

Rubber Interlaboratory Testing Program

Summary Report #160- 2nd Qtr 2009

[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)
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. 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

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 B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1A5JS9		3,163.0	-13.5	-0.10	3,197.5	-10.6	-0.08	ZZ
1UKR9W		3,328.9	152.4	1.18	3,349.1	141.0	1.05	ZZ
2QT86A	*	3,416.0	239.5	1.85	3,315.5	107.4	0.80	ZZ
2RNVKZ	X	2,718.0	-458.5	-3.54	2,654.0	-554.1	-4.14	ZZ
2ZBH6H		3,241.9	65.4	0.51	3,318.1	110.0	0.82	ZZ
41TDMS		3,253.0	76.5	0.59	3,287.0	78.9	0.59	ZZ
49CUPC		3,042.0	-134.5	-1.04	2,959.0	-249.1	-1.86	ZZ
49VPJJ		3,053.0	-123.5	-0.95	3,060.5	-147.6	-1.10	ZZ
49VUUL		3,216.6	40.1	0.31	3,228.9	20.8	0.16	ZZ
4PUPEV		3,276.4	100.0	0.77	3,279.3	71.3	0.53	ZZ
4TJYWZ		3,231.2	54.7	0.42	3,236.5	28.4	0.21	ZZ
58WMT1		3,266.5	90.0	0.70	3,284.0	75.9	0.57	ZZ
5L1HWG		3,224.0	47.5	0.37	3,225.0	16.9	0.13	ZZ
5PG87J		3,148.5	-28.0	-0.22	3,262.0	53.9	0.40	ZZ
6HXXV3		2,961.5	-215.0	-1.66	2,989.5	-218.6	-1.63	ZZ
6MXMD		3,420.5	244.0	1.89	3,512.0	303.9	2.27	ZZ
74TYHQ		3,090.0	-86.5	-0.67	3,171.0	-37.1	-0.28	ZZ
7UDUYZ		3,242.3	65.9	0.51	3,315.6	107.5	0.80	ZZ
8EDBNZ		3,328.0	151.5	1.17	3,310.5	102.4	0.76	ZZ
8J7CNU		3,301.7	125.2	0.97	3,210.2	2.1	0.02	ZZ
8QJSU5		3,198.0	21.5	0.17	3,251.5	43.4	0.32	ZZ
8RFLJ2		3,227.1	50.6	0.39	3,125.6	-82.5	-0.62	ZZ
8YL8WJ		3,273.5	97.0	0.75	3,283.5	75.4	0.56	ZZ
9GAZX1		3,134.3	-42.2	-0.33	3,061.8	-146.3	-1.09	ZZ
9ZWAHH	*	3,193.0	16.5	0.13	3,399.0	190.9	1.42	ZZ
A3QSU7	X	3,164.8	-11.7	-0.09	2,945.3	-262.8	-1.96	ZZ
AA8MX4		3,045.0	-131.5	-1.02	3,050.5	-157.6	-1.18	ZZ
AYVCF4		3,178.5	2.0	0.02	3,186.0	-22.1	-0.16	ZZ
B7FL5D		3,204.6	28.2	0.22	3,111.8	-96.3	-0.72	ZZ
BAJX48		3,001.0	-175.5	-1.36	3,051.5	-156.6	-1.17	ZZ
BLA3SB		3,381.0	204.5	1.58	3,447.5	239.4	1.79	ZZ
BWXVFJ		3,138.0	-38.5	-0.30	3,134.0	-74.1	-0.55	ZZ
BYU6VK	X	3,642.5	466.0	3.60	3,595.0	386.9	2.89	ZZ
BZ4QK1		3,252.0	75.5	0.58	3,305.3	97.2	0.73	ZZ
BZ5YWD		3,097.0	-79.5	-0.61	3,204.5	-3.6	-0.03	ZZ

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
C8SYNM		3,166.9	-9.6	-0.07	3,173.1	-35.0	-0.26	ZZ
CM2GWF		3,209.0	32.5	0.25	3,253.2	45.1	0.34	ZZ
CMULZR		3,148.1	-28.4	-0.22	3,246.7	38.6	0.29	ZZ
CUJZ6G		3,009.3	-167.2	-1.29	3,079.2	-128.9	-0.96	ZZ
EKQUH8		3,272.5	96.0	0.74	3,277.0	68.9	0.51	ZZ
FDSU3L		3,060.5	-116.0	-0.90	3,161.5	-46.6	-0.35	ZZ
FF39F6		3,231.5	55.0	0.43	3,346.5	138.4	1.03	ZZ
FHAVLE		3,324.0	147.5	1.14	3,399.0	190.9	1.42	ZZ
FSDK3U	X	2,665.8	-510.7	-3.95	2,542.7	-665.4	-4.97	ZZ
FT7ZBZ	*	3,362.0	185.5	1.43	3,504.0	295.9	2.21	ZZ
FVNLF8		3,236.0	59.5	0.46	3,252.5	44.4	0.33	ZZ
G1749T	X	2,868.9	-307.6	-2.38	3,082.1	-126.0	-0.94	ZZ
GT7TW8		3,116.0	-60.5	-0.47	3,069.0	-139.1	-1.04	ZZ
H33857		3,274.7	98.2	0.76	3,246.8	38.7	0.29	ZZ
HAKYA		3,092.0	-84.5	-0.65	3,108.0	-100.1	-0.75	ZZ
HJVN67		3,240.0	63.5	0.49	3,219.5	11.4	0.09	ZZ
K3GY6C		3,107.0	-69.5	-0.54	3,189.0	-19.1	-0.14	ZZ
KV1RWE		3,326.5	150.0	1.16	3,281.5	73.4	0.55	ZZ
KV54J9		3,225.0	48.5	0.38	3,209.0	0.9	0.01	ZZ
KXHQFF		3,217.7	41.2	0.32	3,256.1	48.0	0.36	ZZ
KYYXNJ		3,344.0	167.5	1.29	3,382.5	174.4	1.30	ZZ
KZH4F1		2,951.0	-225.5	-1.74	3,080.0	-128.1	-0.96	ZZ
LB3TS1		3,182.5	6.0	0.05	3,236.0	27.9	0.21	ZZ
LCZ9YV	*	2,835.5	-341.0	-2.64	2,944.3	-263.8	-1.97	ZZ
LHUPMQ		3,140.5	-36.0	-0.28	3,109.0	-99.1	-0.74	ZZ
LYGFTX		3,181.5	5.0	0.04	3,347.0	138.9	1.04	ZZ
M3W9KF		3,256.1	79.6	0.62	3,212.6	4.5	0.03	ZZ
MAWRY		3,347.5	171.0	1.32	3,392.0	183.9	1.37	ZZ
MDMU1	X	2,563.6	-612.9	-4.74	2,701.4	-506.7	-3.78	ZZ
MFQLYE		2,971.0	-205.5	-1.59	3,010.5	-197.6	-1.47	ZZ
P74DDY		3,132.5	-44.0	-0.34	3,145.0	-63.1	-0.47	ZZ
PQBDS8		3,012.5	-164.0	-1.27	3,127.8	-80.3	-0.60	ZZ
Q8S4X5		3,155.5	-21.0	-0.16	3,129.5	-78.6	-0.59	ZZ
QBYN1Y		3,199.5	23.0	0.18	3,223.0	14.9	0.11	ZZ
QD3T7M		3,059.0	-117.5	-0.91	3,107.0	-101.1	-0.75	ZZ

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
QJLEGR		3,122.5	-54.0	-0.42	3,107.0	-101.1	-0.75	ZZ
QSCTKW		3,031.5	-145.0	-1.12	3,157.5	-50.6	-0.38	ZZ
R2UU9Q		3,275.7	99.2	0.77	3,365.0	156.9	1.17	ZZ
R54RFV	*	3,387.0	210.5	1.63	3,246.0	37.9	0.28	ZZ
RVB4YR		3,127.5	-49.0	-0.38	3,194.3	-13.8	-0.10	ZZ
S31GHN		2,959.5	-217.0	-1.68	2,964.5	-243.6	-1.82	ZZ
S9WKY7		2,909.5	-267.0	-2.06	2,938.5	-269.6	-2.01	ZZ
SATH8P		3,156.0	-20.5	-0.16	3,116.0	-92.1	-0.69	ZZ
SSLQ1L		2,979.0	-197.5	-1.53	3,012.0	-196.1	-1.46	ZZ
T1D8YE		3,102.4	-74.1	-0.57	3,082.8	-125.3	-0.93	ZZ
T4AZW7		3,105.0	-71.5	-0.55	3,202.5	-5.6	-0.04	ZZ
T66SB5		3,069.0	-107.5	-0.83	3,096.0	-112.1	-0.84	ZZ
TC4978	X	3,176.0	-0.5	0.00	2,914.0	-294.1	-2.19	ZZ
U79GU5		3,331.5	155.0	1.20	3,366.0	157.9	1.18	ZZ
UQRVN		3,009.5	-167.0	-1.29	3,031.0	-177.1	-1.32	ZZ
V9MY12		3,326.0	149.5	1.16	3,360.5	152.4	1.14	ZZ
VA98BY		3,159.0	-17.5	-0.14	3,231.0	22.9	0.17	ZZ
VEH22H		3,169.1	-7.4	-0.06	3,132.8	-75.2	-0.56	ZZ
W2PA4C		3,363.5	187.0	1.45	3,394.5	186.4	1.39	ZZ
WUP4Z9		3,216.5	40.0	0.31	3,272.5	64.4	0.48	ZZ
X1DUKX		3,191.5	15.0	0.12	3,230.5	22.4	0.17	ZZ
X1U56U		3,101.5	-75.0	-0.58	3,129.0	-79.1	-0.59	ZZ
X5DWVT		2,951.1	-225.4	-1.74	2,967.1	-240.9	-1.80	ZZ
Z2CKBQ		3,303.0	126.5	0.98	3,368.5	160.4	1.20	ZZ
Z9TJYT		3,358.0	181.5	1.40	3,452.0	243.9	1.82	ZZ
ZNU5EW		3,250.0	73.5	0.57	3,345.0	136.9	1.02	ZZ
ZQ526N		2,981.3	-195.2	-1.51	3,005.9	-202.1	-1.51	ZZ
ZR5YNG		3,198.1	21.6	0.17	3,198.8	-9.3	-0.07	ZZ
ZWTHR		2,953.0	-223.5	-1.73	3,061.0	-147.1	-1.10	ZZ
ZZEXCK		3,410.0	233.5	1.81	3,481.5	273.4	2.04	ZZ

Analysis 605

Tensile Strength (psi)

Summary Statistics

Grand Means

3,176.48 psi

3,208.08 psi

Std Dev Btwn Labs

129.37 psi

134.00 psi

Statistics based on 93 of 100 reporting participants

Summary Statistics in SI Units

Grand Means

21.901 MPa

22.12 MPa

Std Dev Btwn Labs

0.892 MPa

0.92 MPa

Statistics based on 93 of 100 reporting participants

Samples B91-B92: Polyisoprene compound, batch #1 & B93-B94: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #605

2RNVKZ (X) - Data for all Samples are low.

A3QSU7 (X) - Inconsistency in testing between Sample sets.

BYU6VK (X) - Data for all Samples are high. Possible Systematic Error.

FSDK3U (X) - Data for all Samples are low. Also inconsistent in testing within Sample set B91-B92.

G1749T (X) - Inconsistency in testing between Sample sets.

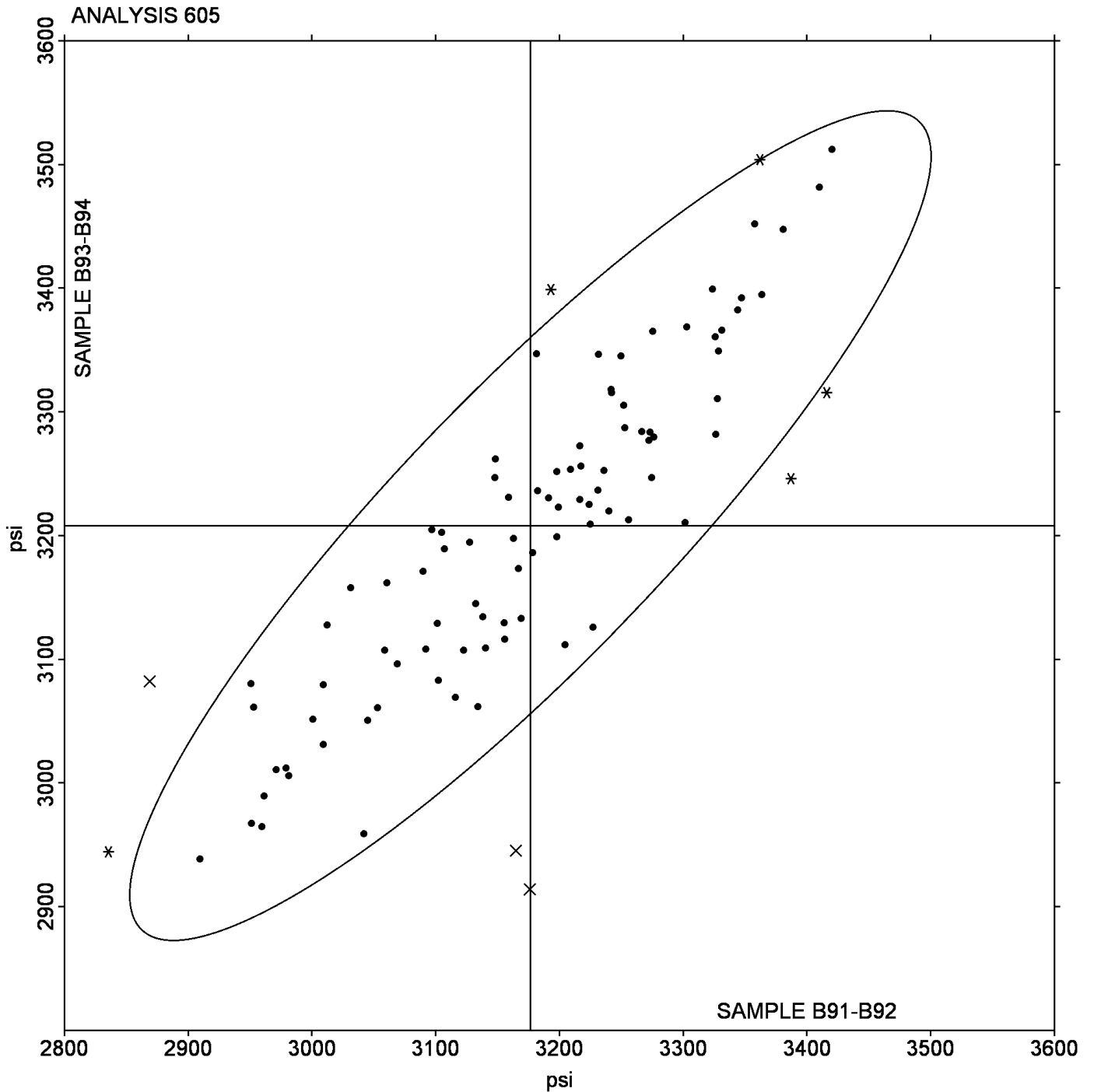
MDMU1X (X) - Data for all Samples are low.

TC4978 (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Sample set B93-B94.

Analysis 605
Tensile Strength (psi)

Grand Mean Sample B91-B92 = 3,176.48 psi

Grand Mean Sample B93-B94 = 3,208.08 psi



Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
13Q8E3		562.5	-4.6	-0.18	565.5	-4.9	-0.19	ZZ
1PZ3Z6		557.5	-9.6	-0.38	546.5	-23.9	-0.91	ZZ
28147P		548.0	-19.1	-0.76	543.5	-26.9	-1.02	ZZ
2FJFAF	X	451.5	-115.6	-4.61	500.5	-69.9	-2.66	ZZ
2L6QGM		586.5	19.4	0.77	585.5	15.1	0.58	ZZ
2R998D		554.5	-12.6	-0.50	560.0	-10.4	-0.39	ZZ
37L4QR		566.4	-0.7	-0.03	584.8	14.4	0.55	ZZ
3S95SE		554.6	-12.5	-0.50	559.7	-10.7	-0.41	ZZ
3TNUAC		587.5	20.4	0.81	603.5	33.1	1.26	ZZ
3VXF4S	*	581.0	13.9	0.55	619.0	48.6	1.85	ZZ
4AC6U1		597.5	30.4	1.21	615.5	45.1	1.72	ZZ
4EC1QY		571.0	3.9	0.16	561.0	-9.4	-0.36	ZZ
4UR9HJ		531.0	-36.1	-1.44	530.0	-40.4	-1.54	ZZ
5T4BFA		586.0	18.9	0.75	581.5	11.1	0.42	ZZ
5V84AB	X	667.0	99.9	3.99	660.0	89.6	3.41	ZZ
67QU4B		574.7	7.6	0.30	588.6	18.2	0.69	ZZ
699KVR		586.5	19.4	0.77	575.5	5.1	0.19	ZZ
6DQB DJ		593.5	26.4	1.05	580.0	9.6	0.37	ZZ
6EX5Y6		586.5	19.4	0.77	584.0	13.6	0.52	ZZ
78XCUP		568.5	1.4	0.06	580.0	9.6	0.37	ZZ
7RMFR3		593.0	25.9	1.03	584.0	13.6	0.52	ZZ
86Y27E		592.5	25.4	1.01	575.0	4.6	0.18	ZZ
89PSQN		578.0	10.9	0.43	561.5	-8.9	-0.34	ZZ
89PV8U		547.0	-20.1	-0.80	547.0	-23.4	-0.89	ZZ
8ERW45		571.5	4.4	0.18	578.5	8.2	0.31	ZZ
8SF21R	*	515.4	-51.7	-2.06	494.1	-76.3	-2.90	ZZ
93UVZM		600.5	33.4	1.33	610.5	40.1	1.53	ZZ
9CW5H3		568.5	1.4	0.06	598.5	28.1	1.07	ZZ
9GS1YG		559.0	-8.1	-0.32	556.0	-14.4	-0.55	ZZ
9W677V		572.9	5.7	0.23	578.0	7.6	0.29	ZZ
A4LBVF		582.5	15.4	0.61	588.5	18.1	0.69	ZZ
ACSN SP		562.7	-4.5	-0.18	589.2	18.9	0.72	ZZ
ACW1NZ		543.5	-23.6	-0.94	543.0	-27.4	-1.04	ZZ
B6RKSH		564.0	-3.1	-0.12	551.0	-19.4	-0.74	ZZ
B8VCKX		512.0	-55.1	-2.20	527.5	-42.9	-1.63	ZZ

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
C27G7E		532.5	-34.6	-1.38	552.0	-18.4	-0.70	ZZ
C3WVCP		577.5	10.4	0.41	592.5	22.1	0.84	ZZ
C7V1E9		560.0	-7.1	-0.28	552.5	-17.9	-0.68	ZZ
CEPNLK		600.5	33.4	1.33	602.0	31.6	1.20	ZZ
CUT3FN		590.0	22.9	0.91	604.5	34.1	1.30	ZZ
DFGXN8		565.0	-2.1	-0.08	576.0	5.6	0.21	ZZ
DFUCF3		575.0	7.9	0.31	550.0	-20.4	-0.77	ZZ
DM8UHY		561.5	-5.6	-0.22	559.5	-10.9	-0.41	ZZ
DPE8TH		596.5	29.4	1.17	596.5	26.1	0.99	ZZ
EW2RFA		544.0	-23.1	-0.92	563.5	-6.9	-0.26	ZZ
FCGJCE	X	504.0	-63.1	-2.52	481.5	-88.9	-3.38	ZZ
FFTZ5M		564.5	-2.6	-0.10	566.5	-3.9	-0.15	ZZ
GK6QDT		539.5	-27.6	-1.10	529.0	-41.4	-1.57	ZZ
GMNKM		580.0	12.9	0.51	598.5	28.1	1.07	ZZ
H9UJ94		535.5	-31.6	-1.26	555.5	-14.9	-0.57	ZZ
HAQ3AB		552.0	-15.1	-0.60	572.5	2.1	0.08	ZZ
HF2QCZ		590.8	23.7	0.95	601.6	31.2	1.19	ZZ
HK2415		536.5	-30.6	-1.22	554.5	-15.9	-0.60	ZZ
HMXUW		569.0	1.9	0.08	557.0	-13.4	-0.51	ZZ
HSNWSY		574.5	7.4	0.29	574.0	3.6	0.14	ZZ
HWYHD	*	495.5	-71.6	-2.86	506.4	-64.0	-2.43	ZZ
HZ1EZG		600.0	32.9	1.31	600.0	29.6	1.13	ZZ
J1QZBE		550.0	-17.1	-0.68	563.5	-6.9	-0.26	ZZ
JGJ8AL		605.0	37.9	1.51	607.5	37.1	1.41	ZZ
JSBVSP		566.5	-0.6	-0.02	565.0	-5.4	-0.20	ZZ
JT76SX		561.5	-5.6	-0.22	581.0	10.6	0.40	ZZ
JTLUWF		573.5	6.4	0.25	578.5	8.1	0.31	ZZ
K3BLMU		546.5	-20.6	-0.82	552.0	-18.4	-0.70	ZZ
KGWNX		566.0	-1.1	-0.04	549.5	-20.9	-0.79	ZZ
KP18G3		581.5	14.4	0.57	593.0	22.6	0.86	ZZ
KWFAFA		569.0	1.9	0.08	572.0	1.6	0.06	ZZ
LFLC79		605.5	38.4	1.53	628.5	58.1	2.21	ZZ
LXU275		528.9	-38.2	-1.53	535.3	-35.0	-1.33	ZZ
MAQRA	*	640.5	73.4	2.93	629.5	59.1	2.25	ZZ
MGFT71		577.0	9.9	0.39	576.0	5.6	0.21	ZZ

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
N2P8DZ		571.0	3.9	0.16	581.5	11.1	0.42	ZZ
PXMMZ		541.5	-25.6	-1.02	533.5	-36.9	-1.40	ZZ
QGU5QH		556.0	-11.1	-0.44	550.5	-19.9	-0.76	ZZ
R13AGY		560.0	-7.1	-0.28	570.0	-0.4	-0.01	ZZ
R4K3LS	*	533.7	-33.4	-1.33	506.9	-63.5	-2.41	ZZ
RB73JX		561.0	-6.1	-0.24	567.0	-3.4	-0.13	ZZ
S8BNZ9		537.5	-29.6	-1.18	570.0	-0.4	-0.01	ZZ
SJU7MC		614.0	46.9	1.87	603.5	33.1	1.26	ZZ
STPNL2		563.7	-3.4	-0.14	553.6	-16.8	-0.64	ZZ
T74DAB		597.0	29.9	1.19	592.5	22.1	0.84	ZZ
TFHSE7		548.0	-19.1	-0.76	554.0	-16.4	-0.62	ZZ
UPBEQ3		572.7	5.5	0.22	579.9	9.6	0.36	ZZ
VKKQFU		599.3	32.2	1.29	605.8	35.4	1.35	ZZ
VWBDJJ		565.0	-2.1	-0.08	569.5	-0.9	-0.03	ZZ
W6NPUK		541.5	-25.6	-1.02	551.5	-18.9	-0.72	ZZ
WCJT93		588.5	21.4	0.85	600.0	29.6	1.13	ZZ
WKLVM		566.5	-0.6	-0.02	553.0	-17.4	-0.66	ZZ
WX6K8Z		544.5	-22.6	-0.90	555.5	-14.9	-0.57	ZZ
X2QG5X		602.0	34.9	1.39	597.0	26.6	1.01	ZZ
X95B2X		552.0	-15.1	-0.60	558.0	-12.4	-0.47	ZZ
XFVMK	X	470.0	-97.1	-3.88	480.0	-90.4	-3.44	ZZ
XMLCAC		525.0	-42.1	-1.68	525.0	-45.4	-1.73	ZZ
Y32HS2		523.0	-44.1	-1.76	547.0	-23.4	-0.89	ZZ
YGQ1SJ		567.5	0.4	0.02	560.0	-10.4	-0.39	ZZ
YL4W3P		587.3	20.2	0.81	581.8	11.4	0.43	ZZ
YMSYRQ		579.0	11.9	0.47	586.5	16.1	0.61	ZZ
YNF13E	*	614.5	47.4	1.89	592.0	21.6	0.82	ZZ
YQRBCU		564.0	-3.1	-0.12	566.5	-3.9	-0.15	ZZ
ZHDF98		532.0	-35.1	-1.40	531.5	-38.9	-1.48	ZZ

Summary Statistics	
Grand Means	567.12 percent
	570.37 percent
Std Dev Btwn Labs	25.06 percent
	26.29 percent
Statistics based on 95 of 99 reporting participants	

Analysis 606

Ultimate Elongation (percent)

Samples B91-B92: Polyisoprene compound, batch #1 & B93-B94: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #606

2FJFAF (X) - Inconsistency in testing between Sample sets. Low data and inconsistent in testing within Sample Set B91-B92.

5V84AB (X) - Data for all Samples are high. Also inconsistent within Sample B93-B94.

FCGJCE (X) - Inconsistency in testing between Sample sets. Low data for Sample Set B93-B94.

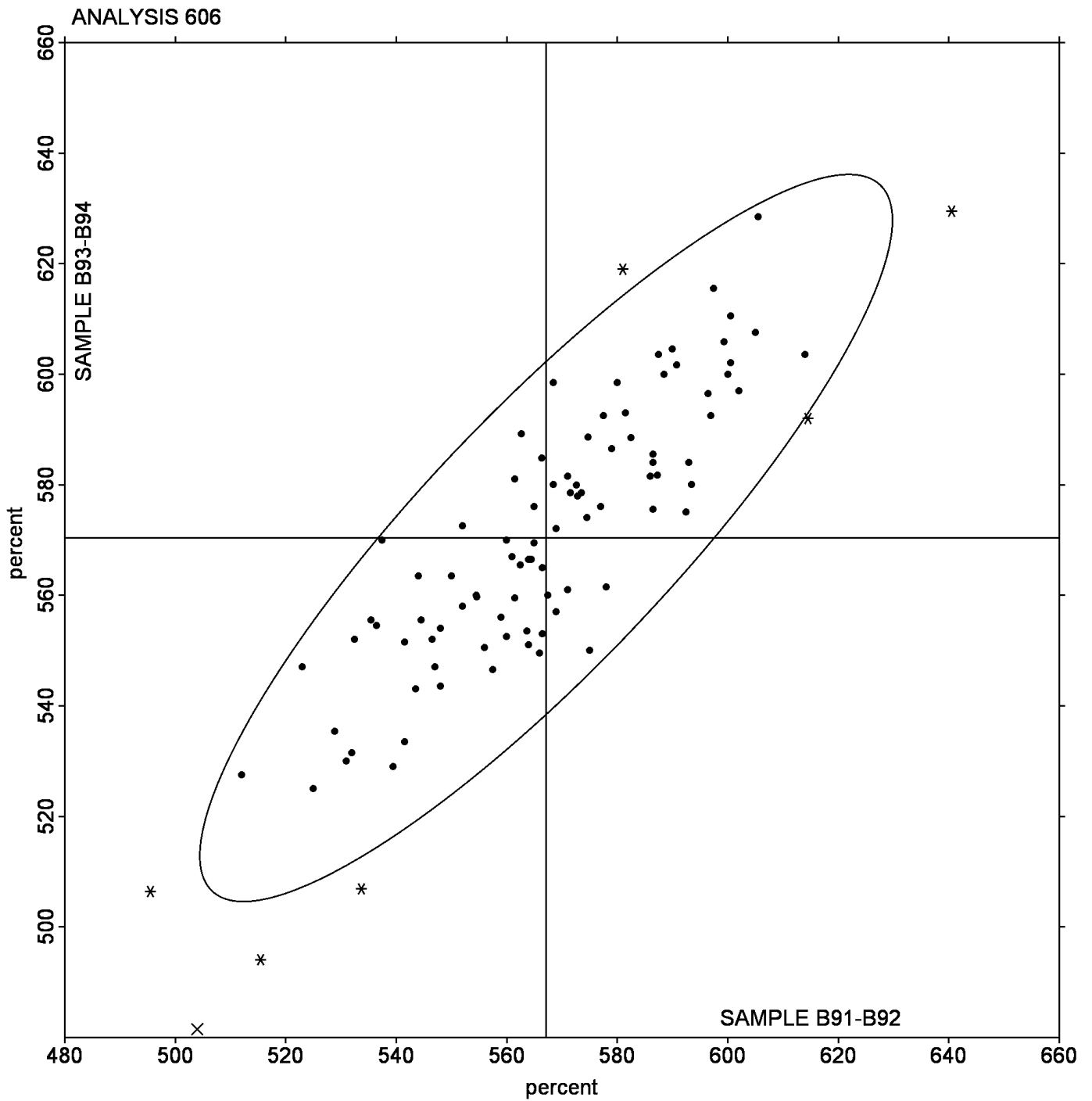
XFVMKN (X) - Data for all Samples are low. Possible Systematic Error.

Analysis 606

Ultimate Elongation (percent)

Grand Mean Sample B91-B92 = 567.12 percent

Grand Mean Sample B93-B94 = 570.37 percent



Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
19EF1M		1,276.3	78.7	1.16	1,317.0	117.3	1.74	ZZ
1GA7EF		1,176.5	-21.2	-0.31	1,217.5	17.8	0.26	ZZ
1K62ZC		1,263.1	65.4	0.96	1,212.4	12.7	0.19	ZZ
1QQUXA		1,098.7	-99.0	-1.46	1,168.3	-31.4	-0.47	ZZ
1QY7MF		1,185.0	-12.7	-0.19	1,195.5	-4.2	-0.06	ZZ
1SMLDA		1,306.0	108.3	1.60	1,308.0	108.3	1.61	ZZ
2NR9VG	*	1,266.0	68.3	1.01	1,356.0	156.3	2.32	ZZ
3GVF5P		1,213.3	15.6	0.23	1,200.9	1.3	0.02	ZZ
4G29XE		1,163.3	-34.4	-0.51	1,123.6	-76.0	-1.13	ZZ
4JSJYW		1,290.0	92.3	1.36	1,228.0	28.3	0.42	ZZ
5FPXV3	*	1,394.5	196.8	2.90	1,375.0	175.3	2.60	ZZ
5QUQPJ		1,225.6	27.9	0.41	1,203.8	4.2	0.06	ZZ
6D3ZKB		1,145.1	-52.6	-0.77	1,161.1	-38.6	-0.57	ZZ
6UTU5G		1,151.0	-46.7	-0.69	1,175.5	-24.2	-0.36	ZZ
75NZLF		1,200.0	2.3	0.03	1,184.0	-15.7	-0.23	ZZ
81AG4Y		1,095.5	-102.2	-1.51	1,140.0	-59.7	-0.89	ZZ
8YAULK		1,202.5	4.8	0.07	1,225.5	25.8	0.38	ZZ
98CH4Y		1,245.2	47.5	0.70	1,229.2	29.5	0.44	ZZ
A1ALX7		1,292.5	94.8	1.40	1,273.0	73.3	1.09	ZZ
A7CSMT		1,216.0	18.3	0.27	1,251.0	51.3	0.76	ZZ
AF586K		1,259.5	61.8	0.91	1,200.5	0.8	0.01	ZZ
AH1XW		1,179.0	-18.7	-0.28	1,241.0	41.3	0.61	ZZ
ARET26		1,173.0	-24.7	-0.36	1,124.3	-75.3	-1.12	ZZ
ARMRR	*	1,034.5	-163.2	-2.40	1,146.0	-53.7	-0.80	ZZ
B9XXFB		1,183.0	-14.7	-0.22	1,189.5	-10.2	-0.15	ZZ
CTVXK2		1,237.5	39.8	0.59	1,224.0	24.3	0.36	ZZ
DHX7Z6		1,288.0	90.3	1.33	1,276.5	76.8	1.14	ZZ
DMUZP	X	1,401.0	203.3	3.00	1,450.0	250.3	3.71	ZZ
DN2P18		1,172.6	-25.0	-0.37	1,127.0	-72.7	-1.08	ZZ
DNG1JY		1,283.6	85.9	1.27	1,290.8	91.2	1.35	ZZ
DPFP1W		1,212.0	14.3	0.21	1,292.5	92.8	1.38	ZZ
DVJPMH		1,169.5	-28.2	-0.41	1,185.5	-14.2	-0.21	ZZ
ELQMTL		1,226.4	28.7	0.42	1,152.7	-47.0	-0.70	ZZ
ENT9RQ		1,215.5	17.8	0.26	1,118.0	-81.7	-1.21	ZZ
ETX3QF		1,180.0	-17.7	-0.26	1,149.5	-50.2	-0.74	ZZ

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
F3SMJ2		1,203.8	6.2	0.09	1,196.6	-3.1	-0.05	ZZ
FGJ7D8		1,095.5	-102.2	-1.51	1,127.0	-72.7	-1.08	ZZ
FSUB58		1,062.0	-135.7	-2.00	1,134.0	-65.7	-0.97	ZZ
G2SNK7		1,237.5	39.8	0.59	1,238.5	38.8	0.58	ZZ
G747PE		1,206.8	9.1	0.13	1,277.8	78.1	1.16	ZZ
GCZS37		1,288.0	90.3	1.33	1,290.0	90.3	1.34	ZZ
GPDNMC		1,216.9	19.2	0.28	1,177.7	-21.9	-0.33	ZZ
GU41EH		1,227.4	29.7	0.44	1,231.4	31.7	0.47	ZZ
HCFAHY		1,318.0	120.3	1.77	1,265.2	65.5	0.97	ZZ
HF2RA8		1,180.0	-17.7	-0.26	1,114.5	-85.2	-1.26	ZZ
HLJWEN		1,315.5	117.8	1.74	1,241.5	41.8	0.62	ZZ
HQXS1C		1,078.5	-119.2	-1.76	1,096.5	-103.2	-1.53	ZZ
HXMJZH		1,249.5	51.8	0.76	1,254.5	54.8	0.81	ZZ
J74MKM		1,213.0	15.3	0.23	1,184.5	-15.2	-0.22	ZZ
KAHVLE		1,133.0	-64.7	-0.95	1,212.0	12.3	0.18	ZZ
KAU6BS		1,136.5	-61.2	-0.90	1,087.0	-112.7	-1.67	ZZ
KLEHDB	X	1,486.0	288.3	4.25	1,557.0	357.3	5.30	ZZ
KT4FJZ		1,233.5	35.8	0.53	1,256.5	56.8	0.84	ZZ
KVBBUV		1,295.0	97.3	1.43	1,214.5	14.8	0.22	ZZ
KZ6PN6		1,107.5	-90.2	-1.33	1,108.5	-91.2	-1.35	ZZ
L2T2ZN		1,207.4	9.8	0.14	1,192.2	-7.4	-0.11	ZZ
L6XLHW		1,200.0	2.3	0.03	1,189.5	-10.2	-0.15	ZZ
LF26QB	*	1,107.8	-89.9	-1.32	1,011.1	-188.6	-2.80	ZZ
LUHWFK		1,144.5	-53.2	-0.78	1,229.0	29.3	0.44	ZZ
M9EPPL		1,104.0	-93.7	-1.38	1,133.0	-66.7	-0.99	ZZ
N2YCJV		1,215.9	18.2	0.27	1,186.2	-13.5	-0.20	ZZ
NJRQ7Y		1,147.0	-50.7	-0.75	1,167.0	-32.7	-0.48	ZZ
NK8BHL		1,221.5	23.8	0.35	1,285.5	85.8	1.27	ZZ
P9GZ52		1,184.8	-12.9	-0.19	1,224.7	25.0	0.37	ZZ
PCFCR6		1,144.5	-53.2	-0.78	1,145.5	-54.2	-0.80	ZZ
PQFPTD		1,203.0	5.3	0.08	1,179.5	-20.2	-0.30	ZZ
QS UW6B		1,230.7	33.0	0.49	1,160.3	-39.4	-0.58	ZZ
QX9YE7		1,290.0	92.3	1.36	1,338.0	138.3	2.05	ZZ
QXU25H		1,100.5	-97.2	-1.43	1,142.5	-57.2	-0.85	ZZ
R392ZT		1,309.0	111.3	1.64	1,324.5	124.8	1.85	ZZ

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
R5LA7Y		1,112.5	-85.2	-1.25	1,123.0	-76.7	-1.14	ZZ
R68F9D		1,334.4	136.7	2.01	1,312.6	112.9	1.68	ZZ
RBRDB1		1,172.5	-25.2	-0.37	1,233.5	33.8	0.50	ZZ
RKCTLU		1,232.9	35.2	0.52	1,260.5	60.9	0.90	ZZ
S4H1MU	X	1,499.0	301.3	4.44	1,510.5	310.8	4.61	ZZ
TS7W2G		1,224.0	26.3	0.39	1,193.0	-6.7	-0.10	ZZ
TU38A2		1,176.6	-21.1	-0.31	1,160.3	-39.4	-0.58	ZZ
TUD8VE		1,148.5	-49.2	-0.72	1,198.0	-1.7	-0.02	ZZ
TUPPS5	X	1,756.0	558.3	8.23	1,534.5	334.8	4.97	ZZ
U4KDE6		1,223.7	26.0	0.38	1,169.4	-30.3	-0.45	ZZ
U8VFMV		1,151.5	-46.2	-0.68	1,255.0	55.3	0.82	ZZ
UBV4VL		1,158.5	-39.2	-0.58	1,144.0	-55.7	-0.83	ZZ
URKVCU		1,135.5	-62.2	-0.92	1,143.5	-56.2	-0.83	ZZ
UVLA93		1,146.0	-51.7	-0.76	1,166.0	-33.7	-0.50	ZZ
VG9N16		1,272.5	74.8	1.10	1,190.0	-9.7	-0.14	ZZ
VY2Z7L		1,191.5	-6.2	-0.09	1,215.0	15.3	0.23	ZZ
WWN268		1,230.2	32.5	0.48	1,211.5	11.8	0.18	ZZ
X2RF54		1,256.0	58.4	0.86	1,265.5	65.8	0.98	ZZ
XFW2S2		1,200.0	2.3	0.03	1,211.0	11.3	0.17	ZZ
XG6P87		1,138.0	-59.7	-0.88	1,126.5	-73.2	-1.09	ZZ
XLRQVL		1,179.5	-18.2	-0.27	1,222.5	22.8	0.34	ZZ
XT915H		1,202.5	4.8	0.07	1,234.0	34.3	0.51	ZZ
Y58384		1,103.5	-94.2	-1.39	1,109.0	-90.7	-1.34	ZZ
Y7NFUZ		1,102.1	-95.6	-1.41	1,039.8	-159.9	-2.37	ZZ
YKYJ8Q		1,147.0	-50.7	-0.75	1,166.0	-33.7	-0.50	ZZ
Z5CN5Y		1,117.5	-80.2	-1.18	1,140.0	-59.7	-0.89	ZZ

Summary Statistics

Grand Means

1,197.66 psi

1,199.67 psi

Std Dev Btwn Labs

67.87 psi

67.42 psi

Statistics based on 92 of 96 reporting participants

Analysis 607

Stress at 300% Elongation (psi)

		Summary Statistics in SI Units	
Grand Means	8.2575 MPa	8.27	MPa
Std Dev Btwn Labs	0.4679 MPa	0.46	MPa
Statistics based on 92 of 96 reporting participants			

Samples B91-B92: Polyisoprene compound, batch #1 & B93-B94: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #607

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

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

S4H1MU (X) - Data for all Samples are high.

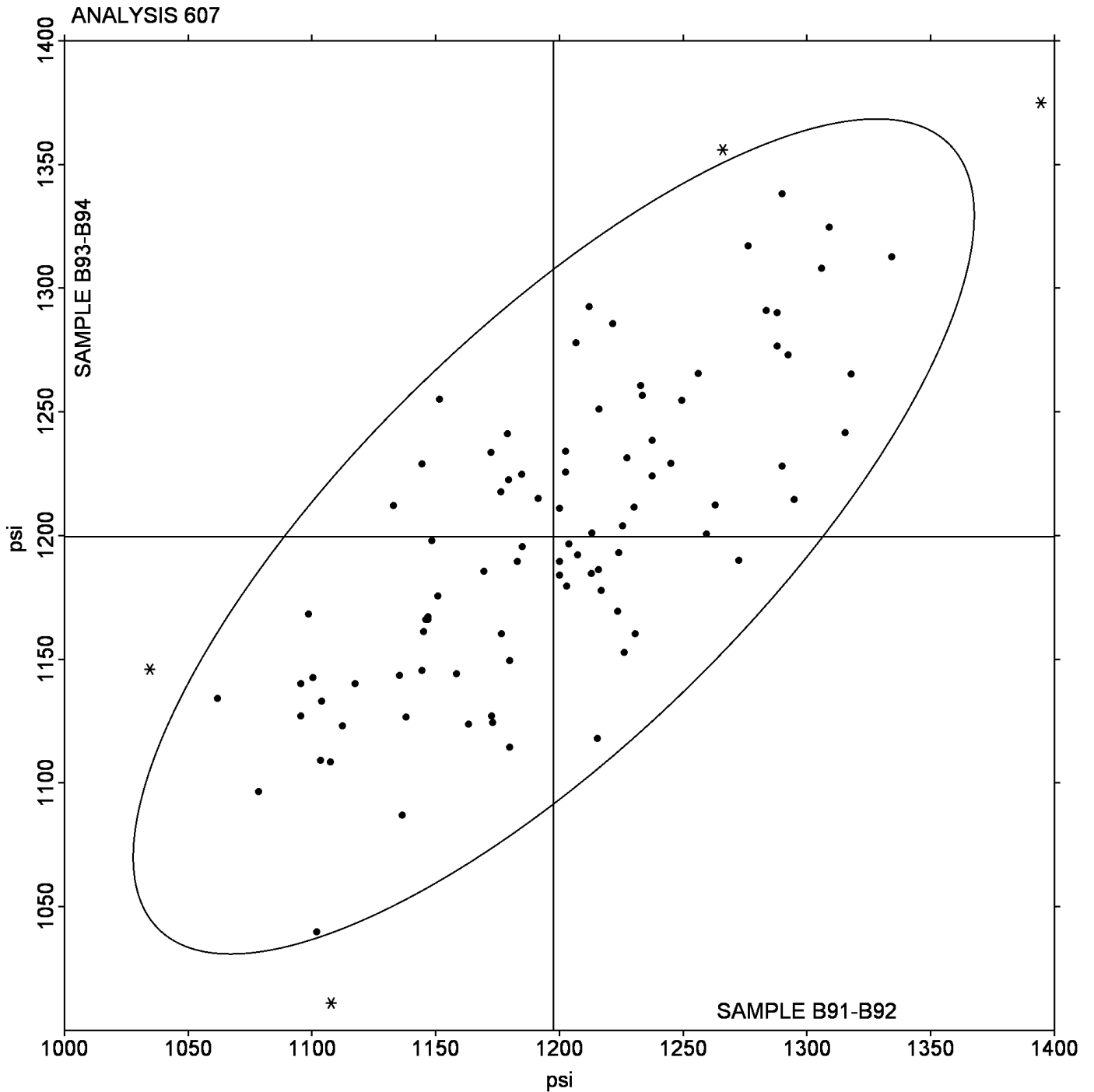
TUPPS5 (X) - Data for all Samples are high. Also inconsistent in testing within Sample Set B91-B92.

Analysis 607

Stress at 300% Elongation (psi)

Grand Mean Sample B91-B92 = 1,197.66 psi

Grand Mean Sample B93-B94 = 1,199.67 psi



Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1CRW6Z		252.0	-8.7	-0.58	255.5	-6.0	-0.42	ZZ
1DSYH4		297.3	36.6	2.46	290.1	28.5	1.98	ZZ
1SH8GZ		272.5	11.8	0.79	258.0	-3.5	-0.25	ZZ
1TMKSN		251.0	-9.7	-0.65	255.0	-6.5	-0.45	ZZ
1Y2K8N		244.6	-16.1	-1.08	258.6	-3.0	-0.21	ZZ
2LF89J		267.5	6.8	0.46	285.0	23.5	1.63	ZZ
2UEV6N		289.0	28.3	1.90	294.5	33.0	2.29	ZZ
3YCM16		260.3	-0.3	-0.02	261.1	-0.5	-0.03	ZZ
4QVHKR		257.4	-3.2	-0.22	250.2	-11.3	-0.79	ZZ
4RVUE8		244.0	-16.7	-1.12	250.0	-11.5	-0.80	ZZ
4WMZD4		254.0	-6.7	-0.45	268.0	6.5	0.45	ZZ
53P5RT		278.5	17.8	1.20	259.5	-2.0	-0.14	ZZ
5GF1MP		265.0	4.3	0.29	274.0	12.5	0.87	ZZ
5JSRVT		246.0	-14.7	-0.99	247.0	-14.5	-1.01	ZZ
5Q6LKZ		238.2	-22.5	-1.51	232.8	-28.7	-2.00	ZZ
5TM4LE		271.5	10.8	0.73	266.5	5.0	0.35	ZZ
5XMR9Y		258.5	-2.2	-0.15	255.0	-6.5	-0.45	ZZ
5ZPUVT		241.0	-19.7	-1.32	260.5	-1.0	-0.07	ZZ
61ASQA		260.0	-0.7	-0.05	263.5	2.0	0.14	ZZ
6H1BPP		242.5	-18.2	-1.22	248.0	-13.5	-0.94	ZZ
6S742Q	X	347.0	86.3	5.79	355.0	93.5	6.50	ZZ
6TLEYB		262.5	1.8	0.12	257.0	-4.5	-0.32	ZZ
6W27KW		261.4	0.7	0.04	251.3	-10.3	-0.71	ZZ
6ZZYMW		270.5	9.8	0.66	256.7	-4.8	-0.33	ZZ
7FHV6G		247.5	-13.2	-0.89	253.0	-8.5	-0.59	ZZ
7USBRT		256.0	-4.7	-0.31	258.5	-3.0	-0.21	ZZ
86R5AW		261.3	0.6	0.04	264.7	3.1	0.22	ZZ
972FHZ		267.6	6.9	0.46	263.2	1.7	0.12	ZZ
9D3QXA		262.4	1.7	0.12	255.3	-6.2	-0.43	ZZ
AHUF66		281.1	20.4	1.37	269.7	8.2	0.57	ZZ
B8CBTM		267.5	6.8	0.46	279.5	18.0	1.25	ZZ
B97G7G		262.5	1.8	0.12	253.5	-8.0	-0.56	ZZ
BA3EK8		254.9	-5.8	-0.39	263.6	2.0	0.14	ZZ
BCHSFV		265.0	4.3	0.29	259.5	-2.0	-0.14	ZZ
BMETH3		284.1	23.4	1.57	279.5	17.9	1.25	ZZ

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
BQ167K		247.0	-13.7	-0.92	248.0	-13.5	-0.94	ZZ
BQVTM2	*	235.5	-25.2	-1.69	224.5	-37.0	-2.57	ZZ
BS2C4A	*	245.1	-15.6	-1.05	227.0	-34.5	-2.40	ZZ
C39JJJ		254.0	-6.7	-0.45	237.5	-24.0	-1.67	ZZ
F63EZP	X	199.0	-61.7	-4.14	187.5	-74.0	-5.15	ZZ
FEJU2G		266.2	5.5	0.37	272.9	11.3	0.79	ZZ
GEV42A		259.0	-1.7	-0.11	266.4	4.8	0.34	ZZ
H5NRNY		275.0	14.3	0.96	258.5	-3.0	-0.21	ZZ
HN28QK		275.0	14.3	0.96	260.0	-1.5	-0.11	ZZ
HP66ET		274.5	13.8	0.93	286.5	25.0	1.74	ZZ
JJ48VS		268.3	7.6	0.51	268.3	6.8	0.47	ZZ
JQJSAL		269.5	8.8	0.59	282.5	21.0	1.46	ZZ
K5T4WB		252.9	-7.8	-0.53	251.7	-9.8	-0.68	ZZ
KBVKFF		262.5	1.8	0.12	271.5	10.0	0.69	ZZ
KQXLEG		276.5	15.8	1.06	264.0	2.5	0.17	ZZ
KVGJG4		237.5	-23.2	-1.56	251.0	-10.5	-0.73	ZZ
L1445X		253.8	-6.9	-0.46	261.1	-0.5	-0.03	ZZ
L7HRBK		283.5	22.8	1.53	277.0	15.5	1.08	ZZ
LHDZPA		270.5	9.8	0.66	255.5	-6.0	-0.42	ZZ
LJ5SQT		255.5	-5.2	-0.35	258.5	-3.0	-0.21	ZZ
LUKRBN		257.5	-3.2	-0.21	273.0	11.5	0.80	ZZ
LXM2XQ		268.0	7.3	0.49	260.0	-1.5	-0.11	ZZ
M1EGTT		267.0	6.3	0.42	270.0	8.5	0.59	ZZ
M1YSH6		242.2	-18.5	-1.24	266.1	4.6	0.32	ZZ
N2BXZN		257.5	-3.2	-0.21	273.0	11.5	0.80	ZZ
N3DSZH		268.5	7.8	0.52	252.8	-8.8	-0.61	ZZ
NRDCEA		251.5	-9.2	-0.62	257.0	-4.5	-0.32	ZZ
NSYSJ4		262.5	1.8	0.12	261.8	0.3	0.02	ZZ
P2272G		275.9	15.2	1.02	271.4	9.9	0.69	ZZ
PFS3E3		257.0	-3.7	-0.25	267.5	6.0	0.41	ZZ
QHDCE8		274.0	13.3	0.89	273.4	11.9	0.83	ZZ
RC2X1G		233.5	-27.2	-1.83	236.5	-25.0	-1.74	ZZ
RFHDBS		251.0	-9.7	-0.65	262.5	1.0	0.07	ZZ
SWQPNK		274.0	13.3	0.89	275.0	13.5	0.94	ZZ
SZMZD5		251.0	-9.7	-0.65	252.0	-9.5	-0.66	ZZ

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
T7ZQGR		265.7	5.0	0.33	265.7	4.2	0.29	ZZ
TAV24F	*	301.0	40.3	2.71	291.0	29.5	2.05	ZZ
TDTLXV		266.9	6.2	0.41	278.5	16.9	1.18	ZZ
TLPCAP		246.0	-14.7	-0.99	249.0	-12.5	-0.87	ZZ
TR7CW9		260.3	-0.3	-0.02	267.6	6.1	0.42	ZZ
TTDM66	X	374.5	113.8	7.64	316.5	55.0	3.82	ZZ
TYQPDW		268.5	7.8	0.52	275.5	14.0	0.97	ZZ
V1FW3W		249.0	-11.7	-0.78	270.0	8.5	0.59	ZZ
V6W9AP		285.8	25.1	1.68	271.3	9.7	0.68	ZZ
VRG42A		255.5	-5.2	-0.35	249.5	-12.0	-0.84	ZZ
VX9P8K		257.0	-3.7	-0.25	259.5	-2.0	-0.14	ZZ
W1KLAS		268.3	7.6	0.51	268.3	6.8	0.47	ZZ
W4SVM		260.0	-0.7	-0.05	264.0	2.5	0.17	ZZ
WX4QG		242.0	-18.7	-1.25	245.5	-16.0	-1.11	ZZ
X3RRHU		268.5	7.8	0.52	270.0	8.5	0.59	ZZ
X637ML		281.5	20.8	1.40	278.5	17.0	1.18	ZZ
XS4MQ1	*	222.0	-38.7	-2.60	245.5	-16.0	-1.11	ZZ
XTJKGU		256.0	-4.7	-0.31	249.0	-12.5	-0.87	ZZ
YDBRW	*	299.0	38.3	2.57	303.0	41.5	2.88	ZZ
YK1VZX		267.0	6.3	0.42	268.0	6.5	0.45	ZZ
YRV3Y4	*	233.5	-27.2	-1.83	220.7	-40.8	-2.84	ZZ
YZS821		244.0	-16.7	-1.12	250.5	-11.0	-0.77	ZZ
Z7M11X		242.5	-18.2	-1.22	250.0	-11.5	-0.80	ZZ
Z96LGF		244.5	-16.2	-1.09	242.0	-19.5	-1.36	ZZ
ZD6DRJ		267.0	6.3	0.42	261.5	-0.1	-0.01	ZZ
ZMSNSZ		242.5	-18.2	-1.22	259.0	-2.5	-0.18	ZZ
ZU4B9L		263.1	2.4	0.16	259.2	-2.3	-0.16	ZZ

Summary Statistics	
Grand Means	260.69 psi 261.53 psi
Std Dev Btwn Labs	14.90 psi 14.38 psi
Statistics based on 94 of 97 reporting participants	

Analysis 608

Stress at 100% Elongation (psi)

		Summary Statistics in SI Units	
Grand Means	1.7974 MPa	1.80	MPa
Std Dev Btwn Labs	0.1027 MPa	0.10	MPa
Statistics based on 94 of 97 reporting participants			

Samples B91-B92: Polyisoprene compound, batch #1 & B93-B94: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #608

6S742Q (X) - Data for all Samples are high.

F63EZP (X) - Data for both samples are low.

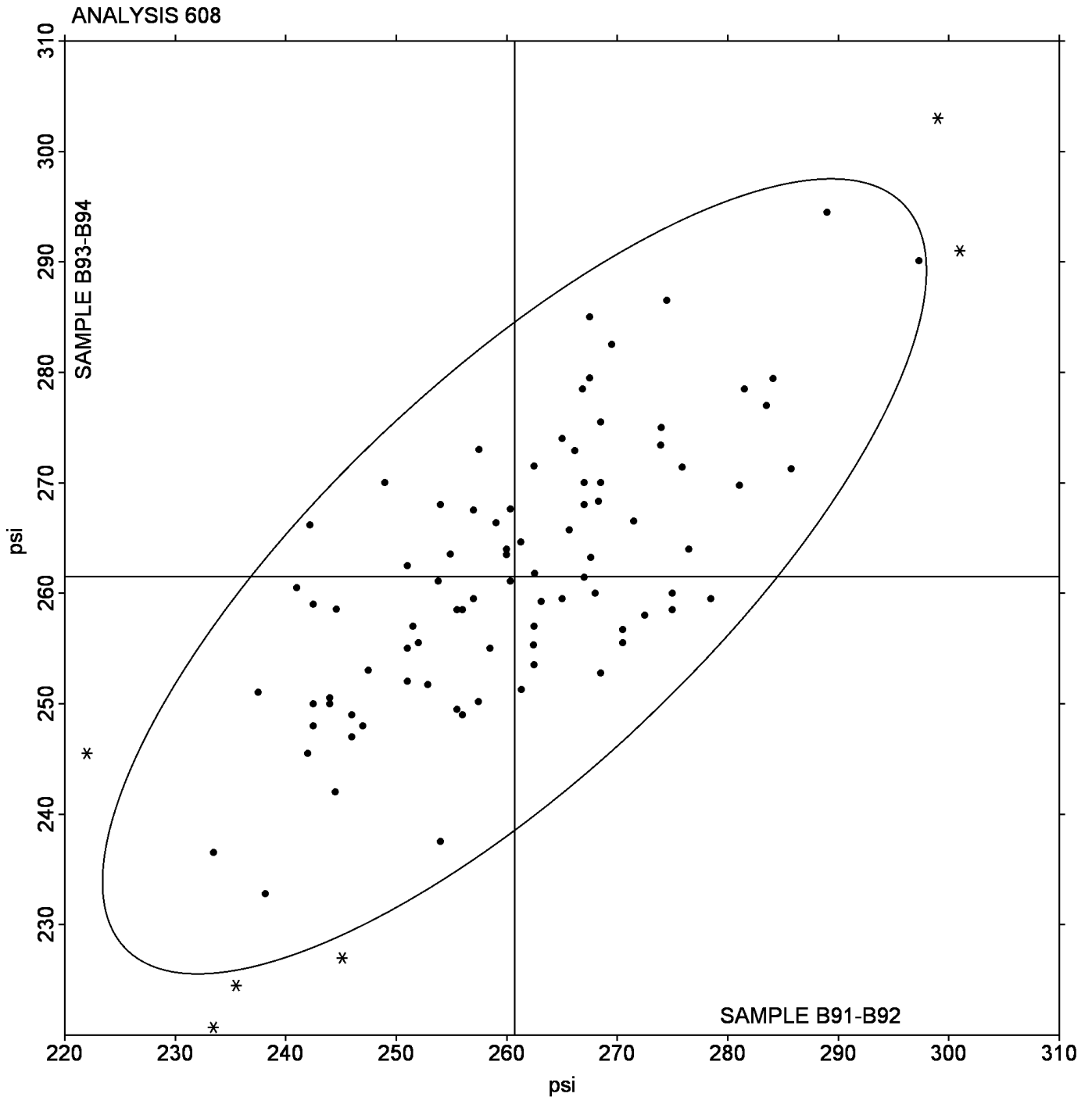
TTDM66 (X) - Data for all Samples are high. Also inconsistent in testing within Sample Set B91-B92.

Analysis 608

Stress at 100% Elongation (psi)

Grand Mean Sample B91-B92 = 260.69 psi

Grand Mean Sample B93-B94 = 261.53 psi



Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1QTZ9J		56.00	1.44	1.08	56.00	1.43	1.13	ZZ
1XRHLP		53.40	-1.16	-0.86	53.30	-1.27	-1.01	ZZ
2QJ26V		53.50	-1.06	-0.79	53.00	-1.57	-1.25	ZZ
2QKU8E		54.00	-0.56	-0.41	55.00	0.43	0.34	ZZ
2R42VH		55.00	0.44	0.33	55.00	0.43	0.34	ZZ
2UQ8E1		56.00	1.44	1.08	55.50	0.93	0.74	ZZ
2ZH1D3		52.95	-1.61	-1.19	53.95	-0.62	-0.49	ZZ
32NFD1		56.00	1.44	1.08	55.50	0.93	0.74	ZZ
42T49Q		54.00	-0.56	-0.41	53.50	-1.07	-0.85	ZZ
43D79H		54.00	-0.56	-0.41	54.00	-0.57	-0.45	ZZ
441NRY		55.70	1.14	0.85	55.20	0.63	0.50	ZZ
4AJUF3		53.50	-1.06	-0.79	54.00	-0.57	-0.45	ZZ
4G1F7A	X	58.50	3.94	2.94	59.50	4.93	3.92	ZZ
4JBDLS		54.00	-0.56	-0.41	55.00	0.43	0.34	ZZ
4PY4UE		52.00	-2.56	-1.90	52.00	-2.57	-2.04	ZZ
4RJXMA		55.50	0.94	0.70	55.50	0.93	0.74	ZZ
4WELQ8		55.00	0.44	0.33	54.50	-0.07	-0.06	ZZ
51HS1E		55.50	0.94	0.70	55.50	0.93	0.74	ZZ
5GLTT7	*	50.50	-4.06	-3.02	51.50	-3.07	-2.44	ZZ
63CXQR		55.20	0.64	0.48	54.45	-0.12	-0.10	ZZ
6944JJ	*	55.00	0.44	0.33	53.50	-1.07	-0.85	ZZ
6MT4C6		54.40	-0.16	-0.12	53.70	-0.87	-0.69	ZZ
6VR5YX		54.60	0.04	0.03	54.80	0.23	0.18	ZZ
7WXEFH		52.50	-2.06	-1.53	53.50	-1.07	-0.85	ZZ
7XDXWL	*	53.00	-1.56	-1.16	54.50	-0.07	-0.06	ZZ
8FBKXG		54.80	0.24	0.18	54.70	0.13	0.10	ZZ
8QVMRK		54.10	-0.46	-0.34	54.20	-0.37	-0.30	ZZ
9JGA6X		54.00	-0.56	-0.41	54.50	-0.07	-0.06	ZZ
9QM55R		54.00	-0.56	-0.41	54.50	-0.07	-0.06	ZZ
9YR5BU	X	59.00	4.44	3.31	59.00	4.43	3.52	ZZ
APKR13		52.90	-1.66	-1.23	52.20	-2.37	-1.88	ZZ
AUX9HK	*	54.50	-0.06	-0.04	56.00	1.43	1.13	ZZ
B6XS1H		56.35	1.79	1.34	56.00	1.43	1.13	ZZ
BXDMTE		56.50	1.94	1.45	55.50	0.93	0.74	ZZ
BZ6E23		53.00	-1.56	-1.16	53.00	-1.57	-1.25	ZZ

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
C6W81M		52.90	-1.66	-1.23	53.35	-1.22	-0.97	ZZ
CKBERS		54.65	0.09	0.07	54.65	0.08	0.06	ZZ
CXBQ23		55.30	0.74	0.55	56.00	1.43	1.13	ZZ
D6M6C9		53.70	-0.86	-0.64	53.85	-0.72	-0.57	ZZ
DAPPTV		52.10	-2.46	-1.83	52.90	-1.67	-1.33	ZZ
DCHSYU		55.25	0.69	0.52	55.25	0.68	0.54	ZZ
DMAZ16		55.00	0.44	0.33	55.00	0.43	0.34	ZZ
DQTJ3B		55.00	0.44	0.33	54.50	-0.07	-0.06	ZZ
E27MU6		55.75	1.19	0.89	54.75	0.18	0.14	ZZ
E4264X		55.00	0.44	0.33	55.00	0.43	0.34	ZZ
ER7ZZU		56.30	1.74	1.30	55.70	1.13	0.90	ZZ
EU8DGN		53.95	-0.61	-0.45	54.60	0.03	0.02	ZZ
EUP3R6		55.00	0.44	0.33	55.00	0.43	0.34	ZZ
F9GCRG		56.00	1.44	1.08	56.50	1.93	1.53	ZZ
G55LN2		57.00	2.44	1.82	57.00	2.43	1.93	ZZ
GAPRYP		54.10	-0.46	-0.34	54.50	-0.07	-0.06	ZZ
GHBFIH		52.70	-1.86	-1.38	54.00	-0.57	-0.45	ZZ
H2LXM8		53.00	-1.56	-1.16	53.00	-1.57	-1.25	ZZ
HDBNJM		54.50	-0.06	-0.04	54.00	-0.57	-0.45	ZZ
HTTKTE		54.30	-0.26	-0.19	54.50	-0.07	-0.06	ZZ
HUYAJJ		56.50	1.94	1.45	56.50	1.93	1.53	ZZ
JAFJY1		53.50	-1.06	-0.79	53.00	-1.57	-1.25	ZZ
JERAP6		52.00	-2.56	-1.90	52.00	-2.57	-2.04	ZZ
JP2W98		55.25	0.69	0.52	55.00	0.43	0.34	ZZ
KAHJKK		52.00	-2.56	-1.90	52.00	-2.57	-2.04	ZZ
LK38XW		55.00	0.44	0.33	55.50	0.93	0.74	ZZ
LQGB6L		54.50	-0.06	-0.04	54.50	-0.07	-0.06	ZZ
MERKZL		55.90	1.34	1.00	55.75	1.18	0.94	ZZ
NHXS1C		52.50	-2.06	-1.53	52.90	-1.67	-1.33	ZZ
NMY819		55.00	0.44	0.33	54.50	-0.07	-0.06	ZZ
NPRP38		54.50	-0.06	-0.04	54.00	-0.57	-0.45	ZZ
PG3W59	X	59.50	4.94	3.68	59.00	4.43	3.52	ZZ
PGD7X1		54.50	-0.06	-0.04	54.50	-0.07	-0.06	ZZ
PGT38U		55.00	0.44	0.33	55.00	0.43	0.34	ZZ
PMTA3H		54.00	-0.56	-0.41	53.00	-1.57	-1.25	ZZ

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample B91-B92			Sample B93-B94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
PRKH7H		54.00	-0.56	-0.41	54.50	-0.07	-0.06	ZZ
Q5TXB7		53.50	-1.06	-0.79	54.00	-0.57	-0.45	ZZ
R6NX8C	*	58.00	3.44	2.56	58.00	3.43	2.72	ZZ
RTLVZN		54.75	0.19	0.14	54.60	0.03	0.02	ZZ
S5Y6AK		54.50	-0.06	-0.04	54.25	-0.32	-0.26	ZZ
SA7MK6		55.15	0.59	0.44	55.00	0.43	0.34	ZZ
SG4WK1		56.50	1.94	1.45	57.00	2.43	1.93	ZZ
SYRYEN		54.00	-0.56	-0.41	54.50	-0.07	-0.06	ZZ
TPQ2FZ		54.65	0.09	0.07	54.55	-0.02	-0.02	ZZ
TT3AXP		55.00	0.44	0.33	55.00	0.43	0.34	ZZ
U3VZAW		55.00	0.44	0.33	55.00	0.43	0.34	ZZ
U88P5Q		54.00	-0.56	-0.41	54.50	-0.07	-0.06	ZZ
UCDKDC	*	53.00	-1.56	-1.16	52.00	-2.57	-2.04	ZZ
UY9ZHP		54.00	-0.56	-0.41	54.50	-0.07	-0.06	ZZ
VC36BW		55.80	1.24	0.93	55.70	1.13	0.90	ZZ
VYLEK9		53.55	-1.01	-0.75	54.25	-0.32	-0.26	ZZ
WP4RVD		55.00	0.44	0.33	55.00	0.43	0.34	ZZ
WW6WR		55.45	0.89	0.67	55.35	0.78	0.62	ZZ
WZVTFF	X	59.50	4.94	3.68	58.00	3.43	2.72	ZZ
XAMXT		56.45	1.89	1.41	56.75	2.18	1.73	ZZ
XJH1AJ	X	52.50	-2.06	-1.53	50.00	-4.57	-3.63	ZZ
XP6WS2		55.00	0.44	0.33	54.00	-0.57	-0.45	ZZ
XPAMHT		56.75	2.19	1.63	56.45	1.88	1.49	ZZ
XRMBTH		55.50	0.94	0.70	55.50	0.93	0.74	ZZ
XU269E		55.00	0.44	0.33	54.00	-0.57	-0.45	ZZ
XX1VH3		56.00	1.44	1.08	56.50	1.93	1.53	ZZ
YK1U13		55.70	1.14	0.85	56.30	1.73	1.37	ZZ
YTSCEB	*	58.00	3.44	2.56	57.00	2.43	1.93	ZZ
YY41E8		53.00	-1.56	-1.16	53.00	-1.57	-1.25	ZZ
YYYYVN2		52.80	-1.76	-1.31	53.20	-1.37	-1.09	ZZ
Z67N9G		54.20	-0.36	-0.26	53.30	-1.27	-1.01	ZZ

Analysis 620

Hardness (Shore A/Type A)

		Summary Statistics	
Grand Means	54.555 Type A	54.572 Type A	
Std Dev Btwn Labs	1.344 Type A	1.258 Type A	
Statistics based on 96 of 101 reporting participants			

Samples B91-B92: Polyisoprene compound, batch #1 & B93-B94: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #620

- 4G1F7A (X) - Data for all Samples are high.
- 9YR5BU (X) - Data for all Samples are high. Possible Systematic Error.
- PG3W59 (X) - Data for all Samples are high. Possible Systematic Error.
- WZVTFF (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Sample Set B93-B94.
- XJH1AJ (X) - Inconsistency in testing between Sample sets. Low data for Sample Set B93-B94.

Results by Reading Time (as reported by laboratory)

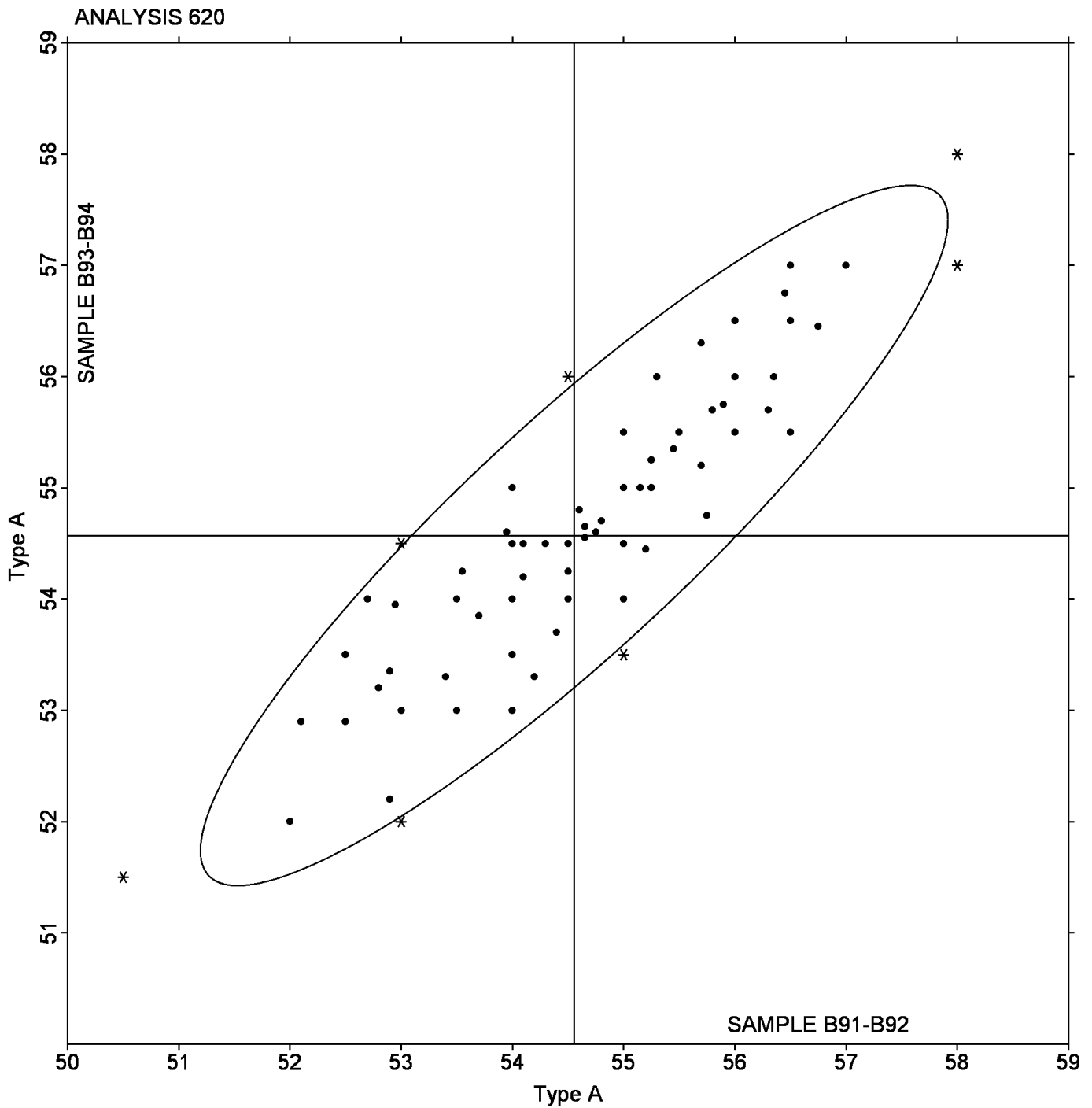
Reading Time	Sample B91 <i>Polyisoprene compound, batch #1</i>			Sample B92 <i>Polyisoprene compound, batch #1</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Select from list below	55.17	1.04	0.61	55.33	0.76	0.76	3	3
Readings taken within 0 - 5 second	54.72	1.10	0.17	54.73	1.01	0.16	66	73
Readings taken at 5 seconds	53.79	1.22	-0.76	53.94	1.34	-0.63	8	10
Readings taken after 5+ seconds	54.21	1.44	-0.35	54.30	1.34	-0.27	7	7
Maximum hardness indicator used	53.69	1.65	-0.87	53.26	1.26	-1.31	5	8

Analysis 620

Hardness (Shore A/Type A)

Grand Mean Sample B91-B92 = 54.555 Type A

Grand Mean Sample B93-B94 = 54.572 Type A



Analysis 630

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

WebCode	Data Flag	Sample B91-B92			Sample K91-K92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1AQ2Z7		3,009.3	-189.9	-1.54	3,315.3	20.7	0.11	ZZ
1U9SMT		3,387.0	187.8	1.53	3,185.0	-109.6	-0.59	ZZ
2S9ADG		3,116.0	-83.2	-0.68	3,229.0	-65.7	-0.35	ZZ
2TNTEV		3,138.0	-61.2	-0.50	3,136.0	-158.6	-0.85	ZZ
56166Q		3,101.5	-97.7	-0.79	3,305.5	10.9	0.06	ZZ
5XZXD5		3,092.0	-107.2	-0.87	3,043.5	-251.1	-1.35	ZZ
6TG5TQ		3,274.7	75.4	0.61	3,253.0	-41.6	-0.22	ZZ
75GZX7		3,105.0	-94.2	-0.77	3,410.0	115.4	0.62	ZZ
8NAY1K		2,951.1	-248.1	-2.02	3,181.2	-113.4	-0.61	ZZ
BATJA1		3,275.7	76.5	0.62	3,600.6	306.0	1.64	ZZ
BLH5PR	M	No data reported for this sample			149.4	-3,145.2	-16.85	ZZ
E24FHY		3,324.0	124.8	1.01	3,420.0	125.4	0.67	ZZ
FBG12R		3,231.2	31.9	0.26	3,184.7	-109.9	-0.59	ZZ
G5MJZK		3,381.0	181.8	1.48	3,512.0	217.4	1.16	ZZ
GJQ54V		3,198.1	-1.1	-0.01	3,453.4	158.8	0.85	ZZ
JDF937		3,031.5	-167.7	-1.36	3,335.5	40.9	0.22	ZZ
MJHFB2		3,156.0	-43.2	-0.35	3,443.5	148.9	0.80	ZZ
N3YDG4		3,199.5	0.3	0.00	3,135.5	-159.1	-0.85	ZZ
NCM55H		3,328.9	129.6	1.05	3,292.6	-2.0	-0.01	ZZ
NZ88M5		3,326.0	126.8	1.03	3,273.5	-21.1	-0.11	ZZ
Q82D8R		3,198.0	-1.2	-0.01	3,540.0	245.4	1.31	ZZ
QMCLQ8		3,155.5	-43.7	-0.36	2,930.0	-364.6	-1.95	ZZ
QZUUT2		3,410.0	210.8	1.71	3,649.5	354.9	1.90	ZZ
R4V28V		3,358.0	158.8	1.29	3,565.0	270.4	1.45	ZZ
REF946		3,191.5	-7.7	-0.06	2,918.5	-376.1	-2.01	ZZ
SJ2N35		3,053.0	-146.2	-1.19	3,182.0	-112.6	-0.60	ZZ
XJ46UN		3,328.0	128.8	1.05	3,270.5	-24.1	-0.13	ZZ
XVE4U7		3,140.5	-58.7	-0.48	3,423.0	128.4	0.69	ZZ
XZLR5F		3,227.1	27.9	0.23	3,241.6	-53.0	-0.28	ZZ
YYUGSS		3,090.0	-109.2	-0.89	3,113.5	-181.1	-0.97	ZZ

Analysis 630

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

Summary Statistics

Grand Means

3,199.24 psi

3,294.60 psi

Std Dev Btwn Labs

122.95 psi

186.66 psi

Statistics based on 29 of 30 reporting participants

Summary Statistics in SI Units

Grand Means

22.058 MPa

22.72 MPa

Std Dev Btwn Labs

0.848 MPa

1.29 MPa

Statistics based on 29 of 30 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #630

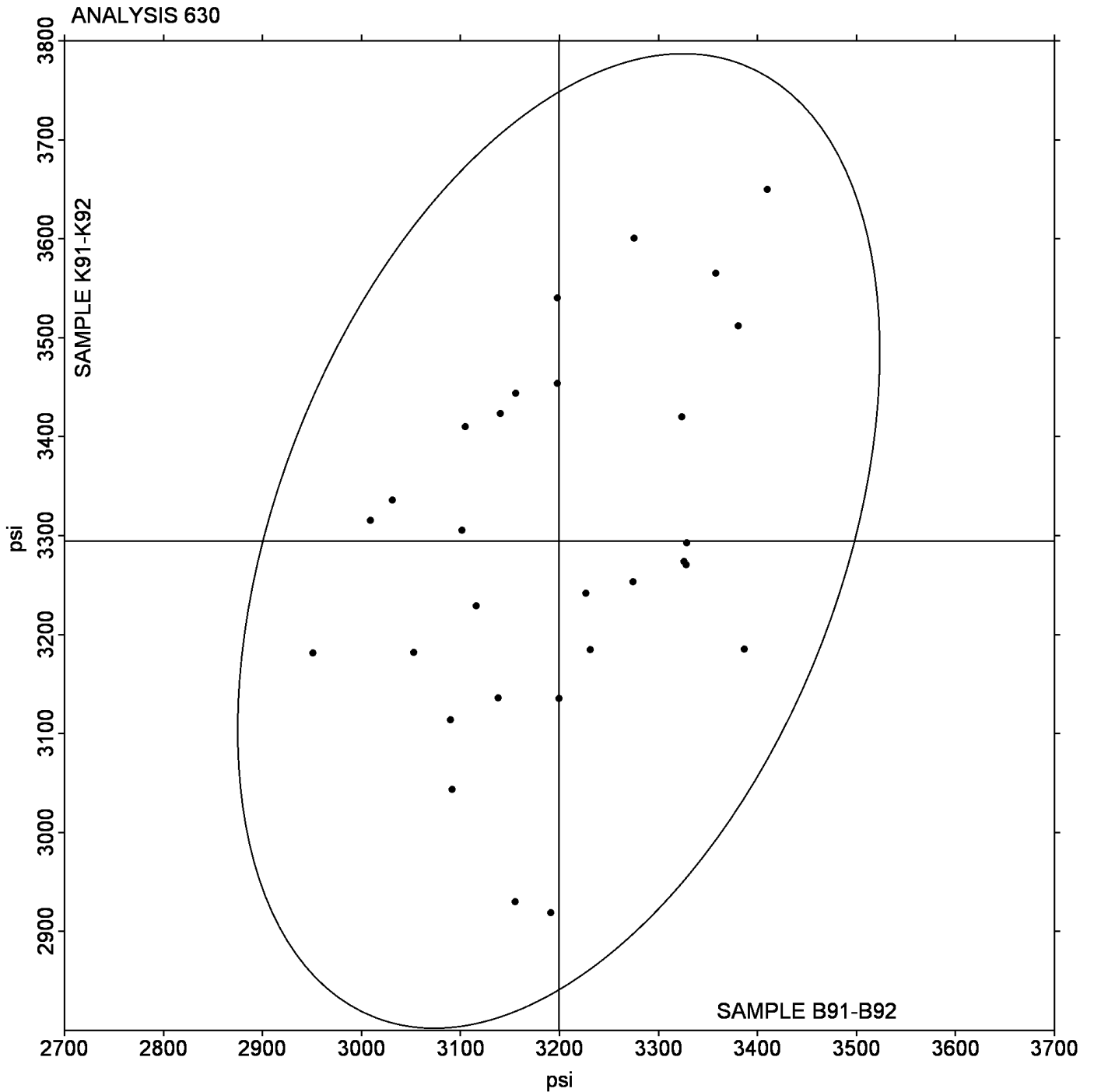
BLH5PR (M) - Data not reported for Sample set B91-B92.

Analysis 630

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

Grand Mean Sample B91-B92 = 3,199.24 psi

Grand Mean Sample K91-K92 = 3,294.60 psi



Analysis 631

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

WebCode	Data Flag	Sample B91-B92			Sample K91-K92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1WAYHJ		528.9	-38.4	-1.65	556.3	-44.0	-1.99	ZZ
4FZPWU		561.0	-6.3	-0.27	588.5	-11.8	-0.53	ZZ
6T8VES		548.0	-19.3	-0.83	587.0	-13.3	-0.60	ZZ
8FBLVQ		568.5	1.2	0.05	605.0	4.7	0.21	ZZ
BAY67G	*	495.5	-71.8	-3.08	550.5	-49.8	-2.25	ZZ
BK733S	M	No data reported for this sample			473.9	-126.3	-5.70	ZZ
BXHK6J		592.5	25.2	1.08	627.5	27.2	1.23	ZZ
CJV7BY		567.5	0.2	0.01	597.5	-2.8	-0.13	ZZ
CYDPV1		574.7	7.4	0.32	612.7	12.4	0.56	ZZ
D1TDWZ		605.5	38.2	1.64	647.0	46.7	2.11	ZZ
ELYHL7		569.0	1.7	0.07	602.0	1.7	0.08	ZZ
F36YFR		572.9	5.6	0.24	598.8	-1.5	-0.07	ZZ
G3XAS5		564.0	-3.3	-0.14	591.5	-8.8	-0.40	ZZ
GMKYU6		564.0	-3.3	-0.14	601.5	1.2	0.06	ZZ
J27QHL		561.5	-5.8	-0.25	581.5	-18.8	-0.85	ZZ
J85SEY		565.0	-2.3	-0.10	607.0	6.7	0.30	ZZ
KDKH1G		579.0	11.7	0.50	602.0	1.7	0.08	ZZ
LMYKY		572.7	5.4	0.23	569.0	-31.2	-1.41	ZZ
MGZT4T		537.5	-29.8	-1.28	592.5	-7.8	-0.35	ZZ
NG3GE3		571.0	3.7	0.16	592.5	-7.8	-0.35	ZZ
R49MN1		550.0	-17.3	-0.74	582.0	-18.3	-0.82	ZZ
RM5PNX		574.5	7.2	0.31	618.0	17.7	0.80	ZZ
TUYZS4		599.3	32.0	1.37	607.5	7.2	0.33	ZZ
UQZU14		569.0	1.7	0.07	634.5	34.2	1.54	ZZ
VSR7L3		602.0	34.7	1.49	616.5	16.2	0.73	ZZ
WS7MEG		590.8	23.5	1.01	631.7	31.4	1.42	ZZ
XB84SC		593.5	26.2	1.12	605.0	4.7	0.21	ZZ
XK2GTA		552.0	-15.3	-0.66	594.0	-6.3	-0.28	ZZ
XTZXTF		541.5	-25.8	-1.11	580.5	-19.8	-0.89	ZZ
ZZWE9T		580.0	12.7	0.55	628.0	27.7	1.25	ZZ

Analysis 631

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

		Summary Statistics	
Grand Means	567.28 percent		600.27 percent
Std Dev Btwn Labs	23.33 percent		22.17 percent
Statistics based on 29 of 30 reporting participants			

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #631

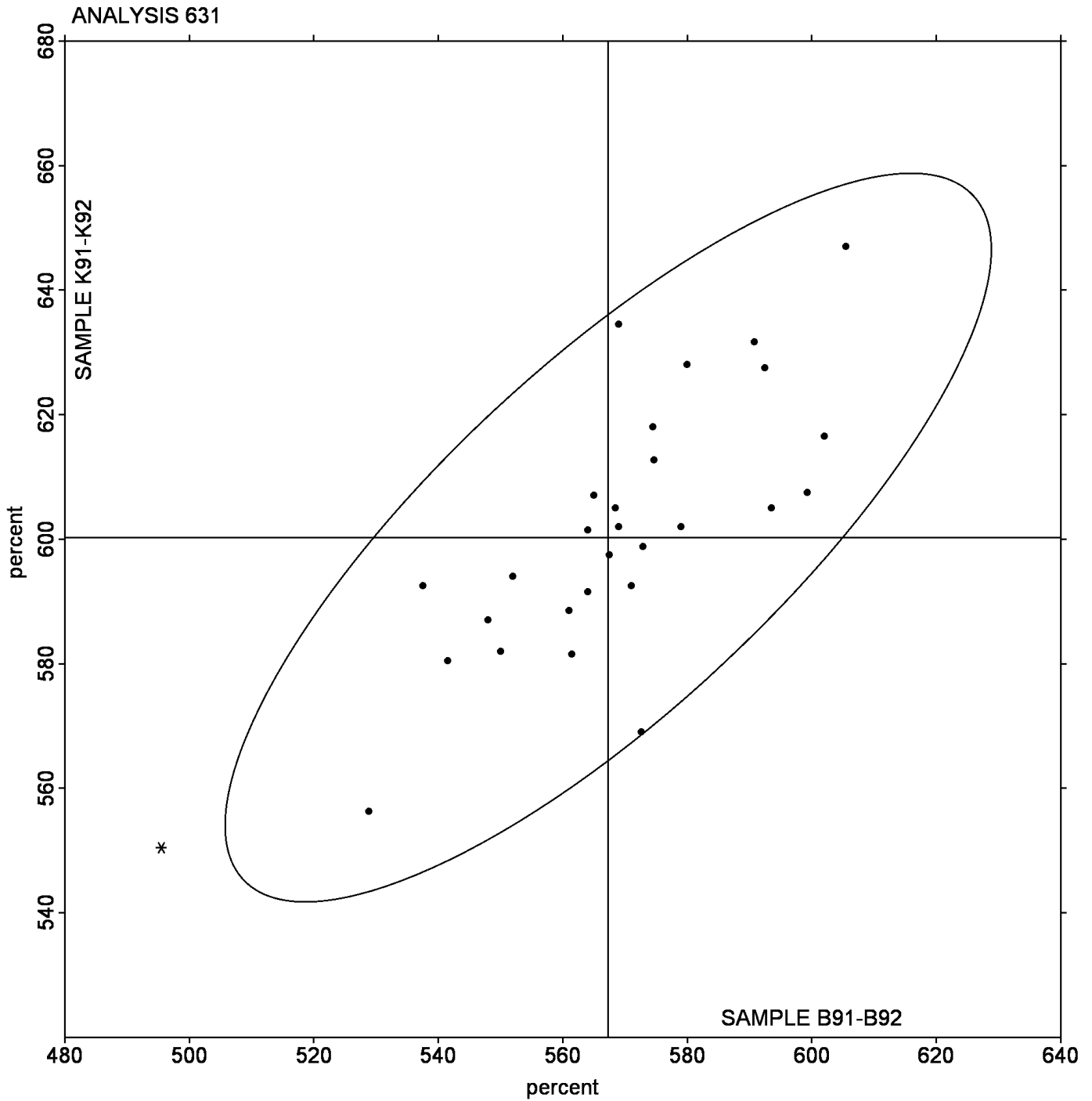
BK733S (M) - Data not reported for Sample set B91-B92.

Analysis 631

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

Grand Mean Sample B91-B92 = 567.28 percent

Grand Mean Sample K91-K92 = 600.27 percent



Analysis 632

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

WebCode	Data Flag	Sample B91-B92			Sample K91-K92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
26HD7R		1,200.0	-3.5	-0.07	1,006.0	-9.1	-0.09	ZZ
2P82DC		1,163.3	-40.2	-0.76	1,011.1	-4.0	-0.04	ZZ
5JA21N		1,237.5	34.0	0.64	1,171.0	155.9	1.54	ZZ
7E1J8R		1,180.0	-23.5	-0.44	872.0	-143.1	-1.41	ZZ
7JYW3E		1,202.5	-1.0	-0.02	1,108.5	93.4	0.92	ZZ
7QNB6G		1,144.5	-59.0	-1.11	961.0	-54.1	-0.53	ZZ
AC5XC6		1,272.5	69.0	1.30	1,120.0	104.9	1.03	ZZ
AHJCCG		1,237.5	34.0	0.64	1,154.0	138.9	1.37	ZZ
BCXL4U		1,203.0	-0.5	-0.01	1,100.5	85.4	0.84	ZZ
C6GRZ2		1,283.6	80.1	1.51	1,022.5	7.4	0.07	ZZ
CPV4RL		1,184.8	-18.7	-0.35	1,039.5	24.4	0.24	ZZ
DKNFY9		1,221.5	18.0	0.34	953.0	-62.1	-0.61	ZZ
ECCCZ1		1,215.9	12.4	0.23	1,065.8	50.6	0.50	ZZ
EL2Y5S		1,227.4	23.9	0.45	1,060.7	45.6	0.45	ZZ
ENMJLA		1,200.0	-3.5	-0.07	1,075.5	60.4	0.60	ZZ
FNUBDN	M	No data reported for this sample			81.9	-933.2	-9.20	ZZ
HG6PXU		1,179.5	-24.0	-0.45	939.5	-75.6	-0.75	ZZ
HPLA6X	*	1,169.5	-34.0	-0.64	715.5	-299.6	-2.95	ZZ
KB4YHN		1,230.2	26.7	0.50	1,012.4	-2.7	-0.03	ZZ
LBVBDZ		1,318.0	114.5	2.16	1,154.6	139.4	1.37	ZZ
LHUZND		1,112.5	-91.0	-1.71	994.5	-20.6	-0.20	ZZ
LR4VJT		1,078.5	-125.0	-2.36	940.5	-74.6	-0.74	ZZ
LYC5PB		1,173.0	-30.5	-0.57	962.0	-53.1	-0.52	ZZ
NFG5ZC		1,266.0	62.5	1.18	1,108.5	93.4	0.92	ZZ
QFX2L3		1,180.0	-23.5	-0.44	891.5	-123.6	-1.22	ZZ
RK5VZH		1,176.6	-26.9	-0.51	1,050.6	35.4	0.35	ZZ
S4PMM4		1,200.0	-3.5	-0.07	869.5	-145.6	-1.44	ZZ
TCTHY1	X	1,499.0	295.5	5.57	1,190.0	174.9	1.72	ZZ
X66T45		1,288.0	84.5	1.59	1,028.5	13.4	0.13	ZZ
ZS63TB		1,151.5	-52.0	-0.98	1,035.0	19.9	0.20	ZZ

Analysis 632

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

Summary Statistics

Grand Means

1,203.47 psi

1,015.13 psi

Std Dev Btwn Labs

53.05 psi

101.41 psi

Statistics based on 28 of 30 reporting participants

Summary Statistics in SI Units

Grand Means

8.2976 MPa

7.00 MPa

Std Dev Btwn Labs

0.3658 MPa

0.70 MPa

Statistics based on 28 of 30 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #632

FNUBDN (M) - Data not reported for Sample set B91-B92.

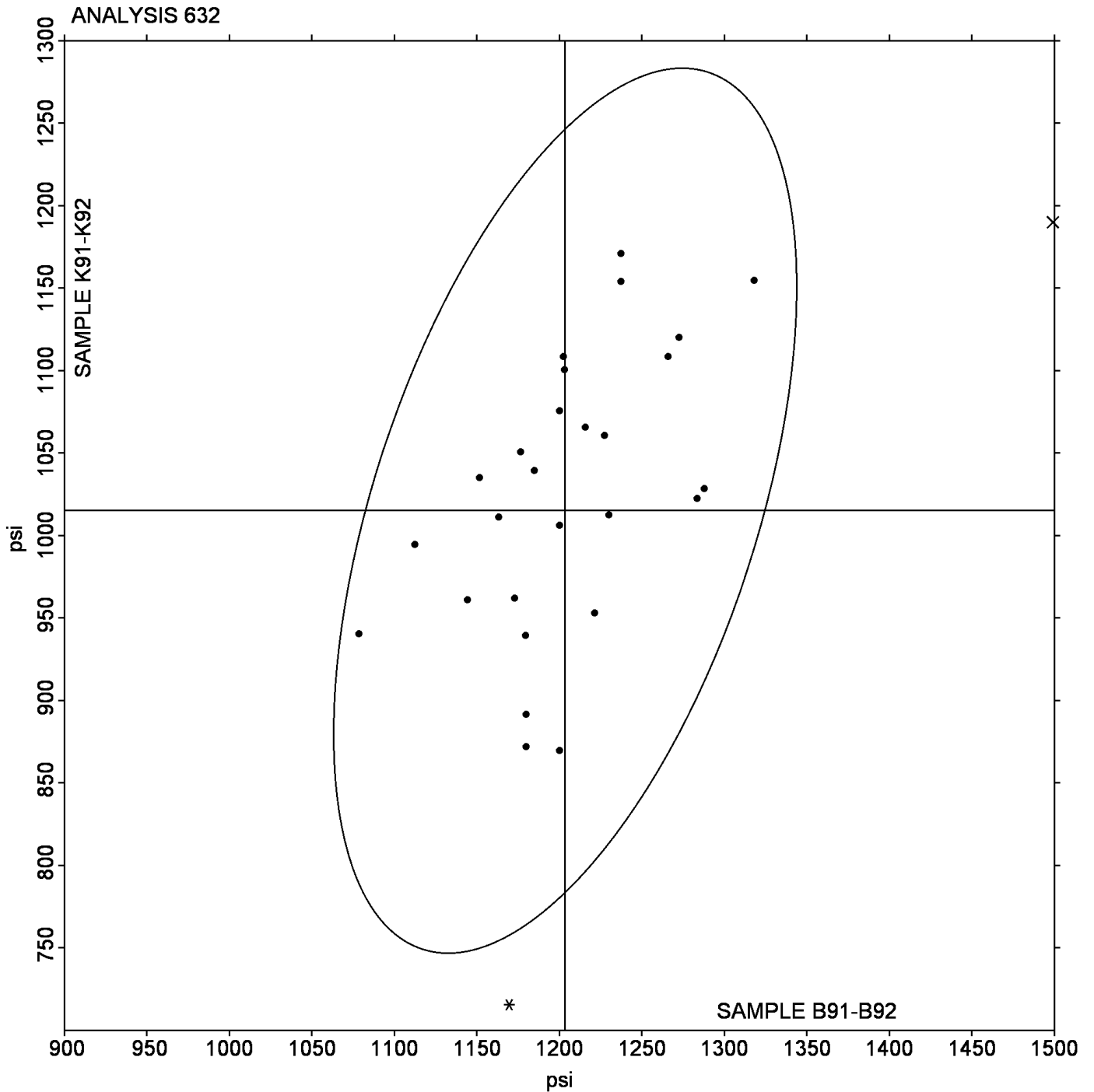
TCTHY1 (X) - Data for Sample Set B91-B92 are high. Also inconsistent in testing within Sample Set K91-K92

Analysis 632

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

Grand Mean Sample B91-B92 = 1,203.47 psi

Grand Mean Sample K91-K92 = 1,015.13 psi



Analysis 633

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

WebCode	Data Flag	Sample B91-B92			Sample K91-K92			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1H5YPE		262.4	0.5	0.05	222.6	-2.8	-0.12	ZZ
2QPRWS		268.5	6.6	0.61	225.5	0.2	0.01	ZZ
3NXK1E		268.5	6.6	0.61	265.0	39.7	1.69	ZZ
4MN7GX		267.5	5.6	0.52	240.0	14.7	0.63	ZZ
4V7DMU		275.9	14.0	1.30	235.8	10.5	0.45	ZZ
65WG69		247.0	-14.9	-1.39	226.0	0.7	0.03	ZZ
7T1PHJ		260.0	-1.9	-0.18	247.0	21.7	0.93	ZZ
AFT6T5		268.3	6.4	0.60	217.6	-7.8	-0.33	ZZ
AUZF36	*	242.5	-19.4	-1.80	155.5	-69.8	-2.98	ZZ
C3HHXS	M	No data reported for this sample			50.8	-174.6	-7.46	ZZ
CHNSKN		254.0	-7.9	-0.73	189.0	-36.3	-1.55	ZZ
CW88DX		252.9	-9.0	-0.84	235.2	9.8	0.42	ZZ
DRDM33		275.0	13.1	1.22	235.0	9.7	0.41	ZZ
F1LEZ8		257.5	-4.4	-0.41	205.5	-19.8	-0.85	ZZ
FRH4RX		251.0	-10.9	-1.01	199.5	-25.8	-1.10	ZZ
GWU8M4		281.1	19.2	1.79	248.7	23.4	1.00	ZZ
JCT5WD		263.1	1.2	0.11	234.5	9.2	0.39	ZZ
K6YPGS		249.0	-12.9	-1.20	225.5	0.2	0.01	ZZ
KZCQY8		256.0	-5.9	-0.55	213.0	-12.3	-0.53	ZZ
LL5CS7		267.0	5.1	0.47	263.0	37.7	1.61	ZZ
N76CNH		258.5	-3.4	-0.32	240.5	15.2	0.65	ZZ
PGWPQE		289.0	27.1	2.52	247.0	21.7	0.93	ZZ
Q8PAQ6		262.5	0.6	0.06	190.0	-35.3	-1.51	ZZ
QEL3RU		256.0	-5.9	-0.55	206.5	-18.8	-0.81	ZZ
S9133X		242.5	-19.4	-1.80	224.5	-0.8	-0.04	ZZ
W2LX72		267.0	5.1	0.47	205.3	-20.1	-0.86	ZZ
X4GJWQ		265.0	3.1	0.29	244.5	19.2	0.82	ZZ
X6PXGR		267.0	5.1	0.47	225.0	-0.3	-0.01	ZZ
YVNQF1		259.0	-2.9	-0.27	230.2	4.9	0.21	ZZ
ZX5BJ7		261.3	-0.6	-0.06	237.7	12.4	0.53	ZZ

Analysis 633

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

Summary Statistics

Grand Means

261.90 psi

225.35 psi

Std Dev Btwn Labs

10.75 psi

23.40 psi

Statistics based on 29 of 30 reporting participants

Summary Statistics in SI Units

Grand Means

1.8057 MPa

1.55 MPa

Std Dev Btwn Labs

0.0741 MPa

0.16 MPa

Statistics based on 29 of 30 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #633

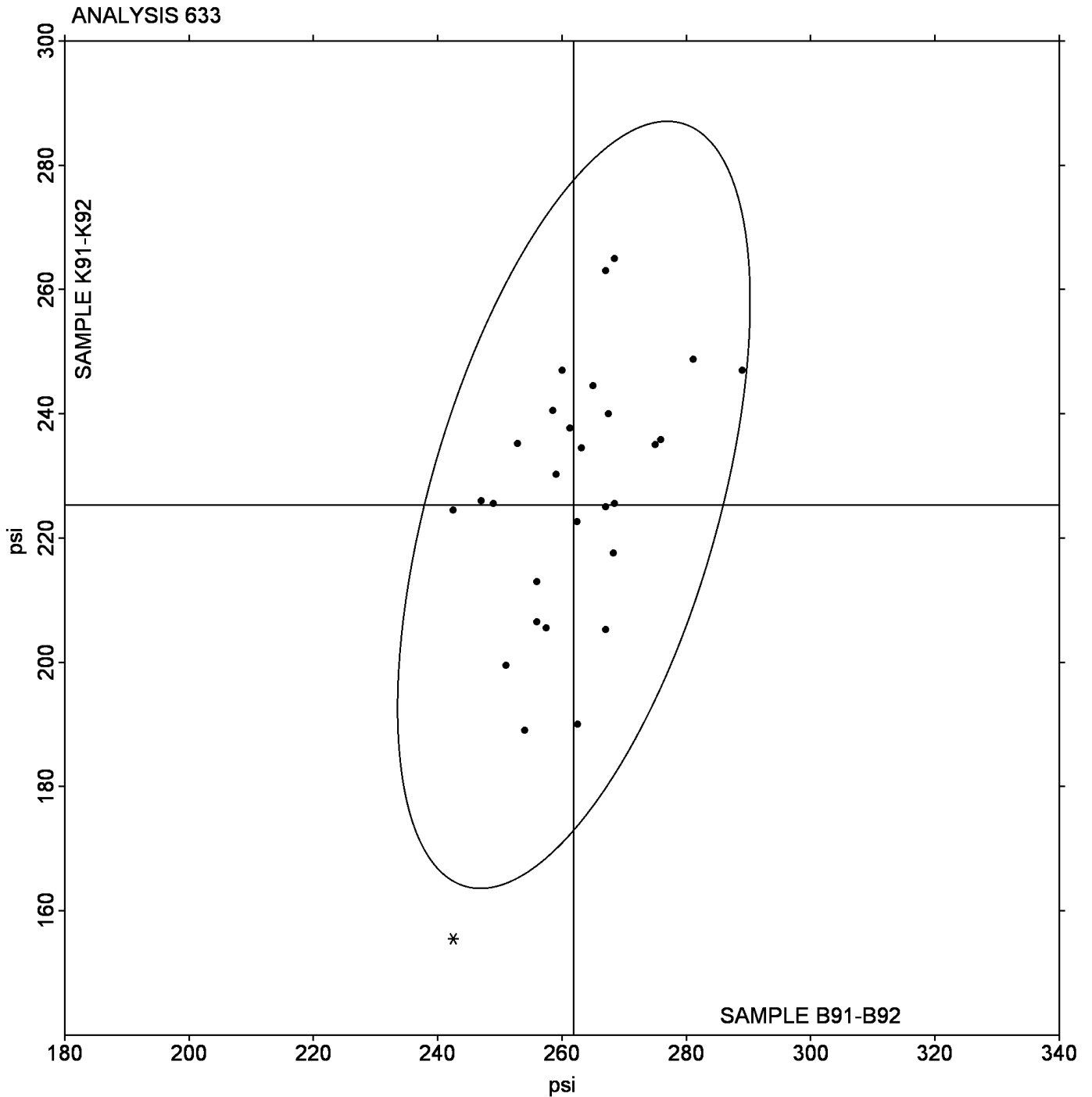
C3HHXS (M) - Data not reported for Sample set B91-B92.

Analysis 633

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

Grand Mean Sample B91-B92 = 261.90 psi

Grand Mean Sample K91-K92 = 225.35 psi



Rubber Interlaboratory Testing Program

Analysis 660

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

WebCode	Data Flag	Sample T91-T92			Sample T93-T94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3FVNR2		86.38	-0.39	-0.40	48.43	-0.21	-0.23	MR
6TBZ8N	*	89.35	2.57	2.63	49.88	1.23	1.39	MM
78EFCF		87.45	0.68	0.69	50.70	2.06	2.33	MR
9RLJX4		86.80	0.03	0.03	49.02	0.38	0.42	MR
9Y91VG		85.80	-0.97	-0.99	49.37	0.73	0.82	MP
AUJEZ4		87.95	1.17	1.19	49.45	0.81	0.92	MR
F95AR4		86.40	-0.37	-0.38	49.37	0.73	0.82	MR
FDLZVK		86.08	-0.69	-0.71	48.10	-0.54	-0.61	MR
FR7AGJ		86.50	-0.27	-0.28	48.40	-0.24	-0.27	MR
HV9F19		85.35	-1.42	-1.45	47.57	-1.07	-1.21	MR
JM94WH		87.52	0.74	0.76	49.00	0.36	0.41	MR
KJX8KR		85.18	-1.59	-1.62	47.60	-1.04	-1.18	MR
KZPMR6		86.20	-0.57	-0.59	47.98	-0.66	-0.74	MR
L7NUHZ		87.73	0.96	0.98	48.78	0.14	0.16	MR
LKUB68		86.74	-0.04	-0.04	47.89	-0.75	-0.85	MR
MZ5UCK		87.01	0.24	0.24	48.09	-0.55	-0.62	XX
P34AX1		86.70	-0.07	-0.08	48.33	-0.31	-0.35	MR
Q98DWX		86.21	-0.56	-0.57	46.62	-2.03	-2.29	MR
QNBNW		88.03	1.26	1.29	48.37	-0.27	-0.31	MR
QXLK3Q		86.03	-0.74	-0.76	47.95	-0.69	-0.78	MR
RT9W5D		87.33	0.56	0.57	49.15	0.51	0.58	MR
T5GU9D		86.90	0.13	0.13	48.63	-0.01	-0.01	MR
TWLEJY		85.58	-1.19	-1.22	48.22	-0.42	-0.48	MR
UH8A3Q		86.70	-0.07	-0.08	49.33	0.69	0.78	MR
V6W984		87.63	0.86	0.88	48.38	-0.26	-0.29	TV
WCMAD		86.68	-0.09	-0.09	48.35	-0.29	-0.33	MR
WFUH7K	X	83.40	-3.37	-3.44	49.24	0.59	0.67	MP
Y3SXGR		86.83	0.06	0.06	48.77	0.13	0.14	MR
Y9BM3H		86.92	0.14	0.15	49.37	0.73	0.82	TV
YPG7Y5		84.86	-1.92	-1.96	47.60	-1.04	-1.17	TV
ZY8BZ6		88.37	1.59	1.63	50.53	1.89	2.14	MR

Analysis 660

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

		Summary Statistics	
Grand Means	86.774 ML 1 + 4	48.641	ML 1 + 4
Stnd Dev Btwn Labs	0.980 ML 1 + 4	0.885	ML 1 + 4
Statistics based on 30 of 31 reporting participants			

Samples T91-T92: NBR & T93-T94: Butyl

Comments on assigned Data Flags for Test #660

WFUH7K (X) - Low data for Sample T91.

Instrument Code Listing

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

Instruments:

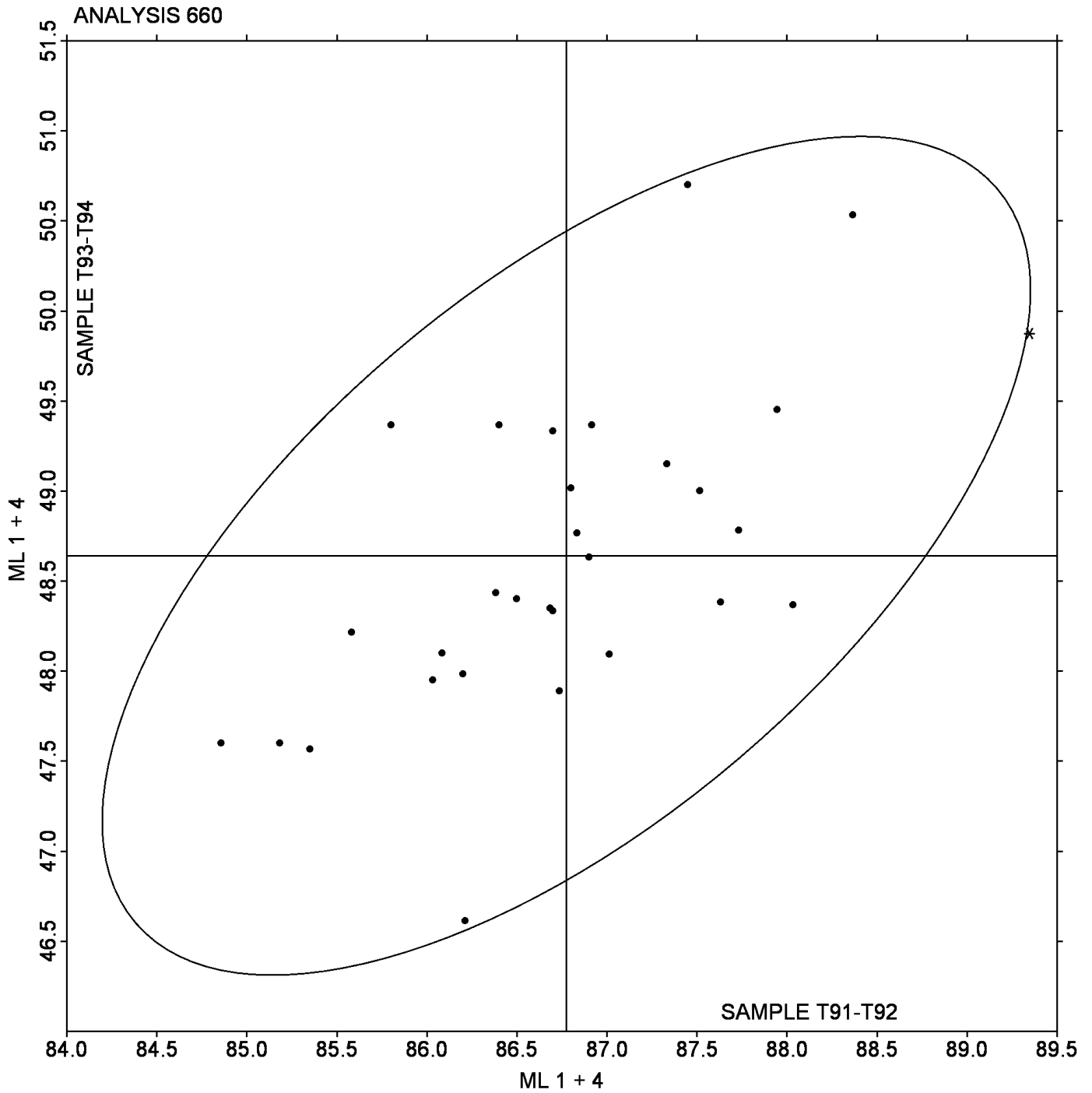
- | | |
|--|--|
| (ML) Alpha Technologies/Monsanto model not specified | (MM) Alpha Technologies Model 1xxx or OSM |
| (MP) Monsanto Compact Mooney Viscometer | (MR) Alpha Technologies Model MV2000/MV2000E |
| (MZ) Rebuilt Monsanto Mooney Viscometer | (SF) Scott STI (any model) |
| (TV) Tech Pro Visc 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 T91-T92 = 86.774 ML 1 + 4

Grand Mean Sample T93-T94 = 48.641 ML 1 + 4



Analysis 661

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

WebCode	Data Flag	Sample T91-T92			Sample T93-T94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
23N6RP		85.80	-0.76	-0.66	47.02	0.22	0.26	MM
3ZXKVC		87.95	1.38	1.20	47.26	0.46	0.56	MR
4MSPK1		84.86	-1.70	-1.48	45.83	-0.97	-1.19	XX
6MRZU		87.52	0.96	0.83	47.00	0.20	0.24	MR
6Q6ZNB		88.03	1.47	1.28	46.78	-0.02	-0.02	MR
7937PK		85.58	-0.98	-0.85	46.33	-0.47	-0.57	MR
9CKEL7	*	86.92	0.36	0.31	49.28	2.48	3.04	TV
DHQTY5	*	83.40	-3.16	-2.74	46.89	0.09	0.11	MR
DREE6N		86.08	-0.48	-0.41	46.37	-0.43	-0.53	MR
GJP614		86.70	0.14	0.12	47.12	0.32	0.39	MR
JJ39S1		86.40	-0.16	-0.14	47.55	0.75	0.92	MR
KBPHL2	X	87.73	1.17	1.02	75.30	28.50	34.86	MR
KSD8JW		86.03	-0.53	-0.46	46.48	-0.32	-0.39	MR
P8NLS3		86.20	-0.36	-0.31	46.03	-0.77	-0.94	MR
PRYZ5G		86.38	-0.18	-0.15	46.47	-0.33	-0.41	MR
Q84TDG		87.01	0.45	0.39	46.32	-0.48	-0.59	XX
QNGJG5		86.74	0.17	0.15	46.39	-0.41	-0.50	MR
QZRTQ9		86.50	-0.06	-0.05	46.65	-0.15	-0.18	MR
RETA3F		86.90	0.34	0.29	46.83	0.03	0.04	MR
TUSU72		89.35	2.79	2.42	47.22	0.42	0.51	MM
TWSHHH		85.18	-1.38	-1.20	45.87	-0.93	-1.14	MR
U27V6A		87.33	0.77	0.67	46.95	0.15	0.18	MR
U2PVBJ		86.80	0.24	0.21	47.30	0.50	0.61	MR
V2P6T8		86.21	-0.35	-0.30	45.13	-1.67	-2.04	MR
WZAGW		87.63	1.07	0.93	46.74	-0.06	-0.07	XX
X3FHHT		85.35	-1.21	-1.05	46.12	-0.68	-0.84	MR
Y2GWVS		86.83	0.27	0.24	47.18	0.38	0.47	MR
YGYVJ6		87.45	0.89	0.77	48.52	1.72	2.10	MR
ZXY9D7	X	88.37	1.81	1.57	53.38	6.58	8.05	MR

Summary Statistics

Grand Means

86.561 ML 1 + 8

46.801 ML 1 + 8

Std Dev Btwn Labs

1.152 ML 1 + 8

0.818 ML 1 + 8

Statistics based on 27 of 29 reporting participants

Analysis 661

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

Please refer to the sample information provided for Analysis 660.

Comments on assigned Data Flags for Test #661

KBPHL2 (X) - Data for Sample set T93-T94 are high.

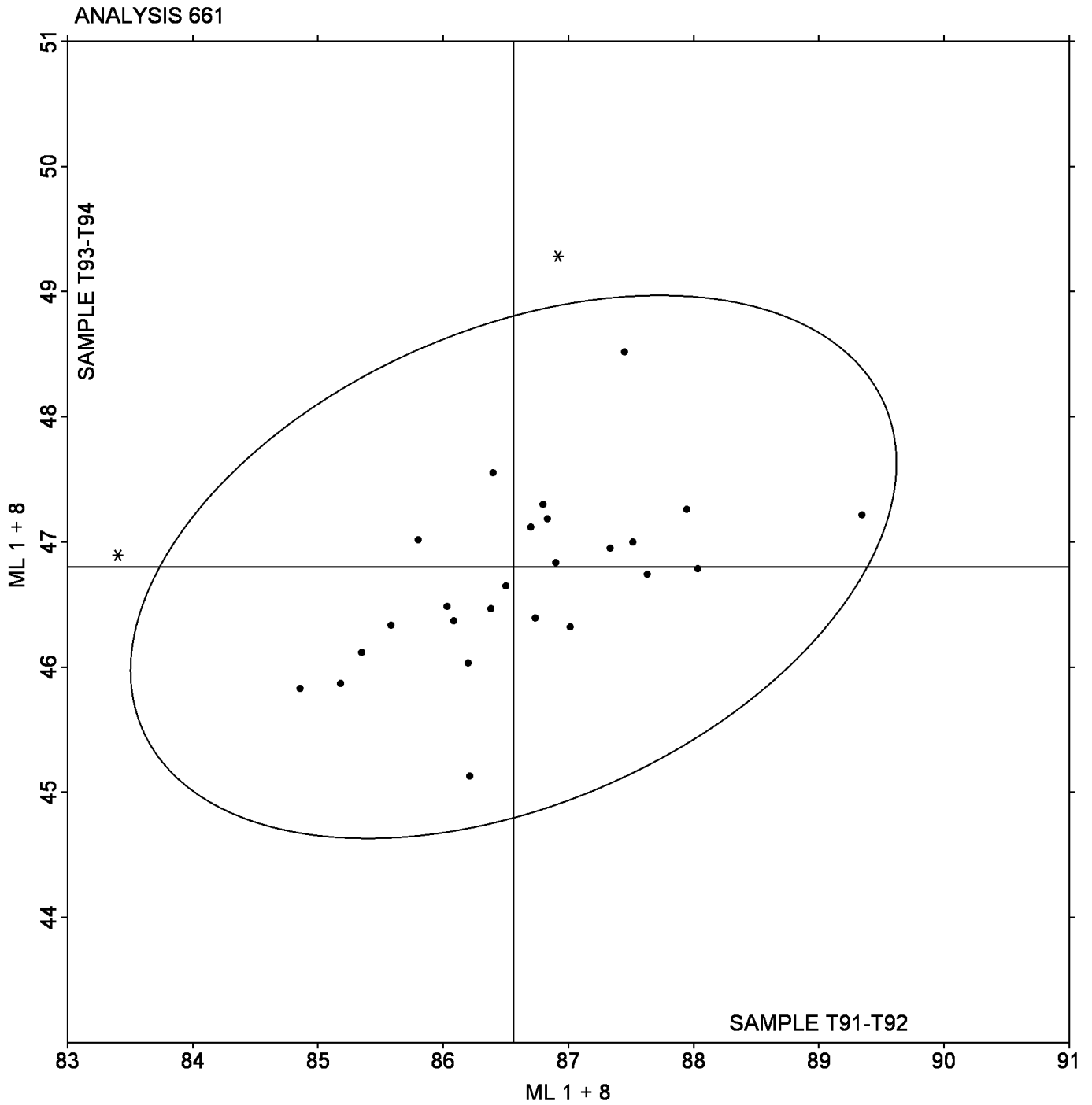
ZXY9D7 (X) - Data for Sample set T93-T94 are high. Also inconsistent in testing within Sample set T93-T94.

Analysis 661

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

Grand Mean Sample T91-T92 = 86.561 ML 1 + 8

Grand Mean Sample T93-T94 = 46.801 ML 1 + 8



Analysis 662

Mooney Stress Relaxation: t80 (seconds)

WebCode	Data Flag	Sample T91-T92			Sample T93-T94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
36447P		26.07	2.41	0.83	5.558	-0.398	-0.23	XX
9P4BXB		17.34	-6.31	-2.16	9.867	3.910	2.24	MR
ACS93Q	X	6,381.10	6,357.45	2,173.61	635.800	629.844	361.34	TV
CEWE2V		23.30	-0.35	-0.12	4.800	-1.156	-0.66	XX
D27BE2		25.51	1.86	0.64	5.323	-0.633	-0.36	MR
KEXLHY		24.55	0.90	0.31	5.212	-0.745	-0.43	MR
LAMEUF		24.13	0.48	0.16	5.400	-0.556	-0.32	MR
YS54R5		24.67	1.01	0.35	5.533	-0.423	-0.24	MR

Summary Statistics

Grand Means

23.653 seconds

5.9562 seconds

Std Dev Btwn Labs

2.925 seconds

1.7431 seconds

Statistics based on 7 of 8 reporting participants

Samples T91-T92: NBR & T93-T94: Butyl

Comments on assigned Data Flags for Test #662

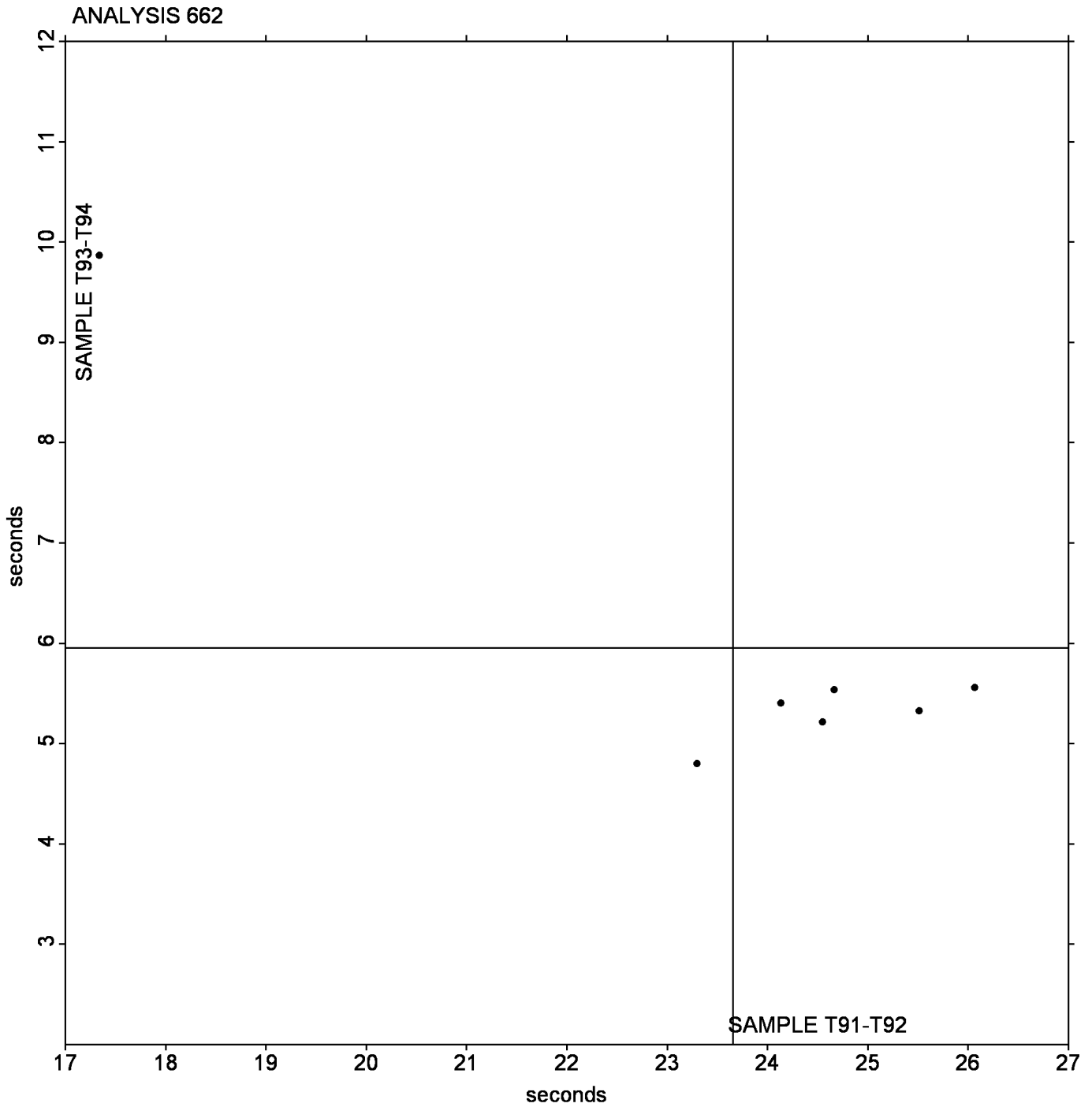
ACS93Q (X) - Extreme data for both Sample sets.

Analysis 662

Mooney Stress Relaxation: t80 (seconds)

Grand Mean Sample T91-T92 = 23.653 seconds

Grand Mean Sample T93-T94 = 5.9562 seconds



Analysis 663

Mooney Stress Relaxation: X30 (percent)

WebCode	Data Flag	Sample T91-T92			Sample T93-T94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
5Q1YWD		81.33	1.99	0.46	95.71	1.11	0.51	MR
BG35KS		81.28	1.95	0.45	95.30	0.70	0.32	MR
KRC3F2		77.79	-1.54	-0.36	92.54	-2.06	-0.94	MR
Q6LZ52		80.90	1.57	0.36	94.77	0.17	0.08	XX
QJKDWC		81.47	2.14	0.49	96.20	1.60	0.73	MR
U8CDVM		81.06	1.73	0.40	95.26	0.66	0.30	MR
UAFZ3E		81.75	2.42	0.56	96.83	2.23	1.02	XX
Y7XDB2		69.07	-10.26	-2.37	90.18	-4.42	-2.02	TV

Summary Statistics

Grand Means

79.330 percent

94.600 percent

Std Dev Btwn Labs

4.330 percent

2.187 percent

Statistics based on 8 of 8 reporting participants

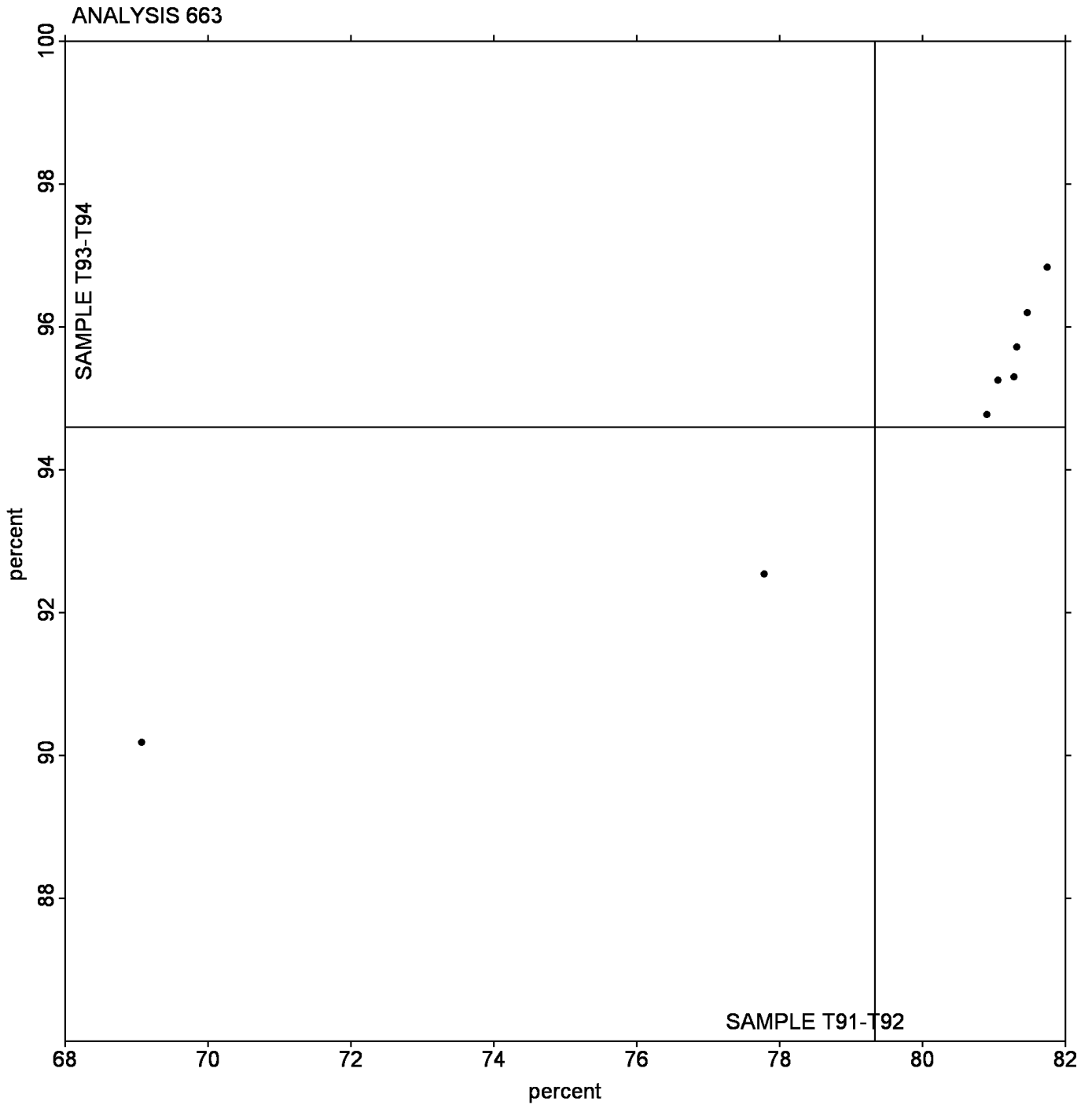
Samples T91-T92: NBR & T93-T94: Butyl

Analysis 663

Mooney Stress Relaxation: X30 (percent)

Grand Mean Sample T91-T92 = 79.330 percent

Grand Mean Sample T93-T94 = 94.600 percent



Analysis 664

Mooney Stress Relaxation: Area under curve (M-s)

WebCode	Data Flag	Sample T91-T92			Sample T93-T94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2L743Z		1,566.8	-170.0	-2.08	349.1	81.9	1.56	TV
4HZHB5		1,717.6	-19.2	-0.24	179.8	-87.3	-1.67	XX
DB18VP		1,733.5	-3.3	-0.04	240.5	-26.6	-0.51	XX
HBV7TZ		1,799.5	62.7	0.77	300.2	33.1	0.63	XX
MSW9M		1,762.3	25.5	0.31	252.7	-14.5	-0.28	MR
SCD3ZP		1,807.8	71.0	0.87	276.0	8.9	0.17	MR
SP871B		1,770.2	33.3	0.41	271.7	4.5	0.09	MR

Summary Statistics

Grand Means

1,736.82 M-s

267.14 M-s

Std Dev Btwn Labs

81.66 M-s

52.36 M-s

Statistics based on 7 of 7 reporting participants

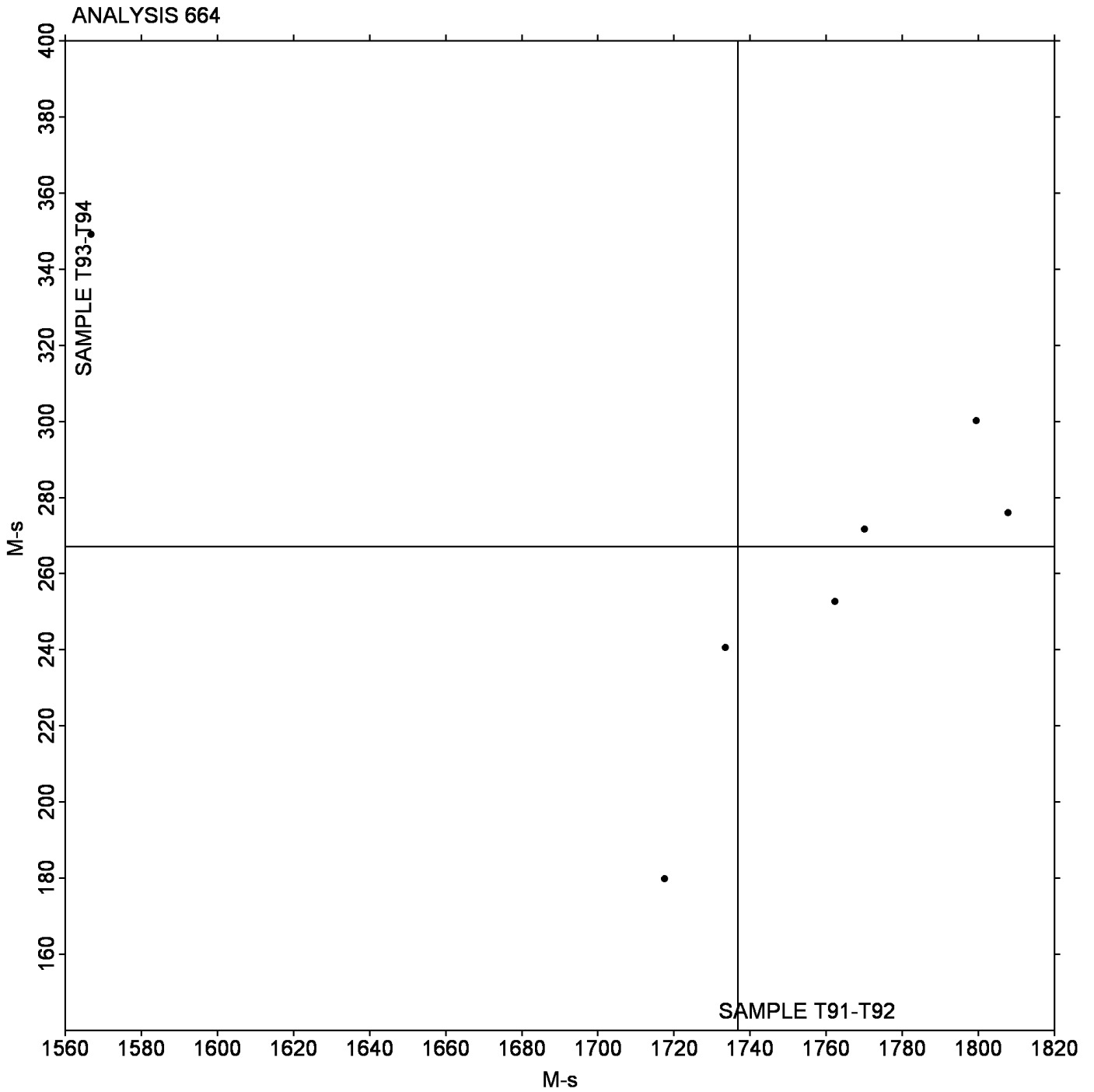
Samples T91-T92: NBR & T93-T94: Butyl

Analysis 664

Mooney Stress Relaxation: Area under curve (M-s)

Grand Mean Sample T91-T92 = 1,736.82 M-s

Grand Mean Sample T93-T94 = 267.14 M-s



Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample X91-X92			Sample X93-X94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RAFBK		1.675	-0.212	-1.25	1.425	-0.102	-0.35	ZZ
4HPF4E		1.740	-0.147	-0.87	1.513	-0.014	-0.05	ZZ
6HXPWR		1.788	-0.099	-0.58	1.672	0.144	0.50	ZZ
6JN6U6		2.130	0.243	1.42	1.675	0.148	0.51	ZZ
7448BP		2.022	0.134	0.79	1.638	0.111	0.38	ZZ
8HLGPU		1.758	-0.129	-0.76	1.320	-0.207	-0.71	ZZ
AYDDAT		1.858	-0.029	-0.17	1.548	0.021	0.07	ZZ
BBHMZN		1.603	-0.284	-1.67	1.327	-0.201	-0.69	ZZ
D3FTNV		1.752	-0.136	-0.80	1.322	-0.206	-0.71	ZZ
DJ55WP		1.808	-0.079	-0.46	1.707	0.179	0.62	ZZ
E3C797		2.090	0.203	1.19	1.697	0.169	0.58	ZZ
JLPWKP		1.770	-0.117	-0.69	1.267	-0.261	-0.90	ZZ
LBVCA8		2.025	0.138	0.81	2.117	0.589	2.03	ZZ
RGAD93		1.900	0.013	0.07	1.397	-0.131	-0.45	ZZ
V5CKJ4	*	2.168	0.281	1.65	0.797	-0.731	-2.51	ZZ
XNPWK6		2.072	0.184	1.08	1.850	0.323	1.11	ZZ
XWMCK		1.927	0.039	0.23	1.697	0.169	0.58	ZZ

Summary Statistics

Grand Means

1.8875 minutes

1.5275 minutes

Std Dev Btwn Labs

0.1704 minutes

0.2906 minutes

Statistics based on 17 of 17 reporting participants

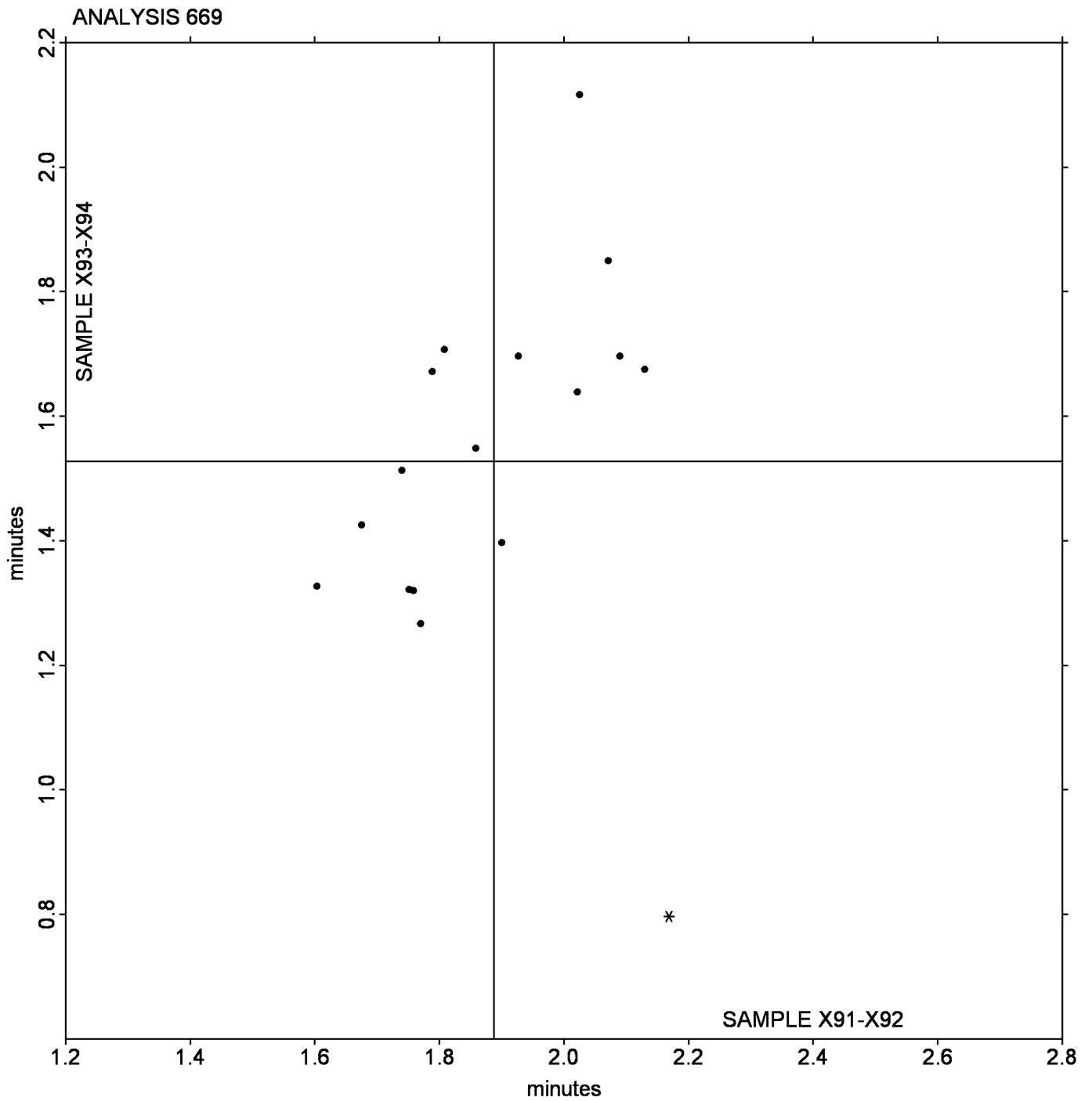
Samples X91-X92: EPDM compound #1 & X93-X94: EPDM compound #2

Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample X91-X92 = 1.8875 minutes

Grand Mean Sample X93-X94 = 1.5275 minutes



Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample X91-X92			Sample X93-X94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
11MV6M		1.228	-0.142	-1.19	1.175	-0.195	-0.76	ZZ
1V6N8V		1.365	-0.006	-0.05	1.163	-0.207	-0.80	ZZ
4FPMFZ		1.450	0.079	0.67	1.490	0.120	0.47	ZZ
4MXFSJ		1.355	-0.016	-0.13	1.563	0.193	0.75	ZZ
4TZLN9		1.323	-0.047	-0.40	1.212	-0.158	-0.62	ZZ
7D1KTX		1.303	-0.067	-0.56	1.320	-0.050	-0.19	ZZ
7HNXZM		1.645	0.274	2.31	2.047	0.677	2.63	ZZ
9FJB4Q		1.430	0.059	0.50	1.327	-0.043	-0.17	ZZ
BJSES7		1.303	-0.067	-0.56	1.362	-0.008	-0.03	ZZ
CCPM3A		1.525	0.154	1.30	1.503	0.133	0.52	ZZ
DQGA5M		1.147	-0.224	-1.88	1.148	-0.222	-0.86	ZZ
DR9YC6		1.320	-0.051	-0.42	1.320	-0.050	-0.19	ZZ
H7CZVD		1.553	0.183	1.54	1.510	0.140	0.54	ZZ
HKEUYQ		1.382	0.011	0.09	1.202	-0.168	-0.65	ZZ
PKEV74		1.300	-0.071	-0.59	0.933	-0.437	-1.70	ZZ
ULWPXD		1.372	0.001	0.01	1.595	0.225	0.87	ZZ
VZZDPD		1.278	-0.092	-0.77	1.125	-0.245	-0.95	ZZ
YF7T1A		1.390	0.019	0.16	1.667	0.297	1.15	ZZ

Summary Statistics			
Grand Means	1.3706 minutes	1.3701 minutes	
Std Dev Btwn Labs	0.1190 minutes	0.2574 minutes	
Statistics based on 18 of 18 reporting participants			

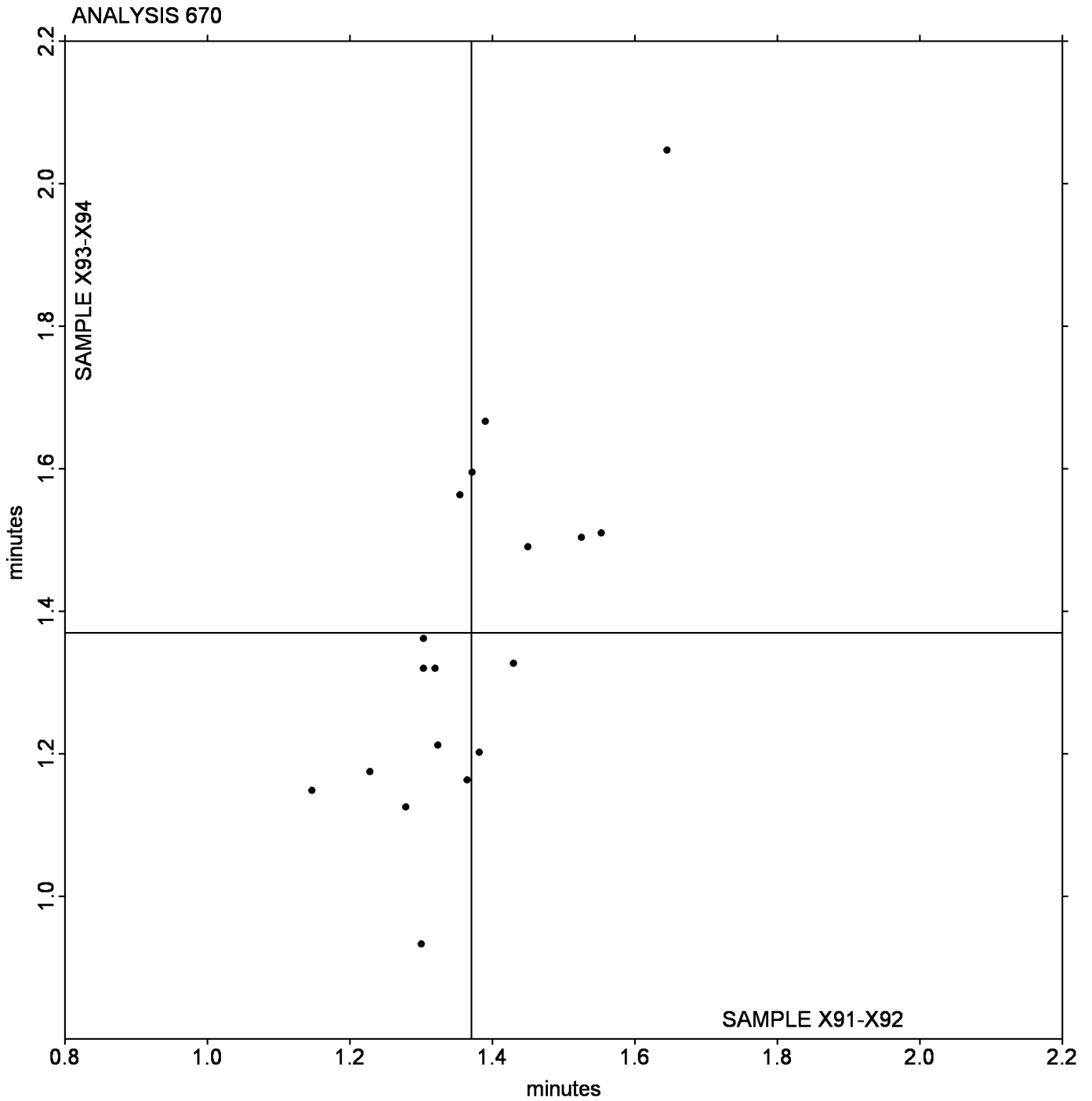
Samples X91-X92: EPDM compound #1 & X93-X94: EPDM compound #2

Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample X91-X92 = 1.3706 minutes

Grand Mean Sample X93-X94 = 1.3701 minutes



Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample X91-X92			Sample X93-X94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
13DDJM		3.258	-0.222	-0.74	2.947	0.036	0.13	ZZ
1GKAWL		3.545	0.065	0.22	2.770	-0.141	-0.50	ZZ
3YSXW5		3.403	-0.077	-0.26	3.000	0.089	0.32	ZZ
57KWX5		3.298	-0.182	-0.61	2.730	-0.181	-0.64	ZZ
5JUTYE		3.307	-0.173	-0.58	2.692	-0.219	-0.78	ZZ
5ZQ4UV		3.478	-0.002	-0.01	2.673	-0.237	-0.84	ZZ
6CS29H		3.862	0.382	1.27	2.992	0.081	0.29	ZZ
B55UUX		3.552	0.072	0.24	3.090	0.179	0.64	ZZ
GSTGUK		2.993	-0.487	-1.62	2.702	-0.209	-0.74	ZZ
JPKFY2		3.347	-0.133	-0.44	2.838	-0.072	-0.26	ZZ
NN13AL		3.138	-0.342	-1.14	2.468	-0.442	-1.57	ZZ
PZCRR8		3.733	0.253	0.84	2.930	0.019	0.07	ZZ
RJURPE		3.845	0.365	1.22	3.627	0.716	2.54	ZZ
SE5U3W		3.364	-0.116	-0.39	3.077	0.166	0.59	ZZ
U1PC3K		3.213	-0.267	-0.89	2.637	-0.274	-0.97	ZZ
XT3ZUF		4.242	0.762	2.54	3.150	0.239	0.85	ZZ
XXA46V		3.258	-0.222	-0.74	2.698	-0.212	-0.75	ZZ
YTDULV		3.568	0.088	0.29	3.420	0.509	1.81	ZZ
ZV9WT2		3.715	0.235	0.78	2.863	-0.047	-0.17	ZZ

Summary Statistics	
Grand Means	3.4800 minutes
Std Dev Btwn Labs	0.2999 minutes
	2.9107 minutes
	0.2818 minutes
Statistics based on 19 of 19 reporting participants	

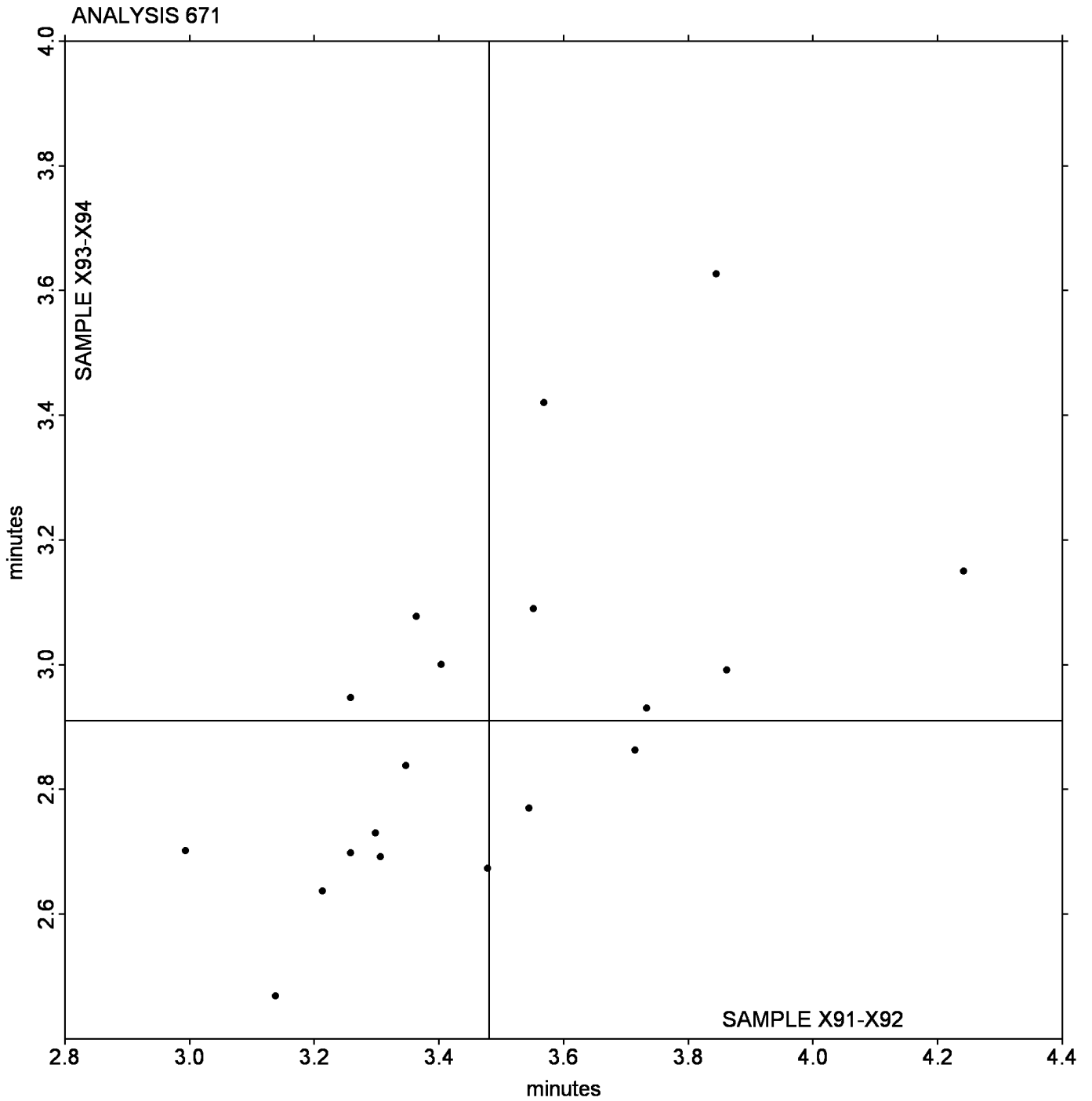
Samples X91-X92: EPDM compound #1 & X93-X94: EPDM compound #2

Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample X91-X92 = 3.4800 minutes

Grand Mean Sample X93-X94 = 2.9107 minutes



Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample X91-X92			Sample X93-X94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
32XCHR		13.62	0.03	0.02	8.123	-1.263	-0.61	ZZ
81Y93W		13.89	0.30	0.25	11.448	2.062	1.00	ZZ
83E671		13.72	0.13	0.11	9.772	0.385	0.19	ZZ
APGZ1P		10.64	-2.95	-2.51	6.580	-2.806	-1.36	ZZ
BKT3EA		13.53	-0.06	-0.06	7.535	-1.851	-0.90	ZZ
ECSQGZ		13.52	-0.07	-0.06	7.803	-1.583	-0.77	ZZ
GYWVS4		13.45	-0.14	-0.12	10.183	0.797	0.39	ZZ
H9Q337		13.85	0.25	0.22	7.663	-1.723	-0.84	ZZ
J56B8V	*	17.23	3.64	3.09	9.505	0.119	0.06	ZZ
JPVRP6		13.47	-0.12	-0.10	12.328	2.942	1.43	ZZ
KK2P4Q		13.53	-0.07	-0.06	11.757	2.370	1.15	ZZ
M96Z71		12.30	-1.29	-1.10	10.428	1.042	0.51	ZZ
QVY5CU		12.96	-0.63	-0.53	7.667	-1.720	-0.84	ZZ
SBBWBG		13.75	0.16	0.13	10.102	0.715	0.35	ZZ
SZCZ3A		14.13	0.54	0.45	8.232	-1.155	-0.56	ZZ
UMV836		13.91	0.32	0.27	6.375	-3.011	-1.46	ZZ
WEGZZ8		13.27	-0.33	-0.28	12.487	3.100	1.51	ZZ
WHJRE1		13.48	-0.12	-0.10	7.643	-1.743	-0.85	ZZ
XXPGP6		14.01	0.42	0.36	12.707	3.320	1.61	ZZ

Summary Statistics			
Grand Means	13.592	minutes	9.3862
			minutes
Std Dev Btwn Labs	1.177	minutes	2.0592
			minutes
Statistics based on 19 of 19 reporting participants			

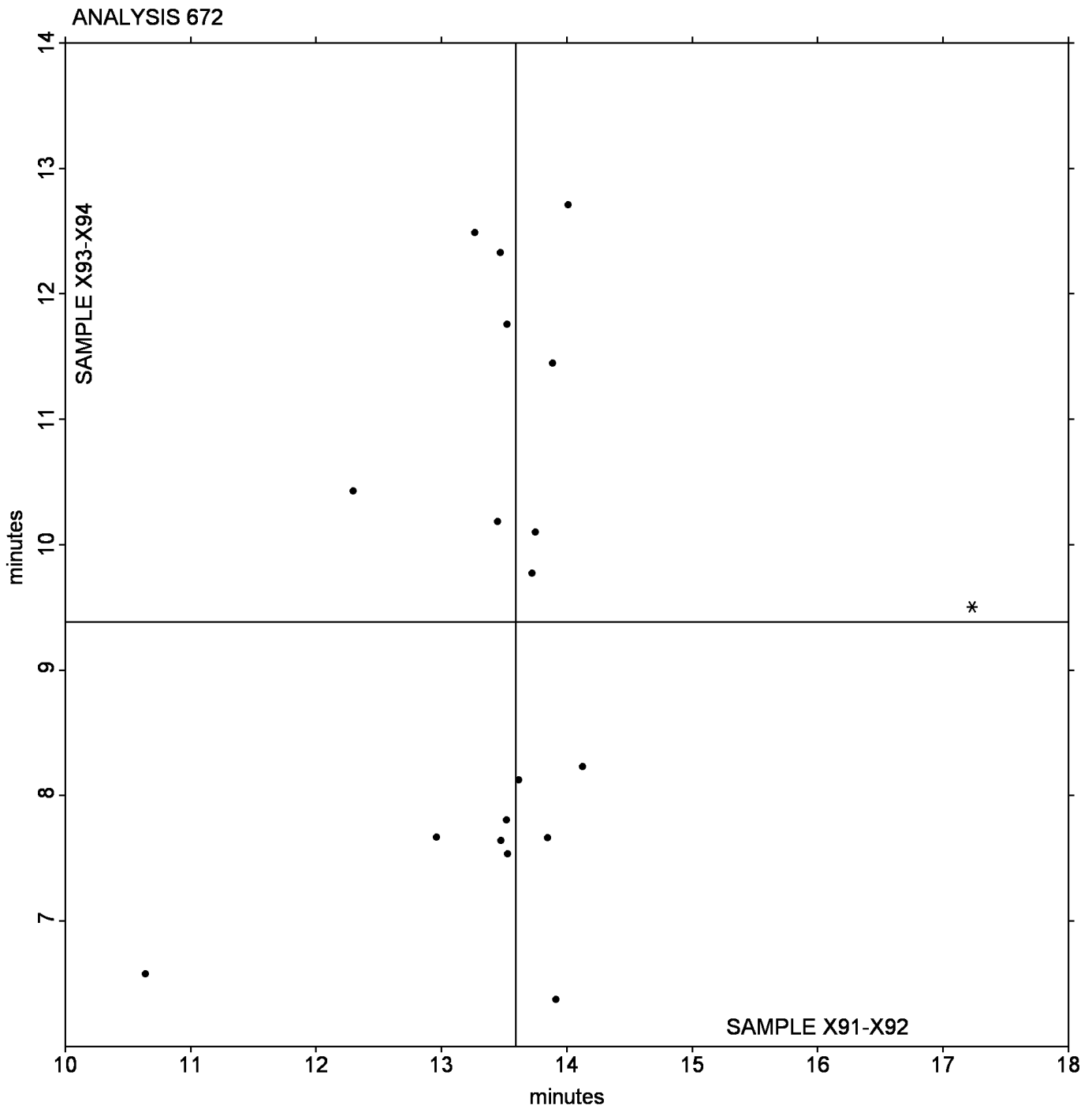
Samples X91-X92: EPDM compound #1 & X93-X94: EPDM compound #2

Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample X91-X92 = 13.592 minutes

Grand Mean Sample X93-X94 = 9.3862 minutes



Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample X91-X92			Sample X93-X94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3UV5WX		5.547	-1.498	-0.71	13.49	-10.28	-0.99	ZZ
7WTG3D		6.352	-0.693	-0.33	22.03	-1.74	-0.17	ZZ
8E7TC3		7.747	0.702	0.33	27.76	3.99	0.38	ZZ
8QRPDG		5.943	-1.102	-0.52	15.46	-8.31	-0.80	ZZ
AYZ9XB		5.720	-1.325	-0.63	17.34	-6.43	-0.62	ZZ
DKWVT		6.905	-0.140	-0.07	24.19	0.42	0.04	ZZ
DY9RPS		6.897	-0.148	-0.07	20.14	-3.63	-0.35	ZZ
MS9DYE		5.760	-1.285	-0.61	14.62	-9.14	-0.88	ZZ
N748XR		7.188	0.143	0.07	21.91	-1.86	-0.18	ZZ
Q2E7F5		5.902	-1.143	-0.54	21.07	-2.70	-0.26	ZZ
RCBEV7		6.265	-0.780	-0.37	18.48	-5.29	-0.51	ZZ
REF6LZ		6.320	-0.725	-0.35	26.27	2.50	0.24	ZZ
RRY5VV		5.749	-1.296	-0.62	19.04	-4.72	-0.45	ZZ
SZFW9D	*	13.402	6.357	3.03	57.11	33.34	3.21	ZZ
TXF9XW		8.536	1.491	0.71	37.26	13.49	1.30	ZZ
V72URJ		5.662	-1.383	-0.66	18.62	-5.15	-0.50	ZZ
WEN18J		5.507	-1.538	-0.73	16.08	-7.69	-0.74	ZZ
XQKAGB		6.897	-0.148	-0.07	24.02	0.25	0.02	ZZ
Z61NYF	*	11.558	4.513	2.15	36.70	12.93	1.24	ZZ

		Summary Statistics	
Grand Means		7.0450 lbf.in	23.765 lbf.in
Std Dev Btwn Labs		2.0993 lbf.in	10.397 lbf.in
Statistics based on 19 of 19 reporting participants			

		Summary Statistics in SI Units	
Grand Means		7.9597 dN.m	26.851 dN.m
Std Dev Btwn Labs		2.3718 dN.m	11.747 dN.m
Statistics based on 19 of 19 reporting participants			

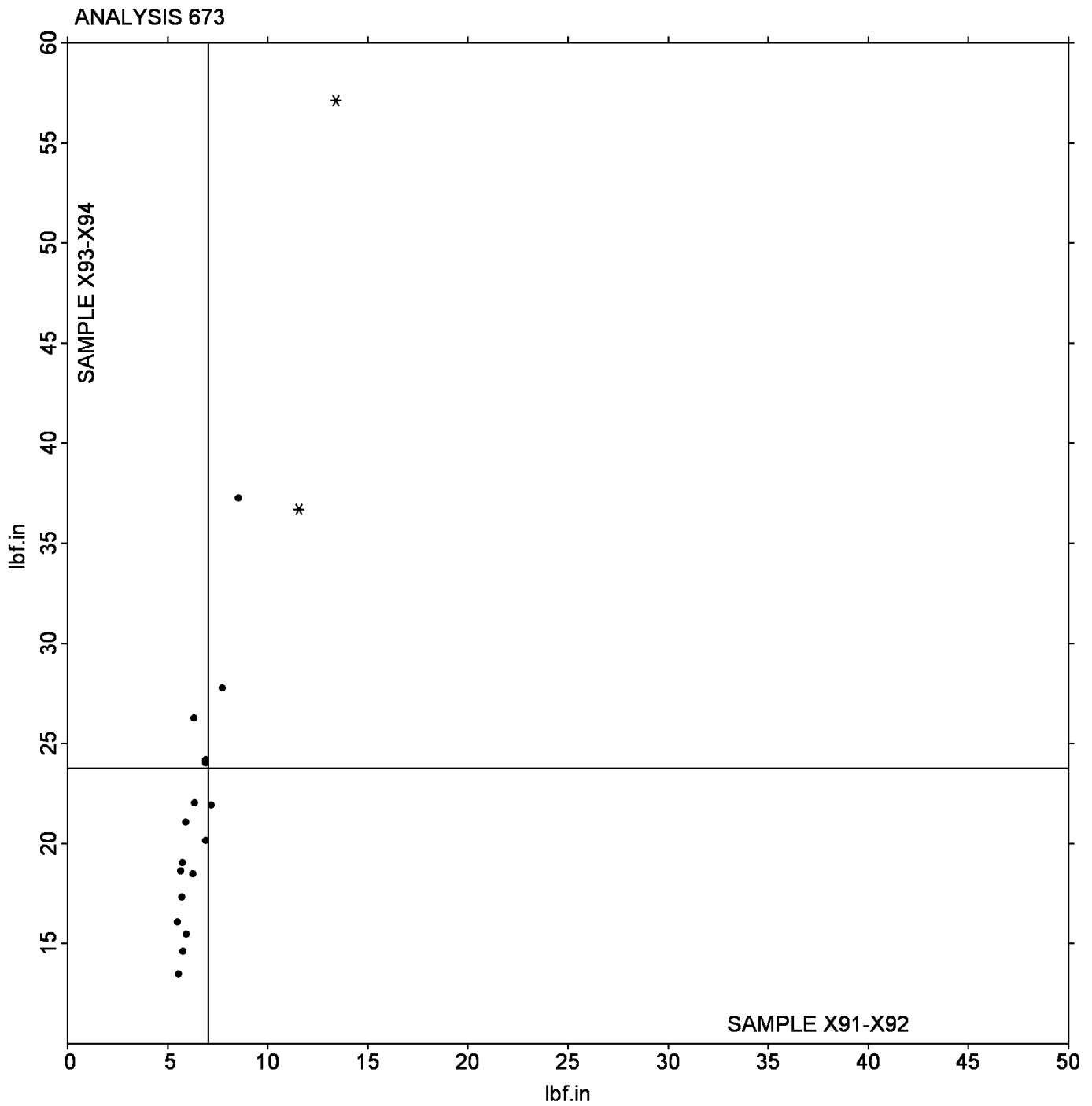
Samples X91-X92: EPDM compound #1 & X93-X94: EPDM compound #2

Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample X91-X92 = 7.0450 lbf.in

Grand Mean Sample X93-X94 = 23.765 lbf.in



Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample X91-X92			Sample X93-X94			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
34XPZV		34.32	-3.61	-1.49	32.75	-5.02	-0.81	ZZ
6WGH85		39.79	1.85	0.76	39.05	1.27	0.20	ZZ
7PFNSH		39.51	1.58	0.65	31.75	-6.02	-0.97	ZZ
9J8KB6		38.62	0.69	0.28	35.88	-1.89	-0.30	ZZ
B8L7HU		36.11	-1.82	-0.75	33.51	-4.26	-0.69	ZZ
DF5SDX		39.10	1.16	0.48	44.91	7.14	1.15	ZZ
H7TCCC		38.38	0.45	0.18	42.33	4.56	0.73	ZZ
KA5SVM	X	72.09	34.15	14.04	89.67	51.89	8.35	ZZ
L98U26		38.81	0.87	0.36	43.15	5.38	0.87	ZZ
LBQDGV		42.81	4.87	2.00	40.87	3.10	0.50	ZZ
MBA8ZC		32.82	-5.11	-2.10	26.36	-11.41	-1.84	ZZ
NSFD21		36.70	-1.23	-0.51	38.56	0.79	0.13	ZZ
QVYFCK		35.86	-2.08	-0.85	38.27	0.50	0.08	ZZ
QVZTZX		40.48	2.55	1.05	38.28	0.51	0.08	ZZ
VDCYM		36.36	-1.57	-0.65	33.46	-4.31	-0.69	ZZ
W94JK2		36.78	-1.16	-0.48	36.18	-1.60	-0.26	ZZ
XUH5H4		39.58	1.65	0.68	33.23	-4.55	-0.73	ZZ
YVRRJS		38.84	0.91	0.37	53.60	15.82	2.54	ZZ
Z5RLCG	X	78.86	40.92	16.83	81.82	44.05	7.08	ZZ

Summary Statistics	
Grand Means	37.934 lbf.in 37.773 lbf.in
Std Dev Btwn Labs	2.432 lbf.in 6.218 lbf.in
Statistics based on 17 of 19 reporting participants	

Summary Statistics in SI Units	
Grand Means	42.860 dN.m 42.678 dN.m
Std Dev Btwn Labs	2.748 dN.m 7.025 dN.m
Statistics based on 17 of 19 reporting participants	

Samples X91-X92: EPDM compound #1 & X93-X94: EPDM compound #2

Analysis 674

ODR Vulcanization: Maximum Torque (Ibf.in)

Comments on assigned Data Flags for Test #674

KA5SVM (X) - Data for all Samples are high.

Z5RLCG (X) - Data for all Samples are high.

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample X95-X96			Sample X97-X98			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1GZ7XF		0.6950	-0.0372	-0.38	1.443	0.072	1.15	MC
1KQWNS		0.7217	-0.0105	-0.11	1.360	-0.011	-0.17	TP
25N54T		0.7317	-0.0005	-0.01	1.405	0.034	0.54	MD
2VH6LM		0.5300	-0.2022	-2.09	1.340	-0.031	-0.49	MC
2Z8TU8		0.8117	0.0795	0.82	1.418	0.047	0.75	MC
3MXMF6		0.7933	0.0612	0.63	1.312	-0.059	-0.94	TP
3TDAWF		0.7133	-0.0188	-0.19	1.330	-0.041	-0.65	MD
4UUW6V		0.7267	-0.0055	-0.06	1.420	0.049	0.78	MC
51DRXL		0.8100	0.0778	0.80	1.387	0.016	0.25	MC
5FBEBD		0.6950	-0.0372	-0.38	1.398	0.027	0.44	MC
BE1YNS		0.7500	0.0178	0.18	1.433	0.062	0.99	XX
CBDUCZ		0.8083	0.0762	0.79	1.350	-0.021	-0.33	MC
CS2YV4		0.7767	0.0445	0.46	1.412	0.041	0.65	MC
K5F8TS		0.7533	0.0212	0.22	1.313	-0.058	-0.92	XX
KLGG5Y		0.8633	0.1312	1.36	1.405	0.034	0.54	MC
KUHZ9N	*	0.7400	0.0078	0.08	1.217	-0.154	-2.45	TP
LAEBVX		0.6567	-0.0755	-0.78	1.427	0.056	0.89	MC
LLAFUY		0.7950	0.0628	0.65	1.463	0.092	1.47	MC
LRL71Y	*	0.4683	-0.2638	-2.73	1.263	-0.108	-1.71	MC
PA7AWV		0.7867	0.0545	0.56	1.407	0.036	0.57	MD
Q4HT68		0.8834	0.1512	1.56	1.358	-0.013	-0.20	MC
SRVR29		0.6647	-0.0675	-0.70	1.320	-0.051	-0.81	MC
TLDN54		0.8417	0.1095	1.13	1.406	0.035	0.55	MC
URRLM4		0.7500	0.0178	0.18	1.385	0.014	0.22	MC
W543L5		0.6950	-0.0372	-0.38	1.423	0.052	0.83	MD
Y3JU1P		0.5750	-0.1572	-1.62	1.248	-0.123	-1.95	MC

Summary Statistics

Grand Means

0.73217 minutes

1.3709 minutes

Std Dev Btwn Labs

0.09677 minutes

0.0629 minutes

Statistics based on 26 of 26 reporting participants

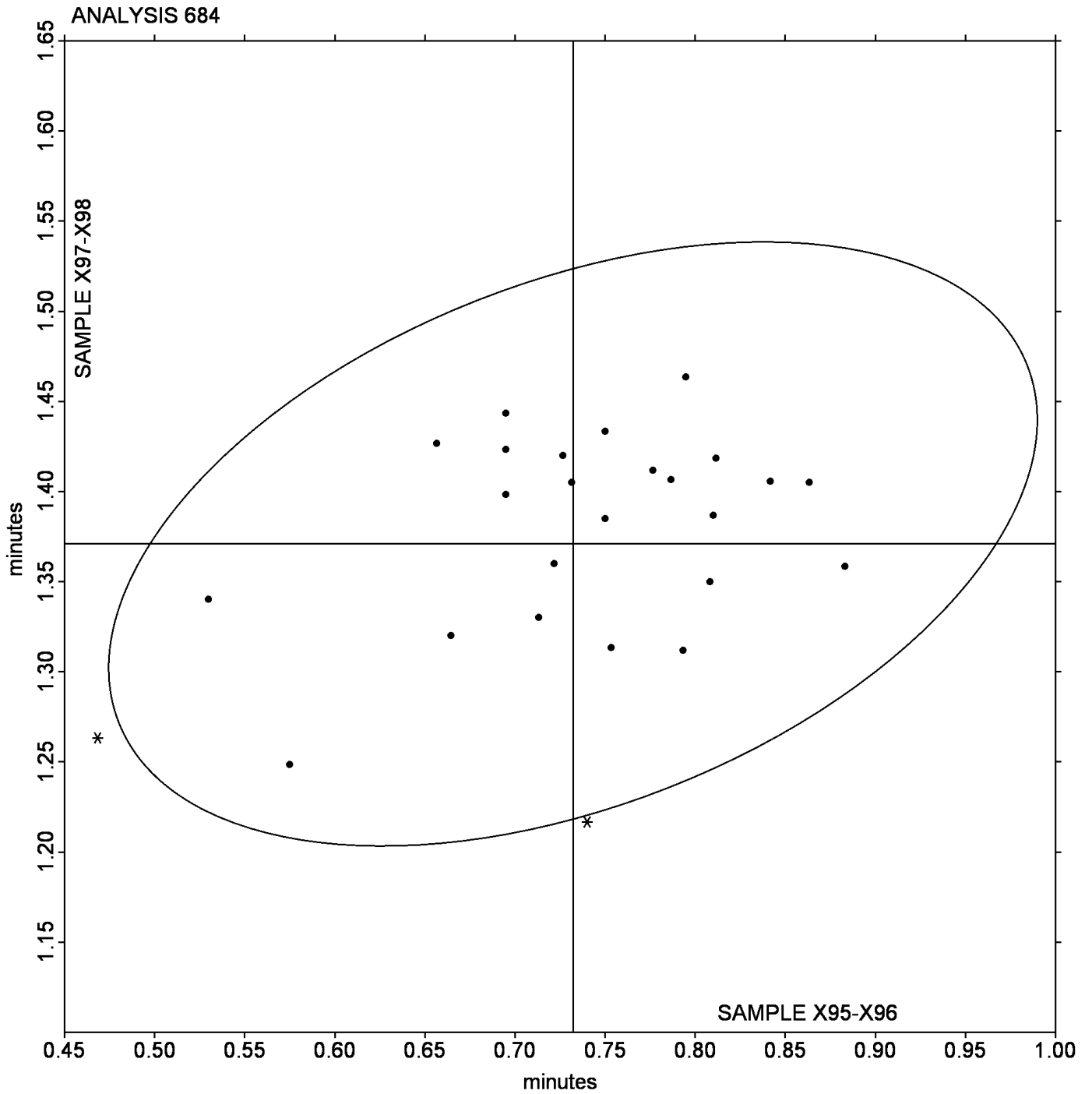
Samples X95-X96: EPDM compound #1 & X97-X98: EPDM compound #2

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample X95-X96 = 0.73217 minutes

Grand Mean Sample X97-X98 = 1.3709 minutes



Rubber Interlaboratory Testing Program

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample X95-X96			Sample X97-X98			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1RXAJ8		0.8850	0.1019	1.18	1.380	0.053	0.83	TP
1WJ715		0.8683	0.0853	0.99	1.360	0.033	0.51	MC
3BGT2L		0.6317	-0.1514	-1.75	1.237	-0.091	-1.42	MC
5F5B5Y		0.7667	-0.0164	-0.19	1.235	-0.092	-1.44	MC
5R5AWE		0.8700	0.0869	1.01	1.318	-0.009	-0.14	MC
6R93TC		0.8983	0.1153	1.33	1.325	-0.002	-0.03	MC
7R32JC		0.8250	0.0419	0.49	1.427	0.099	1.56	MC
7UTRY7		0.5933	-0.1897	-2.20	1.328	0.001	0.02	MC
9J1NSU		0.7567	-0.0264	-0.31	1.337	0.009	0.15	XX
9LD1TA		0.7267	-0.0564	-0.65	1.248	-0.079	-1.23	MD
AFSB31		0.8167	0.0336	0.39	1.330	0.003	0.04	MC
ASRGJZ		0.8883	0.1053	1.22	1.238	-0.089	-1.39	MC
BC7PCK		0.7417	-0.0414	-0.48	1.317	-0.011	-0.16	MD
BSLWDN		0.7750	-0.0081	-0.09	1.285	-0.042	-0.66	MC
BVSRG8		0.8267	0.0436	0.50	1.408	0.081	1.27	MD
C3Z3FP		0.7550	-0.0281	-0.32	1.437	0.109	1.71	MC
D2DEEL		0.7267	-0.0564	-0.65	1.348	0.021	0.33	MC
EPANQU		0.7633	-0.0197	-0.23	1.185	-0.142	-2.23	TP
GJBLJC		0.8000	0.0169	0.20	1.340	0.013	0.20	MC
NDMLW		0.8278	0.0447	0.52	1.294	-0.033	-0.51	MC
QD2K6T		0.6183	-0.1647	-1.91	1.305	-0.022	-0.35	MC
QT4YR9		0.9417	0.1586	1.84	1.375	0.048	0.75	MC
RU8FCU		0.8367	0.0536	0.62	1.397	0.069	1.09	MC
S2VLWY		0.8400	0.0569	0.66	1.340	0.013	0.20	MC
TQ41KZ		0.7300	-0.0531	-0.61	1.202	-0.126	-1.97	TP
U4UE78		0.7075	-0.0756	-0.87	1.342	0.014	0.23	MD
WT1KK2		0.8917	0.1086	1.26	1.403	0.076	1.18	MC
WWMDG		0.6733	-0.1097	-1.27	1.337	0.009	0.15	MC
XR1AXM		0.7017	-0.0814	-0.94	1.350	0.023	0.36	MC
YGY1ZC		0.7817	-0.0014	-0.02	1.317	-0.011	-0.16	XX
ZTHTTG		0.8100	0.0269	0.31	1.398	0.071	1.11	MC

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

		Summary Statistics	
Grand Means	0.78308 minutes		1.3272 minutes
Std Dev Btwn Labs	0.08641 minutes		0.0639 minutes
Statistics based on 31 of 31 reporting participants			

Samples X95-X96: EPDM compound, batch #1 & X97-X98: EPDM compound, batch #2

Instrument Code Listing

685 MDR Vulcanization-Scorch Time, Ts1 (minutes)

Instruments:

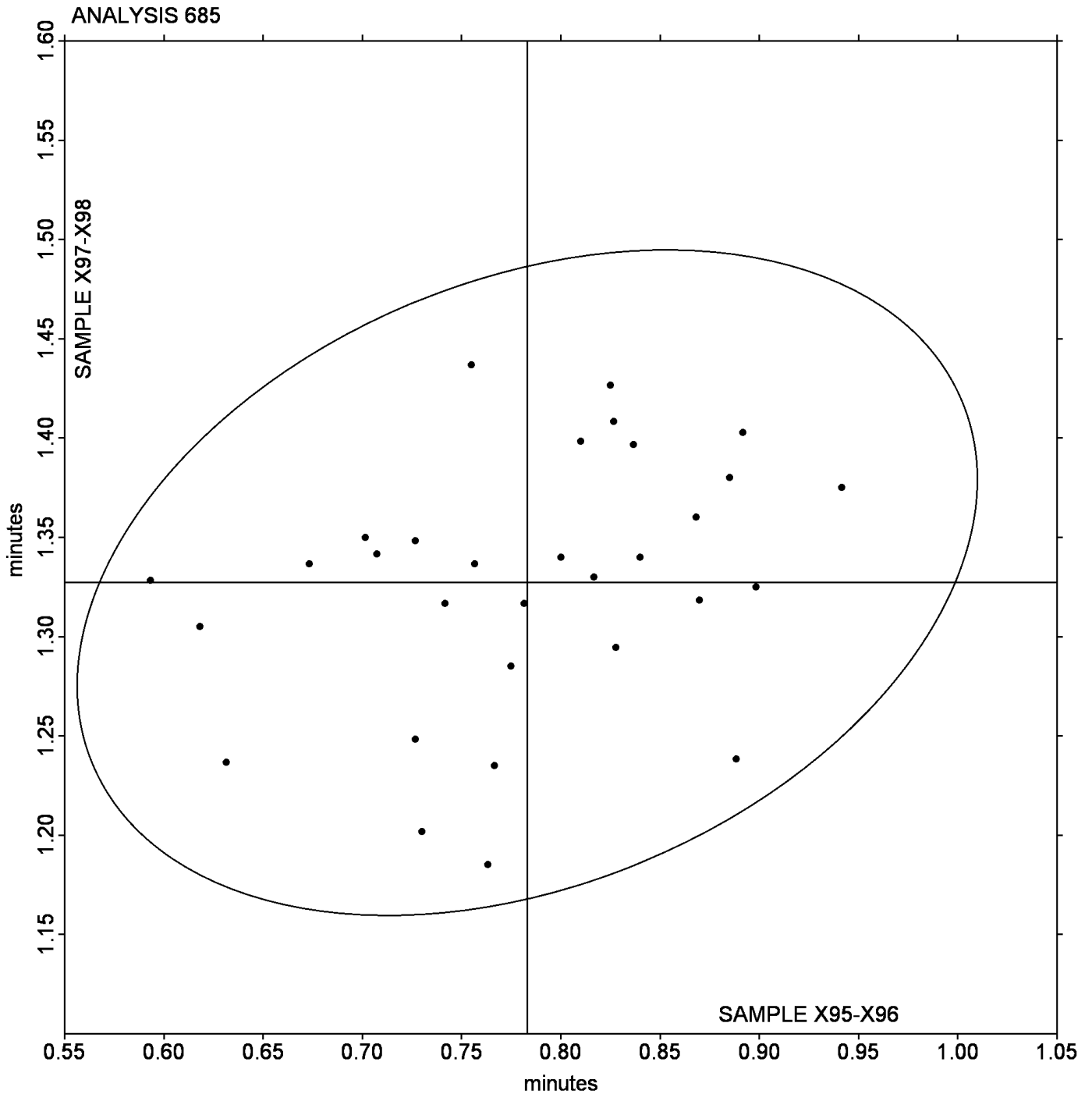
- (MC) Alpha Technologies [Monsanto] MDR 2000 or 2000E (MD) Alpha Tech. Rubber Process Analyzer (RPA 2000)
(MP) Alpha Technologies [Monsanto] MDR 2000P (TP) Tech Pro MDR model MDPT
(XX) Instrument model not specified by lab

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample X95-X96 = 0.78308 minutes

Grand Mean Sample X97-X98 = 1.3272 minutes



Rubber Interlaboratory Testing Program

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample X95-X96			Sample X97-X98			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1V29D9		1.682	-0.146	-1.77	4.055	-0.243	-1.15	TP
2Q1ZKY		1.819	-0.009	-0.10	4.000	-0.298	-1.41	MC
4JTFHR		1.772	-0.056	-0.68	4.282	-0.017	-0.08	MC
4LSNCA		1.869	0.041	0.50	4.383	0.085	0.40	MC
5456SA		1.772	-0.056	-0.68	4.050	-0.248	-1.18	MC
7QEQWC		1.848	0.020	0.24	4.472	0.173	0.82	MD
7ZLT6C		1.845	0.017	0.20	4.633	0.335	1.59	MC
BKUVCI		1.883	0.055	0.67	4.790	0.492	2.33	TP
C6Z7AW		1.867	0.039	0.47	4.198	-0.100	-0.47	MC
DSYMTR	*	2.047	0.219	2.64	4.340	0.042	0.20	XX
DVPAA8		1.858	0.030	0.37	4.242	-0.057	-0.27	MC
GAJ6YF		1.777	-0.051	-0.62	4.247	-0.052	-0.24	MD
JZPZS6		1.832	0.004	0.04	4.252	-0.047	-0.22	MC
K6G6CF		1.850	0.022	0.27	4.555	0.257	1.22	MC
K78UJW		1.840	0.012	0.14	4.383	0.085	0.40	MC
KTM5BJ		1.833	0.005	0.06	4.183	-0.116	-0.55	MC
M2BTPJ		1.852	0.024	0.29	4.453	0.155	0.74	MC
MC458Q		1.820	-0.008	-0.10	4.178	-0.120	-0.57	XX
MTNTG		1.823	-0.005	-0.06	4.662	0.363	1.72	MC
PGABYA	*	1.578	-0.250	-3.02	4.152	-0.147	-0.70	MC
RABWU		1.930	0.102	1.23	4.342	0.043	0.21	MC
RMYDJL		1.913	0.085	1.03	4.333	0.035	0.17	MC
S62MV8		1.897	0.069	0.84	4.036	-0.262	-1.24	MC
SNQSNQ		1.855	0.027	0.33	4.520	0.222	1.05	MC
SYWYQ		1.813	-0.015	-0.18	4.302	0.003	0.02	MC
T3JCL9		1.797	-0.031	-0.38	4.038	-0.260	-1.23	MC
VLQY1E		1.738	-0.090	-1.09	4.382	0.083	0.40	TP
X3W7QR		1.905	0.077	0.93	4.203	-0.095	-0.45	MC
Y66LW6		1.735	-0.093	-1.13	3.882	-0.417	-1.98	MD
YW9LFL		1.792	-0.036	-0.44	4.400	0.102	0.48	MD

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

Summary Statistics

Grand Means

1.8281 minutes

4.2982 minutes

Std Dev Btwn Labs

0.0827 minutes

0.2108 minutes

Statistics based on 30 of 30 reporting participants

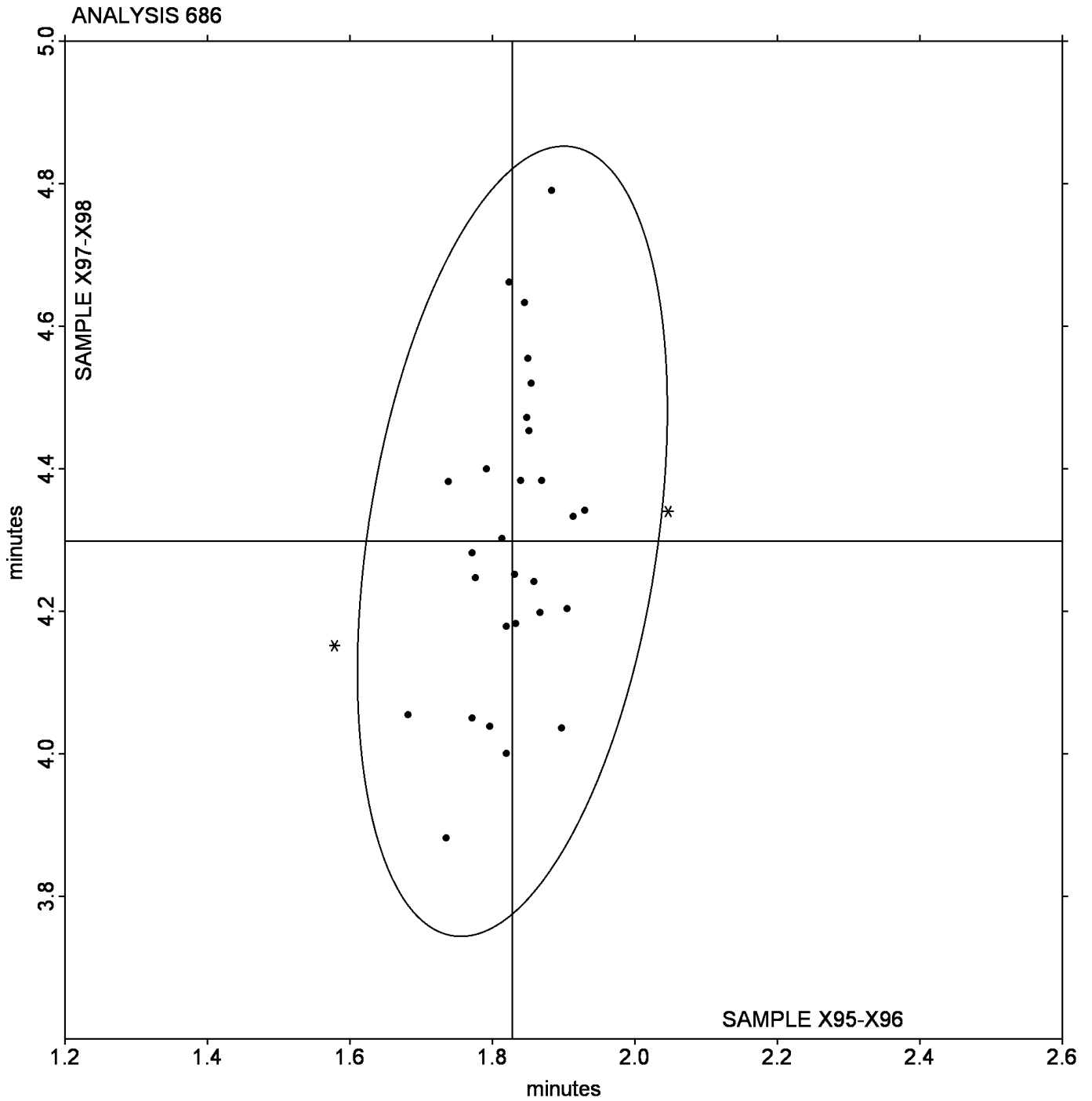
Samples X95-X96: EPDM compound, batch #1 & X97-X98: EPDM compound, batch #2

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample X95-X96 = 1.8281 minutes

Grand Mean Sample X97-X98 = 4.2982 minutes



Rubber Interlaboratory Testing Program

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample X95-X96			Sample X97-X98			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1JXWUZ		5.008	0.454	1.72	7.628	0.066	0.36	MC
2HWBBU		4.587	0.033	0.12	7.652	0.089	0.49	MC
2QSF82		4.475	-0.079	-0.30	7.517	-0.046	-0.25	MC
2RYJ7E		4.352	-0.202	-0.77	7.778	0.216	1.18	MC
316R8E		4.487	-0.067	-0.26	7.833	0.271	1.49	MC
5NJ7XL		5.097	0.543	2.06	7.858	0.296	1.62	MC
5YVDQ2		4.582	0.028	0.10	7.590	0.028	0.15	MC
6Z3F7F		4.762	0.208	0.79	7.737	0.174	0.96	MC
7DUWZT		4.455	-0.099	-0.38	7.287	-0.276	-1.51	MC
8NRBBM		4.493	-0.062	-0.23	7.623	0.060	0.33	MC
BQCBFU		4.708	0.154	0.59	7.318	-0.244	-1.34	MD
BYCPX9		4.360	-0.194	-0.74	7.437	-0.126	-0.69	MD
CXWAS8		4.252	-0.302	-1.15	7.768	0.206	1.13	MC
EQ4FQ6		4.297	-0.257	-0.98	7.555	-0.007	-0.04	TP
EY3YCU		4.510	-0.044	-0.17	7.707	0.144	0.79	MC
G7JU3F		4.467	-0.087	-0.33	7.692	0.129	0.71	MD
G9ZEL9		4.455	-0.099	-0.38	7.685	0.123	0.67	MC
K2C2G1		4.572	0.018	0.07	7.198	-0.364	-2.00	MC
L7NFVJ		4.977	0.423	1.60	7.647	0.084	0.46	MC
P3X83L		5.073	0.519	1.97	7.672	0.109	0.60	MC
P94ENB		4.360	-0.194	-0.74	7.685	0.123	0.67	MC
PRY3NN		4.507	-0.047	-0.18	7.537	-0.026	-0.14	MC
QKLWW		4.310	-0.244	-0.93	7.513	-0.049	-0.27	XX
QRCVZN		4.868	0.314	1.19	7.458	-0.104	-0.57	XX
R2NRCU		4.380	-0.174	-0.66	7.443	-0.119	-0.65	MD
R6NV9J	*	3.953	-0.601	-2.28	7.207	-0.356	-1.95	TP
S6S5ZH		4.593	0.039	0.15	7.218	-0.344	-1.89	TP
V9GL3M		4.392	-0.162	-0.62	7.418	-0.144	-0.79	MC
W9L53U		4.800	0.246	0.93	7.622	0.059	0.32	MC
WP7LDY		4.292	-0.262	-1.00	7.452	-0.111	-0.61	XX
Y38KYG		4.753	0.199	0.76	7.700	0.138	0.75	MC

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

Summary Statistics

Grand Means

4.5540 minutes

7.5624 minutes

Std Dev Btwn Labs

0.2636 minutes

0.1824 minutes

Statistics based on 31 of 31 reporting participants

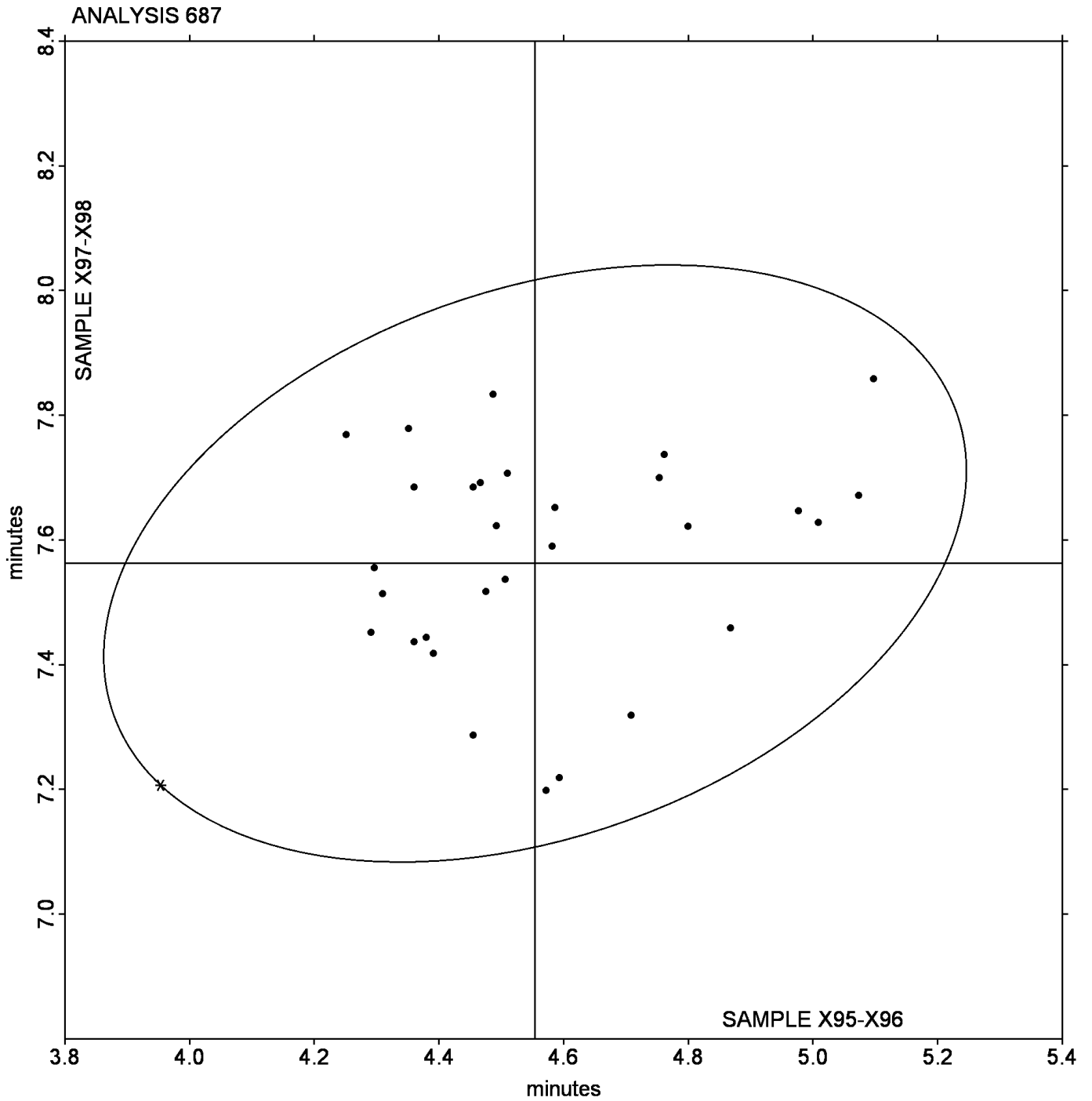
Samples X95-X96: EPDM compound, batch #1 & X97-X98: EPDM compound, batch #2

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample X95-X96 = 4.5540 minutes

Grand Mean Sample X97-X98 = 7.5624 minutes



Rubber Interlaboratory Testing Program

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample X95-X96			Sample X97-X98			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
147C8L		5.693	0.484	0.74	3.319	0.573	1.49	MC
1VXH7R		4.863	-0.345	-0.52	2.450	-0.296	-0.77	MC
24WJVJ		5.076	-0.133	-0.20	2.378	-0.368	-0.96	MD
2NAWTC		5.195	-0.014	-0.02	2.987	0.240	0.63	XX
2ZR97V		6.059	0.850	1.29	3.336	0.590	1.53	MD
65RMLV		6.184	0.975	1.48	3.483	0.736	1.92	MC
6YQE9Y		5.347	0.138	0.21	2.630	-0.116	-0.30	MC
7LV88V		5.246	0.037	0.06	2.705	-0.042	-0.11	MD
8ZDPYH		6.092	0.883	1.34	2.882	0.135	0.35	MC
927FA2		5.235	0.026	0.04	2.377	-0.370	-0.96	TP
9D4M8L		4.437	-0.772	-1.17	2.785	0.039	0.10	XX
A78RLB		3.826	-1.382	-2.10	2.074	-0.672	-1.75	MC
B3123J		5.141	-0.068	-0.10	2.611	-0.135	-0.35	MC
B9K9MP		4.769	-0.439	-0.67	2.396	-0.351	-0.91	MC
BGNNJ7		5.265	0.056	0.09	2.562	-0.185	-0.48	MC
DU54T7		5.553	0.345	0.52	2.700	-0.046	-0.12	TP
E6FWYT		6.062	0.853	1.30	2.930	0.184	0.48	MC
FUD4HF		4.657	-0.552	-0.84	2.508	-0.238	-0.62	MC
GV9V9D		4.148	-1.060	-1.61	2.118	-0.628	-1.63	XX
H8BTQZ		5.207	-0.002	0.00	2.505	-0.241	-0.63	MC
HX5LNZ		4.177	-1.032	-1.57	2.342	-0.405	-1.05	MC
J83PJG		5.403	0.195	0.30	3.040	0.294	0.76	MC
JEBXBW		5.068	-0.140	-0.21	3.063	0.317	0.82	MC
NF4F35		6.408	1.200	1.82	3.327	0.580	1.51	MC
Q1BQWK		4.703	-0.505	-0.77	2.497	-0.250	-0.65	MC
QGHJAW		5.470	0.261	0.40	2.842	0.095	0.25	MC
TN12VZ		6.478	1.270	1.93	3.380	0.634	1.65	MC
TY6CPH		5.328	0.120	0.18	2.922	0.175	0.46	TP
TZW2PK		4.883	-0.325	-0.49	2.442	-0.305	-0.79	MC
V7RHB1	*	4.505	-0.704	-1.07	3.165	0.419	1.09	MC
X55AMN		4.988	-0.221	-0.34	2.384	-0.363	-0.94	MD

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Summary Statistics

Grand Means

5.2086 lbf.in

2.7464 lbf.in

Std Dev Btw Labs

0.6580 lbf.in

0.3845 lbf.in

Statistics based on 31 of 31 reporting participants

Summary Statistics in SI Units

Grand Means

5.8849 dN.m

3.1030 dN.m

Std Dev Btw Labs

0.7435 dN.m

0.4344 dN.m

Statistics based on 31 of 31 reporting participants

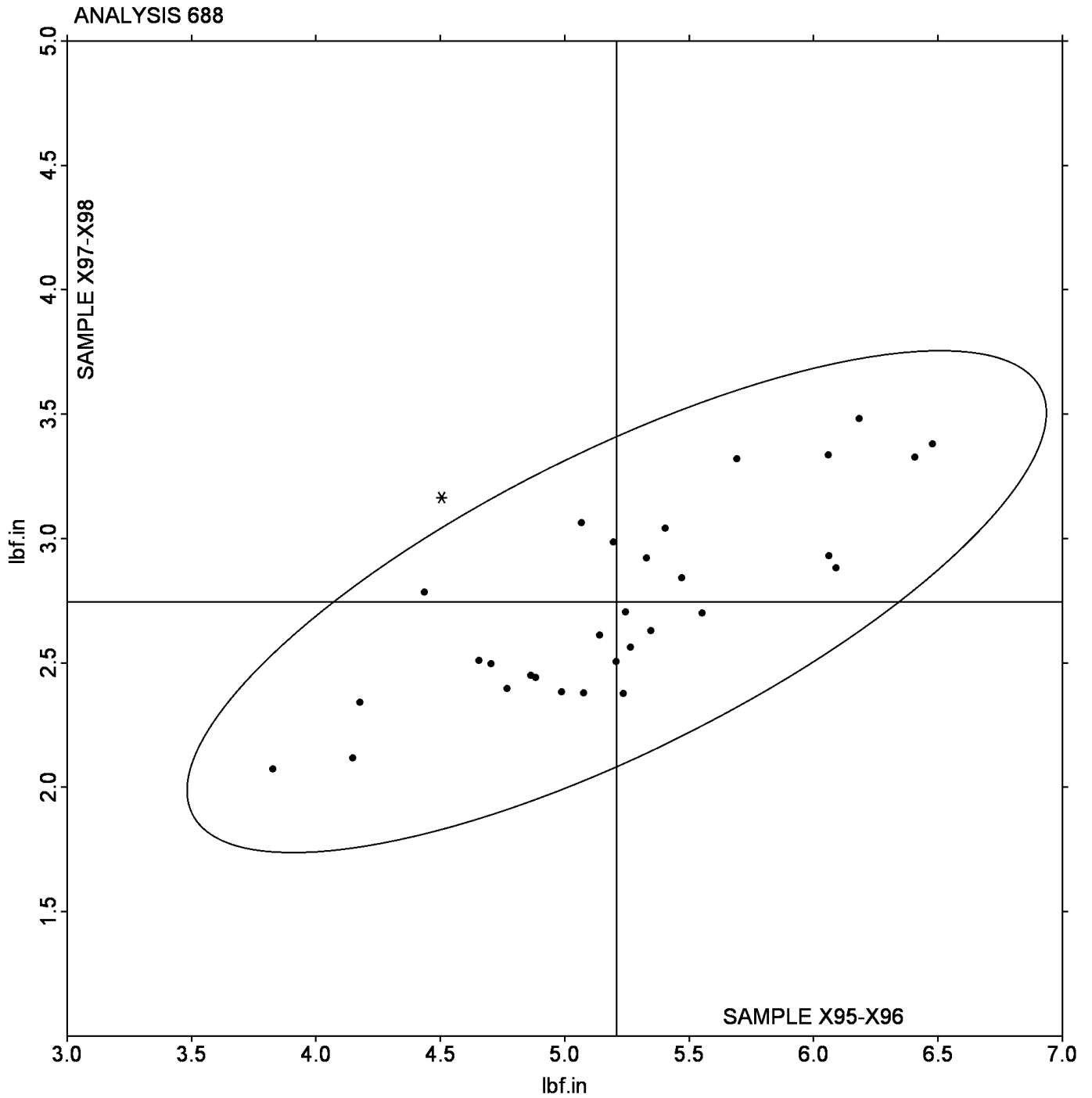
Samples X95-X96: EPDM compound, batch #1 & X97-X98: EPDM compound, batch #2

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample X95-X96 = 5.2086 lbf.in

Grand Mean Sample X97-X98 = 2.7464 lbf.in



Rubber Interlaboratory Testing Program

Analysis 689

MDR Vulcanization: Maximum Torque (Ibf.in)

WebCode	Data Flag	Sample X95-X96			Sample X97-X98			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
14SXBW	*	12.82	-1.61	-2.21	13.03	-0.16	-0.28	MC
1G683F		13.97	-0.46	-0.63	13.29	0.10	0.19	MC
4EYEHX		14.35	-0.09	-0.12	12.93	-0.26	-0.46	MC
4LTJ28		15.57	1.13	1.55	13.78	0.60	1.07	MC
5QJ8RS		13.86	-0.57	-0.78	12.84	-0.34	-0.61	MC
69Q5SL		15.08	0.65	0.89	13.83	0.65	1.15	MC
6TZD3F	*	12.60	-1.83	-2.51	11.41	-1.78	-3.17	MC
7ZD6NR		14.73	0.30	0.41	13.11	-0.08	-0.14	MD
8BP33E		14.54	0.11	0.15	13.38	0.19	0.34	TP
9AZWZ6		14.45	0.02	0.02	12.98	-0.21	-0.37	XX
9G3M6C		14.65	0.21	0.29	12.98	-0.20	-0.36	MC
ALPCM9		14.45	0.02	0.02	13.11	-0.07	-0.13	MC
DLSSBH		14.67	0.24	0.33	13.53	0.35	0.62	MC
DQHA2E		14.54	0.11	0.15	13.24	0.05	0.09	MC
E6PNCY		14.90	0.47	0.64	13.47	0.28	0.50	MC
EJMWK		14.08	-0.36	-0.49	13.62	0.44	0.78	MC
G267ZC		14.65	0.22	0.30	13.62	0.44	0.78	MC
G434V5		15.32	0.88	1.21	14.13	0.95	1.69	TP
GB3LB4		14.23	-0.20	-0.27	12.52	-0.67	-1.19	MD
GCCGT2		14.31	-0.12	-0.17	12.68	-0.50	-0.90	MC
HH359R		15.11	0.68	0.93	13.41	0.23	0.41	MC
HRCPCN		14.79	0.36	0.49	13.28	0.09	0.16	MC
J9TWS3	*	12.68	-1.76	-2.40	11.63	-1.56	-2.78	TP
P46X14		14.76	0.32	0.44	13.42	0.24	0.43	MC
P6E65B		13.50	-0.94	-1.28	13.26	0.07	0.13	MC
PFU68W		14.67	0.24	0.33	13.38	0.19	0.34	MD
QLAPP6		15.34	0.91	1.25	13.55	0.36	0.64	XX
UQHNT2		14.07	-0.36	-0.49	13.14	-0.05	-0.09	XX
VJNUX7		15.05	0.62	0.84	13.64	0.46	0.82	MD
WAGCY		14.84	0.40	0.55	13.26	0.07	0.13	MC
WL756W		14.82	0.39	0.53	13.31	0.13	0.22	MC

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

Summary Statistics

Grand Means

14.431 lbf.in

13.184 lbf.in

Std Dev Btwn Labs

0.731 lbf.in

0.560 lbf.in

Statistics based on 31 of 31 reporting participants

Summary Statistics in SI Units

Grand Means

16.305 dN.m

14.896 dN.m

Std Dev Btwn Labs

0.826 dN.m

0.633 dN.m

Statistics based on 31 of 31 reporting participants

Samples X95-X96: EPDM compound, batch #1 & X97-X98: EPDM compound, batch #2

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample X95-X96 = 14.431 lbf.in

Grand Mean Sample X97-X98 = 13.184 lbf.in

