



Rubber Interlaboratory Testing Program

Summary Report #149- 3rd Quarter 2006

[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, wine and color, as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. Labs from the U.S., as well as more than 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 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 #.**
6. **Data for two samples (or two tests) appeared to be switched by the lab.**

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 C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
14PE5Q		3,504.8	214.3	1.24	3,637.8	322.8	1.86
1LYKU8		3,249.5	-40.9	-0.24	3,280.0	-35.0	-0.20
1M4M96		3,288.8	-1.7	-0.01	3,350.4	35.4	0.20
1MZTAU	*	3,660.8	370.4	2.14	3,567.2	252.3	1.45
216YRW		3,278.6	-11.8	-0.07	3,371.4	56.5	0.33
23E7JV		3,096.6	-193.8	-1.12	3,188.0	-127.0	-0.73
2DAP76		3,569.0	278.6	1.61	3,640.0	325.0	1.87
2MRU9A		3,249.5	-40.9	-0.24	3,347.0	32.0	0.18
2VDXAH	X	3,020.7	-269.8	-1.56	3,251.1	-63.9	-0.37
3HKDYB		3,108.5	-181.9	-1.05	3,218.0	-97.0	-0.56
3PMJV2		3,304.0	13.6	0.08	3,405.5	90.5	0.52
3US4T7		3,327.0	36.6	0.21	3,338.5	23.5	0.14
3XN3N6		3,094.4	-196.0	-1.13	3,086.4	-228.5	-1.32
4W9SP6		3,317.0	26.6	0.15	3,303.0	-12.0	-0.07
4ZVJRW	X	2,724.5	-565.9	-3.27	2,887.0	-428.0	-2.47
5H433Q		3,250.0	-40.4	-0.23	3,315.0	0.0	0.00
5NU5XU		3,305.5	15.1	0.09	3,352.5	37.5	0.22
5Y8RYX		3,299.0	8.6	0.05	3,315.0	0.0	0.00
68UKXS		3,557.1	266.7	1.54	3,621.6	306.7	1.77
6AVNFF		2,948.5	-341.9	-1.97	3,002.0	-313.0	-1.80
6BHXY8		3,301.5	11.1	0.06	3,344.0	29.0	0.17
72VU88		3,534.5	244.1	1.41	3,528.0	213.0	1.23
7CAWJ6		3,122.5	-167.9	-0.97	3,161.5	-153.5	-0.89
7MX9NT		3,210.0	-80.5	-0.46	3,296.2	-18.8	-0.11
7XQ84Q		3,360.3	69.8	0.40	3,432.2	117.3	0.68
8H7JB1		3,237.5	-52.9	-0.31	3,190.0	-125.0	-0.72
8HL3Z5		3,095.8	-194.7	-1.12	3,137.0	-178.0	-1.03
8UWLQM		3,637.5	347.1	2.00	3,660.0	345.0	1.99
8W9GLX		3,105.0	-185.4	-1.07	3,064.0	-251.0	-1.45
9C7DR8		3,458.5	168.1	0.97	3,454.0	139.0	0.80
9FN9HJ		3,277.2	-13.3	-0.08	3,315.6	0.6	0.00
9TJ2M2		3,413.5	123.1	0.71	3,483.5	168.5	0.97
AHNRXE		3,279.0	-11.4	-0.07	3,416.0	101.0	0.58
ANE319		3,482.0	191.6	1.11	3,514.0	199.0	1.15
ATTH48		3,061.5	-228.9	-1.32	3,153.5	-161.5	-0.93

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
AV4H7U		2,958.1	-332.4	-1.92	2,992.2	-322.8	-1.86
AVHYBV		3,132.8	-157.6	-0.91	3,219.9	-95.1	-0.55
AXCQC8	*	2,869.5	-420.9	-2.43	2,868.0	-447.0	-2.58
BB319A		3,381.0	90.6	0.52	3,411.5	96.5	0.56
BFBB3D		3,301.0	10.6	0.06	3,370.0	55.0	0.32
BGDPW7		3,112.0	-178.4	-1.03	3,164.5	-150.5	-0.87
D4L4ME	X	2,182.8	-1,107.6	-6.40	2,190.1	-1,124.9	-6.49
D8WZMH		3,011.5	-278.9	-1.61	3,005.5	-309.5	-1.78
ECDQH7		3,295.0	4.6	0.03	3,344.5	29.5	0.17
EEYMZ4		3,415.0	124.6	0.72	3,407.5	92.5	0.53
ER8Q38		3,082.0	-208.4	-1.20	3,086.0	-229.0	-1.32
F577AL		3,261.2	-29.2	-0.17	3,280.8	-34.2	-0.20
FASPPB		3,045.0	-245.4	-1.42	3,085.0	-230.0	-1.33
FWW8UA		3,294.6	4.1	0.02	3,310.5	-4.4	-0.03
FY3AKU		3,409.5	119.1	0.69	3,393.5	78.5	0.45
GFY5P5		3,431.0	140.6	0.81	3,356.5	41.5	0.24
H8HRKD		3,089.3	-201.1	-1.16	3,016.8	-298.2	-1.72
HNEGGG		3,056.0	-234.4	-1.35	3,112.5	-202.5	-1.17
HV623G		3,500.0	209.6	1.21	3,575.5	260.5	1.50
J2J9AM		3,314.5	24.1	0.14	3,333.0	18.0	0.10
JQBKAQ	X	2,332.0	-958.4	-5.54	2,472.0	-843.0	-4.86
JWYUWL		3,195.0	-95.4	-0.55	3,226.0	-89.0	-0.51
K3KMPK		2,952.0	-338.4	-1.95	2,967.0	-348.0	-2.01
KM1KCR		3,060.3	-230.1	-1.33	3,059.6	-255.4	-1.47
KN4XQC		3,448.0	157.6	0.91	3,496.0	181.0	1.04
KSP67		3,606.0	315.6	1.82	3,655.5	340.5	1.96
KVS12T		3,533.5	243.1	1.40	3,449.5	134.5	0.78
KW9KEG		3,418.5	128.1	0.74	3,384.0	69.0	0.40
KY6Y1G		3,181.5	-108.9	-0.63	3,116.0	-199.0	-1.15
L934SU		3,495.4	205.0	1.18	3,524.4	209.5	1.21
L97FRB		3,353.4	63.0	0.36	3,418.5	103.5	0.60
LQA5GP		3,303.0	12.6	0.07	3,283.5	-31.5	-0.18
MAE766		3,394.0	103.6	0.60	3,389.0	74.0	0.43
MB4ZZG		3,025.5	-264.9	-1.53	3,144.5	-170.5	-0.98
MCJW8E		3,249.6	-40.9	-0.24	3,266.1	-48.9	-0.28

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MDQ5CE		3,267.0	-23.4	-0.14	3,173.5	-141.5	-0.82
NB5L3V		3,349.3	58.9	0.34	3,421.5	106.5	0.61
NV78AZ		2,912.0	-378.4	-2.19	2,946.0	-369.0	-2.13
P55KQY		3,141.3	-149.2	-0.86	3,170.8	-144.2	-0.83
P78ECG		3,156.0	-134.4	-0.78	3,249.0	-66.0	-0.38
P9XKVV		3,378.7	88.3	0.51	3,459.2	144.2	0.83
PMVXP5		3,278.0	-12.4	-0.07	3,380.5	65.5	0.38
PW8VNA		3,504.0	213.6	1.23	3,493.5	178.5	1.03
Q28YB2		3,288.5	-1.9	-0.01	3,293.5	-21.5	-0.12
Q622WT		3,417.5	127.1	0.73	3,557.5	242.5	1.40
QK7TLS		3,430.5	140.1	0.81	3,428.0	113.0	0.65
R8VLKJ		3,326.5	36.1	0.21	3,264.0	-51.0	-0.29
RMW6AN		3,354.5	64.1	0.37	3,455.0	140.0	0.81
S79VT7	X	3,363.8	73.3	0.42	3,603.7	288.7	1.67
SGVQW8		3,011.0	-279.4	-1.61	3,031.3	-283.6	-1.64
STZEDB		3,464.0	173.6	1.00	3,526.5	211.5	1.22
TBH3M9		3,446.5	156.1	0.90	3,458.5	143.5	0.83
TMKW5L		3,212.0	-78.4	-0.45	3,306.5	-8.5	-0.05
UEF1CT		3,203.5	-86.9	-0.50	3,248.5	-66.5	-0.38
UTD4TE		3,338.6	48.1	0.28	3,298.0	-17.0	-0.10
UX2EDQ		3,441.5	151.1	0.87	3,459.5	144.5	0.83
V3P3CM		3,346.5	56.1	0.32	3,386.5	71.5	0.41
VDQJ8J		3,345.0	54.6	0.32	3,422.0	107.0	0.62
VF8DGY		3,296.0	5.6	0.03	3,233.6	-81.3	-0.47
VGKEVY		3,191.5	-98.9	-0.57	3,234.5	-80.5	-0.46
VLYPSF		3,193.0	-97.4	-0.56	3,251.0	-64.0	-0.37
VNXHB7		3,194.5	-95.9	-0.55	3,153.9	-161.1	-0.93
W5FXUU		3,338.0	47.6	0.27	3,365.5	50.5	0.29
W7KLDT		3,438.5	148.1	0.86	3,437.0	122.0	0.70
WD4PGM		3,464.5	174.1	1.01	3,470.0	155.0	0.89
WDZAVN		3,419.5	129.1	0.75	3,409.0	94.0	0.54
WPUBNA		3,248.5	-42.0	-0.24	3,140.1	-174.9	-1.01
X2A88K		3,078.0	-212.4	-1.23	3,173.5	-141.5	-0.82
X6193Y		3,315.6	25.2	0.15	3,335.9	20.9	0.12
XJP2P2		3,364.9	74.5	0.43	3,306.9	-8.1	-0.05

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
XNWRRF		3,146.5	-143.9	-0.83	3,288.0	-27.0	-0.16
XPHCKK		3,141.0	-149.4	-0.86	3,139.5	-175.5	-1.01
XT7F8B		3,670.5	380.1	2.20	3,683.0	368.0	2.12
XTWYL6		3,114.0	-176.4	-1.02	3,066.0	-249.0	-1.44
XXHVU9		3,377.5	87.1	0.50	3,354.6	39.6	0.23
Y9L6GJ		3,418.0	127.6	0.74	3,390.9	75.9	0.44
YKU848		3,361.5	71.1	0.41	3,412.5	97.5	0.56
YR9FMS		3,472.5	182.1	1.05	3,470.0	155.0	0.89
YZLLAH		3,545.2	254.7	1.47	3,567.7	252.8	1.46
Z7J2KV		3,516.0	225.6	1.30	3,438.0	123.0	0.71
ZG4YG7		3,151.5	-138.9	-0.80	3,154.0	-161.0	-0.93
ZMXFU6	*	3,513.2	222.7	1.29	3,392.3	77.3	0.45
ZUE932		3,077.0	-213.4	-1.23	3,092.0	-223.0	-1.29

Summary Statistics

Grand Means

3,290.43 psi

3,314.96 psi

Std Dev Btwn Labs

173.15 psi

173.40 psi

Statistics based on 113 of 118 reporting participants

Summary Statistics in SI Units

Grand Means

22.687 MPa

22.86 MPa

Std Dev Btwn Labs

1.194 MPa

1.20 MPa

Statistics based on 113 of 118 reporting participants

Samples C61-C62: Polyisoprene compound, batch #1 & C63-C64: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #605

2VDXAH (X) - Inconsistency in testing between Sample sets.

4ZVJRW (X) - Inconsistency in testing between Sample sets, data for Samples C61-C62 are low. Also Inconsistent in testing within Samples C61-C62.

D4L4ME (X) - Data for both samples are low.

JQBKAQ (X) - Data for both samples are low. Also inconsistent in testing within both samples sets. Lab indicated slippage in the grips.

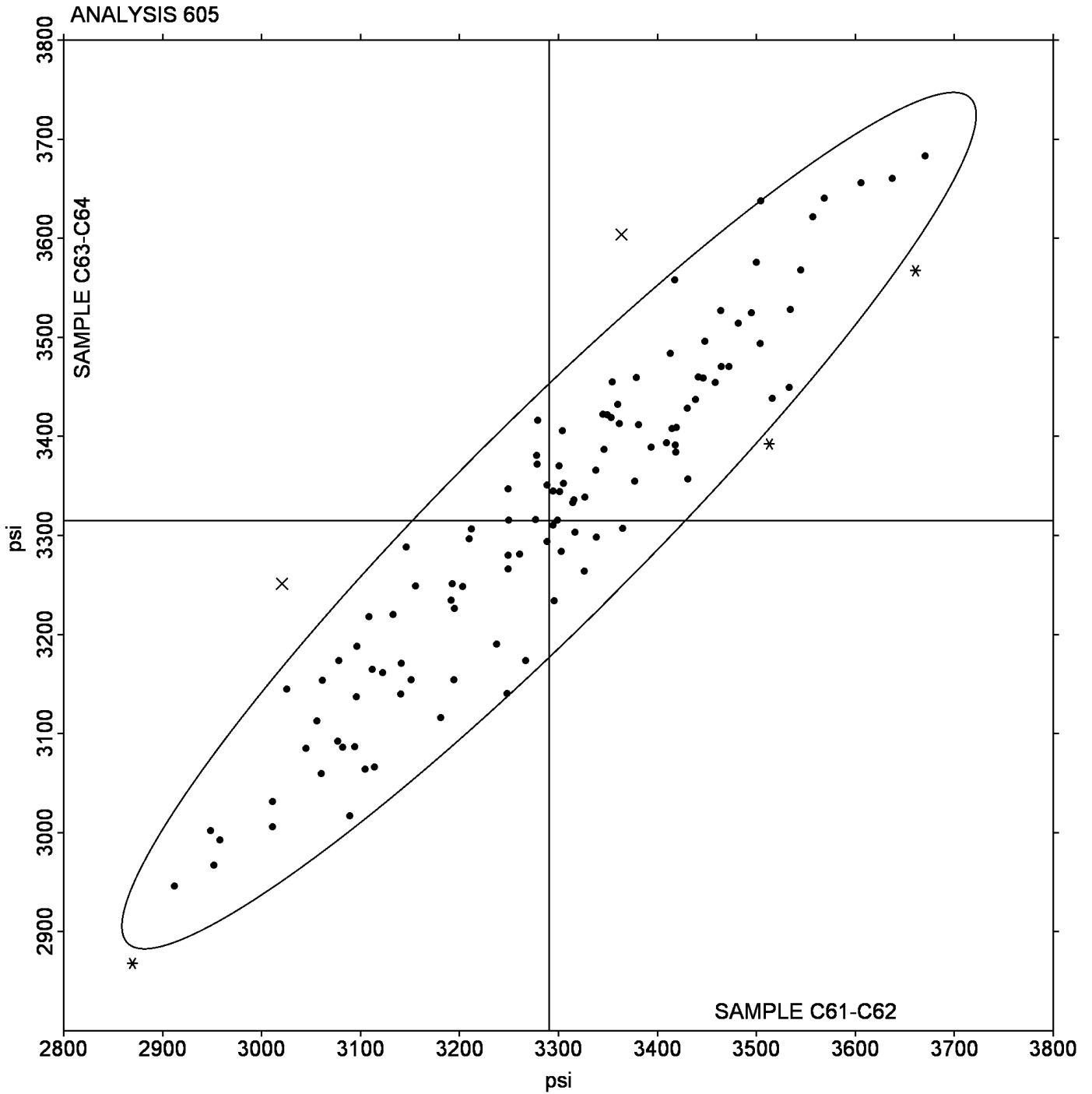
S79VT7 (X) - Inconsistency in testing between Sample sets.

Analysis 605

Tensile Strength (psi)

Grand Mean Sample C61-C62 = 3,290.43 psi

Grand Mean Sample C63-C64 = 3,314.96 psi



Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
18PB5H		523.5	-51.0	-2.06	523.5	-52.4	-2.16
1PAJN3		587.0	12.5	0.50	586.5	10.6	0.44
2GREAF		579.5	5.0	0.20	579.5	3.6	0.15
2K9VP7		603.0	28.5	1.15	612.5	36.6	1.51
38DH7U	X	545.1	-29.4	-1.19	518.6	-57.3	-2.36
39AXH6		562.5	-12.0	-0.49	560.0	-15.9	-0.66
3BD941		551.0	-23.5	-0.95	556.5	-19.4	-0.80
4QDSRR		559.0	-15.5	-0.63	554.0	-21.9	-0.90
51NK1X		528.5	-46.0	-1.86	544.5	-31.4	-1.29
51S8SW		573.0	-1.5	-0.06	568.0	-7.9	-0.33
5B18UN		584.0	9.5	0.38	579.0	3.1	0.13
5JJHE6		583.5	9.0	0.36	586.5	10.6	0.44
5L8EU5		611.5	37.0	1.49	605.0	29.1	1.20
642UWV	X	574.5	0.0	0.00	540.5	-35.4	-1.46
6MKSAR		559.5	-15.0	-0.61	566.0	-9.9	-0.41
7C6GVL		572.0	-2.5	-0.10	570.0	-5.9	-0.24
7VSRKV		575.3	0.8	0.03	582.4	6.5	0.27
82C8DW		525.0	-49.5	-2.00	540.5	-35.4	-1.46
8CVJ6U		593.0	18.5	0.75	576.0	0.1	0.00
8FQ3QZ		546.5	-28.0	-1.13	543.5	-32.4	-1.34
8GKSQP		567.5	-7.0	-0.28	566.0	-9.9	-0.41
8JLKC6		617.8	43.3	1.75	616.5	40.5	1.67
8UEG51	X	481.5	-93.0	-3.76	474.0	-101.9	-4.20
8VSZDY		574.5	0.0	0.00	558.5	-17.4	-0.72
98L7YR		583.5	9.0	0.36	570.0	-5.9	-0.24
9EJY3G		568.5	-6.0	-0.24	576.5	0.6	0.02
9FDP7A	*	547.3	-27.3	-1.10	571.9	-4.0	-0.17
9M92W6		578.0	3.5	0.14	582.5	6.6	0.27
9PAEU4		584.0	9.5	0.38	572.0	-3.9	-0.16
AE3ZNW		610.0	35.5	1.43	610.0	34.1	1.40
B4GS9L		575.5	1.0	0.04	594.0	18.1	0.75
B97LMU		570.0	-4.5	-0.18	585.0	9.1	0.37
BJ3DF5		618.5	44.0	1.78	629.2	53.3	2.19
BW8GV8		542.0	-32.5	-1.32	541.5	-34.4	-1.42
C7C6KV		592.0	17.5	0.71	592.7	16.7	0.69

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
CD8NME		588.2	13.6	0.55	583.3	7.3	0.30
CG8KUH		600.0	25.5	1.03	599.0	23.1	0.95
CGWPUV	X	545.4	-29.2	-1.18	514.5	-61.4	-2.53
CK8VMB		621.5	47.0	1.90	608.5	32.6	1.34
D7KH7J		569.0	-5.5	-0.22	569.5	-6.4	-0.26
DB9R9L		575.5	1.0	0.04	578.5	2.6	0.11
DQU6CJ		589.0	14.5	0.58	581.0	5.1	0.21
DVEQAK		606.6	32.0	1.29	617.1	41.2	1.70
DXG8Y8		585.0	10.5	0.42	580.0	4.1	0.17
EHXPH7		552.0	-22.5	-0.91	543.0	-32.9	-1.36
F15MAV		577.0	2.5	0.10	574.3	-1.6	-0.07
FSH5WZ		591.0	16.5	0.67	593.5	17.6	0.72
G1E84V		600.2	25.7	1.04	586.1	10.2	0.42
G43JB2		543.0	-31.6	-1.28	558.3	-17.7	-0.73
G8YP1S		613.5	39.0	1.58	612.6	36.7	1.51
GA1DWT	*	501.7	-72.9	-2.95	510.9	-65.0	-2.68
GFPFYK		572.5	-2.0	-0.08	572.5	-3.4	-0.14
GVUS8Y	*	627.5	53.0	2.14	640.5	64.6	2.66
H4NEJT	*	645.5	71.0	2.87	640.5	64.6	2.66
HL9RFT		574.5	0.0	0.00	571.0	-4.9	-0.20
HN1YT5		590.0	15.5	0.62	595.5	19.6	0.81
J9KSGB		565.8	-8.7	-0.35	561.9	-14.0	-0.58
JAG1WM		573.5	-1.0	-0.04	577.5	1.6	0.07
JN88RN		601.0	26.5	1.07	607.0	31.1	1.28
K429NZ		555.5	-19.0	-0.77	572.0	-3.9	-0.16
KCUVJS		539.5	-35.0	-1.42	545.5	-30.4	-1.25
KNNSAL		578.5	4.0	0.16	593.5	17.6	0.72
KP67U2		547.5	-27.0	-1.09	548.5	-27.4	-1.13
LNF3AT	*	562.0	-12.5	-0.51	589.0	13.1	0.54
LPZLS6		585.0	10.5	0.42	584.0	8.1	0.33
LWW6NS		556.5	-18.0	-0.73	557.0	-18.9	-0.78
M4GZX4		566.5	-8.0	-0.33	581.0	5.1	0.21
MAUM4E		564.9	-9.6	-0.39	560.6	-15.4	-0.63
MAW127		547.0	-27.5	-1.11	541.0	-34.9	-1.44
MNZ7DC		602.5	28.0	1.13	599.5	23.6	0.97

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MWZV1Q		566.0	-8.5	-0.35	555.5	-20.4	-0.84
N34K79		525.0	-49.5	-2.00	523.0	-52.9	-2.18
N8Q43P		604.5	30.0	1.21	611.0	35.1	1.45
N9JYJ8		597.1	22.6	0.91	603.5	27.5	1.13
P768SV		564.0	-10.5	-0.43	576.5	0.6	0.02
PFLACH	X	595.0	20.5	0.83	538.0	-37.9	-1.56
PRGN54		578.5	4.0	0.16	585.0	9.1	0.37
PRLJV7		558.0	-16.5	-0.67	572.5	-3.4	-0.14
Q33R1T		578.0	3.5	0.14	574.0	-1.9	-0.08
QE3LPV		580.5	6.0	0.24	566.0	-9.9	-0.41
QH31ST		590.0	15.5	0.62	590.0	14.1	0.58
QP7EK3		553.0	-21.5	-0.87	549.5	-26.4	-1.09
RH4SJE		596.5	22.0	0.89	584.5	8.6	0.35
RPGRTS		581.5	7.0	0.28	582.5	6.6	0.27
S67K5N		549.0	-25.5	-1.03	547.0	-28.9	-1.19
SBSGV7		521.5	-53.0	-2.14	523.0	-52.9	-2.18
SFZ6XL		570.5	-4.0	-0.16	572.0	-3.9	-0.16
SRFUU7		521.5	-53.0	-2.14	521.5	-54.4	-2.24
SUC9VX		582.0	7.5	0.30	578.0	2.1	0.09
SVCMW3		546.5	-28.0	-1.13	554.5	-21.4	-0.88
TE954B		586.5	12.0	0.48	596.0	20.1	0.83
THS722		564.5	-10.0	-0.41	567.0	-8.9	-0.37
U66NMC		586.5	12.0	0.48	581.5	5.6	0.23
U7EASW		575.9	1.4	0.06	556.1	-19.8	-0.82
UFIKRQ	X	595.5	21.0	0.85	558.0	-17.9	-0.74
UNTWQZ		546.5	-28.0	-1.13	552.0	-23.9	-0.98
UVEVA6		606.5	32.0	1.29	598.5	22.6	0.93
VEAXBP		596.5	22.0	0.89	607.5	31.6	1.30
VVCJAG		581.0	6.5	0.26	580.5	4.6	0.19
W8W9M5		553.5	-21.0	-0.85	559.0	-16.9	-0.70
WCNM7E		583.0	8.5	0.34	579.0	3.1	0.13
WE9L5C	X	450.5	-124.0	-5.02	434.0	-141.9	-5.85
WWFKNZ		562.0	-12.5	-0.51	561.5	-14.4	-0.59
X8HHRE		556.0	-18.5	-0.75	556.5	-19.4	-0.80
X9MT6G		577.5	3.0	0.12	585.5	9.6	0.40

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
XNCFPY		579.0	4.5	0.18	576.5	0.6	0.02
XQ85CB	X	706.5	132.0	5.33	710.5	134.6	5.54
XTAJ17		556.0	-18.5	-0.75	574.0	-1.9	-0.08
XV5V9T		589.5	15.0	0.60	604.0	28.1	1.16
XZ3CNA		560.0	-14.5	-0.59	559.0	-16.9	-0.70
Y5HHHV		581.5	7.0	0.28	585.0	9.1	0.37
YXLCF1		582.1	7.5	0.30	586.8	10.9	0.45
Z3KQPV		599.5	25.0	1.01	588.5	12.6	0.52
Z558F7		565.0	-9.5	-0.39	565.0	-10.9	-0.45
Z9TFFM		585.0	10.5	0.42	572.0	-3.9	-0.16
ZFWX1L		599.0	24.5	0.99	604.0	28.1	1.16

Summary Statistics

Grand Means

574.55 percent

575.91 percent

Std Dev Btwn Labs

24.74 percent

24.28 percent

Statistics based on 108 of 116 reporting participants

Samples C61-C62: Polyisoprene compound, batch #1 & C63-C64: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #606

38DH7U (X) - Inconsistency in testing between Sample sets.

642UWV (X) - Inconsistency in testing between Sample sets.

8UEG51 (X) - Data for all Samples are low.

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

PFLACH (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Sample Sets C61-C62.

UF1KRQ (X) - Inconsistency in testing between Sample sets.

WE9L5C (X) - Data for all Samples are low. Also inconsistent in testing within both sample sets. Lab indicated slippage in the grips.

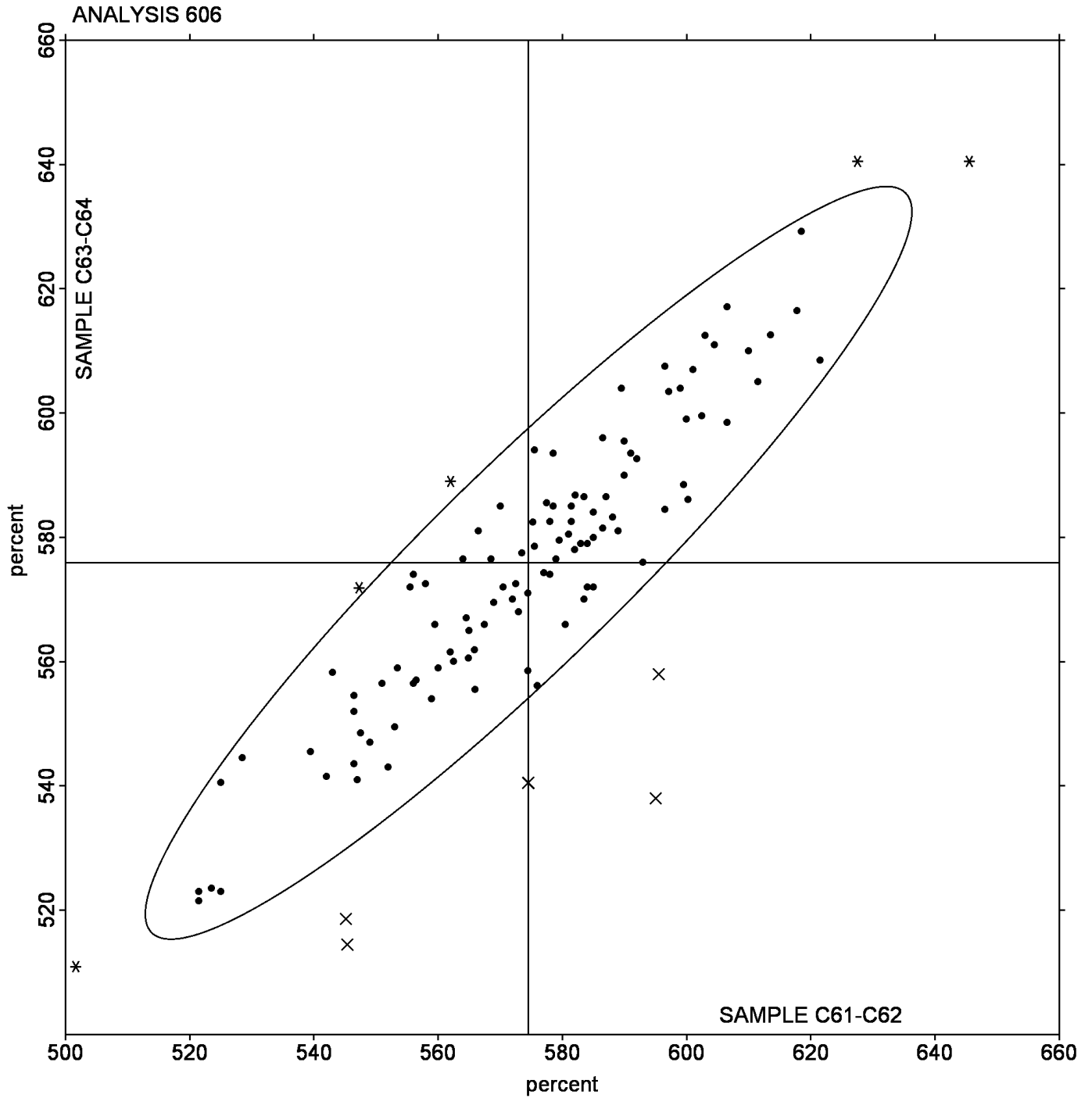
XQ85CB (X) - Data for all Samples are low.

Analysis 606

Ultimate Elongation (percent)

Grand Mean Sample C61-C62 = 574.55 percent

Grand Mean Sample C63-C64 = 575.91 percent



Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
1481Z1		1,187.5	23.0	0.32	1,235.0	70.3	0.95
1PYS3R		1,184.5	20.0	0.27	1,180.5	15.8	0.21
1V5841		1,167.0	2.5	0.03	1,227.0	62.3	0.84
1WHRX4	*	1,058.0	-106.5	-1.46	1,147.0	-17.7	-0.24
25MEYG		1,039.5	-125.0	-1.72	1,025.0	-139.7	-1.89
2CPPX2		1,175.0	10.5	0.14	1,149.0	-15.7	-0.21
2FNRGQ		1,227.0	62.5	0.86	1,187.5	22.8	0.31
2RTL27	X	1,501.0	336.5	4.62	1,500.0	335.3	4.53
3712LF		1,244.5	80.0	1.10	1,211.0	46.3	0.63
3NNKBU		1,075.0	-89.5	-1.23	1,079.0	-85.7	-1.16
3WFCP8		1,112.5	-52.0	-0.71	1,070.0	-94.7	-1.28
4HBPBR	X	770.9	-393.6	-5.41	773.8	-390.9	-5.28
4LPMDV		1,282.9	118.3	1.63	1,320.6	155.9	2.11
4R9C9H		1,195.5	31.0	0.43	1,220.5	55.8	0.75
541VQF		1,126.5	-38.0	-0.52	1,155.5	-9.2	-0.12
5J2C56		1,173.0	8.5	0.12	1,154.0	-10.7	-0.14
5QU6S7		1,052.5	-112.0	-1.54	1,081.0	-83.7	-1.13
7K7HPM		1,075.5	-89.0	-1.22	1,054.0	-110.7	-1.50
87F6UL		1,201.0	36.5	0.50	1,206.0	41.3	0.56
8VPLDH		1,076.6	-88.0	-1.21	1,100.8	-63.9	-0.86
9BY3AW		1,184.5	20.0	0.27	1,198.5	33.8	0.46
9C7U5D		1,083.5	-81.0	-1.11	1,099.5	-65.2	-0.88
9L113L		1,240.0	75.5	1.04	1,237.0	72.3	0.98
9XJPKK		1,158.5	-6.0	-0.08	1,174.5	9.8	0.13
9YZHKZ		1,071.0	-93.5	-1.28	1,037.0	-127.7	-1.73
A5CTXY		1,049.3	-115.2	-1.58	1,061.2	-103.5	-1.40
AJLK35		1,128.0	-36.5	-0.50	1,148.5	-16.2	-0.22
AJQEQ5		1,144.5	-20.0	-0.28	1,168.5	3.8	0.05
AZREAZ	*	1,168.0	3.5	0.05	1,260.0	95.3	1.29
B471X5		1,193.0	28.5	0.39	1,188.5	23.8	0.32
B6WR6H		1,114.0	-50.5	-0.69	1,116.0	-48.7	-0.66
BQUFRY		1,192.5	28.0	0.38	1,155.0	-9.7	-0.13
BULXSP		1,140.0	-24.5	-0.34	1,179.5	14.8	0.20
BVFHLH		1,178.0	13.5	0.19	1,153.5	-11.2	-0.15
C21THJ		1,161.8	-2.8	-0.04	1,146.5	-18.2	-0.25

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
C5ULXM		1,101.0	-63.5	-0.87	1,119.5	-45.2	-0.61
C6S597		1,164.5	0.0	0.00	1,141.0	-23.7	-0.32
C8FLGU		1,131.3	-33.2	-0.46	1,095.0	-69.7	-0.94
CALQVX		1,197.0	32.5	0.45	1,179.0	14.3	0.19
CASBU5		1,084.2	-80.4	-1.10	1,070.5	-94.2	-1.27
CRUKPS		1,264.5	100.0	1.37	1,247.0	82.3	1.11
CW6XH7	X	1,805.4	640.8	8.80	1,813.0	648.3	8.76
DCCQN7		1,337.0	172.5	2.37	1,339.5	174.8	2.36
DHPDN4		1,112.5	-52.0	-0.71	1,138.0	-26.7	-0.36
DN9CH4		1,179.0	14.5	0.20	1,156.0	-8.7	-0.12
DQQ8YU		1,081.5	-83.0	-1.14	1,048.0	-116.7	-1.58
EGNZHP		1,141.8	-22.8	-0.31	1,105.4	-59.4	-0.80
EPILB5		1,185.3	20.7	0.28	1,186.0	21.3	0.29
ESBM94		1,320.0	155.5	2.14	1,269.0	104.3	1.41
EY9FLJ		1,178.4	13.9	0.19	1,213.3	48.5	0.66
FNGQZR		1,237.4	72.9	1.00	1,223.2	58.5	0.79
FPHFRT	*	1,351.0	186.5	2.56	1,374.0	209.3	2.83
FZABL9	X	291.0	-873.5	-12.00	292.0	-872.7	-11.79
G2X1BK		1,153.1	-11.5	-0.16	1,131.3	-33.4	-0.45
G46D87		1,150.5	-14.0	-0.19	1,148.0	-16.7	-0.23
G8MUPR	X	1,174.5	10.0	0.14	1,301.0	136.3	1.84
G8QZ3M		1,173.5	9.0	0.12	1,148.5	-16.2	-0.22
GFGVW4		1,250.0	85.5	1.17	1,269.5	104.8	1.42
GLJTZT		1,162.0	-2.5	-0.03	1,185.5	20.8	0.28
HK1MX6		1,129.5	-35.0	-0.48	1,112.5	-52.2	-0.71
JVBHNM	X	1,114.5	-50.0	-0.69	1,226.5	61.8	0.83
K7JDZJ		1,146.5	-18.0	-0.25	1,150.9	-13.8	-0.19
K85MR1	X	1,324.7	160.2	2.20	1,415.1	250.3	3.38
LFEF7C		1,024.4	-140.1	-1.93	1,028.2	-136.5	-1.84
LXCBBH		1,060.2	-104.3	-1.43	1,125.5	-39.2	-0.53
M2C75Q		1,063.9	-100.7	-1.38	1,082.0	-82.7	-1.12
MAEZ8K		1,207.0	42.5	0.58	1,208.5	43.8	0.59
MJJ7DS		1,128.0	-36.5	-0.50	1,143.0	-21.7	-0.29
NGHAUJ		1,161.0	-3.5	-0.05	1,135.0	-29.7	-0.40
NKCVE9		1,173.4	8.8	0.12	1,166.8	2.1	0.03

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NQE4FA		1,197.0	32.5	0.45	1,240.0	75.3	1.02
NQFKC1		1,280.5	116.0	1.59	1,258.0	93.3	1.26
P2MY4J		1,124.9	-39.7	-0.55	1,136.4	-28.3	-0.38
P5WN3M		1,140.0	-24.5	-0.34	1,139.0	-25.7	-0.35
P6A8SG	X	1,056.6	-107.9	-1.48	1,214.0	49.3	0.67
PCTJN6	*	1,337.5	173.0	2.38	1,266.3	101.5	1.37
PPF329		1,214.0	49.4	0.68	1,203.8	39.1	0.53
PGVC6A	X	1,279.5	114.9	1.58	1,395.6	230.8	3.12
PPG3UR		1,212.7	48.2	0.66	1,190.1	25.3	0.34
Q63JSR		1,073.3	-91.2	-1.25	1,070.4	-94.3	-1.27
QCQQNH		1,144.5	-20.0	-0.28	1,120.5	-44.2	-0.60
QGAGA7		1,236.0	71.5	0.98	1,191.4	26.7	0.36
QU4ASN		1,092.0	-72.5	-1.00	1,100.5	-64.2	-0.87
RCFW5N		1,151.0	-13.5	-0.19	1,127.0	-37.7	-0.51
RHSBN7		1,208.2	43.6	0.60	1,171.9	7.2	0.10
RJ3BMM		1,152.7	-11.8	-0.16	1,085.9	-78.8	-1.06
RJEZV1		1,200.7	36.1	0.50	1,243.2	78.5	1.06
TQK7WG		1,147.3	-17.2	-0.24	1,170.9	6.2	0.08
UBZCDG		1,133.0	-31.5	-0.43	1,115.0	-49.7	-0.67
UVWRYZ		1,285.8	121.2	1.67	1,311.2	146.4	1.98
UYW73G		1,023.0	-141.5	-1.94	1,020.5	-144.2	-1.95
V95AR1		1,176.3	11.7	0.16	1,172.6	7.9	0.11
VQBD6Z		1,173.5	9.0	0.12	1,165.5	0.8	0.01
VS5V9R		1,192.0	27.5	0.38	1,183.0	18.3	0.25
WJTNWW	*	1,361.0	196.5	2.70	1,383.0	218.3	2.95
WM84L9		1,111.0	-53.5	-0.74	1,166.0	1.3	0.02
WPY92Z		1,197.0	32.5	0.45	1,173.5	8.8	0.12
WV3E95		1,095.0	-69.5	-0.96	1,087.0	-77.7	-1.05
X4RQ1B		1,123.0	-41.5	-0.57	1,070.0	-94.7	-1.28
X6DTN4	*	1,199.0	34.5	0.47	1,280.5	115.8	1.56
X9UTGL		1,187.6	23.1	0.32	1,169.2	4.4	0.06
XYL724		1,108.5	-56.0	-0.77	1,127.0	-37.7	-0.51
XYWCXE		1,103.3	-61.3	-0.84	1,135.0	-29.7	-0.40
Y96FDB		1,335.8	171.3	2.35	1,301.7	137.0	1.85
YBAHBF		1,189.0	24.5	0.34	1,174.5	9.8	0.13

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
YHDPRJ		1,145.0	-19.5	-0.27	1,118.0	-46.7	-0.63
Z34M1T		1,206.5	42.0	0.58	1,165.5	0.8	0.01
ZDWTFD		1,182.0	17.5	0.24	1,162.5	-2.2	-0.03
ZM716F		1,245.0	80.5	1.11	1,294.0	129.3	1.75
ZQ2CX2		1,107.2	-57.3	-0.79	1,126.5	-38.2	-0.52
ZRCZ41	X	1,392.4	227.8	3.13	1,319.9	155.1	2.10
ZSVMY2		1,080.5	-84.0	-1.15	1,117.5	-47.2	-0.64

Summary Statistics

Grand Means

1,164.53 psi

1,164.72 psi

Std Dev Btwn Labs

72.79 psi

74.03 psi

Statistics based on 102 of 112 reporting participants

Summary Statistics in SI Units

Grand Means

8.0291 MPa

8.03 MPa

Std Dev Btwn Labs

0.5019 MPa

0.51 MPa

Statistics based on 102 of 112 reporting participants

Samples C61-C62: Polyisoprene compound, batch #1 & C63-C64: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #607

2RTL27 (X) - Data for all Samples are high.

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

CW6XH7 (X) - Data for all Samples are high.

FZABL9 (X) - Data for all Samples are low.

G8MUPR (X) - Inconsistency in testing between Sample sets.

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

K85MR1 (X) - Inconsistency in testing between Sample sets. Data for Sample Set C63-C64 are high.

P6A8SG (X) - Inconsistency in testing between Sample sets.

PGVC6A (X) - Inconsistency in testing between Sample sets. Data for Sample Set C63-C64 are high.

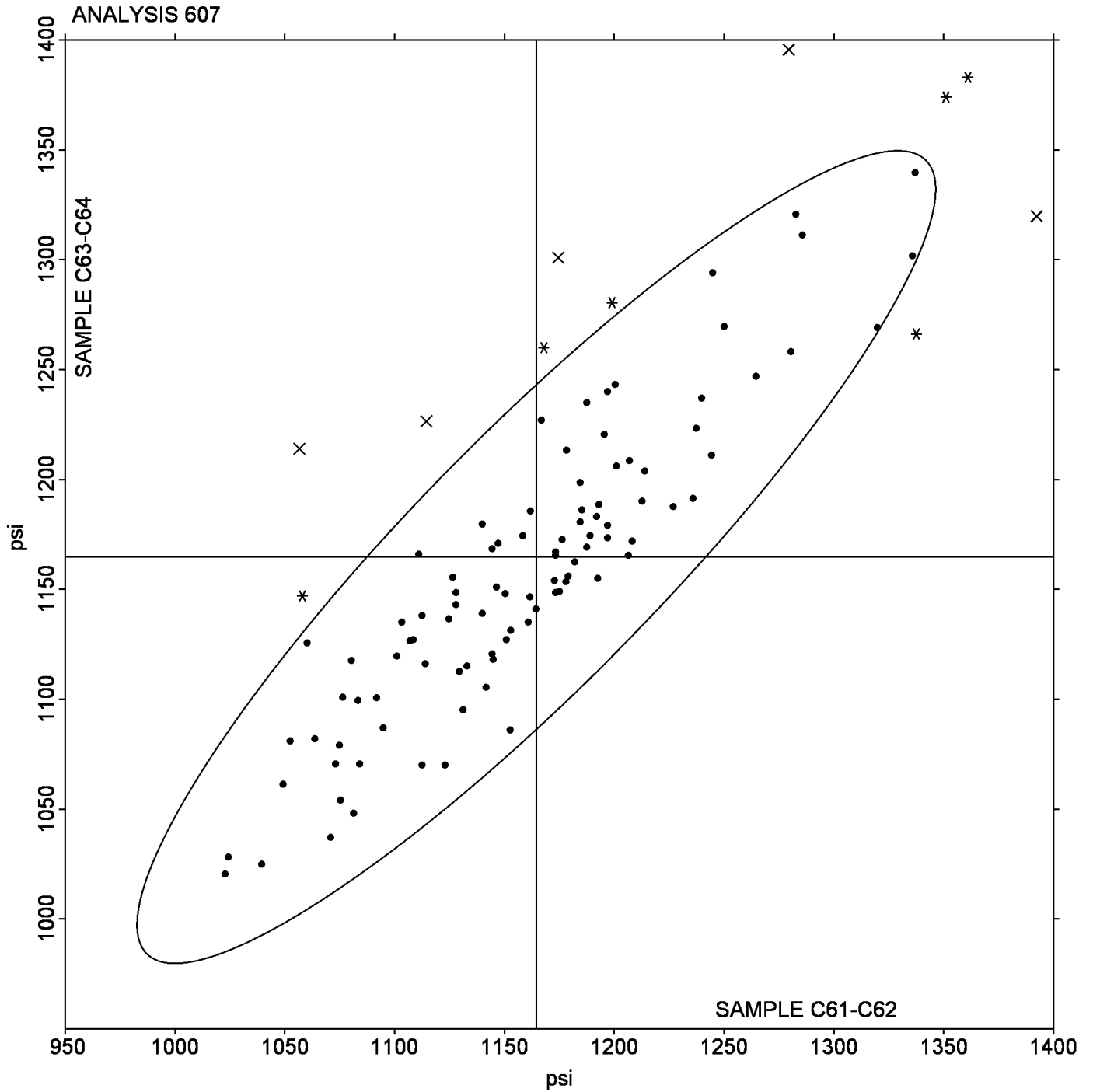
ZRCZ41 (X) - Inconsistency in testing between Sample sets. Data for Sample Set C61-C62 are high.

Analysis 607

Stress at 300% Elongation (psi)

Grand Mean Sample C61-C62 = 1,164.53 psi

Grand Mean Sample C63-C64 = 1,164.72 psi



Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
176LLC		235.0	-18.5	-1.35	238.5	-15.5	-1.06
1KPVZX		249.0	-4.5	-0.33	258.0	4.0	0.27
1QTH7K		245.0	-8.5	-0.62	243.6	-10.4	-0.71
1RD57F		253.0	-0.5	-0.03	254.0	0.0	0.00
1Z5EMA		259.0	5.5	0.40	255.5	1.5	0.10
2Q2FUV		247.3	-6.2	-0.45	247.3	-6.7	-0.46
3GLQJG		252.5	-1.0	-0.07	248.5	-5.5	-0.38
3MNZAG	*	282.5	29.0	2.12	270.5	16.5	1.13
3TY8CQ		233.5	-19.9	-1.46	236.0	-18.0	-1.23
4P3BPS		228.0	-25.5	-1.86	225.0	-29.0	-1.99
4ZK5PS		258.0	4.5	0.33	255.5	1.5	0.10
5PDBQD		265.3	11.9	0.87	260.1	6.0	0.41
5WN97H		248.0	-5.5	-0.40	249.0	-5.0	-0.34
61S1L1		246.4	-7.1	-0.52	240.4	-13.6	-0.93
6DCZ2W		237.0	-16.5	-1.20	245.5	-8.5	-0.58
6TAJ32		248.5	-5.0	-0.36	246.5	-7.5	-0.51
6WRMDY		251.5	-2.0	-0.14	249.5	-4.5	-0.31
76CVSS		253.8	0.4	0.03	263.2	9.2	0.63
7BWF4L		236.5	-17.0	-1.24	230.5	-23.5	-1.61
7DZ5DG		267.0	13.5	0.99	273.0	19.0	1.30
7G84AV		252.5	-1.0	-0.07	265.5	11.5	0.79
7PPRY5		221.5	-32.0	-2.33	220.0	-34.0	-2.33
7WBUPT		269.8	16.3	1.19	274.8	20.8	1.42
88F57V		232.8	-20.7	-1.51	237.9	-16.2	-1.11
8TD3F2		248.5	-5.0	-0.36	241.5	-12.5	-0.86
9C2NGY		242.5	-11.0	-0.80	258.5	4.5	0.31
9S89L8		248.6	-4.8	-0.35	245.1	-8.9	-0.61
9XFSTF		244.0	-9.5	-0.69	247.5	-6.5	-0.45
9Y5C5B		287.0	33.5	2.45	282.0	28.0	1.91
ADFBP3	*	217.0	-36.5	-2.66	214.5	-39.5	-2.70
ADY2YM		238.5	-15.0	-1.09	237.5	-16.5	-1.13
B36NZ4		251.8	-1.7	-0.12	235.4	-18.6	-1.27
BEHNKJ		248.0	-5.5	-0.40	253.0	-1.0	-0.07
BRFCPY		248.0	-5.5	-0.40	251.5	-2.5	-0.17
BSG7QH		251.0	-2.5	-0.18	248.0	-6.0	-0.41

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
C5AENH		271.5	18.0	1.32	261.5	7.5	0.51
C7MEZX		256.0	2.5	0.19	245.0	-9.0	-0.62
CLE9WW		247.3	-6.2	-0.45	245.8	-8.2	-0.56
DMQW3U		241.0	-12.5	-0.91	233.0	-21.0	-1.44
DSSRMH	X	158.1	-95.4	-6.96	161.0	-93.0	-6.36
DXD45C		245.0	-8.5	-0.62	249.0	-5.0	-0.34
E2RCYU		259.5	6.0	0.44	255.5	1.5	0.10
ENW3XP		255.0	1.5	0.11	272.5	18.5	1.26
F46TMM		259.0	5.5	0.40	261.5	7.5	0.51
F6S2Q8		258.2	4.7	0.34	249.5	-4.6	-0.31
FLCDJW		245.5	-8.0	-0.58	237.5	-16.5	-1.13
FUXDPK		258.5	5.0	0.37	271.5	17.5	1.20
G41QG8		247.8	-5.7	-0.41	246.9	-7.1	-0.49
GDCRDW		246.0	-7.5	-0.54	249.0	-5.0	-0.34
GSHVR4		276.5	23.0	1.68	274.5	20.5	1.40
HG73D1		275.0	21.5	1.57	266.0	12.0	0.82
HL7AVH		275.6	22.1	1.61	261.1	7.0	0.48
HQD3PL	X	220.0	-33.5	-2.44	240.5	-13.5	-0.93
HZBS3Q		251.5	-2.0	-0.14	254.5	0.5	0.03
J9TFDX		241.5	-12.0	-0.87	239.3	-14.7	-1.01
JG52BL		265.0	11.5	0.84	267.0	13.0	0.89
JMKLKE		259.0	5.5	0.40	275.5	21.5	1.47
JUV1YG	X	308.5	55.0	4.02	304.5	50.5	3.45
JXY5X2		264.5	11.0	0.81	261.5	7.5	0.51
KCAHV8		270.0	16.5	1.21	279.5	25.5	1.74
KCQJHQ	X	934.8	681.3	49.73	927.5	673.5	46.08
KHNBRR		269.0	15.6	1.14	273.4	19.4	1.33
KY8ELS		264.0	10.5	0.77	261.0	7.0	0.48
KYRLM4		254.5	1.1	0.08	254.5	0.5	0.04
L7FMP2		242.0	-11.5	-0.84	245.0	-9.0	-0.62
LQWR86		256.5	3.0	0.22	266.5	12.5	0.85
LSD7WR		246.5	-7.0	-0.51	250.0	-4.0	-0.28
M2NREG		251.5	-2.0	-0.15	242.4	-11.7	-0.80
MAUJQU		250.0	-3.5	-0.25	254.5	0.5	0.03
MML8A8		251.0	-2.5	-0.18	255.5	1.5	0.10

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MN29QG		242.2	-11.2	-0.82	256.7	2.7	0.18
N8342Z		245.5	-8.0	-0.58	242.0	-12.0	-0.82
N8HLXS		248.0	-5.5	-0.40	259.0	5.0	0.34
NBUALM		261.5	8.0	0.59	265.5	11.5	0.79
NCT7LK		263.1	9.7	0.71	256.0	2.0	0.14
NGCKJ9		255.3	1.8	0.13	252.4	-1.7	-0.11
NHNL4M		241.9	-11.6	-0.85	252.0	-2.0	-0.14
NKHSYR		252.8	-0.7	-0.05	246.9	-7.1	-0.49
NZFMLR		255.5	2.0	0.15	254.5	0.5	0.03
PHKXG5		285.7	32.3	2.36	287.9	33.9	2.32
PQBJ45		261.5	8.0	0.59	257.0	3.0	0.20
QU6EPQ		245.0	-8.5	-0.62	249.5	-4.5	-0.31
R4K716		267.5	14.0	1.02	262.4	8.4	0.57
RF2P85		272.0	18.5	1.35	275.5	21.5	1.47
RYF4CT	*	290.6	37.1	2.71	299.4	45.4	3.11
S45UJM		263.4	9.9	0.72	259.7	5.7	0.39
S8LT1V		260.0	6.5	0.48	256.5	2.5	0.17
SF2FP5		258.5	5.0	0.37	250.5	-3.5	-0.24
SQ3Y8M	X	191.5	-62.0	-4.52	196.0	-58.0	-3.97
TRCM76		265.0	11.5	0.84	259.5	5.5	0.37
U54CF3		268.5	15.0	1.10	264.0	10.0	0.68
U79ZSL		244.0	-9.5	-0.69	253.5	-0.5	-0.04
UH4R47		237.8	-15.7	-1.15	241.9	-12.2	-0.83
UHTB75		261.5	8.1	0.59	277.8	23.7	1.62
UJPSHG		255.0	1.5	0.11	242.5	-11.5	-0.79
UUF7Y		238.5	-15.0	-1.09	245.0	-9.0	-0.62
UZ361Q	X	334.5	81.0	5.92	345.5	91.5	6.26
VBJPFL		239.5	-14.0	-1.02	247.0	-7.0	-0.48
VRGQHM		245.5	-8.0	-0.58	257.5	3.5	0.24
W5S347		259.0	5.5	0.40	249.0	-5.0	-0.34
WCLYNH		237.1	-16.3	-1.19	240.8	-13.3	-0.91
WJETDF		231.0	-22.5	-1.64	236.5	-17.5	-1.20
XAYLU6		246.6	-6.9	-0.50	232.1	-22.0	-1.50
XL14JZ	X	242.2	-11.2	-0.82	272.7	18.6	1.28
XQ39SY		243.7	-9.8	-0.71	243.7	-10.4	-0.71

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
Y5NSS8		256.0	2.5	0.19	254.0	0.0	0.00
Y9RGGU		258.8	5.3	0.39	270.1	16.0	1.10
YG3T38		252.0	-1.5	-0.11	252.5	-1.5	-0.10
YW4N8U		250.5	-3.0	-0.22	256.0	2.0	0.14
ZC21T9	*	293.0	39.5	2.89	299.0	45.0	3.08
ZLVSZV		254.5	1.1	0.08	250.2	-3.8	-0.26

Summary Statistics

Grand Means

253.46 psi

254.02 psi

Std Dev Btwn Labs

13.70 psi

14.62 psi

Statistics based on 104 of 111 reporting participants

Summary Statistics in SI Units

Grand Means

1.7475 MPa

1.75 MPa

Std Dev Btwn Labs

0.0945 MPa

0.10 MPa

Statistics based on 104 of 111 reporting participants

Samples C61-C62: Polyisoprene compound, batch #1 & C63-C64: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #608

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

HQD3PL (X) - Inconsistency in testing between Sample sets.

JUV1YG (X) - Data for all Samples are high. Possible Systematic Error.

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

SQ3Y8M (X) - Data for all Samples are low.

UZ361Q (X) - Data for all Samples are high.

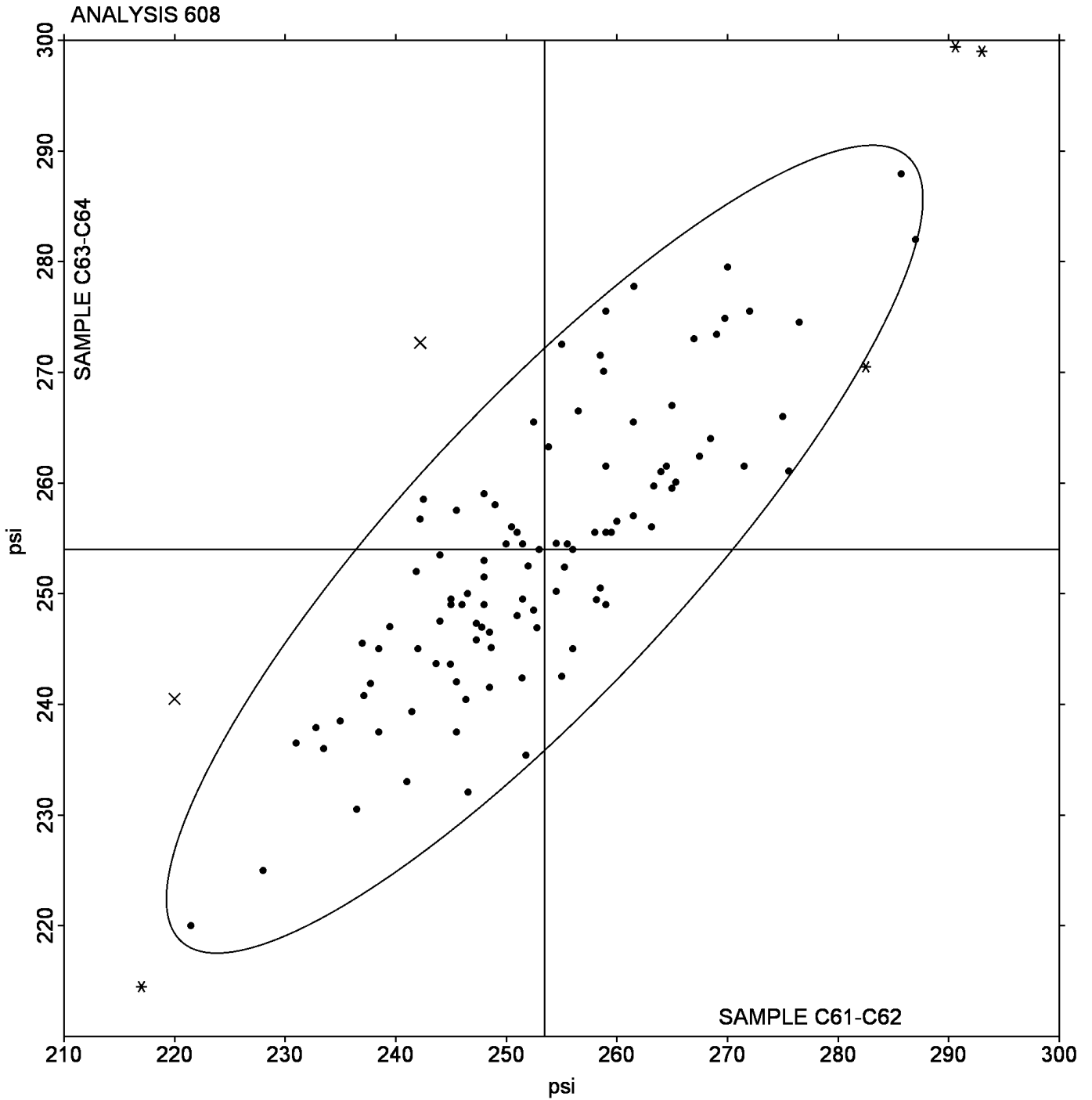
XL14JZ (X) - Inconsistency in testing between Sample sets.

Analysis 608

Stress at 100% Elongation (psi)

Grand Mean Sample C61-C62 = 253.46 psi

Grand Mean Sample C63-C64 = 254.02 psi



Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
12NSUT		54.00	0.36	0.22	53.70	-0.01	0.00
1R3WPG		51.65	-1.99	-1.22	51.70	-2.01	-1.22
1SPE6L		52.00	-1.64	-1.01	52.00	-1.71	-1.04
1X2QCG		50.50	-3.14	-1.93	50.75	-2.96	-1.80
2GAZ36		57.00	3.36	2.07	57.00	3.29	2.01
2YP9C1		55.00	1.36	0.84	55.00	1.29	0.79
341RSZ		53.75	0.11	0.07	53.25	-0.46	-0.28
35VCLT		54.00	0.36	0.22	53.95	0.24	0.15
36KU97		53.00	-0.64	-0.39	53.25	-0.46	-0.28
3EXUVT		53.00	-0.64	-0.39	53.00	-0.71	-0.43
3QGZDR		51.50	-2.14	-1.31	51.00	-2.71	-1.65
43BF8D		50.75	-2.89	-1.77	50.50	-3.21	-1.95
464WTT		53.10	-0.54	-0.33	53.00	-0.71	-0.43
4727ZF		52.00	-1.64	-1.01	52.00	-1.71	-1.04
5YHFMU		53.00	-0.64	-0.39	53.00	-0.71	-0.43
68V4GT		55.00	1.36	0.84	55.00	1.29	0.79
696G63		56.00	2.36	1.45	56.00	2.29	1.40
73TUX6		52.50	-1.14	-0.70	52.50	-1.21	-0.74
75VHWN		53.30	-0.34	-0.21	52.80	-0.91	-0.55
7E2FKR		52.55	-1.09	-0.67	52.70	-1.01	-0.61
7TCJTT		54.35	0.71	0.44	54.10	0.39	0.24
84B6KV		50.50	-3.14	-1.93	50.95	-2.76	-1.68
8K55J3		53.70	0.06	0.04	54.05	0.34	0.21
8YDC3E	X	52.00	-1.64	-1.01	53.50	-0.21	-0.13
91A8X9	*	55.50	1.86	1.15	54.50	0.79	0.48
9ASH2P		55.00	1.36	0.84	55.00	1.29	0.79
9LHFC8		51.80	-1.84	-1.13	52.40	-1.31	-0.80
9LT48N		54.00	0.36	0.22	54.00	0.29	0.18
9TRH5F		51.25	-2.39	-1.47	51.30	-2.41	-1.47
9VNYS5		54.80	1.16	0.72	54.80	1.09	0.67
BC8Q19		55.00	1.36	0.84	55.00	1.29	0.79
BDL8A7		55.10	1.46	0.90	55.10	1.39	0.85
BHSF5B		54.00	0.36	0.22	54.00	0.29	0.18
CAGEVM		55.75	2.11	1.30	55.25	1.54	0.94
CQTDYC		54.00	0.36	0.22	54.00	0.29	0.18

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
D7X2SP		56.25	2.61	1.61	56.00	2.29	1.40
D9YCKK		53.50	-0.14	-0.08	54.00	0.29	0.18
DG58S5		53.00	-0.64	-0.39	53.00	-0.71	-0.43
DNC6SH	X	46.90	-6.74	-4.14	48.75	-4.96	-3.02
DURPEJ		53.30	-0.34	-0.21	52.65	-1.06	-0.64
DWQ3RX		54.50	0.86	0.53	54.50	0.79	0.48
DZHWXQ	*	52.85	-0.79	-0.48	51.75	-1.96	-1.19
E72UN4		55.00	1.36	0.84	55.00	1.29	0.79
EW5PWR		52.50	-1.14	-0.70	52.00	-1.71	-1.04
F4TWLP		53.25	-0.39	-0.24	52.95	-0.76	-0.46
FLT4G2		55.25	1.61	0.99	55.45	1.74	1.06
FQM84D		54.50	0.86	0.53	55.00	1.29	0.79
FW12ZH		55.80	2.16	1.33	55.95	2.24	1.37
G5LAN7		54.25	0.61	0.38	54.25	0.54	0.33
G89PM1	*	56.00	2.36	1.45	57.00	3.29	2.01
GX7D2W		52.50	-1.14	-0.70	52.85	-0.86	-0.52
H2U7ZC	*	51.00	-2.64	-1.62	52.00	-1.71	-1.04
H4STBV	*	50.50	-3.14	-1.93	50.00	-3.71	-2.26
HH7T63		52.00	-1.64	-1.01	52.00	-1.71	-1.04
HUS1DG		55.35	1.71	1.05	54.90	1.19	0.73
J8XBSW		53.00	-0.64	-0.39	53.00	-0.71	-0.43
J9D5N3		55.00	1.36	0.84	55.00	1.29	0.79
JBW89G		52.15	-1.49	-0.91	52.10	-1.61	-0.98
JK67N5		53.50	-0.14	-0.08	53.50	-0.21	-0.13
JNJ35A		53.50	-0.14	-0.08	54.00	0.29	0.18
JRZDXM		53.95	0.31	0.19	53.90	0.19	0.12
JUEMSS		53.00	-0.64	-0.39	53.00	-0.71	-0.43
K5BLYA		52.95	-0.69	-0.42	52.70	-1.01	-0.61
KDMTRX		52.50	-1.14	-0.70	53.50	-0.21	-0.13
LANKFV		52.80	-0.84	-0.51	53.50	-0.21	-0.13
LC2FNU	X	48.50	-5.14	-3.16	49.50	-4.21	-2.56
LD8KKH		50.00	-3.64	-2.23	50.00	-3.71	-2.26
LHSBAC		55.00	1.36	0.84	55.00	1.29	0.79
LJPAH6		52.00	-1.64	-1.01	52.00	-1.71	-1.04
LKMMAR		54.00	0.36	0.22	54.00	0.29	0.18

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MD8D19		53.85	0.21	0.13	53.75	0.04	0.03
ME5MEL		50.50	-3.14	-1.93	51.00	-2.71	-1.65
MXNEJG		56.25	2.61	1.61	56.00	2.29	1.40
NG23X2		52.95	-0.69	-0.42	53.80	0.09	0.06
NH8MGV		56.25	2.61	1.61	56.65	2.94	1.79
PC36N2	X	48.00	-5.64	-3.46	48.50	-5.21	-3.17
PK4H19		57.00	3.36	2.07	56.50	2.79	1.70
PMVT3G		53.00	-0.64	-0.39	54.00	0.29	0.18
PNSKDA	*	57.40	3.76	2.31	57.90	4.19	2.55
PR64TQ		54.00	0.36	0.22	54.50	0.79	0.48
QB7WJ9		56.00	2.36	1.45	56.00	2.29	1.40
QJLACL		52.20	-1.44	-0.88	52.65	-1.06	-0.64
QWA94M		52.70	-0.94	-0.58	52.60	-1.11	-0.67
R2AGYC		53.60	-0.04	-0.02	53.50	-0.21	-0.13
RBVXGJ		53.00	-0.64	-0.39	53.00	-0.71	-0.43
RKAPVQ		52.75	-0.89	-0.54	53.20	-0.51	-0.31
RNANJV		53.00	-0.64	-0.39	53.50	-0.21	-0.13
RSYJHU		55.00	1.36	0.84	55.00	1.29	0.79
RUCUYX		53.05	-0.59	-0.36	53.05	-0.66	-0.40
S11T9W		52.75	-0.89	-0.54	52.40	-1.31	-0.80
S99VJG		55.00	1.36	0.84	55.50	1.79	1.09
SG1E9Y		54.60	0.96	0.59	54.55	0.84	0.51
STV48Q	X	47.95	-5.69	-3.49	48.20	-5.51	-3.35
SWZ5HH		54.00	0.36	0.22	54.25	0.54	0.33
TBAPRE	X	60.00	6.36	3.91	60.00	6.29	3.83
TQEJ9M		52.40	-1.24	-0.76	52.00	-1.71	-1.04
TUDXVT		53.00	-0.64	-0.39	53.00	-0.71	-0.43
U6UU18		52.00	-1.64	-1.01	52.25	-1.46	-0.89
UKQTR5		53.25	-0.39	-0.24	53.75	0.04	0.03
VFDTK6		52.40	-1.24	-0.76	53.05	-0.66	-0.40
VLEHBK		56.00	2.36	1.45	56.00	2.29	1.40
VSSLUD		50.50	-3.14	-1.93	51.00	-2.71	-1.65
VYUQR4		55.50	1.86	1.15	55.50	1.79	1.09
WBKW9S		54.20	0.56	0.35	54.15	0.44	0.27
WEUJWX		54.70	1.06	0.65	55.20	1.49	0.91

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample C61-C62			Sample C63-C64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
WRDD9W		55.00	1.36	0.84	54.50	0.79	0.48
WX84BF		53.65	0.01	0.01	53.85	0.14	0.09
X3A2AY		53.50	-0.14	-0.08	53.50	-0.21	-0.13
X6J4HE		53.50	-0.14	-0.08	53.25	-0.46	-0.28
Y5ZJAW		55.00	1.36	0.84	55.00	1.29	0.79
Y823D4		51.50	-2.14	-1.31	51.00	-2.71	-1.65
YE8PAD	X	53.35	-0.29	-0.18	51.05	-2.66	-1.62
YG6QWX	*	56.50	2.86	1.76	57.50	3.79	2.31
YM6RJX		53.00	-0.64	-0.39	53.00	-0.71	-0.43
YX24D4		55.00	1.36	0.84	55.00	1.29	0.79
Z3QDBN	*	51.50	-2.14	-1.31	52.50	-1.21	-0.74
ZUV118		56.00	2.36	1.45	56.50	2.79	1.70

Summary Statistics

Grand Means

53.636 Type A

53.707 Type A

Std Dev Btwn Labs

1.627 Type A

1.642 Type A

Statistics based on 110 of 117 reporting participants

Samples C61-C62: Polyisoprene compound, batch #1 & C63-C64: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #620

8YDC3E (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within both sample sets.

DNC6SH (X) - Data for all Samples are low. Also inconsistent in testing within both sample sets.

LC2FNU (X) - Inconsistency in testing between Sample sets. Data for Sample Sets C61-C62 are low.

PC36N2 (X) - Data for all Samples are low. Possible Systematic Error.

STV48Q (X) - Data for all Samples are low. Possible Systematic Error.

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

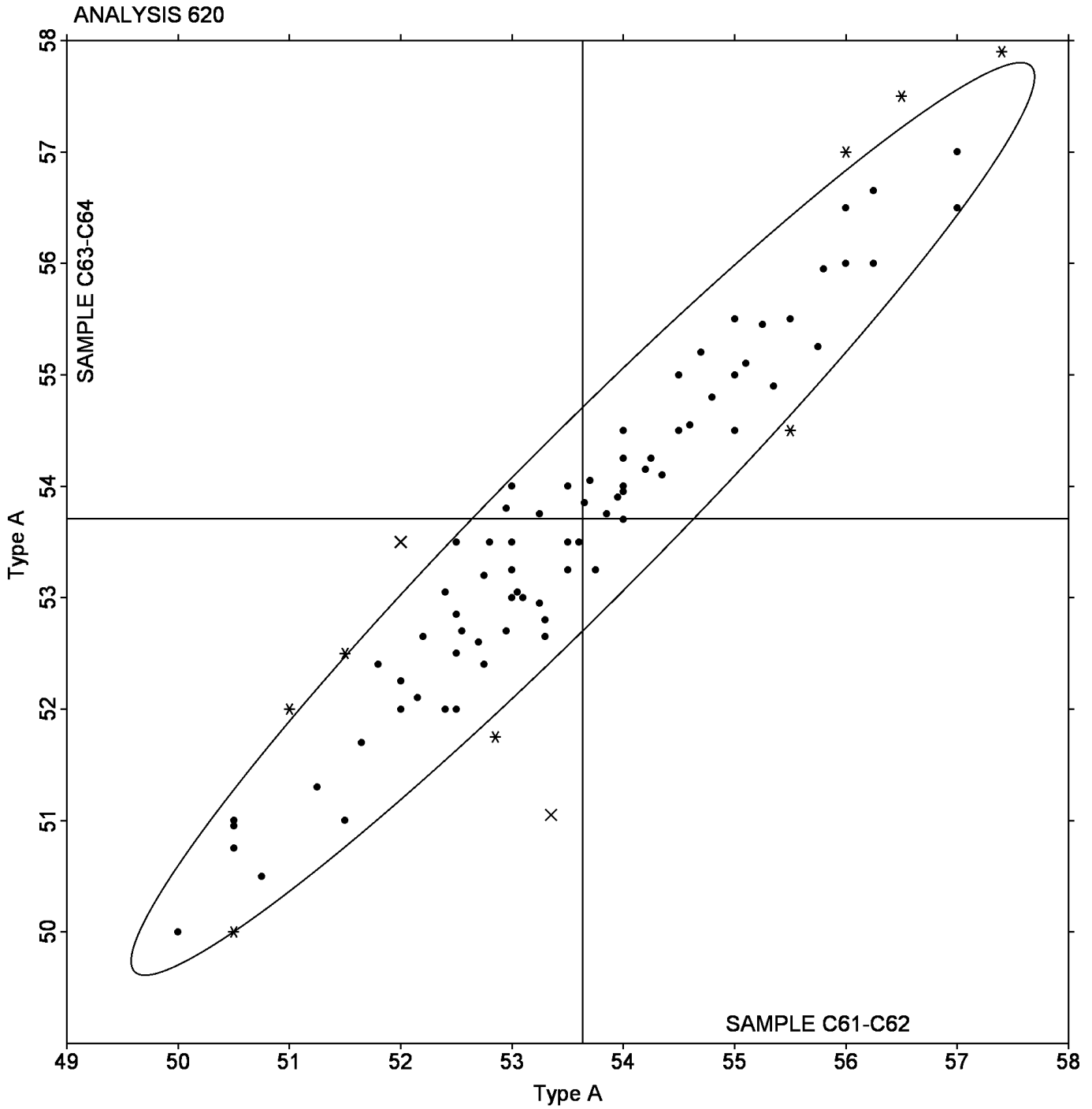
YE8PAD (X) - Inconsistency in testing between Sample sets.

Analysis 620

Hardness (Shore A/Type A)

Grand Mean Sample C61-C62 = 53.636 Type A

Grand Mean Sample C63-C64 = 53.707 Type A



Analysis 630

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

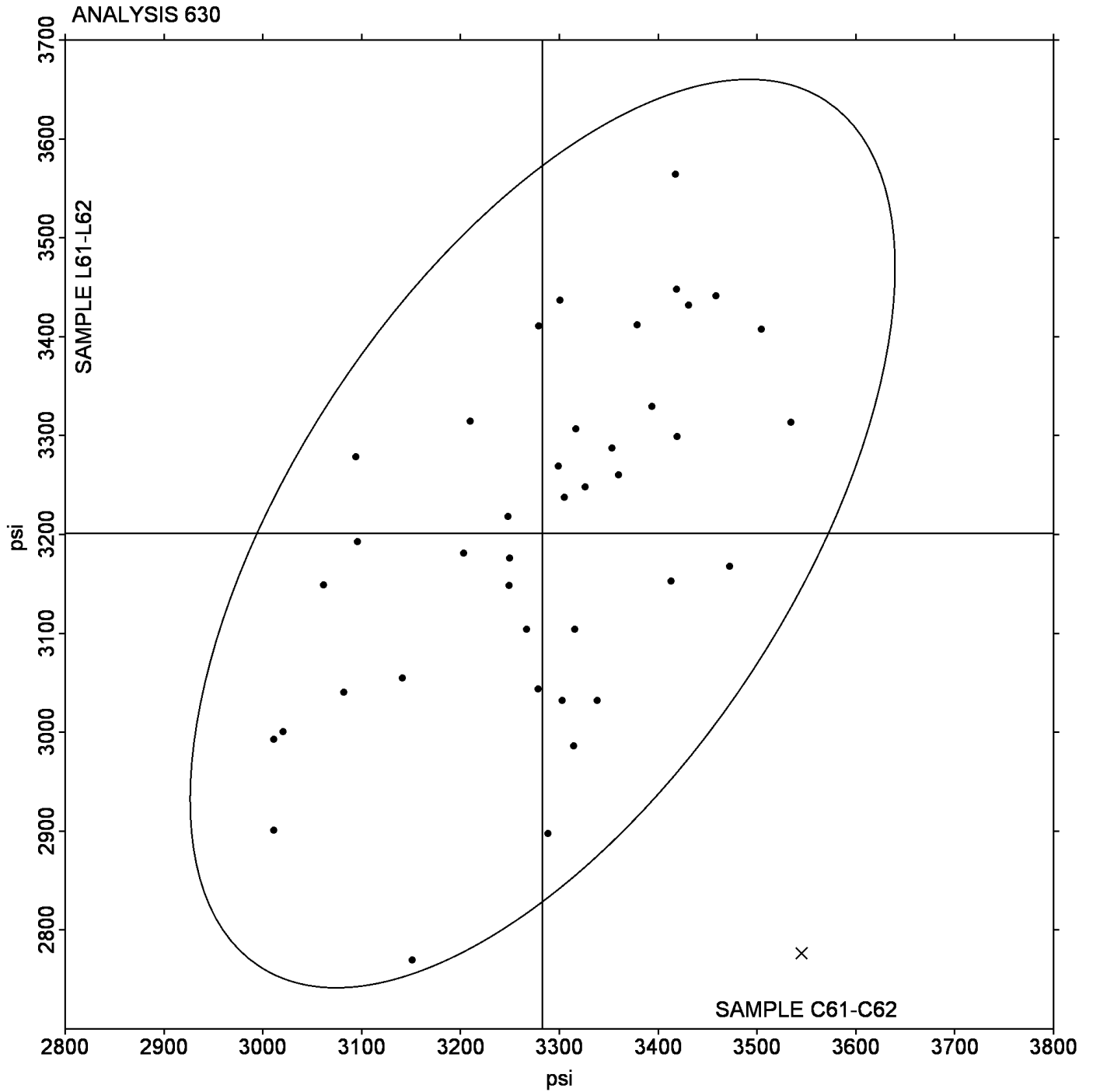
WebCode	Data Flag	Sample C61-C62			Sample L61-L62		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
1ZJZZV		3,299.0	16.0	0.12	3,269.0	68.1	0.38
4MTPD7		3,458.5	175.5	1.27	3,441.0	240.1	1.35
5L2PAU		3,360.3	77.2	0.56	3,259.8	58.9	0.33
5VUZ33		3,250.0	-33.0	-0.24	3,176.0	-24.9	-0.14
64B47E		3,338.6	55.5	0.40	3,031.8	-169.1	-0.95
6S168Y		3,472.5	189.5	1.37	3,167.5	-33.4	-0.19
6YD2T8		3,317.0	34.0	0.25	3,306.5	105.6	0.59
7FN9V7		3,141.3	-141.8	-1.03	3,054.5	-146.4	-0.82
ADG6CE		3,315.6	32.6	0.24	3,103.8	-97.1	-0.55
B2387B		3,061.5	-221.5	-1.60	3,149.0	-51.9	-0.29
BL4E5J		3,011.0	-272.0	-1.97	2,900.8	-300.1	-1.69
BQAT82		3,413.5	130.5	0.94	3,152.5	-48.4	-0.27
BXCPL8		3,151.5	-131.5	-0.95	2,769.5	-431.4	-2.42
CAVSBD		3,095.8	-187.3	-1.36	3,192.7	-8.2	-0.05
CGLCKB		3,431.0	148.0	1.07	3,431.5	230.6	1.30
CHXHW9		3,020.7	-262.4	-1.90	3,000.6	-200.3	-1.13
DEMGBF		3,504.8	221.7	1.60	3,407.6	206.7	1.16
DNNJZE		3,305.5	22.5	0.16	3,237.5	36.6	0.21
GPGMPE		3,394.0	111.0	0.80	3,329.5	128.6	0.72
GWXFPG		3,378.7	95.7	0.69	3,412.0	211.1	1.19
J6VT2M		3,314.5	31.5	0.23	2,986.0	-214.9	-1.21
KCYS9U		3,203.5	-79.5	-0.58	3,181.0	-19.9	-0.11
KETTGR		3,417.5	134.5	0.97	3,564.0	363.1	2.04
KPDPAS		3,249.5	-33.5	-0.24	3,148.5	-52.4	-0.29
KSJK4H		3,210.0	-73.1	-0.53	3,314.2	113.3	0.64
LF2VSB		3,419.5	136.5	0.99	3,299.0	98.1	0.55
M8QTNL	X	3,545.2	262.1	1.90	2,776.5	-424.4	-2.39
MU684U		3,534.5	251.5	1.82	3,313.5	112.6	0.63
Q87LN9		3,248.5	-34.6	-0.25	3,218.2	17.3	0.10
QJVZ2J		3,011.5	-271.5	-1.97	2,992.5	-208.4	-1.17
R1P2YN		3,267.0	-16.0	-0.12	3,103.8	-97.1	-0.55
UMBY42		3,418.5	135.5	0.98	3,448.0	247.1	1.39
UZLFXS		3,279.0	-4.0	-0.03	3,410.5	209.6	1.18
V6B16S		3,353.4	70.4	0.51	3,287.2	86.3	0.48
VE8G2U		3,278.6	-4.4	-0.03	3,043.6	-157.2	-0.88

Analysis 630

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

Grand Mean Sample C61-C62 = 3,283.03 psi

Grand Mean Sample L61-L62 = 3,200.89 psi



Analysis 631

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

WebCode	Data Flag	Sample C61-C62			Sample L61-L62		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
1AZSH3		574.5	-0.6	-0.03	577.0	-7.7	-0.31
1HY7EV		584.0	8.9	0.41	593.0	8.3	0.33
1J4KE4		572.5	-2.6	-0.12	582.5	-2.2	-0.09
2UED34		596.5	21.4	0.99	608.0	23.3	0.94
2XH1UM		545.1	-29.9	-1.38	562.8	-21.9	-0.88
48RD65		618.5	43.5	2.01	640.6	56.0	2.25
4AVB8L		559.5	-15.6	-0.72	581.5	-3.2	-0.13
4HTCH7		603.0	27.9	1.29	609.0	24.3	0.98
4Y7XMB		604.5	29.4	1.36	622.5	37.8	1.52
5HUZQS		578.5	3.4	0.16	582.0	-2.7	-0.11
6SWKK5		562.0	-13.1	-0.60	572.5	-12.2	-0.49
6U6NDG		555.5	-19.6	-0.91	591.5	6.8	0.27
71559S		558.0	-17.1	-0.79	580.5	-4.2	-0.17
83LCWM		564.9	-10.2	-0.47	553.6	-31.1	-1.25
981HMZ		566.5	-8.6	-0.40	570.5	-14.2	-0.57
9UX9R4		547.3	-27.8	-1.29	568.0	-16.7	-0.67
BUVXN6		584.0	8.9	0.41	576.5	-8.2	-0.33
DPGZUH		572.0	-3.1	-0.14	572.5	-12.2	-0.49
EZYB7L		552.0	-23.1	-1.07	554.5	-30.2	-1.22
GSX5TG		597.1	22.0	1.02	617.4	32.7	1.31
HHDMXU	X	501.7	-73.4	-3.39	542.9	-41.8	-1.68
JT9522		545.4	-29.7	-1.37	548.0	-36.7	-1.48
K3FPAV		585.0	9.9	0.46	584.0	-0.7	-0.03
ND4STD		613.5	38.5	1.78	638.0	53.3	2.15
NKWPXW		585.0	9.9	0.46	613.5	28.8	1.16
PHXCN2		606.6	31.5	1.46	630.2	45.5	1.83
PK836K		586.5	11.4	0.53	583.0	-1.7	-0.07
PN8293		602.5	27.4	1.27	600.0	15.3	0.62
PSN439		546.5	-28.6	-1.32	545.5	-39.2	-1.58
QLD4EW		568.5	-6.6	-0.30	566.0	-18.7	-0.75
R1HQPR		578.0	2.9	0.14	593.5	8.8	0.35
RP2BHD		575.5	0.4	0.02	575.0	-9.7	-0.39
T4X7JK		577.0	1.9	0.09	571.2	-13.5	-0.55
TGM2ZM		600.2	25.1	1.16	610.2	25.5	1.02
TNN2U2		575.9	0.9	0.04	573.4	-11.3	-0.46

**Rubber Interlaboratory Testing Program
Analysis 631**

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

WebCode	Data Flag	Sample C61-C62			Sample L61-L62		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
UKM4BM		562.0	-13.1	-0.60	566.0	-18.7	-0.75
UVEZNU		574.5	-0.6	-0.03	580.5	-4.2	-0.17
VYEBDU	*	539.5	-35.6	-1.64	575.5	-9.2	-0.37
WAW43F		578.0	2.9	0.14	585.5	0.8	0.03
WB5A9P		523.5	-51.6	-2.38	531.5	-53.2	-2.14
WF8ECH		583.5	8.4	0.39	601.0	16.3	0.66

		Summary Statistics	
Grand Means			
	575.08 percent		584.69 percent
Std Dev Btwn Labs			
	21.63 percent		24.84 percent
Statistics based on 40 of 41 reporting participants			

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #631

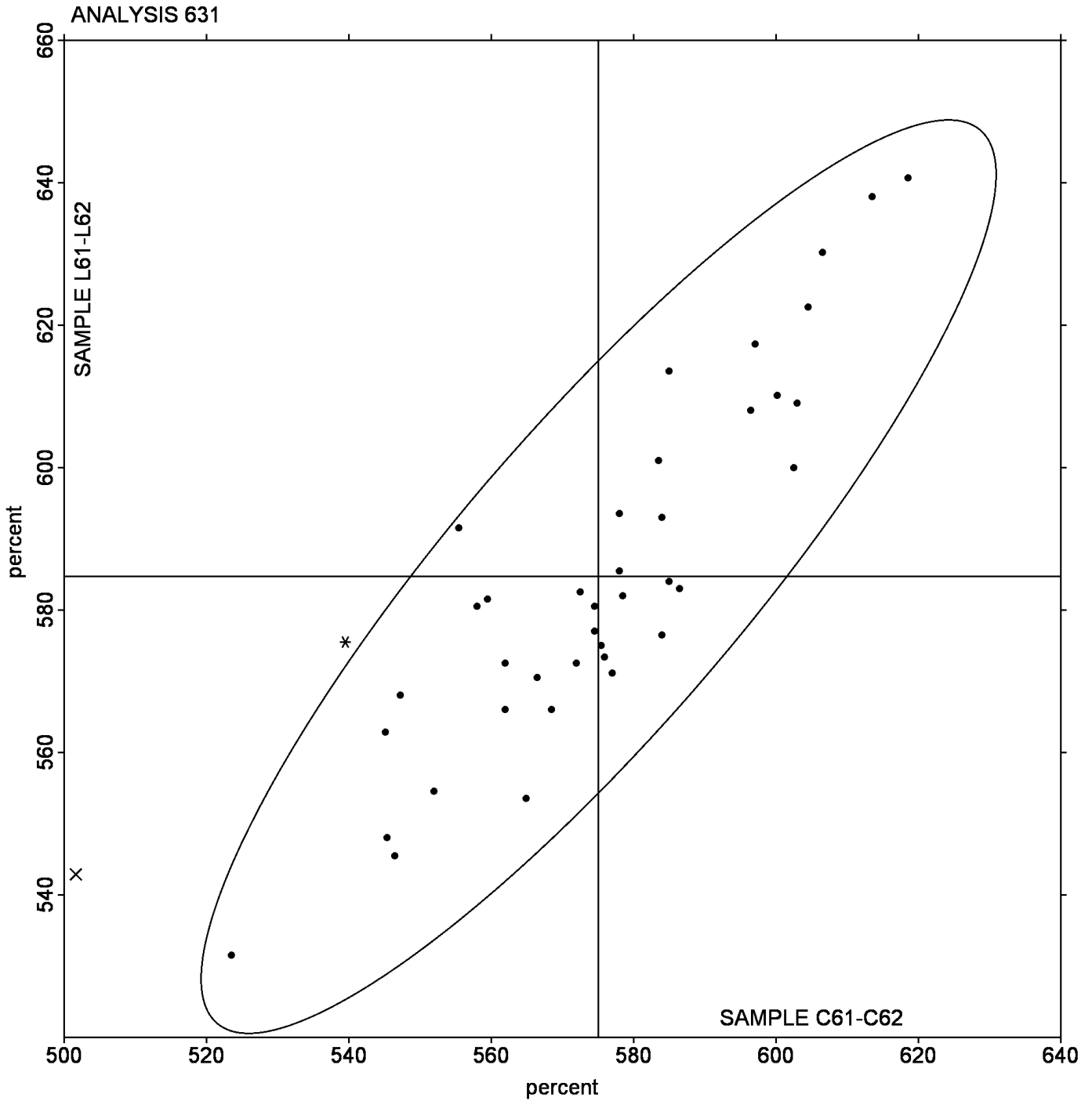
HHDMXU (X) - Inconsistency in testing between Sample sets. Data for Sample Sets C61-C62 are low.

Analysis 631

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

Grand Mean Sample C61-C62 = 575.08 percent

Grand Mean Sample L61-L62 = 584.69 percent



Analysis 632

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

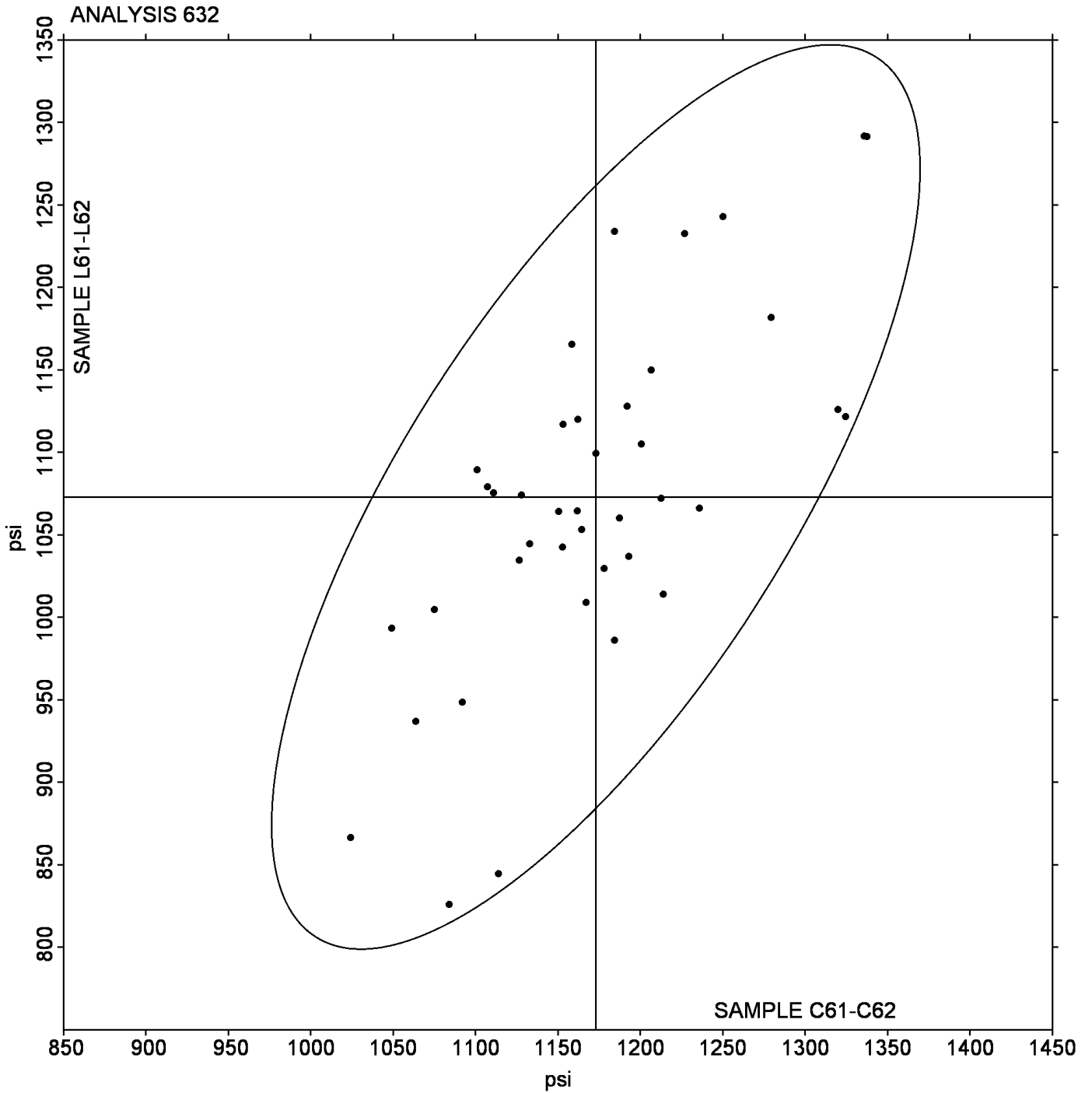
WebCode	Data Flag	Sample C61-C62			Sample L61-L62		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2ARD97		1,184.5	11.6	0.15	1,234.0	161.0	1.52
2XQ3XZ		1,049.3	-123.6	-1.62	993.3	-79.7	-0.75
4W5KX5		1,227.0	54.1	0.71	1,232.5	159.5	1.50
568ZGJ		1,324.7	151.8	1.99	1,121.7	48.6	0.46
6477EQ		1,178.0	5.1	0.07	1,029.5	-43.5	-0.41
71W8EU		1,150.5	-22.4	-0.29	1,064.0	-9.0	-0.09
78SN72		1,111.0	-61.9	-0.81	1,075.5	2.5	0.02
8NTHGF		1,279.5	106.5	1.40	1,181.9	108.8	1.02
BGHCLJ		1,200.7	27.8	0.36	1,105.0	31.9	0.30
BTR53X		1,084.2	-88.8	-1.16	825.9	-247.1	-2.33
BYSHA2		1,162.0	-10.9	-0.14	1,120.0	47.0	0.44
CDWYT3		1,092.0	-80.9	-1.06	948.5	-124.5	-1.17
CEQT9L		1,161.8	-11.1	-0.15	1,064.6	-8.5	-0.08
CWRK7E		1,214.0	41.1	0.54	1,013.8	-59.2	-0.56
D3MLJ7		1,114.0	-58.9	-0.77	844.5	-228.5	-2.15
D81L8R		1,187.5	14.6	0.19	1,060.0	-13.0	-0.12
DUZWCS		1,184.5	11.6	0.15	986.0	-87.0	-0.82
E9P8DY		1,164.5	-8.4	-0.11	1,053.0	-20.0	-0.19
GK8RDW		1,126.5	-46.4	-0.61	1,034.4	-38.6	-0.36
H5T59X		1,063.9	-109.0	-1.43	937.0	-136.1	-1.28
K22JTC		1,206.5	33.6	0.44	1,150.0	77.0	0.72
K2GHVW		1,152.7	-20.2	-0.27	1,042.7	-30.4	-0.29
KD4W85		1,173.0	0.1	0.00	1,099.5	26.5	0.25
KRWSX5		1,236.0	63.1	0.83	1,066.1	-6.9	-0.07
LUY2R6		1,024.4	-148.5	-1.95	866.4	-206.7	-1.95
LX38BR		1,250.0	77.1	1.01	1,243.0	170.0	1.60
NLSVBM		1,075.0	-97.9	-1.28	1,004.5	-68.5	-0.65
PNPS79		1,337.5	164.6	2.16	1,291.5	218.5	2.06
Q4GMGE		1,167.0	-5.9	-0.08	1,009.0	-64.0	-0.60
R48PFU		1,320.0	147.1	1.93	1,126.0	53.0	0.50
R56192		1,101.0	-71.9	-0.94	1,089.5	16.5	0.15
S8YTZ5		1,158.5	-14.4	-0.19	1,165.5	92.5	0.87
SR7N3R		1,193.0	20.1	0.26	1,037.0	-36.0	-0.34
TAF1GY		1,212.7	39.8	0.52	1,072.2	-0.8	-0.01
TNFF6N		1,192.0	19.1	0.25	1,128.0	55.0	0.52

Analysis 632

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

Grand Mean Sample C61-C62 = 1,172.91 psi

Grand Mean Sample L61-L62 = 1,073.05 psi



Analysis 633

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

WebCode	Data Flag	Sample C61-C62			Sample L61-L62		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
16QXXK		238.5	-15.4	-1.22	193.0	-53.0	-2.48
5WXXWH	*	290.6	36.7	2.89	263.4	17.3	0.81
6C3KY4		250.5	-3.4	-0.27	270.0	24.0	1.12
6D1HJY		269.0	15.1	1.19	293.0	46.9	2.19
7BA9YF	*	282.5	28.6	2.25	247.0	1.0	0.04
7GEBL4		248.6	-5.3	-0.42	198.5	-47.5	-2.22
8W7FDX		231.0	-22.9	-1.81	220.5	-25.5	-1.19
8ZTV6D		258.8	4.9	0.38	250.0	3.9	0.18
ARF36E		246.0	-7.9	-0.63	242.3	-3.8	-0.18
BD7NL3		245.0	-9.0	-0.71	235.5	-10.5	-0.49
BGS4X2	X	334.5	80.6	6.35	351.5	105.5	4.93
C2V7GP		248.0	-5.9	-0.47	240.5	-5.5	-0.26
DTJP1J		251.0	-2.9	-0.23	237.5	-8.5	-0.40
DUBT5Q		259.0	5.1	0.40	234.5	-11.5	-0.54
DZGPQJ		261.5	7.6	0.60	271.0	25.0	1.17
DZZNVW		242.5	-11.4	-0.90	251.5	5.5	0.25
F13X3J		271.5	17.6	1.38	273.0	27.0	1.26
FFZ442		237.1	-16.8	-1.33	223.4	-22.7	-1.06
FW4T1W		261.5	7.6	0.60	274.0	28.0	1.31
GSB5JC		245.0	-8.9	-0.71	260.5	14.5	0.68
JU143T	X	259.5	5.6	0.44	1,053.5	807.5	37.73
K33B4S		238.5	-15.4	-1.22	234.0	-12.0	-0.56
KGRB37		254.5	0.6	0.05	226.3	-19.8	-0.92
KNXG16		267.5	13.5	1.07	247.5	1.4	0.07
LC5ETJ		237.8	-16.2	-1.28	245.0	-1.0	-0.05
LJ3U7A		246.6	-7.4	-0.58	239.3	-6.7	-0.31
LU2YBW		251.8	-2.2	-0.17	243.7	-2.3	-0.11
N4EXNK		248.5	-5.4	-0.43	214.0	-32.0	-1.50
QR2FYC		247.3	-6.6	-0.52	243.9	-2.1	-0.10
SKF4AN		260.0	6.1	0.48	262.5	16.5	0.77
STHG64		255.0	1.1	0.08	235.0	-11.0	-0.52
SVE6SR		245.0	-8.9	-0.71	241.5	-4.5	-0.21
SZNRD5		248.0	-5.9	-0.47	268.5	22.5	1.05
TK9JDY		247.8	-6.2	-0.48	224.7	-21.4	-1.00
V18N8E		275.0	21.1	1.66	284.0	38.0	1.77

Rubber Interlaboratory Testing Program Analysis 633

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

WebCode	Data Flag	Sample C61-C62			Sample L61-L62		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
V45WC4		247.3	-6.7	-0.52	247.3	1.2	0.06
W4JK5G		264.5	10.6	0.83	263.0	17.0	0.79
X32X3S		264.0	10.1	0.79	257.5	11.5	0.54
XAZMQQ		261.5	7.6	0.60	261.5	15.5	0.72
XMUWEK		253.0	-0.9	-0.07	230.5	-15.5	-0.73
Z1RH3S		252.8	-1.1	-0.09	247.2	1.2	0.05

Summary Statistics

Grand Means

253.95 psi

246.05 psi

Std Dev Btwn Labs

12.68 psi

21.40 psi

Statistics based on 39 of 41 reporting participants

Summary Statistics in SI Units

Grand Means

1.7509 MPa

1.70 MPa

Std Dev Btwn Labs

0.0874 MPa

0.15 MPa

Statistics based on 39 of 41 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #633

BGS4X2 (X) - Data for all Samples are high.

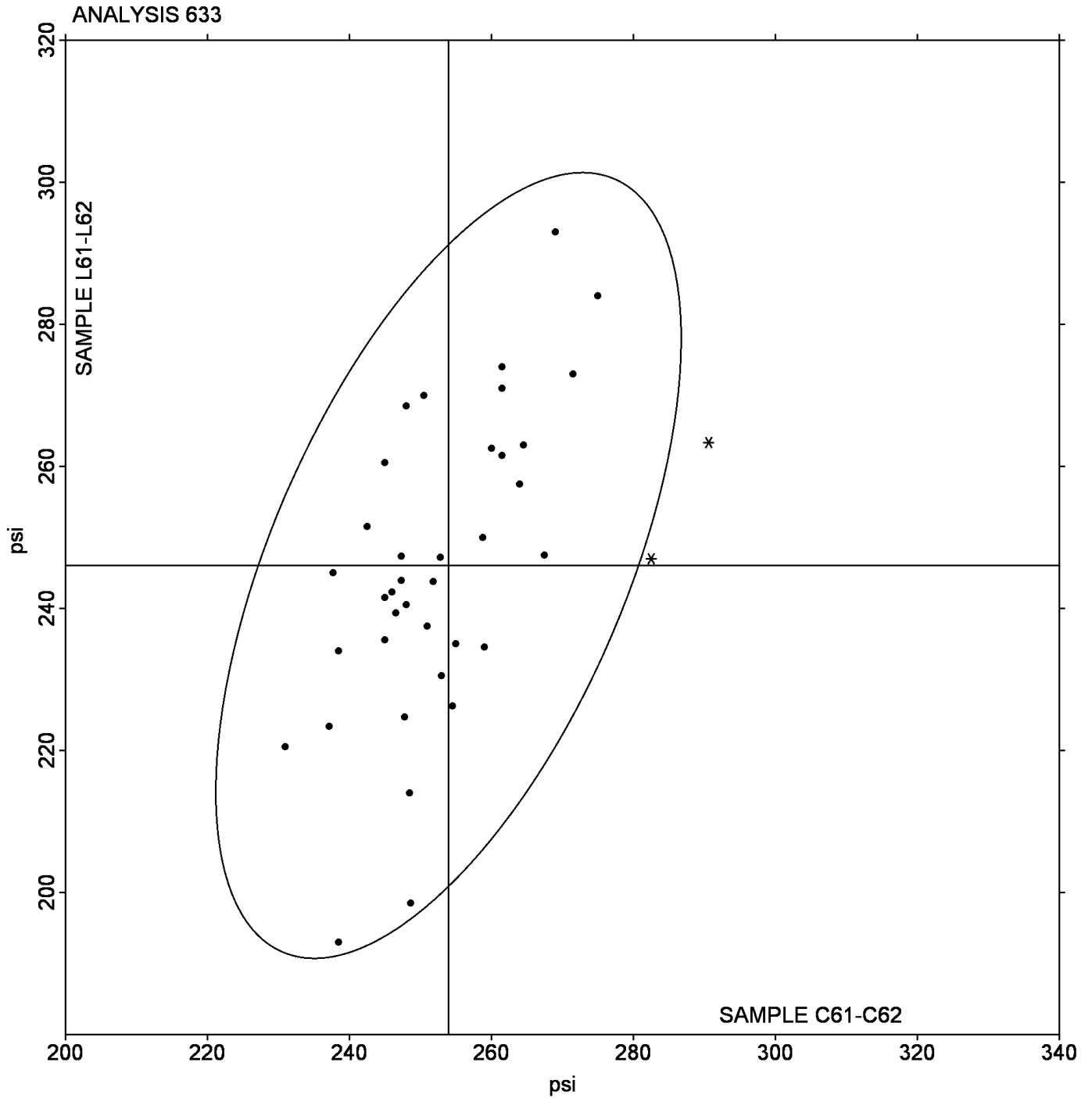
JU143T (X) - Inconsistency in testing between Sample sets. Data for Sample Sets L61-L62 are high. Data appear to have been transposed with test 632.

Analysis 633

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

Grand Mean Sample C61-C62 = 253.95 psi

Grand Mean Sample L61-L62 = 246.05 psi



Rubber Interlaboratory Testing Program

Analysis 660

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

WebCode	Data Flag	Sample U61-U62			Sample U63-U64			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1DC28E		49.78	1.11	1.29	47.21	1.53	1.56	TV
27TSNW	X	46.10	-2.57	-3.00	46.15	0.47	0.48	MR
2L7GLS		49.55	0.88	1.03	46.67	0.99	1.01	MR
2SJA4W		48.17	-0.50	-0.59	45.10	-0.58	-0.59	MR
336Y38		46.70	-1.97	-2.30	43.48	-2.19	-2.24	MM
3MKCVP		49.50	0.83	0.97	46.92	1.24	1.26	TV
6593T8		47.91	-0.76	-0.89	44.99	-0.69	-0.71	MP
72V71N	*	48.23	-0.44	-0.51	44.32	-1.36	-1.39	MR
7A214N		47.87	-0.80	-0.94	45.12	-0.56	-0.57	MR
7J6NMH		50.12	1.45	1.69	47.20	1.52	1.55	MR
8YJHSN		48.35	-0.32	-0.37	45.22	-0.46	-0.47	MR
AHAYDW	*	50.98	2.31	2.70	47.98	2.31	2.35	MM
AZ9DB2		47.35	-1.32	-1.54	44.13	-1.54	-1.57	MR
CDKQS1		49.20	0.53	0.62	45.98	0.31	0.31	MM
CWXDA		48.40	-0.27	-0.31	45.65	-0.03	-0.03	MR
DRFYQV		48.73	0.06	0.08	45.82	0.14	0.14	MR
ER3F3X		49.13	0.46	0.54	45.97	0.29	0.30	MR
ESTPPS		48.42	-0.25	-0.29	45.67	-0.01	-0.01	MP
F7VGM8	*	49.19	0.52	0.61	45.28	-0.40	-0.40	MP
GEJ5PG	X	46.13	-2.54	-2.96	45.12	-0.56	-0.57	MR
GM549N		48.40	-0.27	-0.31	45.60	-0.08	-0.08	MM
GRD6YJ		48.72	0.05	0.06	45.97	0.29	0.30	MR
JXV96X		48.00	-0.67	-0.78	45.30	-0.38	-0.38	MR
KDRZ77		47.76	-0.91	-1.06	44.90	-0.78	-0.79	MR
LE8197		48.65	-0.02	-0.02	45.38	-0.29	-0.30	MR
LNZ9P4	X	46.85	-1.82	-2.12	45.20	-0.48	-0.49	MR
LXV8Q3		49.50	0.83	0.97	46.62	0.94	0.96	TV
M5A67X		49.57	0.90	1.05	46.48	0.81	0.82	MR
NTPJB2		48.80	0.13	0.15	45.98	0.31	0.31	MR
P6Q5RP		47.95	-0.72	-0.84	45.05	-0.62	-0.64	TV
P7USZB		48.92	0.25	0.29	45.62	-0.06	-0.06	MR
PVN742	X	47.40	-1.27	-1.48	46.63	0.96	0.98	MR
PYMHZ2	X	48.17	-0.50	-0.59	46.82	1.14	1.16	MR
QPKLPD		49.20	0.53	0.62	47.05	1.37	1.40	MR
SCFNMA		48.22	-0.45	-0.53	45.05	-0.63	-0.64	MR

Analysis 660

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

WebCode	Data Flag	Sample U61-U62			Sample U63-U64			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
SK7EK3		47.65	-1.02	-1.19	44.53	-1.14	-1.17	MR
T5X5YP		48.67	0.00	0.00	45.67	-0.01	-0.01	MR
U7Y3VE		49.82	1.15	1.34	47.25	1.57	1.60	MR
UEZN7W		49.12	0.45	0.52	46.28	0.61	0.62	MR
UHH2EA		48.97	0.30	0.35	45.77	0.09	0.09	MR
V27MT8		48.82	0.15	0.17	45.53	-0.15	-0.15	MR
V7QGKR		48.77	0.10	0.11	46.00	0.32	0.33	MR
YDN8EJ		47.23	-1.44	-1.67	44.02	-1.66	-1.69	MR
YKQNDJ		47.78	-0.89	-1.04	44.66	-1.02	-1.04	MR
YVAZQY	X	51.20	2.53	2.95	47.47	1.79	1.83	MZ

Summary Statistics

Grand Means

48.668 ML 1 + 4

45.677 ML 1 + 4

Std Dev Btwn Labs

0.857 ML 1 + 4

0.980 ML 1 + 4

Statistics based on 39 of 45 reporting participants

Samples U61-U62: SBR & U63-U64: butyl

Comments on assigned Data Flags for Test #660

27TSNW (X) - Inconsistency in testing between Sample sets, data for Sample Sets U61-U62 are low. Also inconsistent in testing within both Sample Sets U61-U62.

GEJ5PG (X) - Inconsistency in testing between Sample sets. Data for Samples U62 are low.

LNZ9P4 (X) - Inconsistency in testing between Sample sets and within Sample Sets U63-U64.

PVN742 (X) - Inconsistency in testing between Sample sets and within Sample Sets U63-U64.

PYMHZ2 (X) - Inconsistency in testing between Sample sets and within Sample Sets U63-U64.

YVAZQY (X) - Inconsistency in testing between Sample sets, data for Sample Sets U61-U62 are high. Also inconsistent in testing within both sample sets.

Analysis 660

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

Instrument Code Listing

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

Instruments (as reported by the labs):

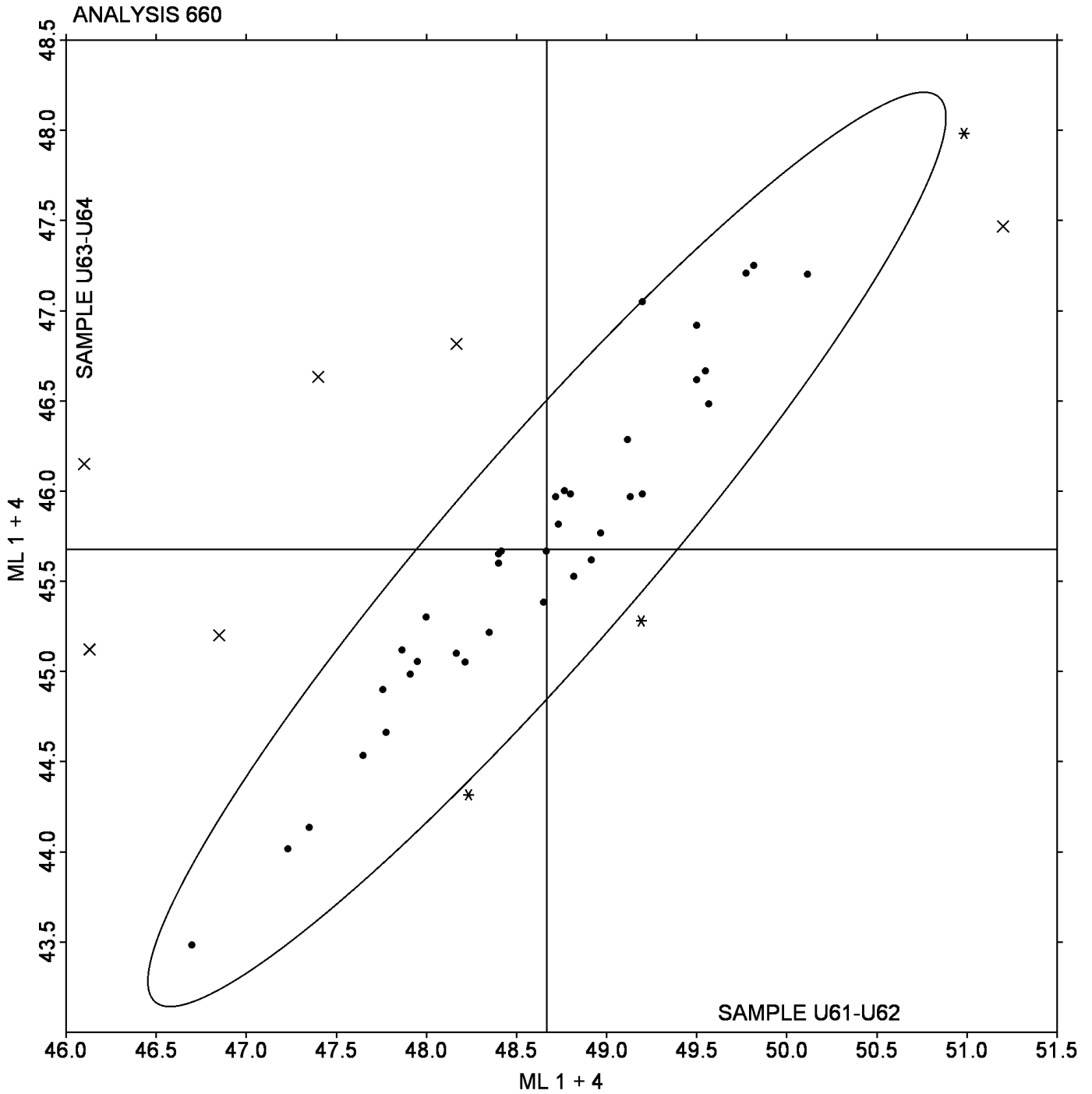
(ML) Alpha Technologies/Monsanto model not specified	(MM) Alpha Technologies Model 1xxx or OSM
(MP) Monsanto Compact Mooney Viscometer	(MR) Alpha Technologies Model MV2000/MV2000E
(MZ) Rebuilt Monsanto Mooney Viscometer	(SF) Scott STI (any model)
(TV) Tech Pro Visc Tech (any model)	(XA) Special In-House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

Analysis 660

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

Grand Mean Sample U61-U62 = 48.668 ML 1 + 4

Grand Mean Sample U63-U64 = 45.677 ML 1 + 4



Analysis 661

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

WebCode	Data Flag	Sample U61-U62			Sample U63-U64			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1HMK5P		48.80	0.31	0.28	44.57	0.60	0.53	MR
262LRB		49.20	0.71	0.65	44.03	0.07	0.06	MM
3ADHKZ		48.22	-0.28	-0.25	43.72	-0.25	-0.22	MR
3DD2QQ		48.65	0.16	0.14	43.42	-0.55	-0.48	MR
3JJXD6		46.13	-2.36	-2.16	43.91	-0.05	-0.04	MR
3SWTFR		47.78	-0.72	-0.66	42.83	-1.13	-1.00	MR
56D5FS		48.73	0.24	0.22	44.60	0.64	0.56	MR
63E3C2		48.42	-0.08	-0.07	43.43	-0.53	-0.47	MM
69ZAK8		49.78	1.28	1.17	45.51	1.55	1.36	TV
6L22T6		47.35	-1.14	-1.05	42.77	-1.20	-1.05	MR
6QD1V2		48.67	0.17	0.16	43.80	-0.16	-0.14	MR
7ZKFH6		47.95	-0.54	-0.50	43.54	-0.42	-0.37	TV
8M45B2		49.82	1.32	1.21	45.60	1.64	1.44	MR
8X49AP	*	46.10	-2.39	-2.19	44.72	0.75	0.66	MR
A9EVW2		49.13	0.64	0.59	44.30	0.34	0.30	MR
AR653G		47.76	-0.73	-0.67	43.37	-0.59	-0.52	MR
BHGK5P		48.72	0.22	0.20	44.37	0.40	0.36	MR
CLZ99E		48.17	-0.33	-0.30	45.85	1.89	1.66	MR
DSV84F		47.23	-1.26	-1.15	42.68	-1.28	-1.12	MR
E2LDSS		48.97	0.47	0.43	44.00	0.04	0.03	MR
EPUZDG		48.35	-0.14	-0.13	43.65	-0.31	-0.27	MR
F7QCKH		48.17	-0.33	-0.30	43.53	-0.43	-0.38	MR
HEE9CQ		51.20	2.71	2.48	45.52	1.55	1.37	MZ
KHEVL6		46.85	-1.64	-1.50	43.45	-0.51	-0.45	MR
KZZ2YA		47.87	-0.63	-0.57	43.63	-0.33	-0.29	MR
LCBNBU		47.91	-0.58	-0.53	42.73	-1.23	-1.08	TV
LJUJU5		48.92	0.42	0.39	43.85	-0.11	-0.10	MR
LKWJDK		48.82	0.32	0.30	44.06	0.09	0.08	MR
LQPSVV		48.40	-0.09	-0.09	42.33	-1.63	-1.43	MM
LSL26Q	*	46.70	-1.79	-1.64	40.90	-3.06	-2.69	MM
LXG713		50.12	1.62	1.48	44.98	1.02	0.90	MR
QLUD7X		48.40	-0.09	-0.09	44.25	0.29	0.25	MR
R7EZVW	*	49.19	0.70	0.64	41.76	-2.20	-1.94	ML
RP6DBV		48.77	0.27	0.25	44.15	0.19	0.16	MR
TZ7UZZ		49.20	0.71	0.65	45.57	1.60	1.41	MR

Analysis 661

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

WebCode	Data Flag	Sample U61-U62			Sample U63-U64			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
U6F5A3		47.65	-0.84	-0.77	42.75	-1.21	-1.07	MR
V9JUAV	*	47.40	-1.09	-1.00	46.05	2.09	1.84	MR
WDAWSX		49.55	1.06	0.97	44.90	0.94	0.82	MR
XGGJAJ		48.00	-0.49	-0.45	43.75	-0.21	-0.19	MR
YE9CVX		48.23	-0.26	-0.24	42.48	-1.48	-1.30	MR
Z5G3M7		50.98	2.49	2.28	45.77	1.80	1.59	MM
ZHD2VR		49.50	1.01	0.92	44.90	0.94	0.82	TV
ZZL2YT		49.50	1.01	0.92	44.41	0.45	0.39	TV

Summary Statistics

Grand Means

48.494 ML

43.963 ML

Std Dev Btwn Labs

1.093 ML

1.137 ML

Statistics based on 43 of 43 reporting participants

Please refer to the sample information provided for Analysis 660.

Instrument Code Listing

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

Instruments (as reported by the labs):

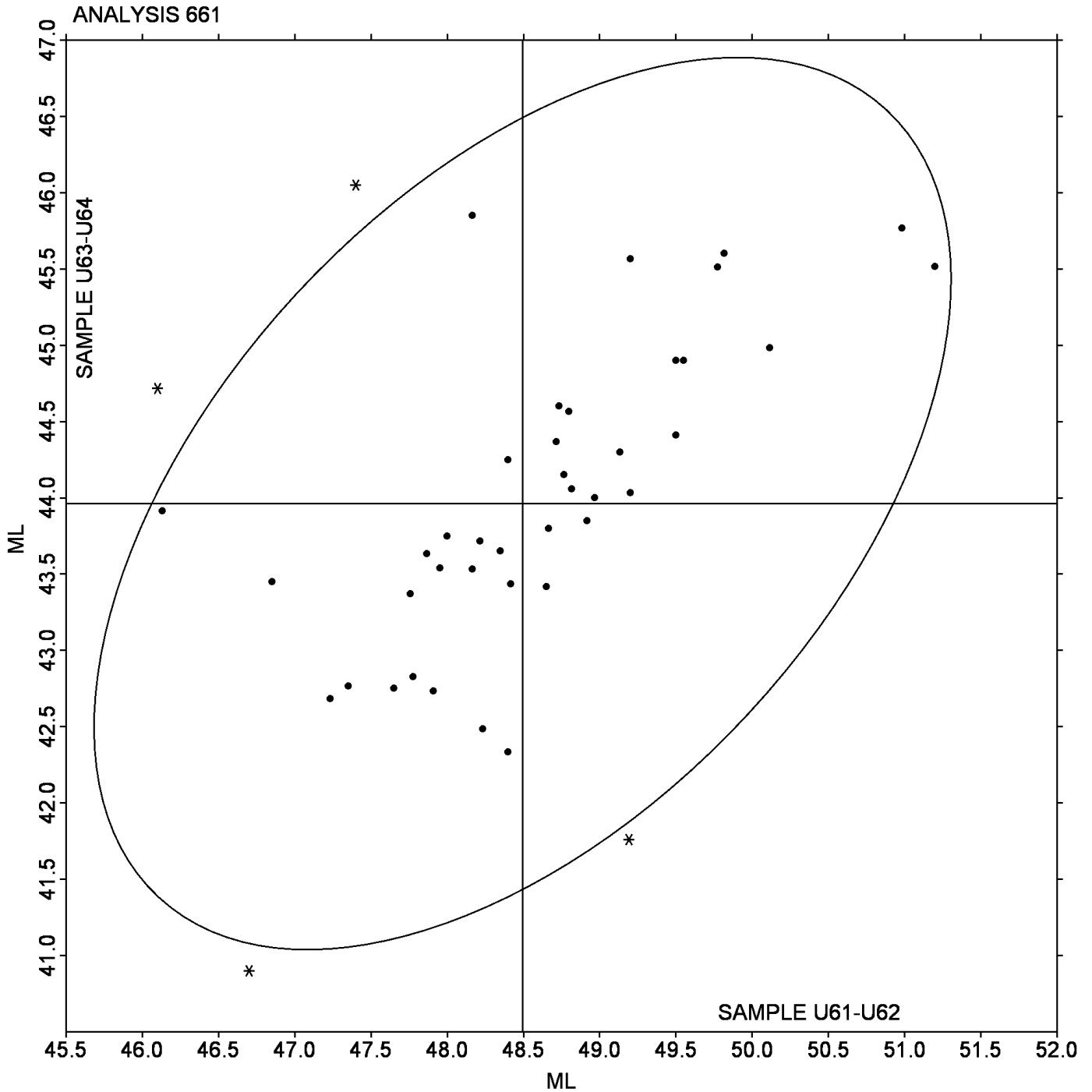
- | | |
|--|--|
| (ML) Alpha Technologies/Monsanto model not specified | (MM) Alpha Technologies Model 1xxx or OSM |
| (MP) Monsanto Compact Mooney Viscometer | (MR) Alpha Technologies Model MV2000/MV2000E |
| (MZ) Rebuilt Monsanto Mooney Viscometer | (SF) Scott STI (any model) |
| (TV) Tech Pro Visc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

Analysis 661

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

Grand Mean Sample U61-U62 = 48.494 ML

Grand Mean Sample U63-U64 = 43.963 ML



Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample Y61-Y62			Sample Y63-Y64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2TUCQT		1.298	-0.079	-0.49	2.070	-0.368	-0.86
476Y3C		1.390	0.013	0.08	3.108	0.670	1.57
4GWWBB	X	2.438	1.061	6.66	5.280	2.842	6.67
5TUE1Q		1.537	0.160	1.00	3.122	0.683	1.60
7F3Y91		1.317	-0.060	-0.38	2.737	0.298	0.70
7QVSN6		1.412	0.035	0.22	2.130	-0.308	-0.72
A8HBZ1		1.305	-0.072	-0.45	1.892	-0.547	-1.28
C7H4ZM	*	0.917	-0.460	-2.89	1.375	-1.063	-2.49
FWAUBY		1.557	0.180	1.13	2.402	-0.037	-0.09
HTTN69		1.255	-0.122	-0.77	2.543	0.105	0.25
J3WFFH		1.555	0.178	1.12	2.565	0.127	0.30
JZSSY5		1.468	0.091	0.57	2.168	-0.270	-0.63
PSERD4		1.329	-0.049	-0.30	2.440	0.002	0.00
QN6Y8H		1.400	0.023	0.14	2.750	0.312	0.73
SF677U		1.282	-0.095	-0.60	2.405	-0.033	-0.08
T1DAXF		1.250	-0.127	-0.80	2.393	-0.045	-0.11
TBVYQV		1.478	0.101	0.64	2.328	-0.110	-0.26
V2G5JK		1.467	0.090	0.56	3.047	0.608	1.43
XJZ7MW		1.633	0.256	1.61	2.525	0.087	0.20
Z1T898		1.315	-0.062	-0.39	2.327	-0.112	-0.26

Summary Statistics

Grand Means

1.3770 minutes

2.4382 minutes

Std Dev Btwn Labs

0.1593 minutes

0.4261 minutes

Statistics based on 19 of 20 reporting participants

Samples Y61-Y62: EPDM compound #1 & Y63-Y64: EPDM compound #2

Comments on assigned Data Flags for Test #669

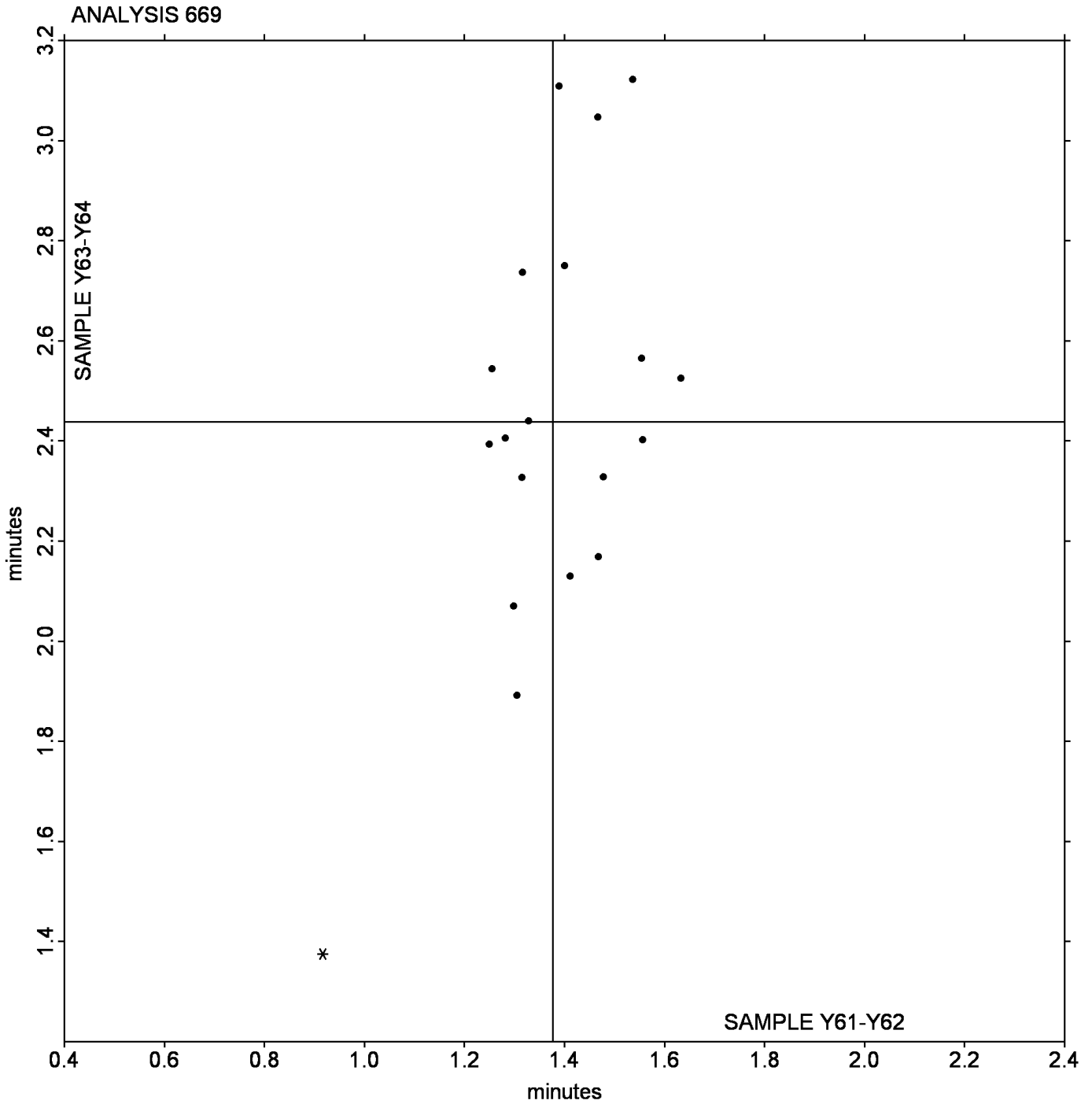
4GWWBB (X) - Data for all Samples are high.

Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample Y61-Y62 = 1.3770 minutes

Grand Mean Sample Y63-Y64 = 2.4382 minutes



Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample Y61-Y62			Sample Y63-Y64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
14NK9C		1.163	0.115	0.94	1.730	-0.251	-0.57
2GVP86		0.998	-0.050	-0.41	1.948	-0.033	-0.07
3C4Z25		1.133	0.085	0.70	2.633	0.652	1.49
4JSY8X		1.023	-0.025	-0.20	2.203	0.222	0.51
4KVCMM	*	0.672	-0.377	-3.08	1.112	-0.869	-1.99
4X24SK		1.075	0.027	0.22	1.725	-0.256	-0.58
5XVWGB		1.073	0.025	0.20	2.860	0.879	2.01
6UHL76		0.830	-0.218	-1.78	1.500	-0.481	-1.10
8QC1BY		0.973	-0.075	-0.61	1.570	-0.411	-0.94
8ZZQX5		1.178	0.130	1.06	1.913	-0.068	-0.15
9CJ4N5		1.100	0.052	0.42	1.890	-0.091	-0.21
A8W8GJ		1.208	0.160	1.31	1.923	-0.058	-0.13
ABBF96		1.132	0.083	0.68	2.693	0.712	1.63
CX6XVB		1.090	0.042	0.34	1.657	-0.324	-0.74
DBQ6LV		0.963	-0.085	-0.69	2.312	0.331	0.76
GXUTMT		0.957	-0.092	-0.75	1.378	-0.603	-1.38
KNAM5G		1.212	0.163	1.34	2.082	0.101	0.23
MNQQS7		1.157	0.108	0.89	2.795	0.814	1.86
N4YCW1		1.117	0.068	0.56	1.860	-0.121	-0.28
RHBPBQ		1.208	0.160	1.31	2.272	0.291	0.66
TA5PIL		1.050	0.002	0.01	2.367	0.386	0.88
UTYRCF		0.943	-0.105	-0.86	2.072	0.091	0.21
W443AQ		1.073	0.025	0.20	1.805	-0.176	-0.40
WCEYAV		0.920	-0.128	-1.05	2.052	0.071	0.16
WHCMMG		1.030	-0.018	-0.15	1.530	-0.451	-1.03
WHR8ZX		1.003	-0.046	-0.37	2.047	0.066	0.15
XEKFVP		1.020	-0.028	-0.23	1.558	-0.423	-0.97

Summary Statistics

Grand Means

1.0482 minutes

1.9810 minutes

Std Dev Btwn Labs

0.1224 minutes

0.4379 minutes

Statistics based on 27 of 27 reporting participants

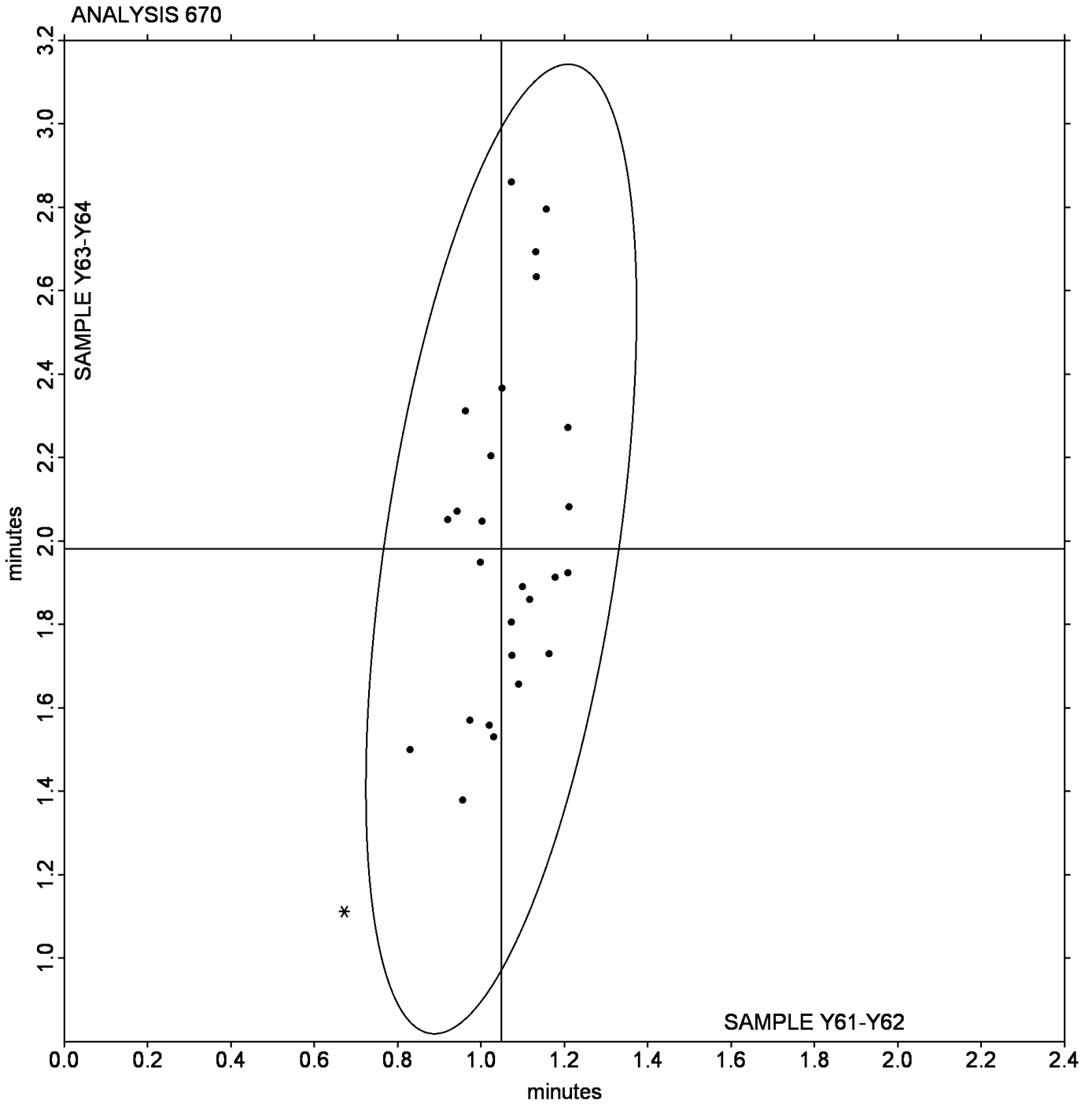
Samples Y61-Y62: EPDM compound #1 & Y63-Y64: EPDM compound #2

Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample Y61-Y62 = 1.0482 minutes

Grand Mean Sample Y63-Y64 = 1.9810 minutes



Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample Y61-Y62			Sample Y63-Y64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
1DH1JN		2.958	0.040	0.19	4.608	-0.105	-0.31
1RX3NE		3.040	0.122	0.58	5.098	0.385	1.14
61X8W9		2.963	0.045	0.22	4.920	0.207	0.61
6B1E19		3.140	0.222	1.06	4.698	-0.015	-0.04
6YP7QJ		3.025	0.107	0.51	4.798	0.085	0.25
7AZUK2		2.713	-0.205	-0.98	4.858	0.145	0.43
8CK2G2		2.542	-0.377	-1.81	4.485	-0.228	-0.68
A4VV9E		2.917	-0.002	-0.01	4.517	-0.197	-0.58
BAZZWS		2.647	-0.272	-1.30	4.297	-0.417	-1.23
DLZ9NS		2.680	-0.238	-1.14	4.400	-0.313	-0.93
E6P84U		2.650	-0.268	-1.29	4.352	-0.362	-1.07
EEHC3Y		2.875	-0.043	-0.21	4.825	0.112	0.33
ESNNC6		2.973	0.055	0.26	4.700	-0.013	-0.04
G12KW1	*	3.475	0.557	2.67	5.288	0.575	1.70
HXSA75		2.772	-0.147	-0.70	4.178	-0.535	-1.58
J518C2		3.175	0.257	1.23	5.157	0.443	1.31
L5Y2FR		2.708	-0.210	-1.01	4.223	-0.490	-1.45
M58L6F		3.070	0.152	0.73	5.002	0.288	0.85
M6K8TU		2.982	0.063	0.30	5.260	0.547	1.62
NQ3VHM		2.983	0.065	0.31	4.783	0.070	0.21
NTD2M7		3.270	0.352	1.69	5.130	0.417	1.23
PP1WX7		2.821	-0.097	-0.47	4.242	-0.471	-1.39
QE5UX2		2.900	-0.018	-0.09	4.728	0.015	0.04
RJNXBY	X	1.663	-1.255	-6.03	2.588	-2.125	-6.29
SZUEZC		2.865	-0.053	-0.26	4.767	0.053	0.16
U12Q5J		2.863	-0.055	-0.26	4.257	-0.457	-1.35
W5YAML		2.870	-0.048	-0.23	4.973	0.260	0.77

Summary Statistics

Grand Means

2.9184 minutes

4.7133 minutes

Std Dev Btwn Labs

0.2083 minutes

0.3377 minutes

Statistics based on 26 of 27 reporting participants

**Rubber Interlaboratory Testing Program
Analysis 671**

ODR Vulcanization-Cure Time 50% (minutes)

Comments on assigned Data Flags for Test #671

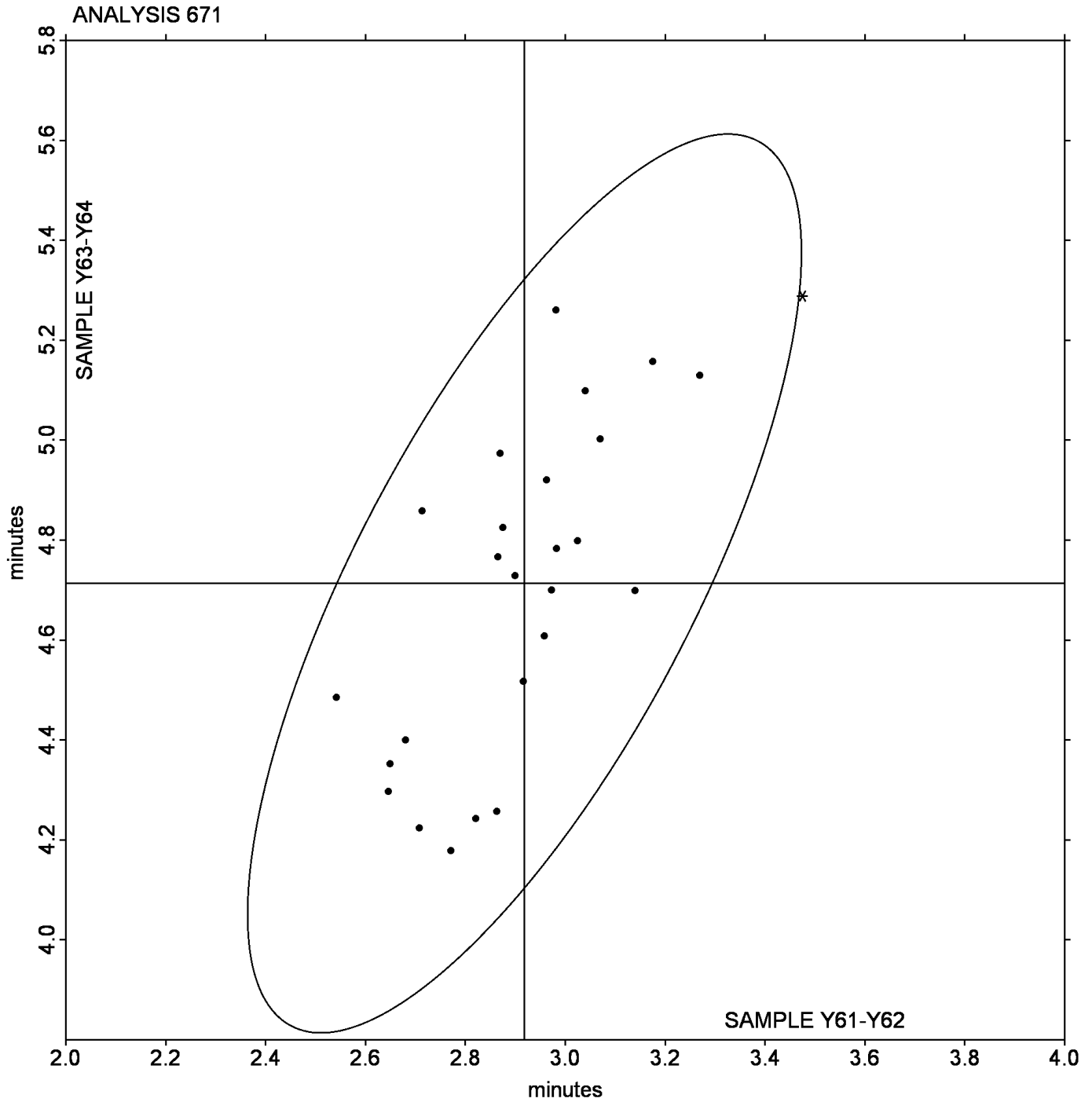
RJNXBY (X) - Data for all Samples are low.

Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample Y61-Y62 = 2.9184 minutes

Grand Mean Sample Y63-Y64 = 4.7133 minutes



Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample Y61-Y62			Sample Y63-Y64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
4U36JZ		12.07	0.10	0.11	8.322	-1.097	-0.69
5PJLN4		10.92	-1.04	-1.09	8.528	-0.891	-0.56
6VAGP7		10.14	-1.83	-1.91	7.063	-2.356	-1.48
6XYW19		12.41	0.45	0.47	11.965	2.546	1.60
925JM5		14.21	2.25	2.35	11.792	2.373	1.49
A77HCF	X	7.27	-4.69	-4.91	4.677	-4.742	-2.98
C2BWM3		12.21	0.24	0.25	7.770	-1.649	-1.04
CSDQER		11.78	-0.18	-0.19	9.322	-0.097	-0.06
FMG546		12.35	0.39	0.41	10.542	1.123	0.71
FX2FMW		11.92	-0.04	-0.05	7.630	-1.789	-1.12
HZAGJL		11.54	-0.42	-0.44	8.743	-0.676	-0.42
JG3A4C		12.55	0.59	0.61	8.145	-1.274	-0.80
K96WYV		11.79	-0.18	-0.19	9.970	0.551	0.35
LYF6LW		12.24	0.28	0.29	10.598	1.179	0.74
MHVK8B		11.97	0.00	0.00	8.897	-0.522	-0.33
MS5J16		12.81	0.85	0.89	12.497	3.078	1.93
MSR4XP		10.37	-1.59	-1.66	9.368	-0.051	-0.03
PFSTWL		11.55	-0.41	-0.43	11.200	1.781	1.12
PK3Z16		10.46	-1.50	-1.57	8.920	-0.499	-0.31
PQXAGJ		12.45	0.48	0.50	8.563	-0.856	-0.54
PSJHG1		11.58	-0.38	-0.40	8.748	-0.671	-0.42
RT8PWH		11.38	-0.58	-0.61	8.518	-0.901	-0.57
S32XQX		12.41	0.45	0.47	8.318	-1.101	-0.69
SQ3F7Y		12.44	0.48	0.50	8.717	-0.702	-0.44
UQYLRN		13.71	1.75	1.83	9.760	0.341	0.21
ZWDSPH		12.98	1.02	1.07	13.082	3.663	2.30
ZXUVQP		10.80	-1.17	-1.22	7.912	-1.507	-0.95

Summary Statistics

Grand Means

11.963 minutes

9.4189 minutes

Std Dev Btwn Labs

0.956 minutes

1.5911 minutes

Statistics based on 26 of 27 reporting participants

Samples Y61-Y62: EPDM compound #1 & Y63-Y64: EPDM compound #2

Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

Comments on assigned Data Flags for Test #672

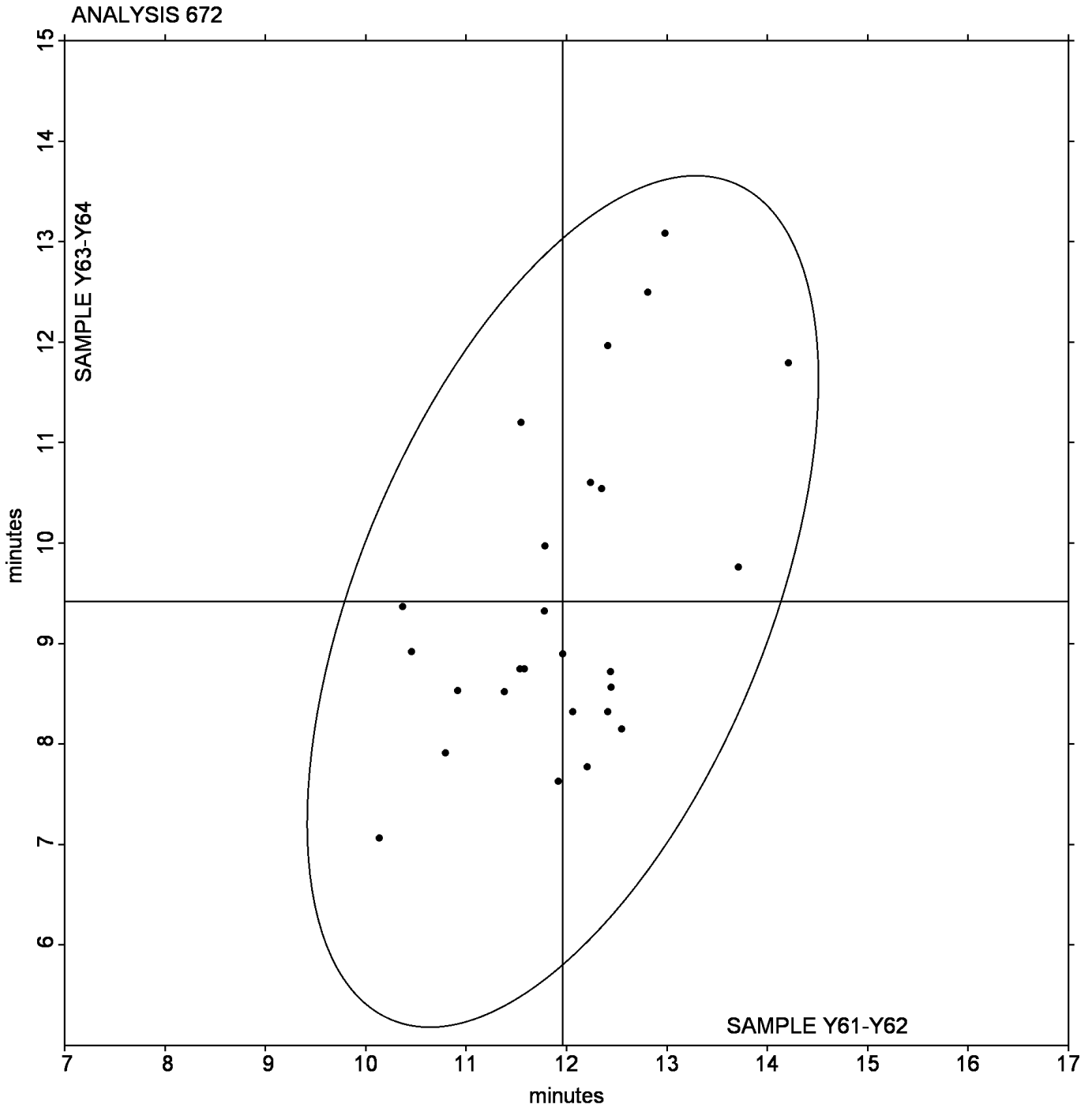
A77HCF (X) - Data for all Samples are low.

Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample Y61-Y62 = 11.963 minutes

Grand Mean Sample Y63-Y64 = 9.4189 minutes



Rubber Interlaboratory Testing Program Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample Y61-Y62			Sample Y63-Y64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3A4L12		7.675	-0.109	-0.11	12.91	-1.37	-0.41
42U46D		7.250	-0.534	-0.52	16.18	1.90	0.56
5PX639	X	14.203	6.420	6.31	24.29	10.01	2.97
6F4344		7.797	0.013	0.01	13.28	-1.00	-0.30
7HULMG		7.987	0.203	0.20	12.35	-1.93	-0.57
7NFKSW		10.370	2.586	2.54	22.38	8.10	2.40
85QEUY		6.728	-1.055	-1.04	10.26	-4.02	-1.19
8AFEWA		8.367	0.583	0.57	15.00	0.72	0.21
9KRT2D		8.100	0.316	0.31	20.02	5.74	1.70
EBP9QC		7.717	-0.067	-0.07	12.18	-2.10	-0.62
GS6D7F		7.095	-0.689	-0.68	10.52	-3.76	-1.12
HNBFDQ		6.545	-1.239	-1.22	11.23	-3.05	-0.91
JL34CK		6.985	-0.799	-0.78	10.27	-4.01	-1.19
K1N1Q9		8.952	1.168	1.15	18.70	4.42	1.31
LMGK35		7.346	-0.438	-0.43	13.00	-1.28	-0.38
NRP484		7.382	-0.402	-0.39	11.72	-2.56	-0.76
PCLYUP		6.868	-0.915	-0.90	10.72	-3.56	-1.06
Q31LDA		7.450	-0.334	-0.33	14.05	-0.23	-0.07
QD858S		8.433	0.650	0.64	19.74	5.46	1.62
QH9FV1		7.507	-0.277	-0.27	11.92	-2.36	-0.70
RWNTC5	*	10.598	2.815	2.77	18.71	4.43	1.31
SV26XP		6.627	-1.157	-1.14	11.66	-2.62	-0.78
T872V4		8.247	0.463	0.45	14.33	0.05	0.02
THG1MZ		6.618	-1.165	-1.14	14.82	0.54	0.16
XE5EJU		7.552	-0.232	-0.23	12.59	-1.69	-0.50
YE4XUB		7.628	-0.155	-0.15	16.94	2.66	0.79
YSAM7D		8.552	0.768	0.75	15.77	1.49	0.44

Summary Statistics

Grand Means

7.7836 lbf.in

14.279 lbf.in

Std Dev Btwn Labs

1.0178 lbf.in

3.372 lbf.in

Statistics based on 26 of 27 reporting participants

Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

Grand Means		Summary Statistics in SI Units	
	8.7943 dN.m		16.133 dN.m
Std Dev Btwn Labs			
	1.1500 dN.m		3.810 dN.m
Statistics based on 26 of 27 reporting participants			

Samples Y61-Y62: EPDM compound #1 & Y63-Y64: EPDM compound #2

Comments on assigned Data Flags for Test #673

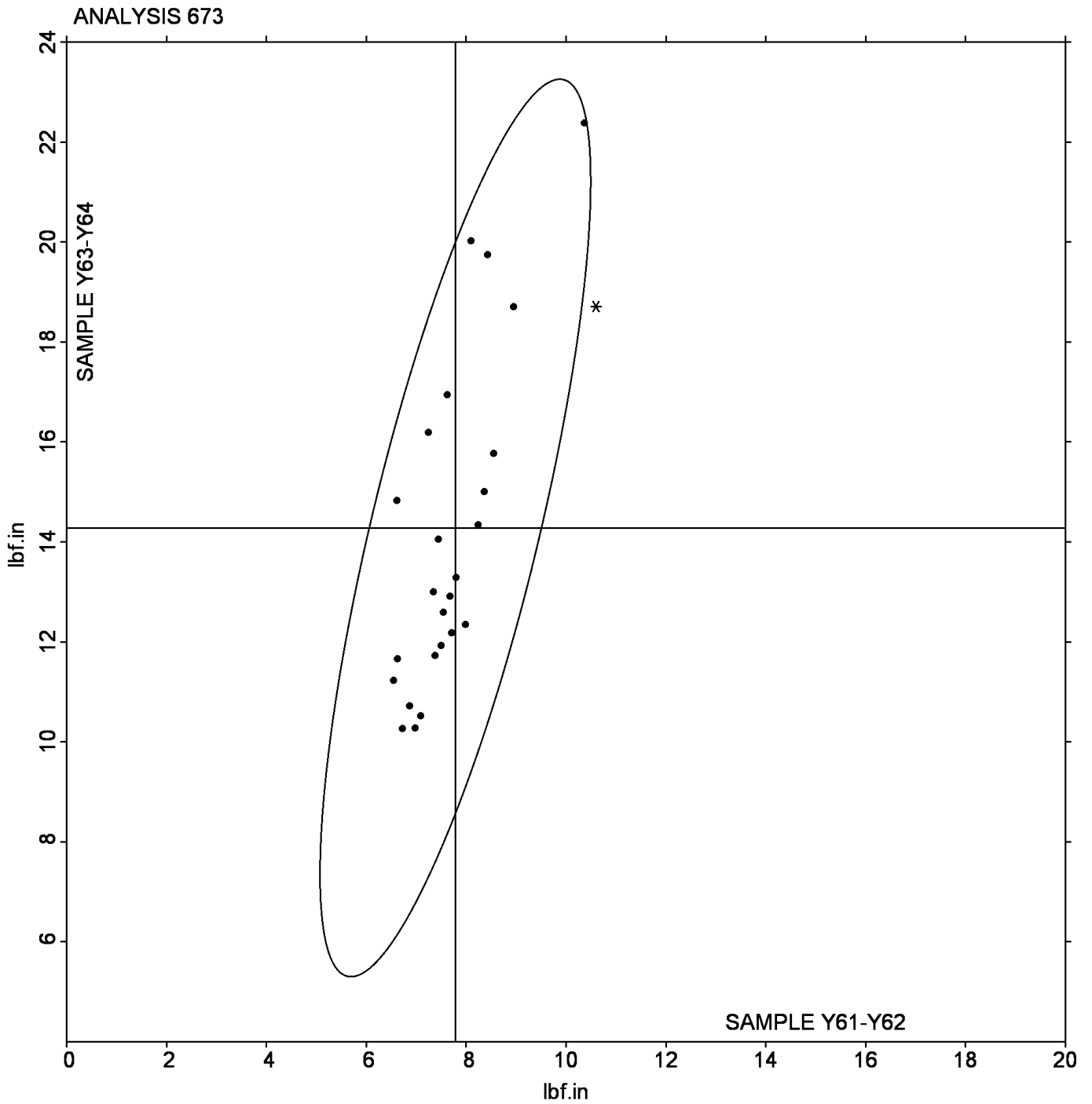
5PX639 (X) - Data for all Samples are high.

Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample Y61-Y62 = 7.7836 lbf.in

Grand Mean Sample Y63-Y64 = 14.279 lbf.in



Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample Y61-Y62			Sample Y63-Y64		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
35GS5N		35.98	0.19	0.06	31.78	-1.58	-0.55
3H5YYJ		36.06	0.27	0.09	36.16	2.79	0.97
5KN96R		35.37	-0.42	-0.14	31.24	-2.12	-0.74
6Y4PR4		35.95	0.16	0.05	35.28	1.92	0.67
71QNG5		34.69	-1.10	-0.37	32.22	-1.14	-0.40
72Q4YY		36.25	0.46	0.15	32.24	-1.12	-0.39
77GAM6		35.98	0.19	0.06	32.83	-0.53	-0.18
925CAA		38.25	2.46	0.82	34.32	0.95	0.33
9QH44M		42.71	6.92	2.31	39.06	5.70	1.98
EWHGDM	*	26.40	-9.39	-3.13	25.65	-7.71	-2.68
FZ2MUP		33.71	-2.08	-0.69	31.78	-1.59	-0.55
HLGDAZ		33.78	-2.01	-0.67	33.65	0.29	0.10
JCGRQ8		39.04	3.25	1.08	34.24	0.88	0.30
JH3TFK		33.03	-2.76	-0.92	30.07	-3.29	-1.14
KZQC8R		34.79	-1.00	-0.33	32.29	-1.07	-0.37
M21RB6		39.28	3.49	1.16	33.34	-0.03	-0.01
MGRGP7		37.59	1.80	0.60	35.23	1.86	0.65
N15Z4B		40.02	4.23	1.41	36.43	3.07	1.07
NAFV4G		34.28	-1.51	-0.50	34.94	1.58	0.55
Q97PBJ		33.95	-1.84	-0.61	32.89	-0.48	-0.17
R5H6L1		34.05	-1.74	-0.58	30.57	-2.79	-0.97
T78TQY		35.43	-0.36	-0.12	31.82	-1.54	-0.54
TMQSSL	X	69.33	33.54	11.18	69.74	36.38	12.64
U8DR98		35.90	0.12	0.04	33.72	0.36	0.12
X66GD7		38.67	2.88	0.96	39.57	6.21	2.16
ZE2WUG		35.22	-0.57	-0.19	30.51	-2.85	-0.99
ZKZUHT		34.13	-1.66	-0.55	35.61	2.25	0.78

Summary Statistics

Grand Means

35.789 lbf.in

33.363 lbf.in

Std Dev Btwn Labs

2.999 lbf.in

2.878 lbf.in

Statistics based on 26 of 27 reporting participants

Rubber Interlaboratory Testing Program
Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

		Summary Statistics in SI Units	
Grand Means	40.436 dN.m	37.695 dN.m	
Std Dev Btwn Labs	3.389 dN.m	3.252 dN.m	
Statistics based on 26 of 27 reporting participants			

Samples Y61-Y62: EPDM compound #1 & Y63-Y64: EPDM compound #2

Comments on assigned Data Flags for Test #674

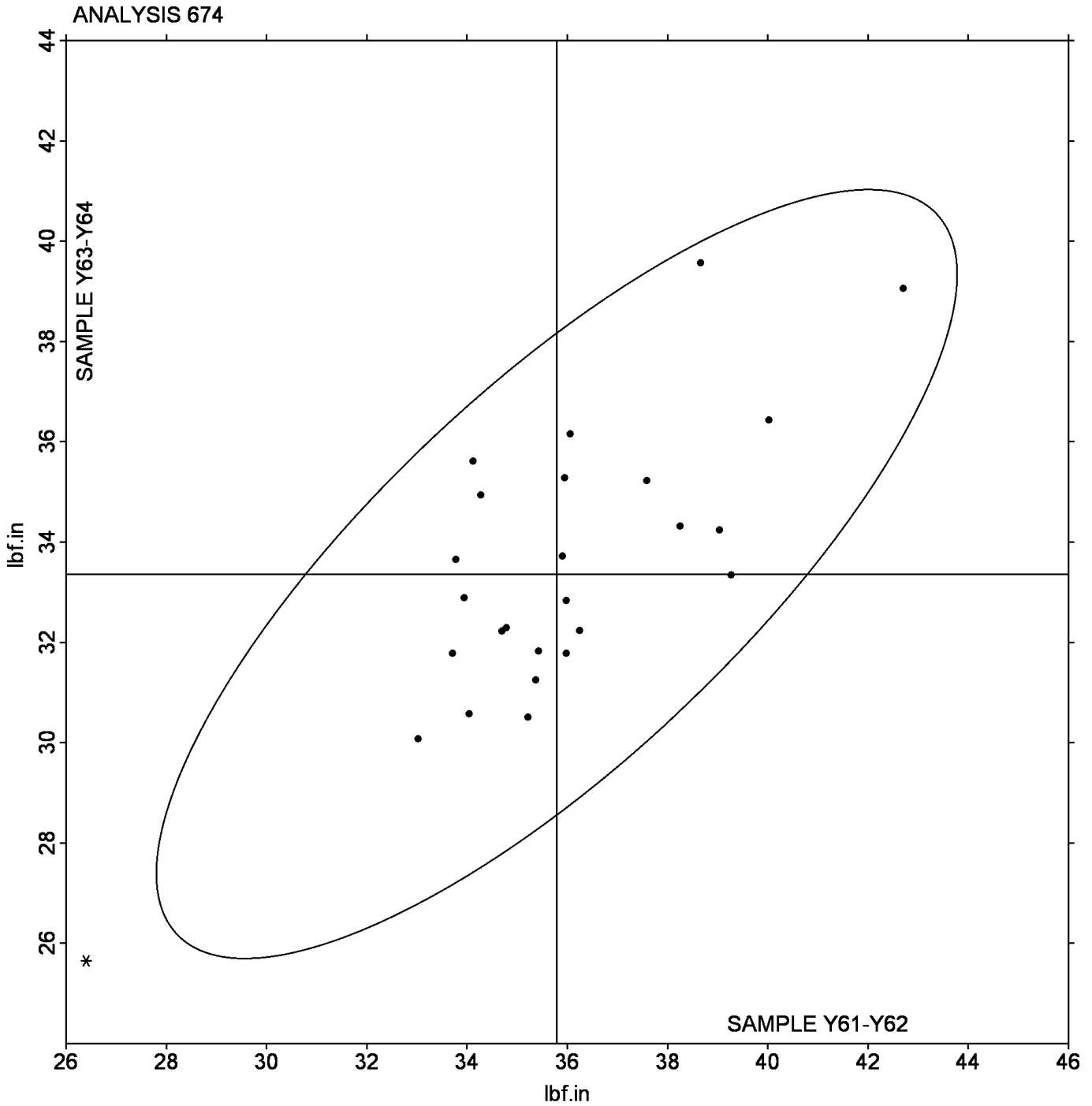
TMQSSL (X) - Data for all Samples are high.

Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample Y61-Y62 = 35.789 lbf.in

Grand Mean Sample Y63-Y64 = 33.363 lbf.in



Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample Y65-Y66			Sample Y67-Y68			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2HKP4A		1.420	-0.057	-0.66	1.338	-0.092	-1.14	MC
3PST61		1.503	0.026	0.30	1.492	0.061	0.75	MC
6ZU973		1.462	-0.016	-0.18	1.442	0.011	0.14	MD
7PWJKL		1.455	-0.022	-0.26	1.432	0.001	0.01	MD
84Q3N7		1.558	0.081	0.93	1.482	0.051	0.63	MC
A2YNJH		1.483	0.006	0.07	1.347	-0.084	-1.03	MC
ALGW35		1.467	-0.011	-0.12	1.462	0.031	0.38	MC
BP6AW6	*	1.533	0.056	0.65	1.343	-0.087	-1.08	MC
DY251E		1.431	-0.047	-0.54	1.425	-0.005	-0.07	MC
HT8DAG		1.462	-0.016	-0.18	1.410	-0.021	-0.25	MC
HZXZ9D		1.455	-0.022	-0.26	1.455	0.024	0.30	MC
KYZ657		1.433	-0.044	-0.51	1.323	-0.107	-1.32	MC
PGANV2		1.377	-0.101	-1.16	1.353	-0.077	-0.95	MD
PYEA3V		1.414	-0.063	-0.73	1.369	-0.061	-0.75	MC
PZ6A67		1.375	-0.102	-1.18	1.285	-0.146	-1.79	MP
Q8FXQJ		1.620	0.143	1.64	1.567	0.136	1.68	TP
S951FY		1.453	-0.024	-0.28	1.455	0.024	0.30	MC
SXJMU9		1.335	-0.142	-1.64	1.340	-0.091	-1.12	MC
TW7H4B	*	1.702	0.224	2.58	1.520	0.089	1.10	TP
UNDV56		1.607	0.129	1.49	1.553	0.123	1.51	MD
UWJ54H		1.360	-0.117	-1.35	1.368	-0.062	-0.77	MC
VQZ8WM		1.593	0.116	1.34	1.580	0.149	1.84	MC
WTD8P8		1.475	-0.002	-0.03	1.477	0.046	0.57	MC
XA7ULB		1.382	-0.096	-1.10	1.355	-0.076	-0.93	TP
Y9UJ87		1.472	-0.006	-0.06	1.450	0.019	0.24	MD
YE58T8		1.458	-0.019	-0.22	1.425	-0.006	-0.07	XX
YEQAP2		1.600	0.123	1.41	1.567	0.136	1.68	MC
YPYRSU		1.478	0.001	0.01	1.440	0.009	0.12	MC

Summary Statistics

Grand Means

1.4772 minutes

1.4305 minutes

Std Dev Btwn Labs

0.0869 minutes

0.0811 minutes

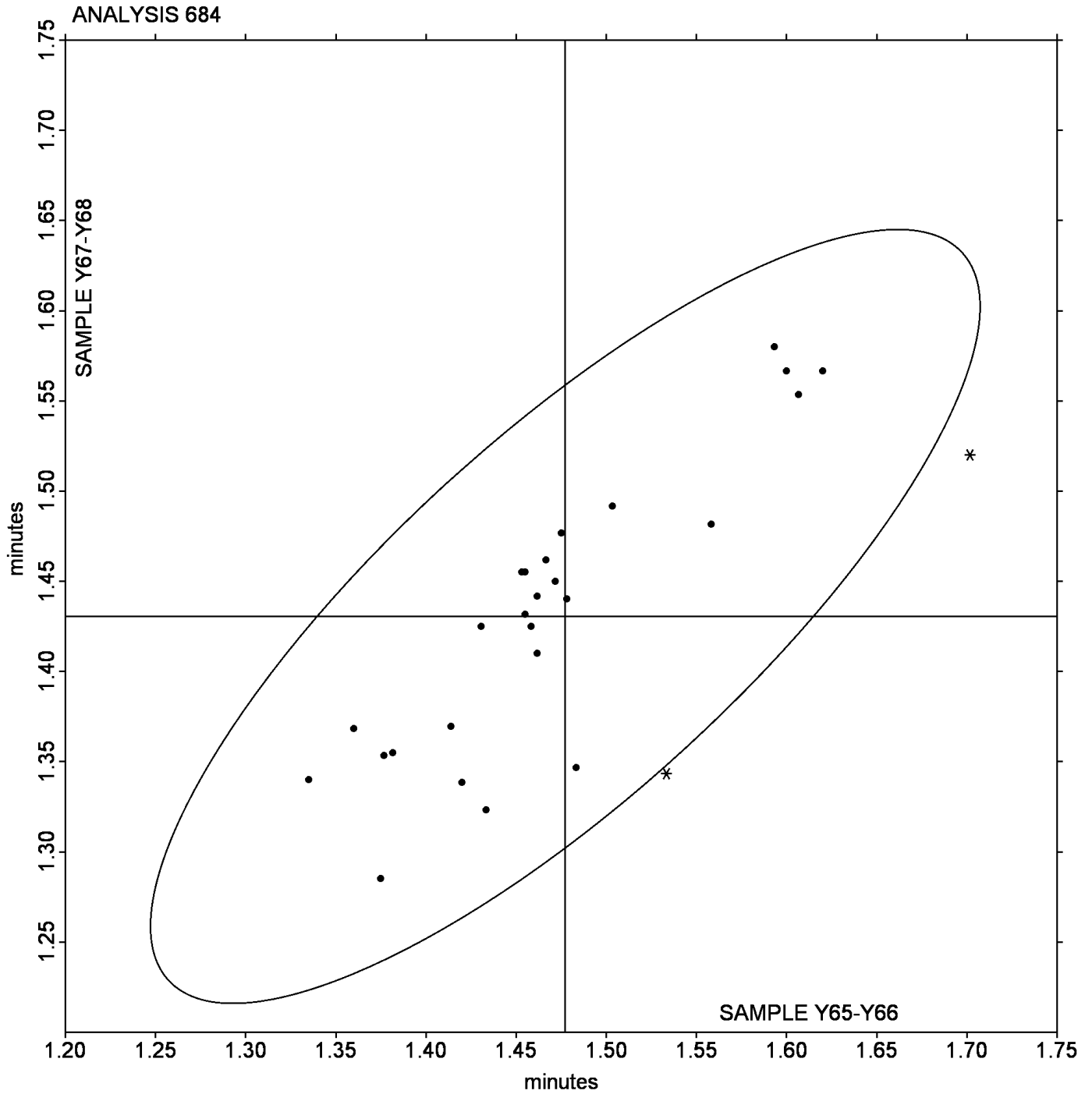
Statistics based on 28 of 28 reporting participants

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample Y65-Y66 = 1.4772 minutes

Grand Mean Sample Y67-Y68 = 1.4305 minutes



Rubber Interlaboratory Testing Program

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample Y65-Y66			Sample Y67-Y68			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1LLSEY		1.300	-0.140	-0.99	1.267	-0.120	-0.93	MC
1RXP8		1.427	-0.014	-0.10	1.393	0.007	0.06	MD
1S811W		1.437	-0.004	-0.03	1.408	0.022	0.17	MC
2PG3QR		1.485	0.045	0.31	1.358	-0.028	-0.22	MC
3KFCNG		1.723	0.283	1.99	1.682	0.295	2.31	MC
3TUGWP		1.453	0.013	0.09	1.370	-0.016	-0.13	MC
6M3CQH		1.347	-0.094	-0.66	1.303	-0.083	-0.65	MC
6ZLKNV		1.600	0.160	1.12	1.600	0.214	1.67	MC
7NYMLQ		1.403	-0.037	-0.26	1.363	-0.023	-0.18	MC
8262R1		1.613	0.173	1.22	1.450	0.064	0.50	MC
89DFBW		1.405	-0.035	-0.25	1.342	-0.045	-0.35	MD
8R5J8K	*	1.364	-0.076	-0.54	1.425	0.039	0.30	MC
9KNATE		1.583	0.143	1.01	1.472	0.086	0.67	MC
9XV1T2		1.640	0.200	1.41	1.550	0.164	1.28	TP
A455MM		1.162	-0.279	-1.96	1.132	-0.255	-1.99	MP
BUBCDU		1.375	-0.065	-0.46	1.323	-0.063	-0.49	MD
FIL1FJ		1.428	-0.012	-0.08	1.393	0.007	0.06	XX
JBKZDF		1.667	0.226	1.59	1.612	0.225	1.76	MD
JVTFZ2		1.361	-0.079	-0.56	1.297	-0.089	-0.70	MC
KFEPD7		1.245	-0.195	-1.38	1.220	-0.166	-1.30	MC
KVMSRK		1.367	-0.074	-0.52	1.312	-0.075	-0.58	MC
MCXUHL		1.390	-0.050	-0.35	1.327	-0.060	-0.47	XX
MFQPMS		1.452	0.011	0.08	1.415	0.029	0.23	MC
P8ZMA2		1.362	-0.079	-0.55	1.303	-0.083	-0.65	MD
PHZ6KG	*	1.733	0.293	2.06	1.555	0.169	1.32	TP
PWWE7U		1.312	-0.129	-0.91	1.243	-0.143	-1.12	MC
RD12VM		1.222	-0.219	-1.54	1.195	-0.191	-1.50	MC
TARKRN		1.387	-0.054	-0.38	1.362	-0.025	-0.19	MC
TVUYAZ		1.457	0.016	0.12	1.345	-0.041	-0.32	MC
XADFKL		1.610	0.170	1.20	1.582	0.195	1.53	MC
XF1PP6		1.285	-0.155	-1.09	1.253	-0.133	-1.04	MC
XSRQYK		1.633	0.193	1.36	1.578	0.192	1.50	MC
Y1AYT3		1.420	-0.020	-0.14	1.372	-0.015	-0.11	MC
Z3HGE3		1.322	-0.119	-0.84	1.317	-0.070	-0.54	MC
Z68QX5		1.443	0.003	0.02	1.397	0.010	0.08	MC

**Rubber Interlaboratory Testing Program
Analysis 685****MDR Vulcanization-Scorch Time, Ts1 (minutes)**

		Summary Statistics	
Grand Means	1.4403 minutes		1.3862 minutes
Std Dev Btwn Labs	0.1420 minutes		0.1278 minutes
Statistics based on 35 of 35 reporting participants			

Samples Y65-Y66: EPDM compound, batch #1 & Y67-Y68: Polyisoprene compound, batch #2

Instrument Code Listing

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

Instruments (as reported by the labs):

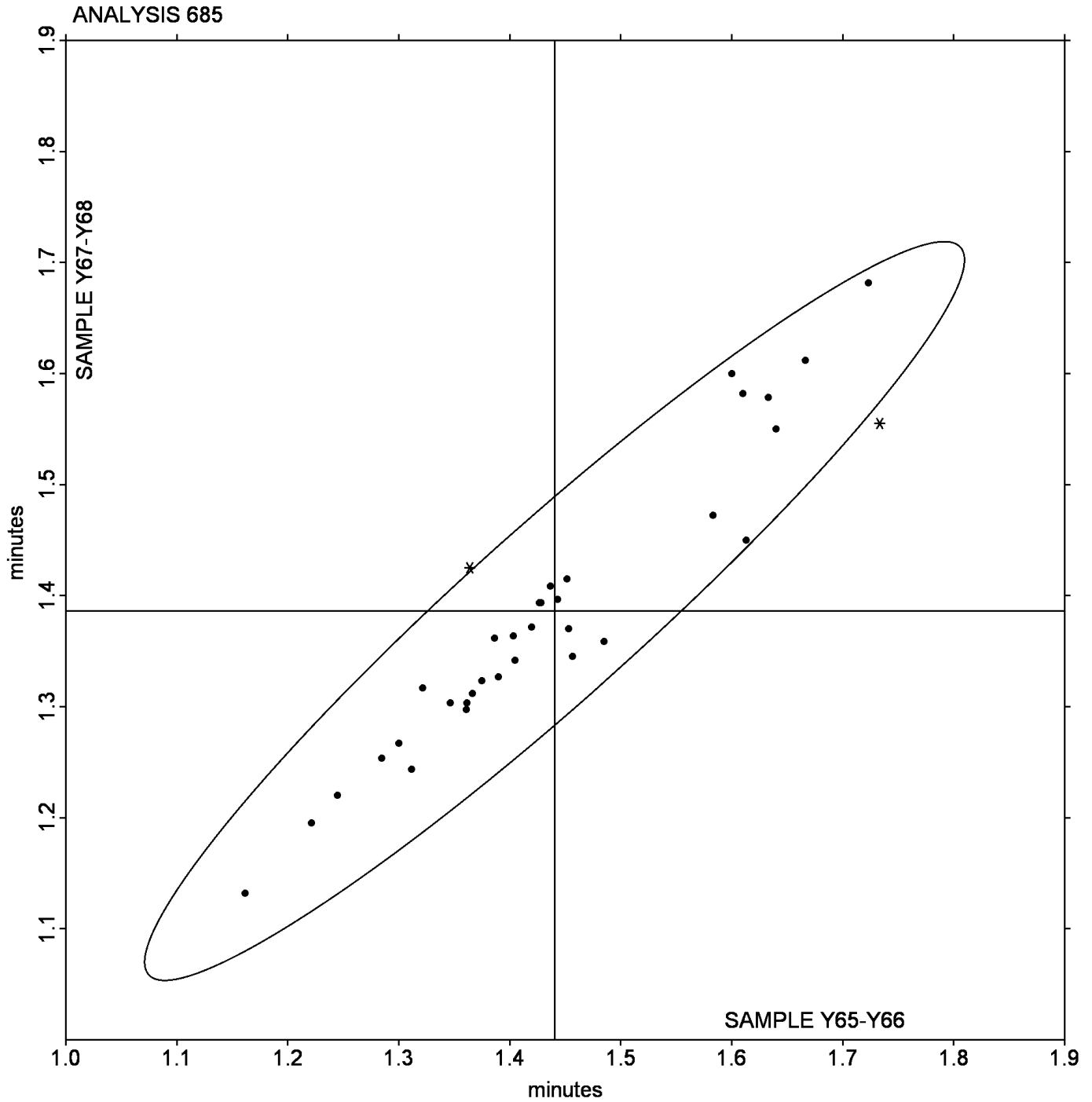
- | | |
|--|---|
| (MC) Alpha Technologies [Monsanto] MDR 2000 or 2000E | (MD) Alpha Tech. Rubber Process Analyzer (RPA 2000) |
| (MP) Alpha Technologies [Monsanto] MDR 2000P | (TP) Tech Pro MDR model MDPT |
| (XX) Instrument model not specified by lab | |

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample Y65-Y66 = 1.4403 minutes

Grand Mean Sample Y67-Y68 = 1.3862 minutes



Rubber Interlaboratory Testing Program

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample Y65-Y66			Sample Y67-Y68			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2DM7QV		3.737	-0.475	-1.39	3.943	-0.238	-0.54	MC
2LUF1G		4.073	-0.139	-0.41	4.155	-0.026	-0.06	MC
32GUH2		4.672	0.460	1.35	4.667	0.485	1.11	MD
7PDRCW		3.952	-0.260	-0.76	4.113	-0.068	-0.16	MC
88E9NY	*	5.220	1.008	2.96	4.722	0.540	1.24	TP
97G7M1		4.168	-0.044	-0.13	4.342	0.160	0.37	MD
9MZHH7		3.770	-0.442	-1.30	3.287	-0.895	-2.05	MC
A15URM		4.310	0.098	0.29	3.753	-0.428	-0.98	MP
A798JX		4.355	0.143	0.42	4.397	0.215	0.49	XX
BX4D84		4.348	0.136	0.40	4.498	0.317	0.73	MC
CK1ATT		4.288	0.076	0.22	4.418	0.237	0.54	MD
D3MDLL		3.792	-0.420	-1.23	3.928	-0.253	-0.58	MD
DBDUBB		4.558	0.346	1.02	4.018	-0.163	-0.37	MC
DKLAKN		3.833	-0.379	-1.11	3.983	-0.198	-0.45	MC
E7H3KC		4.675	0.463	1.36	4.778	0.597	1.37	MC
ERGJDT		3.888	-0.324	-0.95	3.425	-0.756	-1.73	MC
F9CDG4		4.068	-0.144	-0.42	4.163	-0.018	-0.04	MC
FAZSE8		4.381	0.169	0.49	4.497	0.316	0.72	MC
FU59KK		4.108	-0.104	-0.30	3.853	-0.328	-0.75	MC
G3HDC5		4.072	-0.140	-0.41	4.325	0.144	0.33	MC
KH7E5D		4.448	0.236	0.69	4.682	0.500	1.15	MC
LF3K27		4.483	0.271	0.80	4.625	0.444	1.02	MC
MG1ZEH		4.002	-0.210	-0.62	4.105	-0.076	-0.17	MC
MYTAGY		4.032	-0.180	-0.53	4.123	-0.058	-0.13	MC
PR7HGR		4.762	0.550	1.61	4.750	0.569	1.30	MC
RHT4LE		4.432	0.220	0.64	4.610	0.429	0.98	MC
RV7ESR		4.383	0.171	0.50	4.477	0.295	0.68	MD
S3TB6B		4.373	0.161	0.47	4.672	0.490	1.12	MC
SLELVH		3.715	-0.497	-1.46	3.782	-0.400	-0.92	TP
UMJWPY		4.377	0.165	0.48	3.802	-0.380	-0.87	MC
W3X783		3.700	-0.512	-1.50	3.717	-0.465	-1.06	MC
WGJGWW	*	4.188	-0.024	-0.07	3.315	-0.866	-1.98	MC
YA6XPU		3.790	-0.422	-1.24	3.337	-0.845	-1.93	MC
Z6J8HG		4.168	-0.044	-0.13	4.443	0.262	0.60	MC
ZP5KG1		4.483	0.271	0.80	4.670	0.489	1.12	TP

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample Y65-Y66			Sample Y67-Y68			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ZSBELK		4.028	-0.184	-0.54	4.148	-0.033	-0.08	MC

Summary Statistics

Grand Means

4.2121 minutes

4.1812 minutes

Std Dev Btwn Labs

0.3409 minutes

0.4366 minutes

Statistics based on 36 of 36 reporting participants

Samples Y65-Y66: EPDM compound, batch #1 & Y67-Y68: Polyisoprene compound, batch #2

Instrument Code Listing

686 MDR Vulcanization-Cure Time 50% (minutes)

Instruments (as reported by the labs):

(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

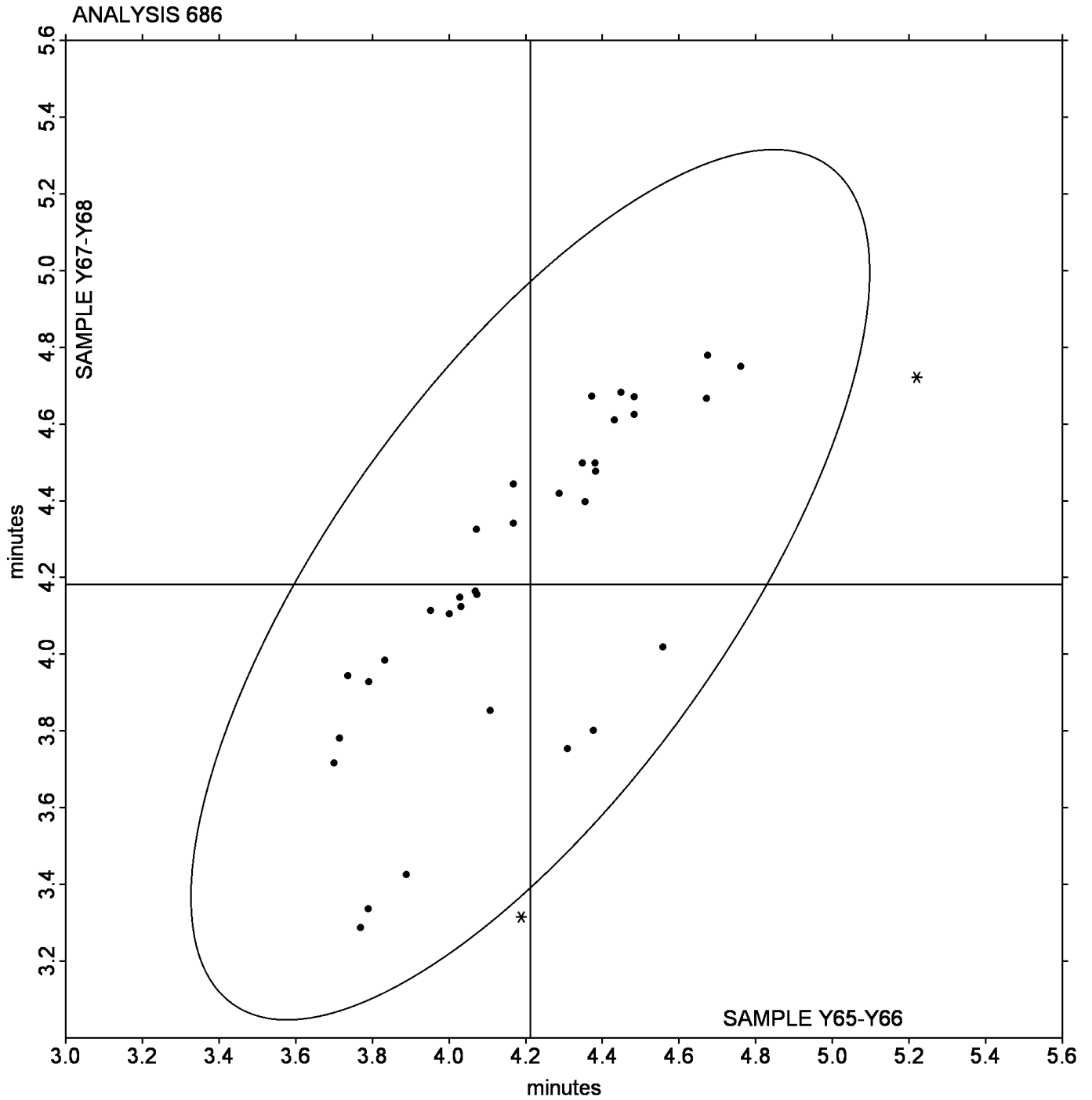
(XX) Instrument model not specified by lab

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample Y65-Y66 = 4.2121 minutes

Grand Mean Sample Y67-Y68 = 4.1812 minutes



Rubber Interlaboratory Testing Program

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample Y65-Y66			Sample Y67-Y68			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2DKZLW		7.105	-0.279	-0.87	6.388	-0.973	-1.87	MP
3YKFKX		6.967	-0.417	-1.31	6.983	-0.378	-0.73	MC
56T51N		7.055	-0.329	-1.03	6.387	-0.975	-1.88	MC
59HY6B		7.253	-0.130	-0.41	7.373	0.012	0.02	MD
5UHJ59		7.297	-0.087	-0.27	7.442	0.080	0.15	MC
5X4Z5P	X	7.387	0.003	0.01	5.992	-1.370	-2.64	MC
6EBL5U		7.902	0.518	1.62	8.040	0.678	1.31	TP
6S3CQY		7.642	0.258	0.81	7.695	0.333	0.64	MC
6X5WPH		7.386	0.003	0.01	7.600	0.239	0.46	MC
89J6KK		7.485	0.101	0.32	6.790	-0.572	-1.10	MC
9BAUV8		7.928	0.545	1.71	8.028	0.667	1.28	MC
9KFFL1		6.912	-0.472	-1.48	6.415	-0.947	-1.82	MC
BG1CRU		7.598	0.215	0.67	7.797	0.435	0.84	MD
CSNE8W		7.600	0.216	0.68	7.658	0.297	0.57	XX
E6ZSF6		6.900	-0.484	-1.51	7.023	-0.338	-0.65	MC
FXLN17		7.257	-0.127	-0.40	7.437	0.075	0.14	MC
GLU8YJ		7.310	-0.074	-0.23	6.772	-0.590	-1.14	MC
JMESNK		7.417	0.033	0.10	7.517	0.155	0.30	MC
KE79HL		7.838	0.455	1.42	8.075	0.713	1.37	MC
L6DRUJ		7.797	0.413	1.29	7.933	0.572	1.10	MC
LYTZ2W		7.340	-0.044	-0.14	7.492	0.130	0.25	MD
MCS2DW		6.733	-0.650	-2.04	6.182	-1.180	-2.27	MC
NN3LT6		7.910	0.526	1.65	8.003	0.642	1.24	MC
NQH8VX		7.673	0.290	0.91	7.643	0.282	0.54	MC
NTUMFB		7.722	0.338	1.06	7.978	0.617	1.19	MC
PEGJVV		7.425	0.041	0.13	7.623	0.262	0.50	MC
PNKTUE		7.013	-0.370	-1.16	7.135	-0.227	-0.44	MC
PYYYFG		7.312	-0.072	-0.23	7.440	0.078	0.15	MC
R1BHDJ		7.490	0.106	0.33	7.612	0.250	0.48	MD
RWYUQF	X	8.885	1.501	4.70	8.255	0.893	1.72	TP
U7TTJG		6.927	-0.457	-1.43	6.967	-0.395	-0.76	TP
UUU7NS		7.340	-0.044	-0.14	7.417	0.055	0.11	MC
VXD8D5		7.228	-0.155	-0.49	7.320	-0.042	-0.08	MD
Y2PFUN		7.278	-0.106	-0.33	7.572	0.211	0.41	MC
YQ6FZS	*	7.672	0.288	0.90	6.915	-0.447	-0.86	MC

**Rubber Interlaboratory Testing Program
Analysis 687**

MDR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample Y65-Y66			Sample Y67-Y68			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Z3JXMG		7.330	-0.054	-0.17	7.642	0.280	0.54	MC

		Summary Statistics	
Grand Means		7.3836 minutes	7.3616 minutes
Std Dev Btwn Labs		0.3192 minutes	0.5193 minutes
Statistics based on 34 of 36 reporting participants			

Samples Y65-Y66: EPDM compound, batch #1 & Y67-Y68: Polyisoprene compound, batch #2

Instrument Code Listing

687 MDR Vulcanization-Cure Time 90% (minutes)

Instruments (as reported by the labs):

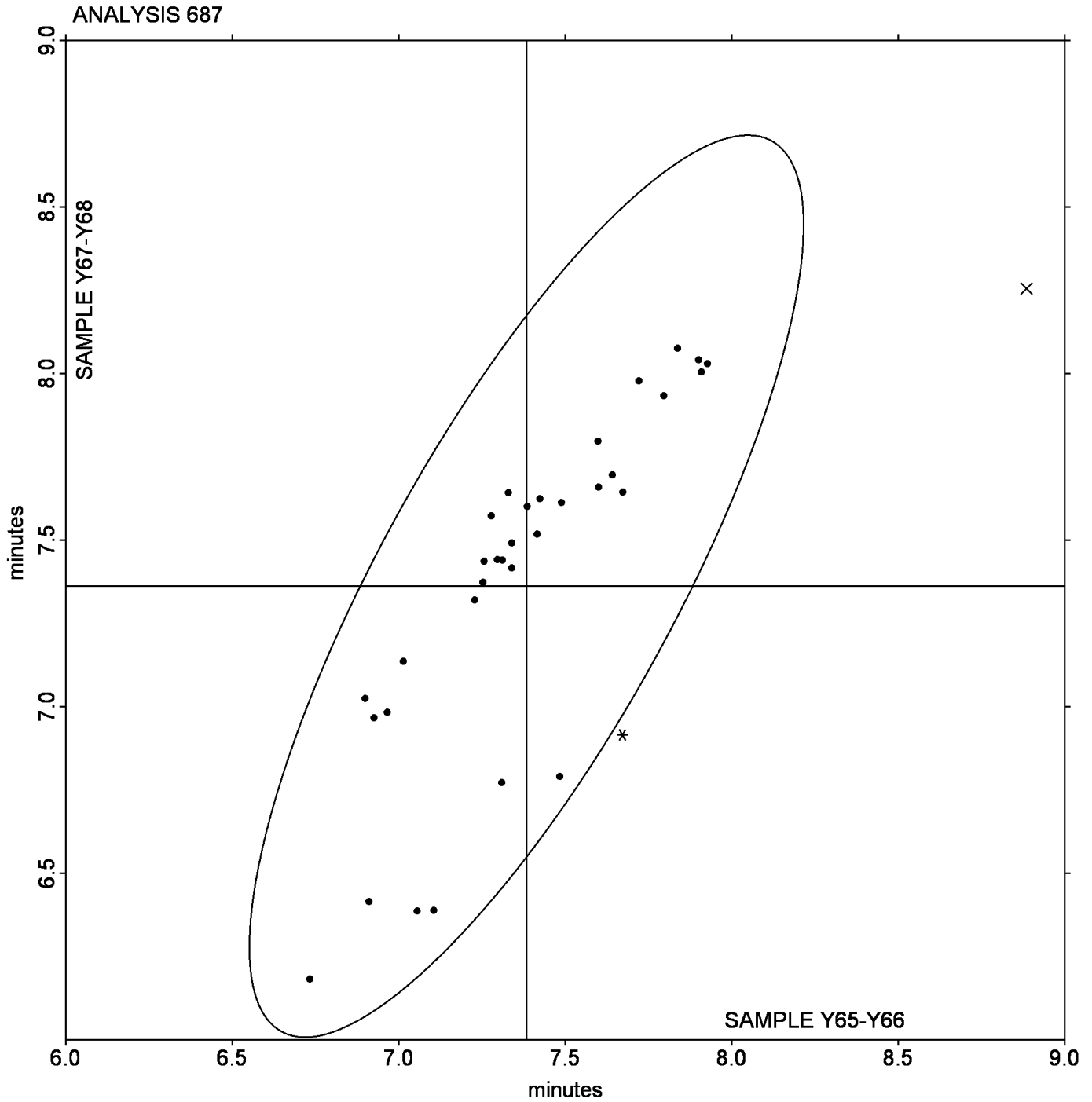
- | | |
|--|---|
| (MC) Alpha Technologies [Monsanto] MDR 2000 or 2000E | (MD) Alpha Tech. Rubber Process Analyzer (RPA 2000) |
| (MP) Alpha Technologies [Monsanto] MDR 2000P | (TP) Tech Pro MDR model MDPT |
| (XX) Instrument model not specified by lab | |

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample Y65-Y66 = 7.3836 minutes

Grand Mean Sample Y67-Y68 = 7.3616 minutes



Rubber Interlaboratory Testing Program

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample Y65-Y66			Sample Y67-Y68			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1C4JFH		2.927	-0.409	-0.74	2.596	-0.540	-0.83	MD
2Q1NSG		2.672	-0.663	-1.20	2.309	-0.827	-1.27	MD
38PZSE		2.745	-0.591	-1.07	2.472	-0.665	-1.02	MC
4BJVT5		3.482	0.146	0.26	3.573	0.437	0.67	MC
4Q2HZH		3.298	-0.037	-0.07	2.899	-0.238	-0.36	MC
4UXBW1		3.015	-0.320	-0.58	2.676	-0.460	-0.71	MC
6GXXKN		2.736	-0.599	-1.08	2.366	-0.770	-1.18	MC
7JSA5X		3.047	-0.289	-0.52	2.675	-0.461	-0.71	MC
9TXM4T		3.543	0.208	0.38	3.517	0.380	0.58	MC
AW2NSU		3.600	0.264	0.48	3.272	0.135	0.21	MC
C5M3SN		3.738	0.403	0.73	3.498	0.362	0.56	TP
D8A896		3.512	0.177	0.32	3.298	0.162	0.25	MC
DR8J5M	*	4.545	1.210	2.19	4.122	0.985	1.51	MD
E86F4P		3.750	0.414	0.75	3.550	0.414	0.63	MC
FX69QJ		2.876	-0.459	-0.83	3.064	-0.072	-0.11	MP
HKSX3C		3.002	-0.334	-0.60	3.132	-0.005	-0.01	MC
JHYWUP		2.702	-0.634	-1.15	2.407	-0.730	-1.12	XX
KA5DJS		3.197	-0.139	-0.25	2.760	-0.376	-0.58	MC
M9TQHW		4.173	0.838	1.52	4.532	1.395	2.14	MC
MJMVP4		4.234	0.898	1.63	4.116	0.979	1.50	MC
MQQDY9		3.688	0.353	0.64	3.572	0.435	0.67	MC
MUL1W4		2.832	-0.503	-0.91	2.428	-0.708	-1.09	MC
NQUBKB		2.503	-0.832	-1.51	2.068	-1.068	-1.64	MC
NRYAW6		3.467	0.131	0.24	3.833	0.697	1.07	MC
NZADAH		3.340	0.004	0.01	3.092	-0.044	-0.07	MC
TD42J5		3.201	-0.134	-0.24	2.761	-0.375	-0.58	MC
TH9U6X		2.575	-0.761	-1.38	2.780	-0.356	-0.55	MC
TYAZZZ		3.935	0.599	1.09	4.177	1.040	1.60	MC
UBVNHB		2.957	-0.379	-0.69	2.612	-0.525	-0.80	MD
V1FK3C		3.473	0.138	0.25	3.467	0.330	0.51	TP
VKK52R		3.755	0.419	0.76	3.517	0.380	0.58	MC
VPBK4L		3.393	0.058	0.10	2.997	-0.140	-0.21	MC
W9F129		2.863	-0.472	-0.85	2.472	-0.665	-1.02	MC
WFUSAU		3.092	-0.244	-0.44	2.633	-0.503	-0.77	MC
WNRSKF	*	4.852	1.516	2.74	4.623	1.487	2.28	TP

**Rubber Interlaboratory Testing Program
Analysis 688**

MDR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample Y65-Y66			Sample Y67-Y68			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
XXU9SD		3.357	0.021	0.04	3.040	-0.096	-0.15	MD

		Summary Statistics	
Grand Means		3.3355 lbf.in	3.1362 lbf.in
Std Dev Btwn Labs		0.5525 lbf.in	0.6517 lbf.in
Statistics based on 36 of 36 reporting participants			

		Summary Statistics in SI Units	
Grand Means		3.7686 dN.m	3.5434 dN.m
Std Dev Btwn Labs		0.6242 dN.m	0.7363 dN.m
Statistics based on 36 of 36 reporting participants			

Samples Y65-Y66: EPDM compound, batch #1 & Y67-Y68: Polyisoprene compound, batch #2

Instrument Code Listing

688 MDR Vulcanization: Minimum Torque (lbf.in)

Instruments (as reported by the labs):

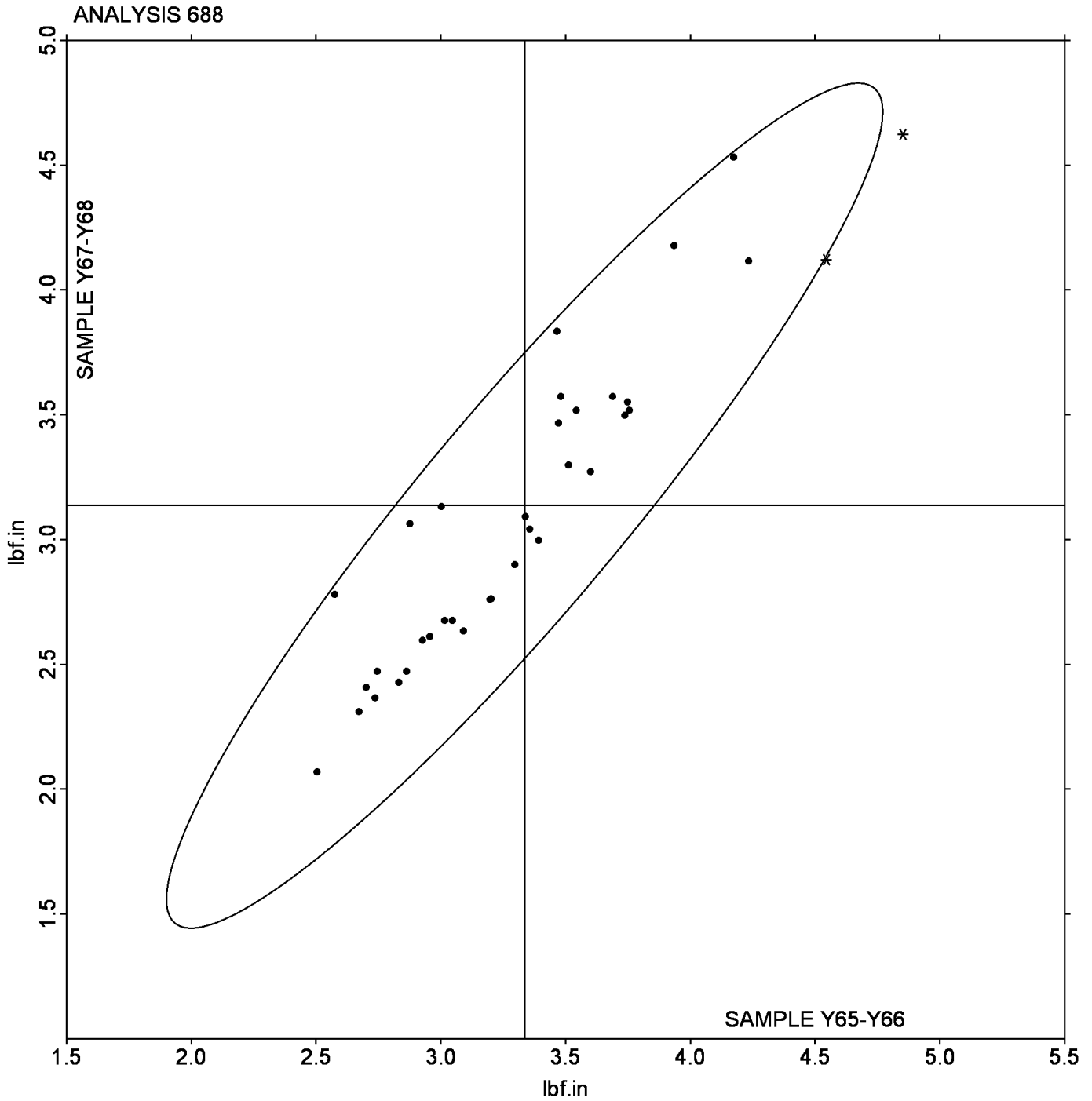
- | | |
|--|---|
| (MC) Alpha Technologies [Monsanto] MDR 2000 or 2000E | (MD) Alpha Tech. Rubber Process Analyzer (RPA 2000) |
| (MP) Alpha Technologies [Monsanto] MDR 2000P | (TP) Tech Pro MDR model MDPT |
| (XX) Instrument model not specified by lab | |

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample Y65-Y66 = 3.3355 lbf.in

Grand Mean Sample Y67-Y68 = 3.1362 lbf.in



Rubber Interlaboratory Testing Program

Analysis 689

MDR Vulcanization: Maximum Torque (Ibf.in)

WebCode	Data Flag	Sample Y65-Y66			Sample Y67-Y68			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
28BH4T		13.40	-0.04	-0.10	13.20	-0.10	-0.24	MC
3RS2P6		13.17	-0.28	-0.64	13.12	-0.18	-0.45	TP
3TGG38		13.70	0.25	0.59	13.50	0.20	0.49	MD
4R14VH		12.69	-0.75	-1.73	12.53	-0.78	-1.91	MC
4WSFRF		13.42	-0.02	-0.04	13.43	0.13	0.31	XX
68CU3S		13.90	0.46	1.05	13.52	0.22	0.54	MC
6FBHKY		13.80	0.36	0.84	13.67	0.37	0.91	MC
6LZ6CG		13.15	-0.30	-0.69	13.07	-0.23	-0.58	MC
78MVYM		13.61	0.17	0.39	13.47	0.17	0.42	MC
81V5CQ		13.94	0.50	1.15	13.78	0.48	1.17	MP
85ZVX		13.70	0.26	0.60	13.57	0.27	0.66	MC
87WZEA		13.60	0.16	0.37	13.58	0.28	0.68	MC
A9KYYS		13.85	0.40	0.93	13.52	0.22	0.54	MD
BCZPZF		13.32	-0.13	-0.29	13.16	-0.14	-0.35	MC
CM6Y5W		13.38	-0.06	-0.14	13.14	-0.17	-0.41	MC
CS3D1Y		12.47	-0.97	-2.25	12.36	-0.94	-2.31	MC
DKAEB5		12.96	-0.48	-1.11	12.96	-0.34	-0.84	MD
EDRN74		13.64	0.20	0.47	13.48	0.17	0.43	MC
EXZMUQ		13.82	0.37	0.86	13.57	0.27	0.65	MC
FF2ZLA	*	14.31	0.87	2.01	14.32	1.02	2.51	MC
HKY5P7		12.53	-0.91	-2.11	12.50	-0.80	-1.97	MC
HY6DYG		13.50	0.06	0.13	13.21	-0.09	-0.22	MC
JMBMBB		13.85	0.41	0.95	13.65	0.35	0.85	MC
LVRFXQ		13.02	-0.43	-0.98	12.94	-0.36	-0.89	MC
NX6LFJ		13.33	-0.11	-0.26	13.26	-0.04	-0.11	MC
PB3CLN		13.76	0.32	0.74	13.48	0.18	0.45	MC
R1RVRU		13.77	0.33	0.76	13.45	0.15	0.36	MC
UAHPCP		12.66	-0.78	-1.81	12.65	-0.66	-1.61	MD
UELSTW		13.07	-0.37	-0.85	12.92	-0.39	-0.95	MC
VQ37EG	X	14.65	1.21	2.80	14.77	1.47	3.61	TP
XMEG34		14.04	0.59	1.37	13.96	0.66	1.61	MC
XXLJ77		13.45	0.01	0.02	13.20	-0.10	-0.25	MC
YJEPF4		13.39	-0.05	-0.12	13.19	-0.11	-0.28	TP
Z7DEW7		13.53	0.09	0.20	13.51	0.21	0.52	MD
ZEMETW		13.24	-0.20	-0.47	13.32	0.02	0.04	MC

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample Y65-Y66			Sample Y67-Y68			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ZL39C7		13.50	0.06	0.14	13.39	0.09	0.22	MC

Summary Statistics

Grand Means

13.442 lbf.in

13.301 lbf.in

Std Dev Btwn Labs

0.432 lbf.in

0.407 lbf.in

Statistics based on 35 of 36 reporting participants

Summary Statistics in SI Units

Grand Means

15.187 dN.m

15.028 dN.m

Std Dev Btwn Labs

0.488 dN.m

0.460 dN.m

Statistics based on 35 of 36 reporting participants

Samples Y65-Y66: EPDM compound, batch #1 & Y67-Y68: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #689

VQ37EG (X) - Data for all Samples are high. Possible Systematic Error.

Instrument Code Listing

689 MDR Vulcanization: Maximum Torque (lbf.in)

Instruments (as reported by the labs):

(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 689

MDR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample Y65-Y66 = 13.442 lbf.in

Grand Mean Sample Y67-Y68 = 13.301 lbf.in

