labs	
0.1533 minutes	0.2639 minutes
Statistics based on 22 of 22 reporting participants	

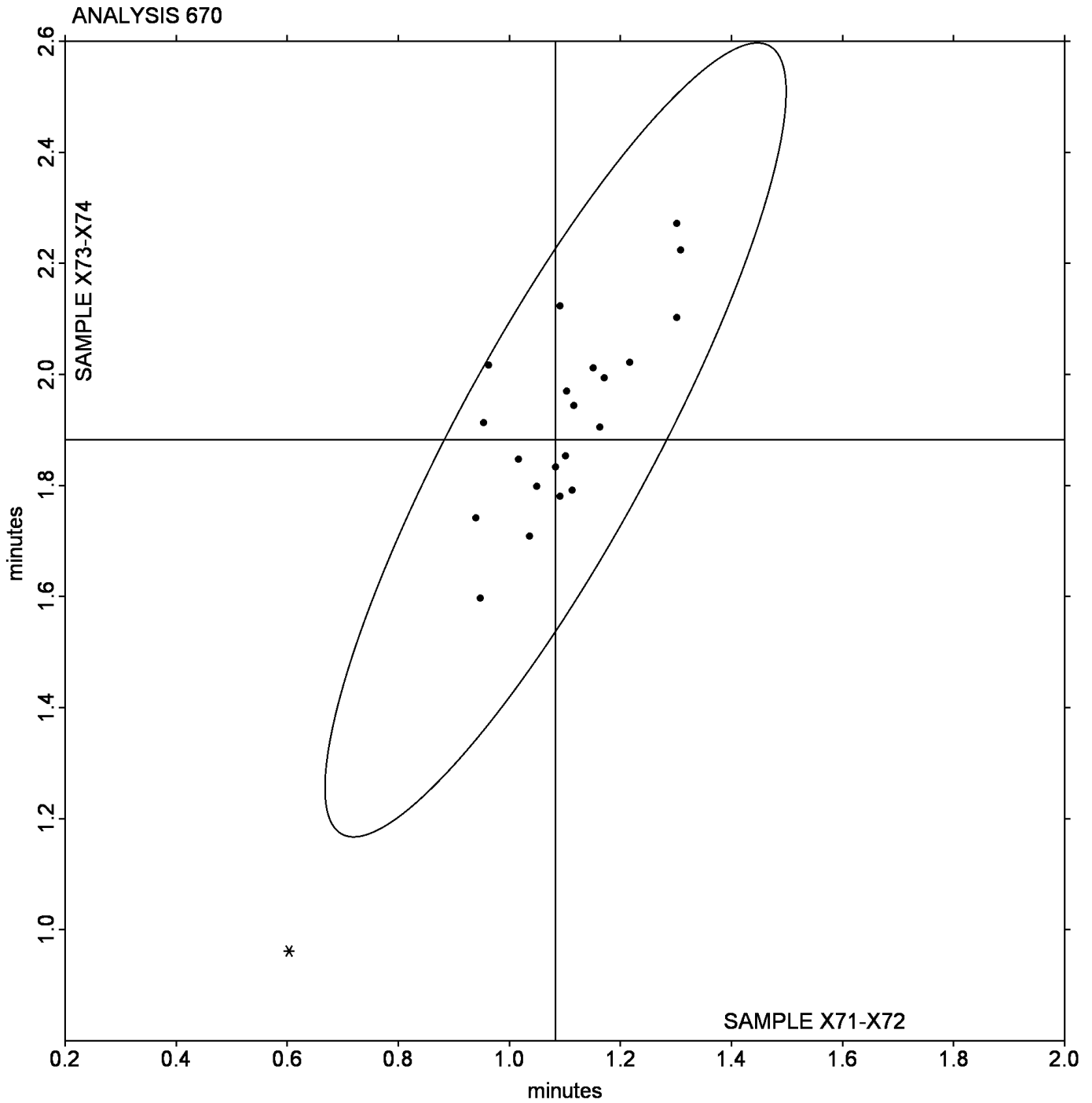
Samples X71-X72: EPDM compound #1 & X73-X74: EPDM compound #2

Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample X71-X72 = 1.0831 minutes

Grand Mean Sample X73-X74 = 1.8821 minutes



Rubber Interlaboratory Testing Program

Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample X71-X72			Sample X73-X74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2LMKU9		1.548	-1.249	-2.25	2.733	-2.234	-2.21	ZZ
2ZKKGH		3.122	0.325	0.58	5.417	0.449	0.44	ZZ
7JANRD		2.642	-0.155	-0.28	4.797	-0.171	-0.17	ZZ
7PA1FV		3.032	0.235	0.42	5.057	0.089	0.09	ZZ
8VZWYE	*	3.868	1.071	1.93	6.268	1.301	1.29	ZZ
AS91B3		2.980	0.183	0.33	5.768	0.801	0.79	ZZ
CBFYYW		1.507	-1.290	-2.32	2.385	-2.582	-2.55	ZZ
CCL6PW	X	4.287	1.490	2.68	6.333	1.366	1.35	ZZ
D68DQC		2.987	0.190	0.34	5.303	0.336	0.33	ZZ
DLEKKF		2.733	-0.064	-0.11	5.332	0.364	0.36	ZZ
GAQJ4X		3.175	0.378	0.68	5.592	0.624	0.62	ZZ
GTN1TS		2.900	0.103	0.19	5.067	0.099	0.10	ZZ
GVM MY		2.773	-0.024	-0.04	4.962	-0.006	-0.01	ZZ
H825X5		2.818	0.021	0.04	4.985	0.018	0.02	ZZ
JHMPXV		2.782	-0.015	-0.03	5.058	0.091	0.09	ZZ
K15RMW		3.507	0.710	1.28	5.945	0.978	0.97	ZZ
MJR VVN		3.018	0.221	0.40	5.730	0.763	0.75	ZZ
MLU7FM		1.690	-1.107	-1.99	2.680	-2.287	-2.26	ZZ
PQSYKR		3.097	0.300	0.54	5.607	0.639	0.63	ZZ
V5WYZL		2.832	0.035	0.06	5.143	0.176	0.17	ZZ
V6GSFB		3.098	0.301	0.54	5.483	0.516	0.51	ZZ
XVM42Y		2.744	-0.053	-0.10	4.725	-0.243	-0.24	ZZ
Z4QGZZ		2.877	0.080	0.14	5.210	0.243	0.24	ZZ
ZK1KV7		2.605	-0.192	-0.35	5.003	0.036	0.04	ZZ

Summary Statistics	
Grand Means	
2.7971 minutes	4.9674 minutes
Std Dev Btwn Labs	
0.5556 minutes	1.0109 minutes
Statistics based on 23 of 24 reporting participants	

Samples X71-X72: EPDM compound #1 & X73-X74: EPDM compound #2

Comments on assigned Data Flags for Test #671

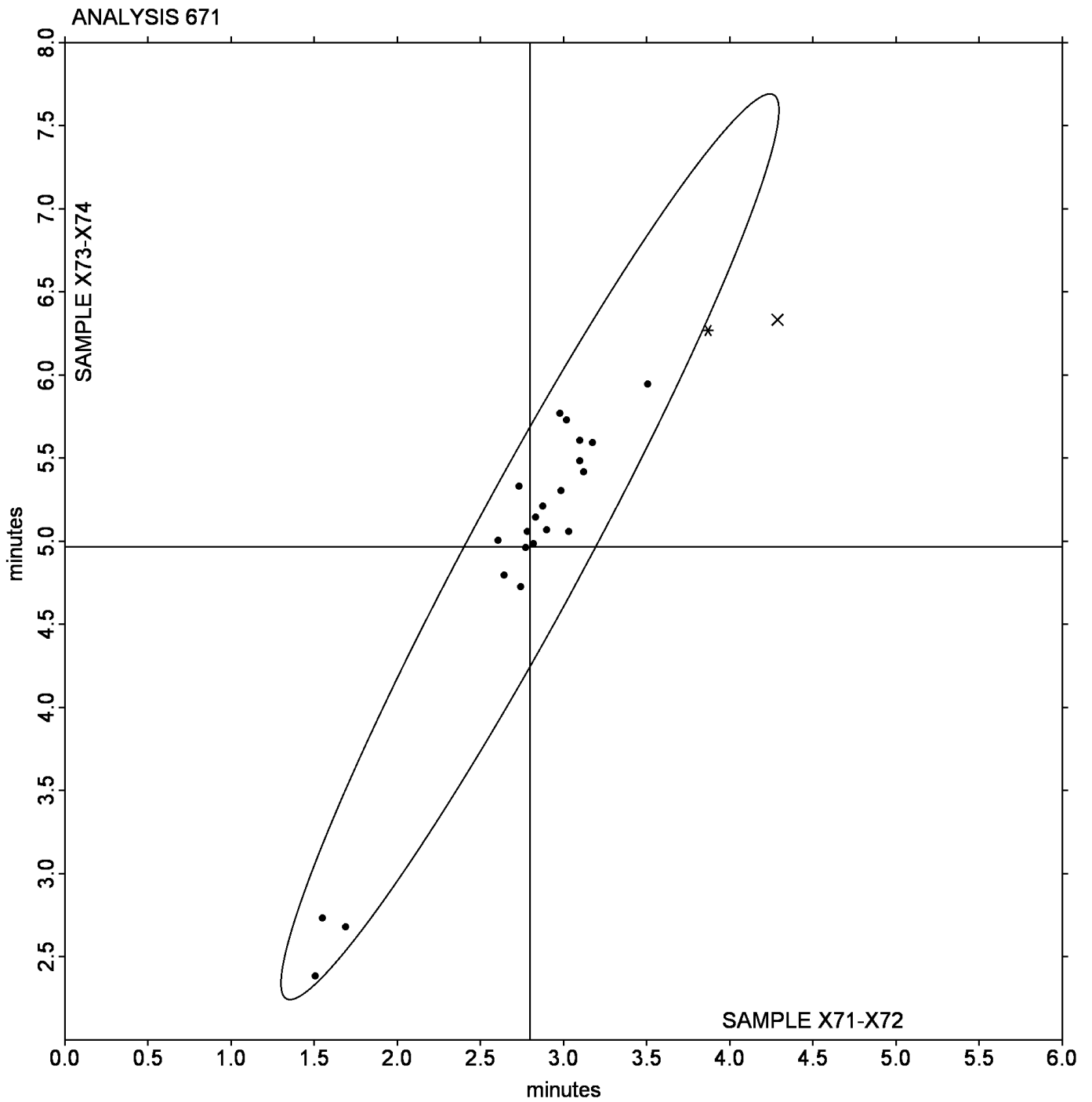
CCL6PW (X) - Data for Sample set X73-X74 are high.

Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample X71-X72 = 2.7971 minutes

Grand Mean Sample X73-X74 = 4.9674 minutes



Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample X71-X72			Sample X73-X74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1QHU9P		12.17	0.25	0.10	10.420	1.254	0.64	ZZ
21J7BF		11.02	-0.89	-0.35	8.983	-0.182	-0.09	ZZ
27P8NQ		13.14	1.22	0.48	10.048	0.883	0.45	ZZ
2AD2XJ		11.83	-0.09	-0.03	10.925	1.759	0.90	ZZ
2TKB33		10.65	-1.27	-0.50	9.455	0.289	0.15	ZZ
2WT924		10.72	-1.20	-0.47	9.083	-0.082	-0.04	ZZ
71H1WF		12.20	0.29	0.11	8.352	-0.814	-0.41	ZZ
9ZG2G5		10.97	-0.94	-0.37	8.812	-0.354	-0.18	ZZ
BJ99JU	*	18.90	6.98	2.75	12.888	3.723	1.90	ZZ
DZ5UJD		12.37	0.46	0.18	8.355	-0.810	-0.41	ZZ
E9ASBN		12.18	0.27	0.10	9.458	0.293	0.15	ZZ
JHVCSW		12.19	0.27	0.11	9.278	0.113	0.06	ZZ
JMGVLT		13.43	1.51	0.59	9.923	0.758	0.39	ZZ
JZ14ZY		5.60	-6.31	-2.48	3.955	-5.211	-2.66	ZZ
KML623		16.04	4.12	1.62	11.560	2.394	1.22	ZZ
KTFW8Z		11.92	0.00	0.00	9.710	0.544	0.28	ZZ
LEUUDE		12.41	0.49	0.19	8.628	-0.537	-0.27	ZZ
LRUP1V		13.97	2.05	0.81	9.910	0.744	0.38	ZZ
M6CRER		12.04	0.13	0.05	9.568	0.403	0.21	ZZ
NG1BME		10.74	-1.18	-0.46	8.612	-0.554	-0.28	ZZ
NTX4K6		10.56	-1.36	-0.53	8.712	-0.454	-0.23	ZZ
P68E4L	*	6.81	-5.11	-2.01	3.595	-5.571	-2.84	ZZ
SU4B3M		11.93	0.01	0.00	9.480	0.314	0.16	ZZ
TNWTCF		12.20	0.28	0.11	10.267	1.101	0.56	ZZ

Summary Statistics	
Grand Means	
11.915 minutes	9.1658 minutes
Std Dev Btwn Labs	
2.541 minutes	1.9626 minutes
Statistics based on 24 of 24 reporting participants	

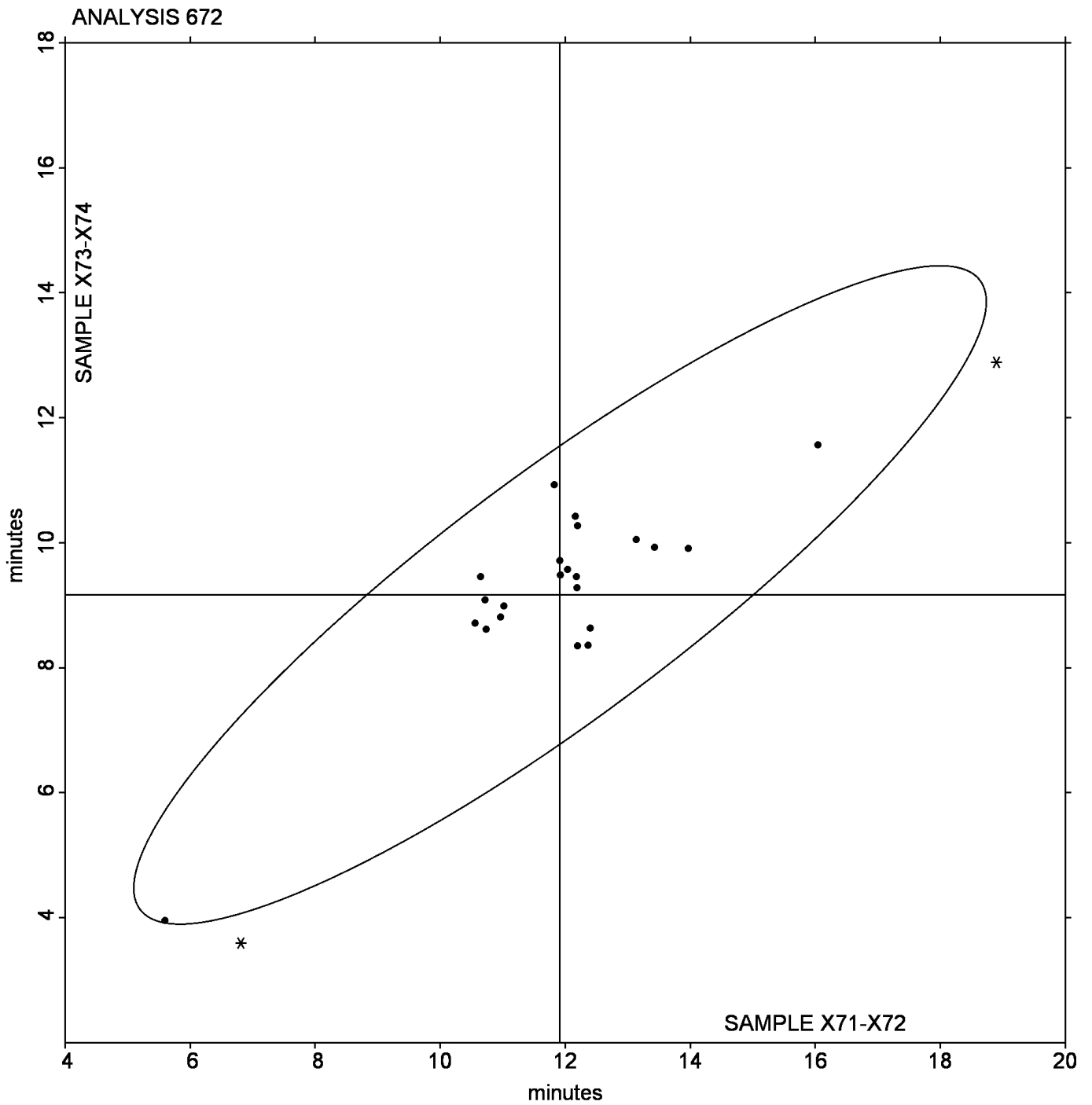
Samples X71-X72: EPDM compound #1 & X73-X74: EPDM compound #2

Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample X71-X72 = 11.915 minutes

Grand Mean Sample X73-X74 = 9.1658 minutes



Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample X71-X72			Sample X73-X74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1XXMQE		7.020	-0.463	-0.72	7.147	-0.655	-0.43	ZZ
3EAMFD		8.067	0.584	0.91	7.398	-0.404	-0.26	ZZ
44DEFV		6.713	-0.769	-1.20	6.012	-1.790	-1.17	ZZ
7XJMBB		8.267	0.784	1.22	7.392	-0.410	-0.27	ZZ
7XS6DU		7.633	0.151	0.24	7.025	-0.777	-0.51	ZZ
8C5C45		7.090	-0.393	-0.61	7.108	-0.694	-0.45	ZZ
AGLRAG		8.168	0.686	1.07	11.272	3.470	2.27	ZZ
BAY7XT	X	13.497	6.014	9.40	11.820	4.018	2.62	ZZ
BKL6PY		7.525	0.042	0.07	6.837	-0.965	-0.63	ZZ
CJM75R		6.353	-1.129	-1.76	8.893	1.091	0.71	ZZ
DJ1BY8		7.642	0.159	0.25	8.205	0.403	0.26	ZZ
ELMCG2		7.883	0.401	0.63	7.817	0.015	0.01	ZZ
ES5GF4		7.683	0.201	0.31	7.512	-0.290	-0.19	ZZ
H2CJUY		8.093	0.611	0.95	7.708	-0.094	-0.06	ZZ
KXG9DJ		7.078	-0.404	-0.63	6.330	-1.472	-0.96	ZZ
MQYTP6		7.438	-0.044	-0.07	8.113	0.311	0.20	ZZ
STR8PH		7.656	0.173	0.27	9.588	1.786	1.17	ZZ
UD4VUL		6.840	-0.643	-1.00	9.020	1.218	0.80	ZZ
UE7TLF		8.378	0.896	1.40	8.660	0.858	0.56	ZZ
UEHJSL		6.642	-0.841	-1.31	5.720	-2.082	-1.36	ZZ
UM2DUG		8.410	0.927	1.45	7.040	-0.762	-0.50	ZZ
WYSMU	X	15.963	8.481	13.25	22.610	14.808	9.67	ZZ
XEBZJ7		6.345	-1.138	-1.78	5.560	-2.242	-1.46	ZZ
ZRU94Q		7.695	0.212	0.33	11.285	3.483	2.28	ZZ

Summary Statistics	
Grand Means	
7.4828 lbf.in	7.8019 lbf.in
Std Dev Btwn Labs	
0.6400 lbf.in	1.5309 lbf.in
Statistics based on 22 of 24 reporting participants	

Rubber Interlaboratory Testing Program
Analysis 673
ODR Vulcanization: Minimum Torque (lbf.in)

		Summary Statistics in SI Units	
Grand Means	8.4544 dN.m	8.8150 dN.m	
Std Dev Btwn Labs	0.7231 dN.m	1.7297 dN.m	
Statistics based on 22 of 24 reporting participants			

Samples X71-X72: EPDM compound #1 & X73-X74: EPDM compound #2

Comments on assigned Data Flags for Test #673

BAY7XT (X) - Data for all Samples are high.

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

Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample X71-X72			Sample X73-X74			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2QUKKZ		34.75	-2.04	-0.78	30.65	-0.49	-0.35	ZZ
433CUW		35.43	-1.37	-0.52	31.15	0.00	0.00	ZZ
4E37FD		38.32	1.52	0.58	31.27	0.12	0.09	ZZ
649V2X		37.79	0.99	0.38	31.80	0.66	0.47	ZZ
65RVDZ	X	76.43	39.63	15.04	60.70	29.56	21.00	ZZ
76EVMV		32.68	-4.11	-1.56	29.26	-1.88	-1.34	ZZ
8QJMBA		35.85	-0.95	-0.36	31.16	0.02	0.01	ZZ
8YU4Q2		35.90	-0.89	-0.34	30.92	-0.22	-0.16	ZZ
C7Y7L3		35.80	-0.99	-0.38	31.37	0.23	0.16	ZZ
F47N91		41.98	5.19	1.97	33.79	2.65	1.88	ZZ
FJMTGU		36.31	-0.48	-0.18	31.69	0.55	0.39	ZZ
FP27VD		33.85	-2.95	-1.12	29.78	-1.37	-0.97	ZZ
JRFBXM		35.26	-1.54	-0.58	29.61	-1.54	-1.09	ZZ
JSSDVZ		41.24	4.45	1.69	33.61	2.47	1.75	ZZ
RD93HW		34.74	-2.06	-0.78	29.81	-1.34	-0.95	ZZ
SQRXTH		36.23	-0.57	-0.21	31.35	0.20	0.14	ZZ
TVD7FL		33.77	-3.03	-1.15	28.67	-2.47	-1.75	ZZ
UDGGFF		35.23	-1.56	-0.59	30.49	-0.65	-0.46	ZZ
UJXNAV		35.92	-0.88	-0.33	32.30	1.15	0.82	ZZ
WADQQ		37.84	1.04	0.40	30.28	-0.87	-0.62	ZZ
XEDJGH		38.18	1.38	0.53	30.46	-0.69	-0.49	ZZ
XMDCZ		41.36	4.57	1.73	34.04	2.90	2.06	ZZ
YFPRCP	X	45.59	8.80	3.34	43.11	11.97	8.51	ZZ
YQPM6D		41.06	4.27	1.62	31.70	0.55	0.39	ZZ

Summary Statistics

Grand Means

36.794 lbf.in

31.143 lbf.in

Std Dev Btwn Labs

2.636 lbf.in

1.407 lbf.in

Statistics based on 22 of 24 reporting participants

**Rubber Interlaboratory Testing Program
Analysis 674****ODR Vulcanization: Maximum Torque (lbf.in)**

Grand Means		Summary Statistics in SI Units	
	41.572 dN.m		35.186 dN.m
Stnd Dev Btwn Labs			
	2.978 dN.m		1.590 dN.m
Statistics based on 22 of 24 reporting participants			

Samples X71-X72: EPDM compound #1 & X73-X74: EPDM compound #2

Comments on assigned Data Flags for Test #674

65RVDZ (X) - Data for all Samples are high.

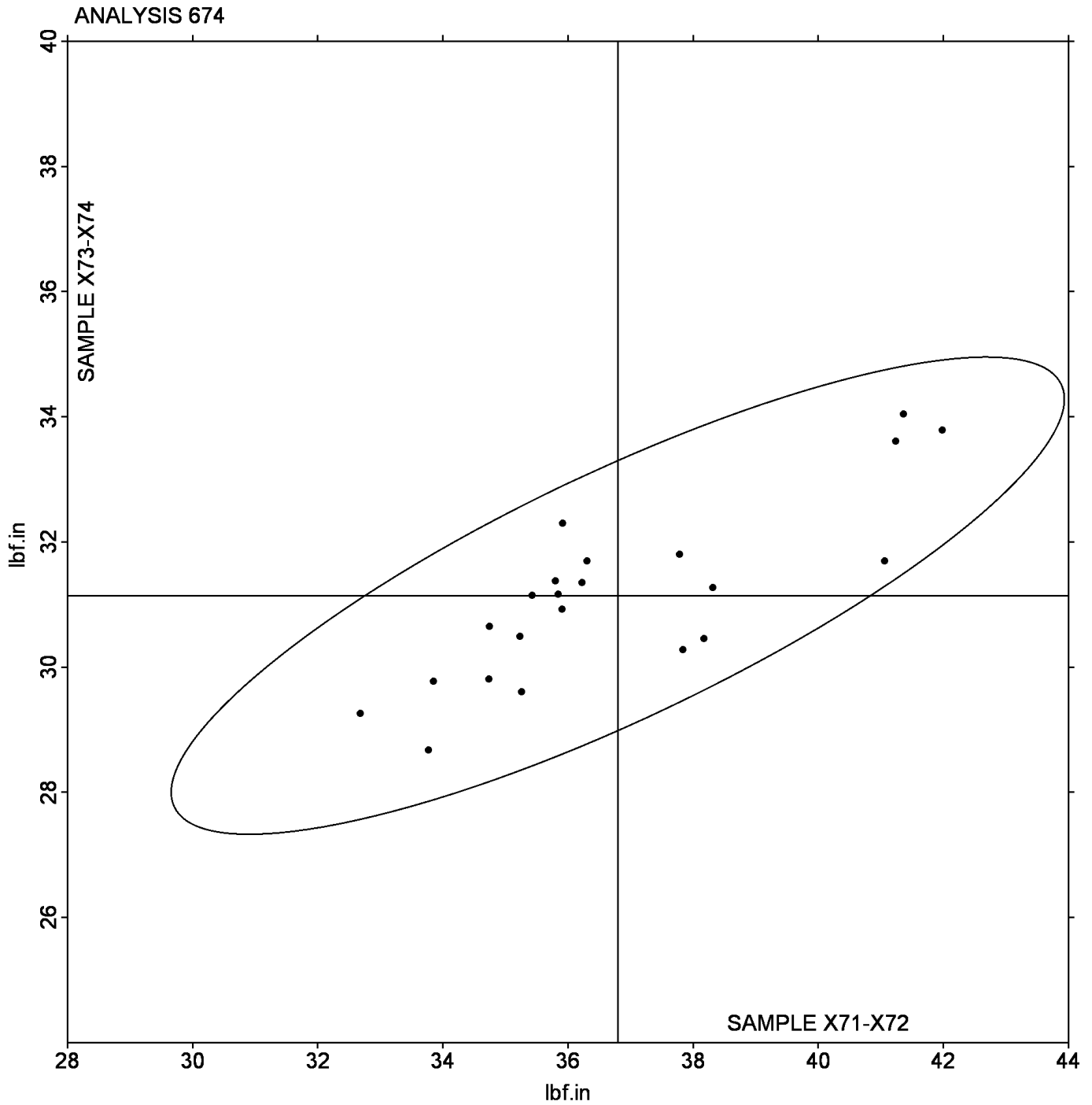
YFPRCP (X) - Data for all Samples are high.

Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample X71-X72 = 36.794 lbf.in

Grand Mean Sample X73-X74 = 31.143 lbf.in



Rubber Interlaboratory Testing Program

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample X75-X76			Sample X77-X78			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1QBSDP		1.957	0.119	1.07	1.940	0.113	1.17	MC
25HK86		1.830	-0.008	-0.07	1.823	-0.004	-0.04	MC
33XQPB		1.687	-0.151	-1.37	1.710	-0.117	-1.22	MC
3CN6J7		1.895	0.057	0.51	1.857	0.029	0.30	MC
3EZWZ4		1.852	0.014	0.12	1.840	0.013	0.13	TP
4LVS Y6		1.868	0.030	0.27	1.820	-0.007	-0.08	MD
66SXQ4		1.925	0.087	0.79	1.937	0.109	1.14	XX
7182SZ		1.700	-0.138	-1.25	1.703	-0.124	-1.29	MC
8JNNCZ		1.593	-0.245	-2.21	1.622	-0.206	-2.14	MC
AR3D5Q		1.870	0.032	0.29	1.853	0.026	0.27	MC
BLCDN2		1.680	-0.158	-1.43	1.675	-0.152	-1.59	TP
CYEQCV		2.003	0.165	1.49	1.957	0.129	1.34	MC
D6P2ZX		1.855	0.017	0.15	1.835	0.008	0.08	MC
DC2MG5		1.950	0.112	1.01	1.967	0.139	1.45	TP
DG6HUZ		1.860	0.022	0.20	1.828	0.001	0.01	MD
J3BWFK		1.773	-0.065	-0.58	1.810	-0.017	-0.18	MC
JAHVJ2		1.788	-0.050	-0.45	1.797	-0.031	-0.32	MP
K3VX47		1.657	-0.181	-1.64	1.688	-0.139	-1.45	MC
KCJ553		1.770	-0.068	-0.61	1.775	-0.052	-0.55	MC
LYLMVJ		1.883	0.045	0.41	1.844	0.017	0.18	MC
MS2CPZ		1.685	-0.153	-1.38	1.680	-0.147	-1.54	MC
NCE6T5		1.872	0.034	0.30	1.860	0.033	0.34	MC
NTXCJH		1.997	0.159	1.43	1.953	0.126	1.31	MC
PPQWA7		1.878	0.040	0.36	1.860	0.033	0.34	MC
QLRC8D		1.917	0.079	0.71	1.869	0.042	0.44	MC
W7KLEU		1.948	0.110	1.00	1.937	0.109	1.14	MD
X23N5K	X	0.953	-0.885	-7.98	0.935	-0.892	-9.29	MC
Z1NZY4		1.932	0.094	0.85	1.902	0.074	0.77	MC

Grand Means		Summary Statistics	
	1.8380 minutes		1.8275 minutes
Std Dev Btwn Labs	0.1108 minutes		0.0960 minutes
Statistics based on 27 of 28 reporting participants			

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

Samples X75-X76: EPDM compound, batch #1 & X77-X78: EPDM compound, batch #2

Comments on assigned Data Flags for Test #684

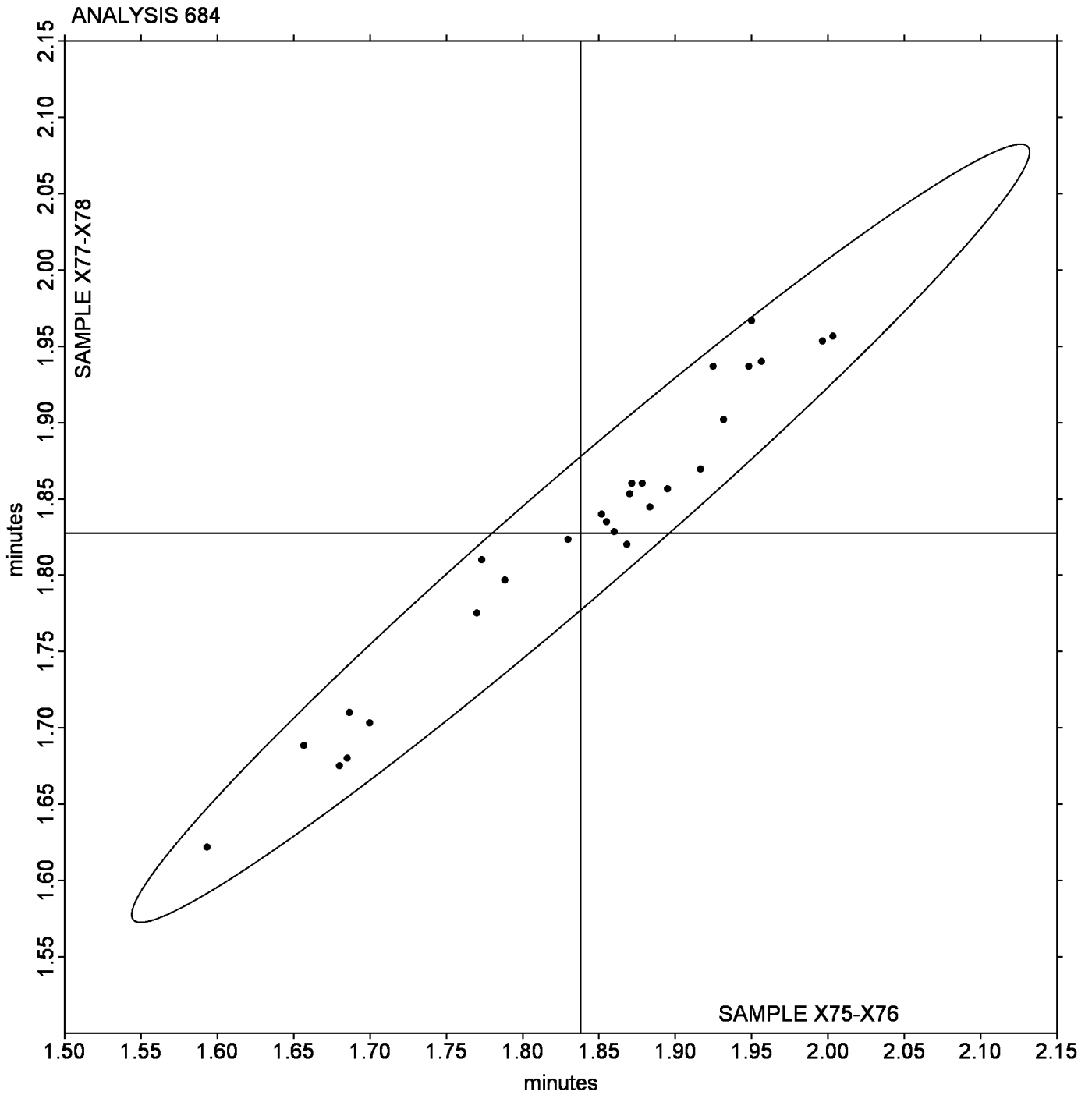
X23N5K (X) - Data for all Samples are low.

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample X75-X76 = 1.8380 minutes

Grand Mean Sample X77-X78 = 1.8275 minutes



Rubber Interlaboratory Testing Program

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample X75-X76			Sample X77-X78			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
174JHP	X	1.703	-0.075	-0.61	1.806	0.026	0.21	MC
1KUWTJ		1.673	-0.105	-0.86	1.635	-0.145	-1.19	MC
1U27N4		1.868	0.090	0.74	1.868	0.088	0.73	MC
2DPUD5		1.942	0.164	1.34	1.982	0.202	1.66	TP
323Q6K		1.700	-0.078	-0.64	1.695	-0.085	-0.70	MC
3ZFXM3		1.806	0.028	0.23	1.786	0.006	0.05	MC
5M9LLM		1.820	0.042	0.34	1.812	0.032	0.26	MD
5TQ4N8		1.883	0.105	0.86	1.835	0.055	0.45	MD
AB79KZ		1.845	0.067	0.55	1.823	0.043	0.36	MD
ANXFL4		1.690	-0.088	-0.72	1.710	-0.070	-0.57	MC
C62S2R		1.872	0.094	0.77	1.915	0.135	1.11	MC
CAPR3Z		1.888	0.110	0.90	1.890	0.110	0.90	MC
D83AL5	*	2.083	0.305	2.49	2.100	0.320	2.63	TP
DM1DUB		1.713	-0.065	-0.53	1.667	-0.113	-0.93	MC
DP4NRU		1.918	0.140	1.15	1.917	0.137	1.12	MC
DV9KCE		1.830	0.052	0.42	1.833	0.053	0.44	MC
E9WFHP		1.825	0.047	0.38	1.806	0.026	0.21	MC
GMACQ		1.642	-0.136	-1.11	1.660	-0.120	-0.98	XX
HJX5HW		1.732	-0.046	-0.38	1.757	-0.023	-0.19	MC
J4YN4G		1.763	-0.015	-0.12	1.790	0.010	0.08	MC
JJ76MP		1.647	-0.131	-1.07	1.675	-0.105	-0.86	MC
KWV38Z		1.553	-0.225	-1.84	1.573	-0.207	-1.70	MP
NJSB3Y		1.677	-0.101	-0.83	1.693	-0.087	-0.71	MC
PLQN6X		1.710	-0.068	-0.56	1.682	-0.098	-0.81	MC
PMAK7H		1.758	-0.020	-0.16	1.745	-0.035	-0.29	MC
RP74V1		1.597	-0.181	-1.48	1.633	-0.147	-1.20	MC
UND25G		1.685	-0.093	-0.76	1.683	-0.097	-0.79	MC
VTQWR		1.732	-0.046	-0.38	1.755	-0.025	-0.20	MC
XS97PA		1.972	0.194	1.58	1.947	0.167	1.37	MC
Y9FL3B		1.653	-0.125	-1.02	1.657	-0.123	-1.01	MC
YB73MC		1.902	0.124	1.01	1.913	0.133	1.09	XX
YPCDVK	X	0.958	-0.820	-6.70	0.957	-0.823	-6.76	MC
ZPAEKW		1.643	-0.135	-1.10	1.650	-0.130	-1.07	MC
ZSN77Q		1.875	0.097	0.79	1.872	0.092	0.75	MC

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

		Summary Statistics	
Grand Means	1.7780 minutes	1.7800 minutes	
Std Dev Btwn Labs	0.1224 minutes	0.1218 minutes	
Statistics based on 32 of 34 reporting participants			

Samples X75-X76: EPDM compound, batch #1 & X77-X78: EPDM compound, batch #2

Comments on assigned Data Flags for Test #685

174JHP (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within both sample sets.

YPCDVK (X) - Data for all Samples 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

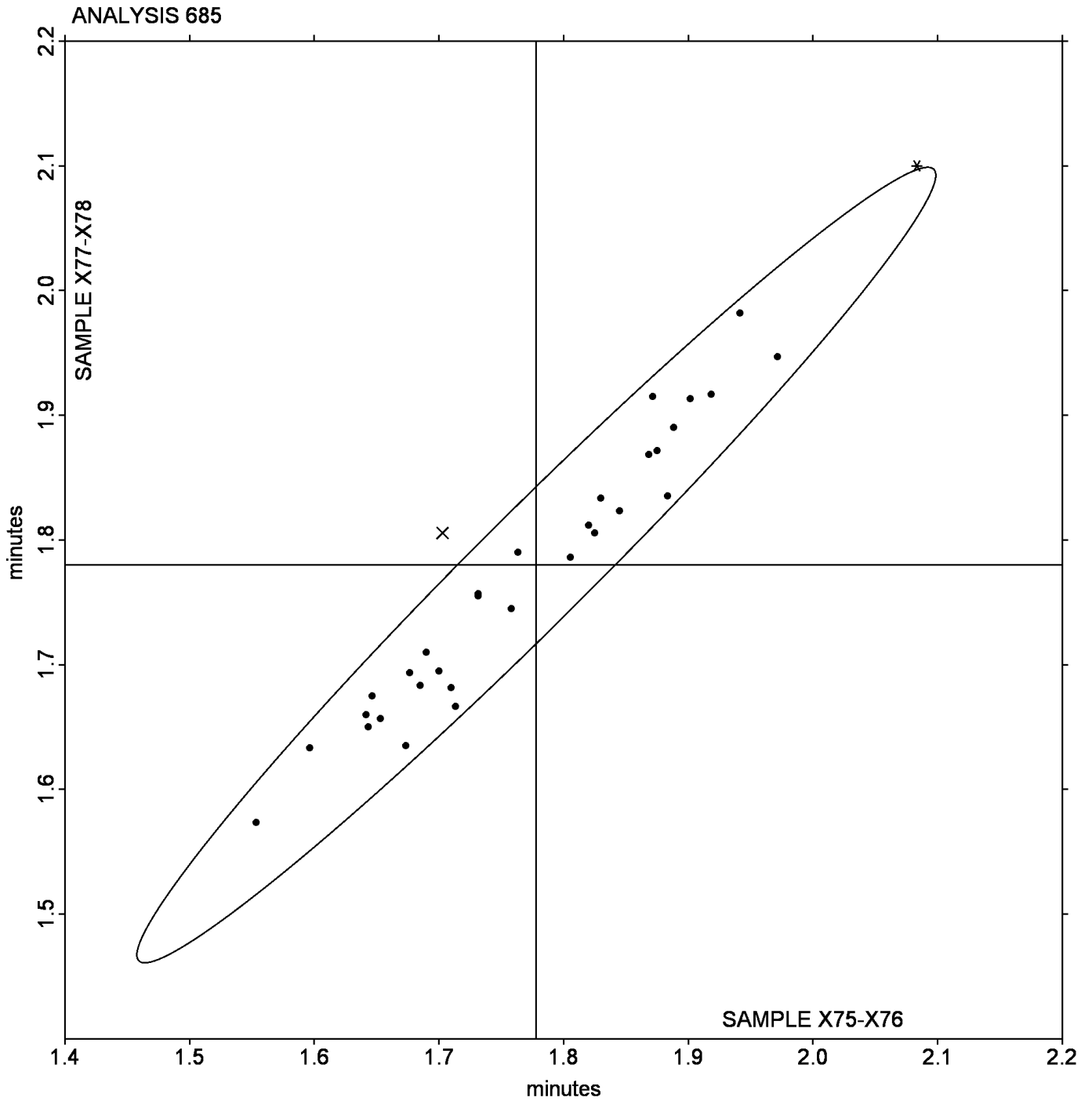
(XX) Instrument model not specified by lab

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample X75-X76 = 1.7780 minutes

Grand Mean Sample X77-X78 = 1.7800 minutes



Rubber Interlaboratory Testing Program

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample X75-X76			Sample X77-X78			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27GQJC		5.047	-0.271	-1.03	5.057	-0.255	-0.97	MC
2Y5V14		5.442	0.124	0.47	5.406	0.094	0.36	MC
5TWNVS		5.448	0.131	0.50	5.487	0.175	0.67	MC
6MGMP1		5.648	0.331	1.26	5.627	0.315	1.20	MC
6NFBFX		4.877	-0.441	-1.67	4.812	-0.500	-1.91	MC
786QSB		5.550	0.233	0.88	5.567	0.255	0.97	TP
84ZBZX		5.563	0.246	0.93	5.585	0.274	1.04	TP
8X9VE7		4.885	-0.432	-1.64	4.870	-0.441	-1.68	MC
91ZVPU		5.581	0.263	1.00	5.586	0.275	1.05	MC
9QEPDJ		5.085	-0.232	-0.88	5.035	-0.276	-1.05	MC
9S5NU3		5.382	0.064	0.24	5.385	0.074	0.28	MC
9XJDGB		5.625	0.308	1.17	5.640	0.329	1.25	MC
AKQFW		5.680	0.363	1.38	5.573	0.262	1.00	TP
APCCZ2		5.358	0.041	0.16	5.283	-0.028	-0.11	MD
BEYZ5B		5.210	-0.107	-0.41	5.165	-0.146	-0.56	MC
CVZQJE		4.748	-0.569	-2.16	4.748	-0.563	-2.15	MC
DP9GSU		5.110	-0.207	-0.79	5.202	-0.110	-0.42	MC
EHGB2S		5.230	-0.087	-0.33	5.198	-0.113	-0.43	MC
G9J94C		5.833	0.516	1.96	5.845	0.534	2.04	MC
GX3MSR		5.515	0.198	0.75	5.547	0.235	0.90	MC
HEQLT4		5.190	-0.127	-0.48	5.148	-0.163	-0.62	MC
HT894M		5.638	0.321	1.22	5.575	0.264	1.01	MC
J3DK3Q		5.102	-0.216	-0.82	5.080	-0.231	-0.88	MC
KEAE1Q		5.355	0.038	0.14	5.343	0.032	0.12	XX
KKWZJR		5.445	0.128	0.48	5.437	0.125	0.48	MC
LRSB31		5.528	0.211	0.80	5.507	0.195	0.74	MD
NGT8UW	X	2.245	-3.072	-11.67	2.250	-3.061	-11.68	MC
QU95QA		5.120	-0.197	-0.75	5.202	-0.110	-0.42	MC
QZHAJV		4.962	-0.356	-1.35	5.053	-0.258	-0.98	MP
RK639K		5.462	0.144	0.55	5.383	0.072	0.27	MD
U58SU5		5.343	0.026	0.10	5.367	0.055	0.21	MC
UGXZ4R		5.112	-0.206	-0.78	5.070	-0.241	-0.92	MC
VB15TQ		5.077	-0.241	-0.91	5.040	-0.271	-1.04	MC
W4FH4E		5.405	0.088	0.33	5.442	0.130	0.50	MC
YGFZBS		5.239	-0.078	-0.30	5.325	0.014	0.05	MC

**Rubber Interlaboratory Testing Program
Analysis 686****MDR Vulcanization-Cure Time 50% (minutes)**

		Summary Statistics	
Grand Means	5.3175 minutes		5.3114 minutes
Std Dev Btwn Labs	0.2632 minutes		0.2621 minutes
Statistics based on 34 of 35 reporting participants			

Samples X75-X76: EPDM compound, batch #1 & X77-X78: EPDM compound, batch #2

Comments on assigned Data Flags for Test #686

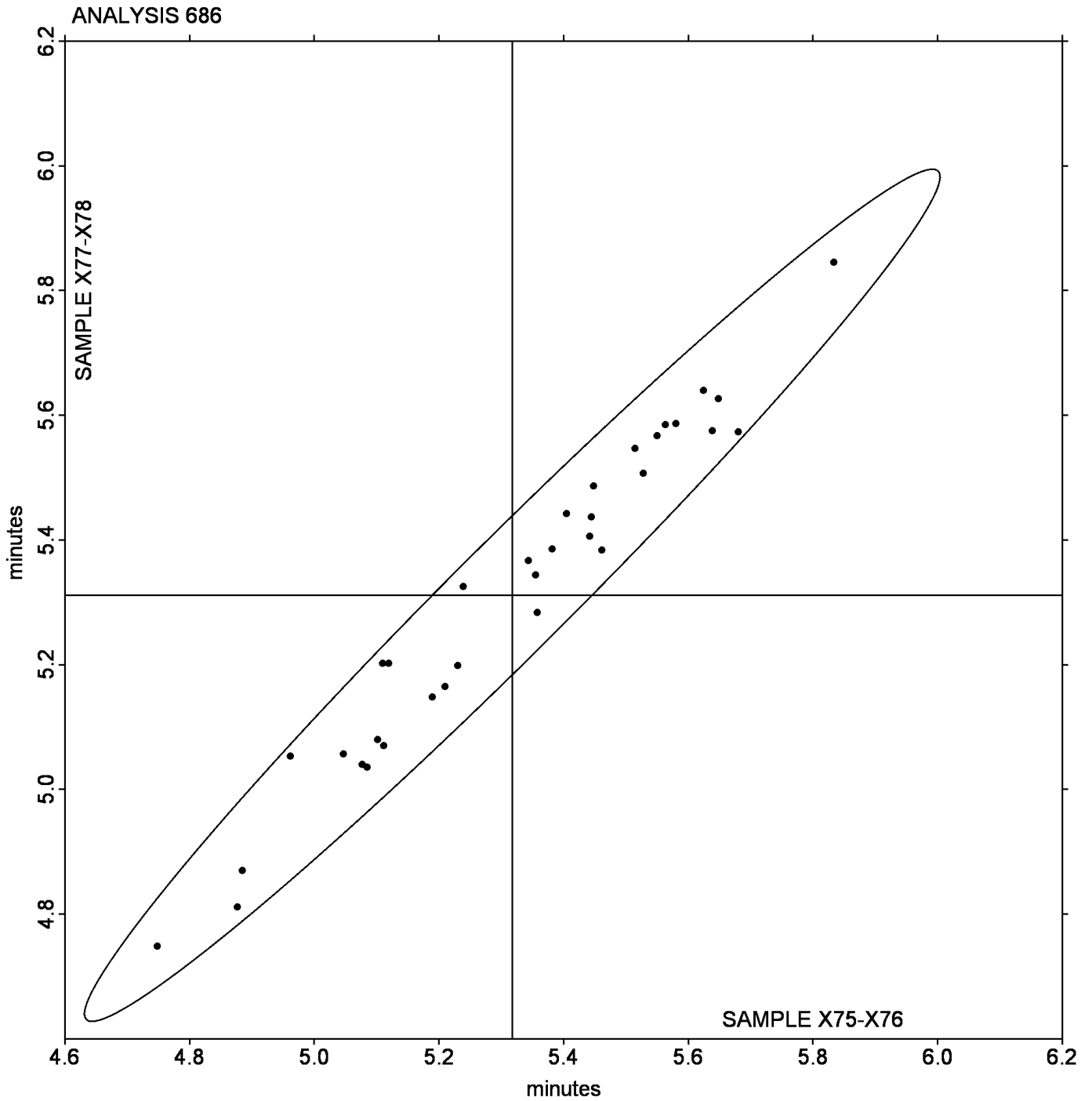
NGT8UW (X) - Data for all Samples are low.

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample X75-X76 = 5.3175 minutes

Grand Mean Sample X77-X78 = 5.3114 minutes



Rubber Interlaboratory Testing Program

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample X75-X76			Sample X77-X78			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
12Y48L		8.403	-0.048	-0.16	8.318	-0.124	-0.42	MC
166NXD		7.958	-0.493	-1.63	7.925	-0.517	-1.74	MC
1VK9FY		8.397	-0.055	-0.18	8.403	-0.039	-0.13	MC
2RX556		8.170	-0.281	-0.93	8.147	-0.296	-1.00	MC
4K2JVB		8.148	-0.303	-1.00	8.157	-0.286	-0.96	MC
4MM1X9		8.478	0.027	0.09	8.442	-0.001	0.00	MD
534UV7		8.610	0.159	0.53	8.638	0.196	0.66	MC
55LCJH		8.570	0.119	0.39	8.553	0.111	0.37	MC
5JMHJ2		8.667	0.215	0.71	8.673	0.231	0.78	TP
6RJHR3		8.828	0.377	1.25	8.813	0.371	1.25	MC
9PGCMX		8.689	0.238	0.79	8.672	0.230	0.78	MC
BFYBAZ		8.632	0.180	0.60	8.628	0.186	0.63	MC
EMNET6		8.048	-0.403	-1.34	8.038	-0.404	-1.36	MP
F3UJRQ		8.350	-0.101	-0.34	8.403	-0.039	-0.13	MC
HCH1R4		8.418	-0.033	-0.11	8.272	-0.171	-0.57	MC
J59GR5		8.385	-0.066	-0.22	8.365	-0.077	-0.26	MC
LB9GFQ		8.443	-0.008	-0.03	8.380	-0.062	-0.21	MD
MMGEB		9.030	0.579	1.92	9.017	0.574	1.94	MC
PZJ4JP	X	3.728	-4.723	-15.65	3.657	-4.786	-16.13	MC
QJH9BG		8.198	-0.253	-0.84	8.255	-0.187	-0.63	MC
R7A5WK		8.613	0.162	0.54	8.697	0.254	0.86	XX
SMDJEV		8.272	-0.180	-0.60	8.348	-0.094	-0.32	MD
U47MSW		8.100	-0.351	-1.16	8.208	-0.234	-0.79	MC
U6YAGP		8.467	0.015	0.05	8.417	-0.026	-0.09	TP
U89ZYE		8.923	0.472	1.56	8.805	0.363	1.22	TP
UF3R53		8.632	0.180	0.60	8.613	0.171	0.58	MC
UGMRX		8.827	0.375	1.24	8.822	0.379	1.28	MC
UHEYSA		8.597	0.146	0.48	8.672	0.230	0.78	MC
VAGKL8		7.853	-0.598	-1.98	7.853	-0.589	-1.98	MC
VT5K7Z		8.562	0.110	0.37	8.575	0.133	0.45	MC
VV8221		8.633	0.182	0.60	8.572	0.129	0.44	MC
VXX9JG		8.653	0.202	0.67	8.700	0.258	0.87	MC
X42QB3		8.867	0.415	1.38	8.773	0.331	1.12	MC
XD7JVV		7.953	-0.498	-1.65	7.982	-0.461	-1.55	MC
YHVJDV		7.973	-0.478	-1.58	7.897	-0.546	-1.84	MC

**Rubber Interlaboratory Testing Program
Analysis 687****MDR Vulcanization-Cure Time 90% (minutes)**

		Summary Statistics	
Grand Means	8.4515 minutes		8.4422 minutes
Std Dev Btwn Labs	0.3018 minutes		0.2967 minutes
Statistics based on 34 of 35 reporting participants			

Samples X75-X76: EPDM compound, batch #1 & X77-X78: EPDM compound, batch #2

Comments on assigned Data Flags for Test #687

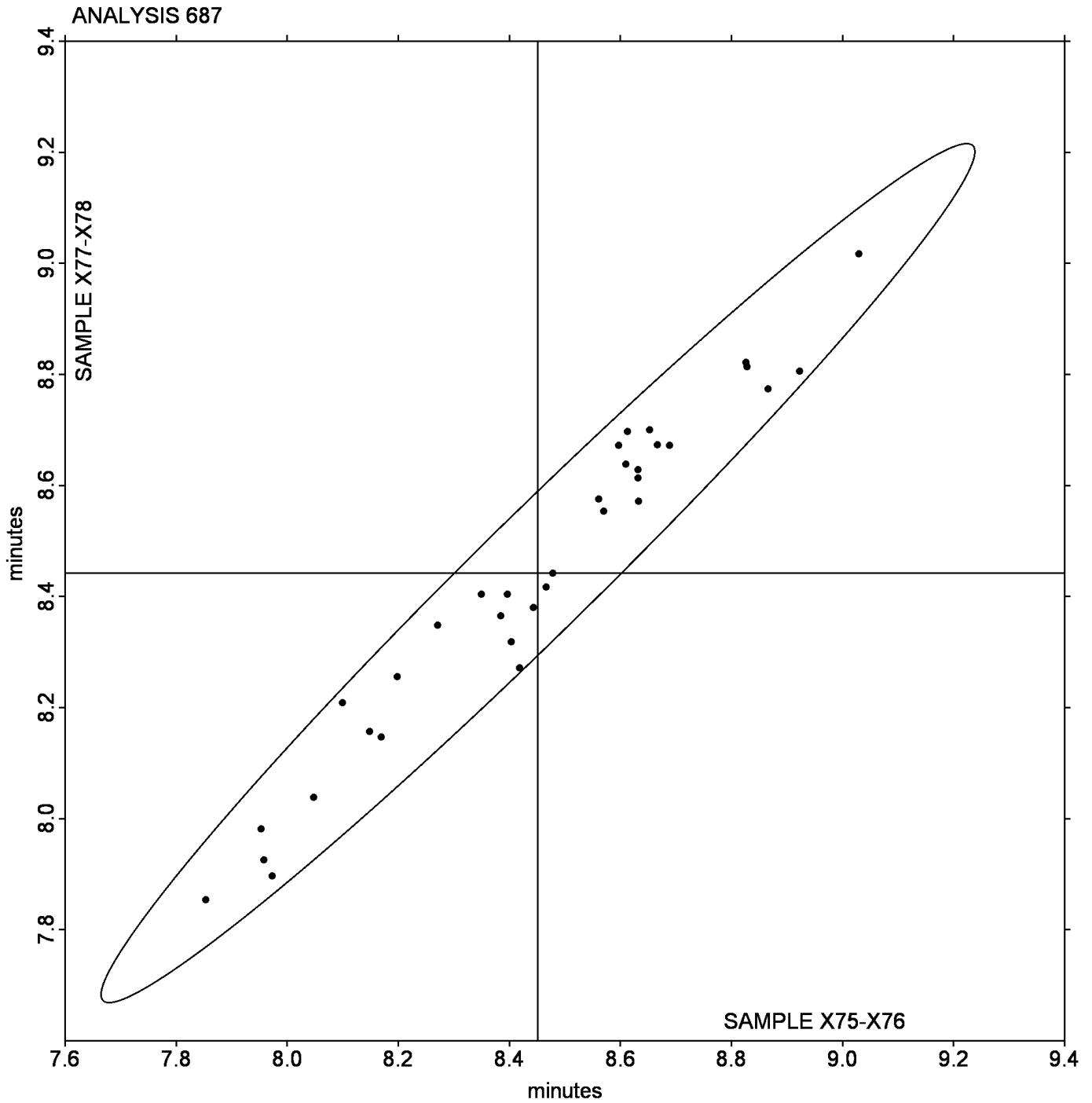
PZJ4JP (X) - Data for all Samples are low.

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample X75-X76 = 8.4515 minutes

Grand Mean Sample X77-X78 = 8.4422 minutes



Rubber Interlaboratory Testing Program

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample X75-X76			Sample X77-X78			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2XSPU9		1.592	-0.281	-0.77	1.639	-0.303	-0.82	MC
3L49W7	X	2.680	0.807	2.22	2.832	0.890	2.43	TP
3TNGSJ		1.597	-0.276	-0.76	1.667	-0.275	-0.75	MC
3X3YY2		1.758	-0.115	-0.31	1.850	-0.091	-0.25	MC
4LYYEN		1.763	-0.110	-0.30	1.848	-0.093	-0.25	MC
6MK46Y		1.607	-0.266	-0.73	1.678	-0.263	-0.72	MC
7S3KPE		1.699	-0.174	-0.48	1.760	-0.182	-0.49	MP
7VMXN4		2.555	0.682	1.87	2.658	0.717	1.95	MC
7WH5K7		2.255	0.382	1.05	2.353	0.412	1.12	MC
B8TM78		2.133	0.260	0.71	2.217	0.275	0.75	TP
BUZVYJ		1.735	-0.138	-0.38	1.802	-0.140	-0.38	MC
C4LEY9		1.948	0.075	0.21	1.993	0.052	0.14	MC
DEZQST		2.285	0.412	1.13	2.316	0.375	1.02	MC
DQE9YN		1.678	-0.195	-0.53	1.720	-0.221	-0.60	MC
DSGNDV	X	2.498	0.625	1.72	2.482	0.540	1.47	MC
DT6539		1.643	-0.230	-0.63	1.725	-0.217	-0.59	MD
EAPC4X		1.595	-0.278	-0.76	1.653	-0.288	-0.78	MC
ECTYN4		1.595	-0.278	-0.76	1.661	-0.280	-0.76	MC
FEE4ED		2.040	0.167	0.46	2.130	0.189	0.51	MC
N1MQZY		1.708	-0.165	-0.45	1.780	-0.161	-0.44	MC
N68C4V		1.949	0.076	0.21	2.003	0.062	0.17	XX
P5UU9Q		1.566	-0.307	-0.84	1.673	-0.268	-0.73	MD
PM93HY	*	2.900	1.027	2.82	2.995	1.053	2.87	MC
PVCEFN		1.565	-0.308	-0.85	1.610	-0.331	-0.90	MC
QMBF96		1.778	-0.095	-0.26	1.853	-0.088	-0.24	MC
R3KYSD		2.582	0.709	1.95	2.640	0.699	1.90	MC
S2RZGR		1.623	-0.250	-0.69	1.679	-0.263	-0.72	MC
SFLKJM		1.585	-0.288	-0.79	1.637	-0.305	-0.83	MC
SYZ4AJ		1.545	-0.328	-0.90	1.593	-0.348	-0.95	XX
TQTDS7		1.640	-0.233	-0.64	1.713	-0.228	-0.62	MC
VGTRXC	*	2.508	0.635	1.74	2.532	0.590	1.61	MC
WDH9YE		1.519	-0.354	-0.97	1.598	-0.344	-0.94	MD
XA7EZ2		2.210	0.337	0.93	2.300	0.359	0.98	MC
YHLQY8		1.633	-0.240	-0.66	1.724	-0.217	-0.59	MC
ZAQWQ7		2.018	0.145	0.40	2.065	0.124	0.34	TP

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Summary Statistics

Grand Means

1.8729 lbf.in

1.9414 lbf.in

Std Dev Btwn Labs

0.3642 lbf.in

0.3670 lbf.in

Statistics based on 33 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

2.1161 dN.m

2.1934 dN.m

Std Dev Btwn Labs

0.4115 dN.m

0.4147 dN.m

Statistics based on 33 of 35 reporting participants

Samples X75-X76: EPDM compound, batch #1 & X77-X78: EPDM compound, batch #2

Comments on assigned Data Flags for Test #688

3L49W7 (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Sample set X77-X78.

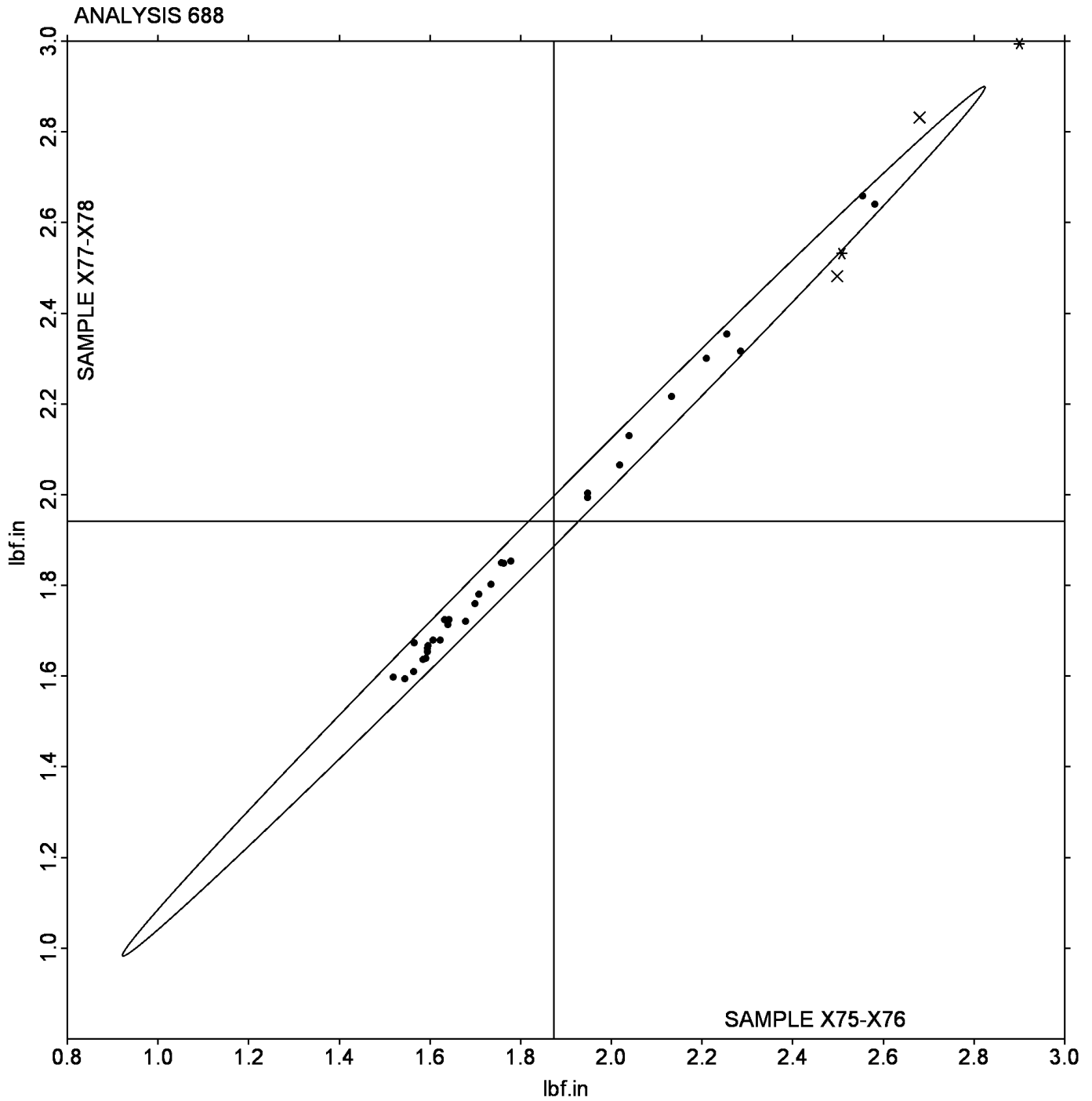
DSGNDV (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Sample set X75-X76.

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample X75-X76 = 1.8729 lbf.in

Grand Mean Sample X77-X78 = 1.9414 lbf.in



Rubber Interlaboratory Testing Program

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample X75-X76			Sample X77-X78			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
15TRA3		12.14	0.05	0.13	12.21	0.20	0.46	MC
325T23		11.90	-0.18	-0.43	11.82	-0.19	-0.44	MC
3B8G3T		12.64	0.56	1.30	12.35	0.34	0.79	MC
3UDNTG		12.42	0.33	0.78	12.30	0.28	0.66	MC
4B5B3A		12.17	0.08	0.20	12.08	0.06	0.15	MC
4KCE6H		12.35	0.26	0.62	12.28	0.27	0.63	MC
4MRELW		11.98	-0.11	-0.25	11.98	-0.04	-0.09	MC
5C2EL7		12.05	-0.03	-0.07	11.88	-0.14	-0.32	MC
6LE5YG		12.26	0.18	0.42	12.30	0.29	0.68	MC
7QLAZF		12.73	0.65	1.52	12.78	0.77	1.79	MD
8GHN5T		12.31	0.22	0.53	12.18	0.16	0.37	MC
8ZMZCA		12.10	0.02	0.05	11.93	-0.08	-0.19	MC
9BFRJZ		12.99	0.91	2.12	12.93	0.92	2.14	TP
CU7UW6		11.25	-0.83	-1.94	11.20	-0.81	-1.90	TP
DKKEY1	*	11.50	-0.59	-1.37	11.19	-0.83	-1.94	MC
E8DKRX		11.67	-0.41	-0.96	11.61	-0.41	-0.95	MD
FDWDW	*	11.37	-0.71	-1.67	11.58	-0.43	-1.01	MD
G4BLL5		12.28	0.20	0.46	12.18	0.17	0.39	MC
GAWY8		12.50	0.41	0.97	12.33	0.32	0.74	MC
HGTVQL		12.20	0.12	0.28	12.09	0.07	0.17	MC
HV4VQR		11.35	-0.73	-1.70	11.45	-0.57	-1.33	MC
JXBSA1		11.89	-0.19	-0.45	11.89	-0.12	-0.29	XX
KGZLJ2		12.63	0.54	1.27	12.59	0.58	1.35	MP
KZT2CS		12.50	0.42	0.99	12.32	0.31	0.71	MC
MVP31Q		11.83	-0.25	-0.58	11.80	-0.21	-0.50	MC
NUKD87		12.06	-0.02	-0.04	11.90	-0.11	-0.27	MC
QK6HPK		12.54	0.46	1.08	12.64	0.62	1.45	MC
QTHFSW		12.03	-0.05	-0.11	12.07	0.05	0.13	MC
S2AU67		11.44	-0.64	-1.50	11.44	-0.57	-1.34	MC
S8NWY2		12.12	0.04	0.09	12.05	0.04	0.08	MC
SBEVEL		12.00	-0.08	-0.19	12.12	0.11	0.25	MC
SEZS6A		12.29	0.21	0.49	12.15	0.13	0.31	MC
TDFQM9	*	11.39	-0.69	-1.62	11.11	-0.91	-2.12	TP
V7X3CF		11.74	-0.34	-0.80	11.72	-0.29	-0.68	XX
VDUE2C		12.26	0.17	0.41	12.07	0.06	0.14	MC

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

Summary Statistics**Grand Means**

12.082 lbf.in

12.015 lbf.in

Std Dev Btwn Labs

0.428 lbf.in

0.428 lbf.in

Statistics based on 35 of 35 reporting participants**Summary Statistics in SI Units****Grand Means**

13.651 dN.m

13.575 dN.m

Std Dev Btwn Labs

0.483 dN.m

0.483 dN.m

Statistics based on 35 of 35 reporting participants**Samples X75-X76: EPDM compound, batch #1 & X77-X78: EPDM compound, batch #2**

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample X75-X76 = 12.082 lbf.in

Grand Mean Sample X77-X78 = 12.015 lbf.in

